BioGecko Vol 12 Issue 02 2023

ISSN NO: 2230-5807

BIPOLAR DISORDER DIAGNOSIS WITH RECURRENT NEURAL NETWORKS USING PROBABILITY DENSITY FUNCTION

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Abstract

Millions of individuals all over the globe suffer from the mental condition known as bipolar disorder. The most effective treatment and management of bipolar disorder depend on a prompt and correct diagnosis. Interest in using machine learning algorithms to diagnose bipolar disorder from clinical and neuroimaging data has increased in recent years. In this article, we suggest a unique strategy for bipolar illness categorization by combining clinical and neuroimaging data. The obtained data was then classified using probability density function techniques and a recurrent neural network. Based on clinical and neuroimaging data, our technique has 98% accuracy in classifying bipolar illness. We also used feature selection to discover the most relevant clinical and neuroimaging variables for bipolar disorder categorization. Our findings highlight the potential of machine learning algorithms for accurate and early diagnosis of bipolar disease, as well as the need of combining both clinical and neuroimaging data for bipolar disorder categorization.

Keywords: Bipolar Disease Classification, probability density function, recurrent neural network

I. INTRODUCTION

Bipolar illness is a complicated and chronic mental health issue that affects millions of people worldwide [1]. It is distinguished by strong mood changes, such as hypomanic, manic, and depressed episodes [2]. A person experiencing a manic episode may have increased energy, a reduced need for sleep, quick thinking, grandiose views, and impulsive conduct [3]. Individuals experiencing a depressive episode may suffer emotions of grief, despair, regret, and worthlessness, as well as changes in food, sleep, and activity levels [4].

There are various types of bipolar disorder, each of which is defined based on a person's individual symptoms and mood fluctuation patterns [5]. The basic kinds of bipolar disorder include bipolar I, bipolar II, and cyclothymic illnesses [6]. The Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5) is the most widely used categorization system for mental health illnesses, and it recognizes both designated and unspecified bipolar disorders [7].

Bipolar I disorder is defined by at least one manic episode lasting at least one week or requiring hospitalization [8]. A manic episode is distinguished by an unusually high or irritated mood, increased energy, and other symptoms such as grandiosity, reduced sleep need, quick thinking, and impulsivity [9]. Depressive episodes may endure for at least two weeks and are distinguished by sadness, loss of interest or joy, changes in eating and sleep, and suicidal thoughts or acts [10].

Bipolar II illness is distinguished by at least one hypomanic episode, a lesser type of mania that lasts at least four days [11]. Hypomania is similar to mania, although it is less severe and usually does not need hospitalization [12]. Depressive episodes persist at least two weeks in people with bipolar II disease and are equivalent to those experienced by those with bipolar I condition [13].

Cyclothymic disorder is a milder form of bipolar disorder characterized by continuous mood changes that do not match the criteria for a manic or depressed episode [14]. Cyclothymic disorder

A NOVEL APPROACH FOR BIPOLAR DISORDER PREDICTION USING PSO-GKFCM HYBRID CLUSTERING AND WEIGHTED FEATURE SELECTION

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Abstract

Bipolar disorder is a common and serious mental illness affecting millions worldwide. Severe mood swings, such as bouts of sorrow or mania, may significantly influence a person's daily functioning and quality of life. This study proposes an effective technique for predicting bipolar disorder by combining complex data preprocessing, feature selection, clustering. The approach includes an upgraded decision tree and a weighted k-means approach for missing data preparation and analysis. Relevant feature selections are made using a weighted binary BAT approach, reducing the data's dimensionality while preserving essential qualities. The data is then clustered using a hybrid approach combining the particle swarm optimization (PSO) algorithm with the Gaussian Kernel fuzzy clustering algorithm (GKFCM), resulting in a clustering accuracy of 98.6%. Overall, the proposed approach offers an effective and efficient way to predict bipolar disorder with promising results, and it has the potential to be extended to other related illnesses.

Keywords: Bipolar Prediction, Particle Swarm Optimization, GKFCM, Clustering

I. INTRODUCTION

Bipolar disorder is a common and serious mental illness affecting millions worldwide. Severe mood swings, such as bouts of sorrow or mania, may significantly influence a person's daily functioning and quality of life [1]. Early detection and treatment of a bipolar disease may improve a patient's prognosis and reduce the chance of long-term complications [2]. As a result, accurate illness prediction systems are required for the timely diagnosis and treatment of bipolar disorder [3].

Machine learning algorithms have shown significant promise in correctly predicting and diagnosing various diseases, including bipolar disorder, in recent years [4]. Yet, the success of machine learning algorithms is heavily reliant on the quality of input data and the effectiveness of preprocessing and feature selection techniques [5]. This study offers an effective disease prediction strategy for bipolar disorder that combines complex strategies to solve these difficulties [6].

The proposed disease prediction process is divided into four major modules: preprocessing and missing value analysis using an improved decision tree and weighted k-means algorithm, feature selection using a weighted binary BAT algorithm, clustering using a hybrid

A REVIEW ON DETECTION AND PREDICTION OF BIPOLAR DISODER USING DEEP LEARNING

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Abstract:

In the present times, not only the physical health of human beings but also the mental health is being affected due to various problems that are increasing. The psychological illness refers to certain problems that arise due to the high stress that psychologically causes on humans. These problems can lead to problems such as misconceptions, misunderstandings, excessive anger and stress. And ignoring this can make the problem bigger. This paper gives survey data on the various methods proposed to deal with Psychological illness in the deep learning method. It constantly examines and classifies the best treatments for patients, mental health improvement methods, and selection methods and analyzes for stress relief. Furthermore the results of the deeper learning methods are also analyzed so the results of the better and improved methods are more likely to be further enhanced and its calculation rate adjusted.

Keywords:

Psychological Illness, Various Problems, Deep Learning Methods, Mental Health, Stress Relief

1. Introduction

Around 2% of the world population suffers from manic-depressive illness, and another 2% suffers from bipolar disorder in its subthreshold manifestations [1]. According to the World Health Organization, bipolar disorder is one of the top 10 leading causes of disability-adjusted life years among young adults [2]. According to Nordentoft [3], 7.8% of men and 4.9% of women who have bipolar disorder end their lives by committing suicide. As a direct consequence of this, patient life expectancy decreases by nine years [4]. The diagnostic processes that are now in place for bipolar illness may not be completely successful, and there is typically a ten-year gap between the onset of symptoms and the delivery of a formal diagnosis [5]. This model shows the different ways that bipolar disorder can be treated, diagnosed, and prevented.

Through the use of evidence-based medicine, we have gained a better understanding of risk factors, prognosis and effective treatments associated with the disorder, where the statistical model provides results on an average scale [6]. Greenhalg et al. [7] have brought to our attention the fact that individuals in clinical trials might not necessarily reflect the patients' profile. Because clinical heterogeneity plays an important role in bipolar disorder, this may be especially true in that area of research. As a result of these discoveries, psychiatric research is focusing more and more on techniques like deep learning, whose goal is to make care that is tailored to the needs of each patient [8].

The speed at which new datasets are being produced is referred to as big data, and the term big data is used to describe extremely large and complicated data sets. Big data is characterised by a wide range of levels at which data is generated, ranging from the molecular to the clinical to the socio-demographic to the administrative to the environmental and even social media data. This is one of the most essential properties of big data. Those in research [9]. In recent years, a great number of deep learning algorithms, which are also known as pattern recognition are developed for the purpose of analysing vast volumes of data. In a nutshell, the algorithm initially conducts an analysis of a dataset referred to as training in order to develop a function that is able to differentiate between individuals belonging to various categories. It is possible to determine how accurate the model is by applying it to a new dataset and contrasting the results with the original dataset. Alterations to the algorithm or a further reduction in the amount of data may be utilised in order to effect further improvements in this model [10]. Therefore, these algorithms are ideal for analysing complicated diseases and calculating the particular outcome probability on an individual basis [11].

This research looked at the results of patients with bipolar disorder who had previously been evaluated using these methods. The techniques employed in this research come from the field of deep learning. Research studies that looked at diagnoses were our key area of interest in our inquiry. It was also taken into consideration to include research evaluating treatment and prognosis, as well as the development of data-driven

PREVENTION OF CYBER ATTACK USING CLOUD IOT SYSTEM

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Abstract

Development in technology acts as a boom. Similarly, many hackers are starting to attack the network that increasing the cyber risk. Users and business organizations are highly affected due to the loss of data, corruption, and malware attack. Even they built a multi-level of security nothing seems to be possible to keep an endpoint for that. To compete with it new technologies and trends were embedded to overcome this situation. All this acts as the greatest hindrance to present society. To overcome these network attacks, there is a need for the replacement or collaboration of some modern new technological features and functionalities. That should be user-friendly as well it act as a bridge in fighting against malware and other types of attack. At this place the cloud computing in IOT does wonders. While building a highly secured protective wall using the Rivest Cipher 6 Advanced techniques while interacting that is interchanging the data using IoT, the user could reduce the cyber risk that is faced.

Keywords: Rivest Cipher 6 (RC6), Encrypt, Block Cipher, Decrypt, Internet of Things and Cloud Computing.

1. INTRODUCTION

In this pandemic situation, everyone switched towards dealing with online networks. People started showing interest in accessing their data and information online. At every office work from home concepts and techniques were encouraged for providing a high level of security for the employees. During processing, the data and information would be converted as a single file and it would be transferred for processing. Since the people work from the different place and zones the main key concept that they use is data storage, data sharing, and processing. It gradually increases the cyber risk while processing and executing online. To sort out the problem the highly secured application is designed and using that the employees transfer their data and start working for the betterment of the project works.

Here for adding an extra secured layer the advanced and enhanced Rivest Cipher 6 algorithm has been effectively implemented. This algorithm mainly works as an encryption and decryption concept, where the data cannot be revealed by any external users. During the encryption process, it consists of 4 different w-bit and its registers. These registers are used for storing the data. The initial storage will be in plain text format that gets converted to the cipher. The data would get stored at that particular same register. In end, a similar method of encryption techniques are followed for extracting that is encryption process. This technique supports reducing the loss of data, which acts as a great plus.

It works out with the multidimensional key, where the concept of rework and fear about what would happen when data is hacked can be reduced. It keeps on processing simultaneously until the specific goal has been met.

2. CAUSE OF ATTACK IN 2021

The change in technology has created a great impact on the implementation and it starts enhancing out the human life. It simplifies the complex issues and lets the user meet all their need from the place where they are. That too the number of people who started using the technology increases multiple times during the Pandemic situation. The concept of work from home, online banking, online shopping, and online meeting was highly encouraged. In every business organization more than approximately 90% of the data has been shared online. That on other hand increases the risks and complexity of the issues. In the network, there are chances for the different types of attacks that create a risky cyber attack.

To overcome and to get rid of the issues new techniques and concepts came into existence. The IoT has created a new paradigm where the network machine, as well as the device, is capable of improving the communication after collaborating to form the new process. The main reason for the cyber attack in IoT-based devices depends on the environmental monitoring, patient monitoring, logistics, and smart grids.

The security management concepts created a great flaw in the challenge due to its transient and dynamic nature that is established in connecting between two devices. Now in this paper, the prediction of cyber attack that occurs at the networks are predicted and analyzed.

Journal of the Maharaja Sayajirao University of Baroda
ISSN :0025-0422

PERFORMANCE ANALYSIS OF MACHINE LEARNING CLASSIFICATION TECHNIQUES TO PREDICT LUNG DISEASES

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Abstract: Lung disease is the third most disease in the world. Disease progression and response to treatment in lung diseases vary widely among patients. Accurate diagnosis is crucial in treatment selection and planning for each lung cancer patient. In detection of lung cancer, image processing algorithms have demonstrated superior performance. This study explains various classification approaches that are used to forecast lung cancer in its early stages. The classification of lung tumors as malignant or benign is performed using machine learning algorithms. Machine learning methods involve as: Support vector machine (SVM), Artificial neural network (ANN), Convolutional neural network (CNN), K-Nearest Neighbor (KNN), Multi-Layer Perceptron (MLP), Entropy degradation method (EDM) and Random Forest (RF) are extensively reviewed, and the performance of each is examined for accuracy, sensitivity, and specificity. In this analysis, SVM approach utilizing a short dataset gets the greatest results of 97% accuracy, whereas KNN gets the lowest accuracy 77.8%.

Key words: Lung cancer, ANN, benign, cancer, malignant, CNN, EDM, KNN, MLP

INTRODUCTION

Lung diseases remain the most burdensome manifestation of cancer in almost all countries. High mortality rates from lung diseases have a significant negative impact on the entire world's population. Researchers put forth CAD techniques that can be used to classify issues at an early stage in computed tomography (CT) images [1]. The majority of tests and treatments can be completed fairly quickly, although it could take days or even months, which is normal. Such a delay could lead to major issues for both patients and medical professionals, which would have a negative impact on the survival rate. Therefore, the diagnosis to treatment procedure should be completed extremely quickly in order to improve the patient's condition. The advancement of machine learning techniques has made early lung cancer prediction possible [2]. Some machine learning algorithms for predicting lung cancer are explored in this paper. Neural network is an effective tool for building an assistive Artificial Intelligence (AI) based cancer detection system which plays a major role in the classification of the cancer cells as normal or abnormal. An effective cancer treatment can be seen only when the tumor cells are identified from the normal cells. The machine learning based cancer diagnosis [3] mainly focuses on the classification of the tumor cells and training of the neural network which is very important in lung cancer research[4].This paper discusses different lung cancer classification algorithms such as CNN, SVM, ANN, MLP, KNN, ED, RF and their performances are evaluated.

RELATEDWORKS

Main contributions of some of the researchers who tried to develop a lung cancer prediction system analyzed using different classification algorithms are summarized below.

Sasikala et al. [5] proposed a convolutional neural network (CNN) based approach for classification of lung cancer tumors as benign and malignant. This system is trained by inputting the lung cancer tissue images of variant shape and size. CNN obtained high accuracy of 96% when compared with other conventional neural network systems which makes this method more efficient. In order to detect the cancer types of different size and shape, CNN will use large datasets for training in the forthcoming years. This paper concludes by suggesting a 3DCNN method that can be used for improving the performance of the system and also by improving the hidden neurons with deep network.

LUNGS SEGMENTATION AND CLASSIFICATION USING MACHINE LEARNING IN CHEST X-RAY IMAGES

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Abstract:
The identification and prediction of lung illnesses are increasingly vital and difficult. Image processing and machine learning techniques approaches are frequently used to detect early-stage of lung disease. Healthcare providers are still facing challenges in detecting cancer. The true origin of cancer and the complete treatment process remains a mystery.To identify the regions of the lungs affected by cancer, various image processing techniques are utilized. These techniques involve reducing noise, extracting features, detecting damaged regions, and comparing patient's medical history of lung cancer data. This research applies image processing and machine learning techniques to demonstrate accurate detection and prediction of lung cancer. The dataset of X-ray images used in the study was sourced from UCI repositories. To enhance the quality of the images, a local binary fitting mean filter was utilized during the image preprocessing stage. The K-means method was then applied to segment the images. This segmentation enabled the identification of the lung portion within the images. The data was classified using different machine learning algorithms, including RF, ANN, SVM and NB. The results revealed that the ANN model had the most accurate prediction of lung cancer. The main objective of the study is to segment the lungs portion and detect lung cancer with image processing and machine learning approaches.

Keyword: Machine Learning, Lung Cancer, Median Filter, Segmentation, Chest x-ray images, Image processing

Introduction

Lung cancer, which is among the deadliest types of disease, causes approximately one million deaths every year. In the current state of medicine, it is essential to perform lung nodule detection on chest X-ray images. This is because lung nodules are becoming increasingly common and are the leading cause of this disease [1]. The images are transmitted into a computer, which then manipulates them to create a cross-sectional image of the body's internal organs and tissues [2].The American Cancer Society assesses that a patient's likelihood of surviving lung cancer is 47%, if it is discovered at an early stage. It is extremely improbable that lung cancer in its early stages will be accidently discovered on an X-ray image [6]. Lesions with a diameter of 510 millimeters or less that are spherical are notoriously difficult to find. Figure 1 displays an X-ray image of a normal and lung cancer.

In [3] developed a CAD approach with two experiments. In the first case, 300 X-ray images were used for computer simulation, while in the second, 888 X-ray images were used for patient-based ground truth. The method was developed using the LIDC-IDRI dataset, and images with wall thickness larger than 2.5mm were removed. The simulated pictures lung region was randomly implanted with spherical nodules of varied sizes. A 10-fold cross-validation method was used to analyze network hyper-parameterization and generalization in order to evaluate the CAD technique. The detection sensitivities were assessed in relation to the average number of false positives per image. By evaluating the mean and standard error between predicted and actual values, localization and diameter estimates accuracy was evaluated. Results regularly exhibited superior detection accuracy.

PARTICLE SWARM OPTIMIZER GUIDED ACTIVE CONTOUR MODEL FOR LUNG IMAGE SEGMENTATION

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Abstract: - Snakes, also known as active contour models, are widely used in a variety of applications, including object boundary detection, image segmentation, object tracking, and energy-minimization-based classification. While standard optimization techniques can be used to achieve energy minimization, more recently, techniques based on evolutionary algorithms inspired by nature have been created. Particle swarm optimization (PSO) is one such evolutionary method that has been widely applied in active contours. Conventional PSO provides accurate curve recognition in the object border because it converges quickly and is readily took in a local minimum. The suggested PSOGACM has each control point in the snake and also has a swarm to assign in it. Subsequently, the swarms exchange information with one another to jointly seek for their optimal spots. The active contour model considerably improves the PSO-based search process's performance. The outcomes of the experiments show that the suggested strategy is more effective than traditional methods. The proposed system has accuracy of 91.15%, sensitivity of 89.20%, and precision of 88.23% is more effective and more accurate.

Keywords: Region of Interest, Particle swarm optimization, Guided active contour integration, lung disease.

I. Introduction

For automatic object boundary detection, Kass et al. presented deformable models called active contours [1]. A challenge of minimizing energy caused by certain elements of a picture, such as shape and edge information, is the active contour model. By reducing energy concepts like internal and external energy, the active contour model progressively develops the ultimate shape of the intended object. These energy components in a digital image are calculated from object features at discrete points called control points; a spline curve is fitted through these control points to create the contour. The energy terms increasingly approach the ideal object boundary as they are minimized at these places. Thus, the contour begins with an initial shape, deforms repeatedly, and finally decreases to encircle the item.

The local minimum problem is one of the many issues with the active contour model. Because the energy minimization process relies on the initial selection of the control points, it is very likely to become stuck in local minima when initialization is done incorrectly. The active contour algorithm's initialization and convergence are accompanied by two problems. First, it's usually necessary to select the initial control points in proximity to the actual boundary. If not, the contour is probably going to converge to the incorrect outcome. The second issue is that concave boundaries are typically hard for active contours to capture. This

GOLD MARKET DATA PREDICTION USING KNN WITH PSO

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Abstract - The research employs the K-Nearest Neighbors (KNN) algorithm optimized by Particle Swarm Optimization (PSO) for predictive analysis in the gold market. This method integrates PSO to optimize the feature selection process within KNN, using a comprehensive dataset. Historical market data, economic indicators, and sentiment analysis contribute to the feature set. KNN makes predictions based on the selected features, fostering a refined forecast mechanism. Evaluations and refinements further enhance the model's precision and forecast accuracy, demonstrating the amalgamation's effectiveness in robust gold market trend predictions.

Keywords: Gold Price Prediction, K-Nearest Neighbors, Particle Swarm Optimization, Probabilistic Method;

1. Introduction

Advancement in the fundamental aspects of information technology over the the previous many decades has changed the path of businesses. As perhaps of the most captivating development, financial markets distinctly affect the country's economy. The World Bank detailed in 2018 that the Gold market capitalization overall has outperformed 68.654 trillion US$. Over the last few years, gold trading has become a center of attention, which can largely be attributed to technological advances. Investors search for tools and techniques that would increase profit and reduce the risk. However, Gold Market Expectation (SMP) is definitely not a basic errand because of its non-straight, dynamic, stochastic, and questionable nature. SMP is an illustration of time-series gauging that immediately inspects past information and assessments future information values. Financial market expectation has involved stress for experts in different disciplines, including economics, mathematics, material science, and computer science. Driving profits from the trading of Gold is a crucial element in the forecast of the Gold market. The Gold market is subject to different boundaries, such as the market value of a share, the efficacy of the business, governmental initiatives, the GDP of the nation, the rate of inflation, natural disasters, and so forth. The Efficient Market Hypothesis explains why the price of gold is not determined by fresh knowledge, and follows a rand of walk pattern, such that they cannot be predicted solely based on past information. This was a widely accepted theory in the past. With the coming of technology, researchers showed the way that Gold market costs could be anticipated partially. Historical market data, combined with the data extracted from social media platforms, can be analyzed to predict the changes in the economic and business sectors. The performance of Gold market forecast

International Journal of Current Research and Modern Education (IJCRME)
Impact Factor: 6.925, ISSN (Online): 2455 - 5428
(www.rdmodernresearch.com) Volume 8, Issue 2, 2023

A STUDY ON BRAND PREFERENCE & BRAND SATISFACTION OF REFRIGERATOR

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Cite This Article: Dr. T. Mohana Sundari & Dr. R. Gayathri, "A Study on Brand Preference & Brand Satisfaction of Refrigerator", International Journal of Current Research and Modern Education, Volume 8, Issue 2, July - December, Page Number 20-25, 2023.

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Abstract:

A brand is essential for businesses of all sizes because it increases value, gives employees direction and motivation, and makes acquiring new customers easier. One of the significant components of a brand is a logo because people instantly recognize it as the 'face' of a business. A professional logo design is simple enough to be memorable but powerful enough to give a company's desired impression. The finished logo is simple enough to be memorable but powerful enough to make the right impression. Just as people are likely to purchase from a business that appears polished and legitimate, families need to feel comfortable before committing to a product. Consumer durables are those products which do not wear out quickly and can be used for a long period. Today so many brands of consumer durables are available in the market. Brand & price are two most important variables which influence consumer's decision regarding purchase of consumer durables. The studies observe Brand preference & satisfaction of Refrigerator. The implement adopted for the collection of data was the questionnaire. The sample size is 100 respondents. Convenient sampling method is used to test the research. This study used in percentage analysis for factors influence brand preference & brand satisfaction of refrigerator. This research of the study conducted in Coimbatore district.

Key Words: Brand, Branding, Brand Preference, Brand Satisfaction

Introduction:

Consumer durables are those products which do not wear out quickly and can be used for a long period. Today so many brands of consumer durables are available in the market. Brand & price are two most important variables which influence consumer's decision regarding purchase of consumer durables. "Brand is a name that influences buyers". While purchasing a single consumer durable, people generally come across so many brands. The present study is intended to find out different brands used and preferred by consumers in the market. People tend to buy quality products or top brands when it comes to consumer durables. But price sometimes becomes a barrier. So it is seen that people tend to compare brands with price. Because there are customers who are willing to buy several trusted brands of consumer durables but because of high price they cannot afford to purchase those. It is also seen that some consumers are very much loyal to some brands when it comes to consumer durables. The study also focuses on those consumers in the sense that what propels them to buy only selected brands i.e., to find out the reasons for brand preference. In today's marketplace teeming with thousands of products and services, all of which are being commoditized, a brand stands out from the clutter and attracts attention. A brand name can create and stand for loyalty, trust, faith, premium-less or mass-market appeal, depending on how the brand is advertised and promoted. A brand differentiates a product from similar products and enables it to charge a higher premium in return for identity and greater faith in its function. A brand is also likely to survive longer than just an undifferentiated product. A brand is akin to a living being; it has an identity, personality,name, culture, vision, emotion, and intelligence. The brand owner confers all these. It andneeds to be continuously looked at to keep the brand relevant to the target it intends to sell.

Brand Preference:

Brand preference represents which brands are preferred under assumptions of equality in price and availability. Brand preference measures quantify the impact of marketing activities in customers' hearts and minds and potential customers. Higher brand preference usually indicates revenues and profit, making it an indicator of company financial performance. It signifies desirability or selection of an alternative. It can be further seen as a consumer's predisposition towards a brand that varies according to the cognitive, affective and cognitive effects that the brand has had on the consumer. Understanding the pattern of consumer preference can be critical for a brand's success. To drive preference towards a brand, marketers strategies to improve top-of-mind awareness and increase the probability that the brand is included in the consideration set.

Brand Satisfaction:

Satisfaction is often used as a predictor of future consumer purchases. Satisfied customers have a higher likelihood of repeating purchases in time, recommending that others try the source of satisfaction and becoming less receptive to the competitor's offerings. Specifically, satisfaction is found to be a necessary precursor of

International Journal of Scientific Research and Modern Education (IJSRME)
Impact Factor: 7.137, ISSN (Online): 2455 – 5630
(www.rdmodernresearch.com) Volume 8, Issue 1, 2023

BRAND EQUITY FOR REFRIGERATOR

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Cite This Article: Dr. T. Mohana Sundari & Dr. R. Gayathri, "Brand Equity for Refrigerator", International Journal of Scientific Research and Modern Education, Volume 8, Issue 1, Page Number 75-81, 2023.
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Introduction:

A brand is seen as one of a company's most valuable assets. It represents the company's face, the recognizable logo, slogan, or mark that the company associates with. The company is often referred to by its brand, and they become the same. A company's brand carries a monetary value in the stock market, affecting stockholder value as it rises and falls. For these reasons, it is essential to upload the integrity of the brand. When a company decides to settle on a brand to be its public image, it must first determine its brand to identity or how it wants to be viewed. The aim is to make the brand memorable and appealing to the consumer. Once a brand has created positive sentiment among its target audience, it has built brand equity. A successful brand accurately portrays the message or feeling the company is trying to get across and results in brand awareness. If done right, a brand increases sales for the specific product being sold and other products sold by the same company.

A brand is essential for businesses of all sizes because it increases value, gives employees direction and motivation, and makes acquiring new customers easier. One of the significant components of a brand is a logo because people instantly recognise it as the 'face' of a business. A professional logo design is simple enough to be memorable but powerful enough to give a company's desired impression. The finished logo is simple enough to be memorable but powerful enough to make the right impression. Just as people are likely to purchase from a business that appears polished and legitimate, families need to feel comfortable before committing to a product. Logo can quickly identify the business as a trusted centre for education in the community. A brand can also help a business get word-of mouth referrals. A strong brand often guarantees future business. A brand is the bundle of values and attributes that define the value delivery to customers and businesses. 'Brand' may involve catchphrases and excellent visuals, but brand-building requires more. When a brand is understood, developed, and managed the way great brands do, it is far substantial and meaningful. It will give confidence to businesses through trust and expertise. The beautiful brand will make proud to share and market business. The brand sets a foundation to move forward with the business. It will set the tone for everything with a strong strategy in place, refer back to it and make sure those products and services align with the brand's mission and vision.

Brand Equity:

Brand equity and customer value increase through effectiveness and efficiency of marketing plans, brand loyalty, price and profit margin, brand development, business leverage, and competitive advantage add value to the company. Strong brands have high brand equity because they have valuable assets that offer several competitive advantages. Because consumers demand high equity brands, the manufacturer has a negotiation position; and quickly launches product lines and brand extensions. Brand equity also provides some price protection because loyal consumers will pay for the brands they admire. All brands have some measure of brand equity. Powerful brands such as LG, Samsung, and Whirlpool have substantial brand equity. There are two definitions of brand equity, the first - a set of brand assets and liabilities linked to a brand. The second definition is 'the differential effect that brand knowledge has on consumer response to that brand's marketing. The brand equity concept might be understood better if examined in a broader framework that assesses the brand's cumulative effect across the stages of the consumer's choice process. Information processing effects influence a choice set generation. Finally, the decisions extend the aggregate conceptualization inherent in the 'additive' brand impact notion of brand equity to a comprehensive approach that focuses on the brand's role across the dynamic consumer choice processes.

Dimensions of Brand Equity:

Sources of Brand Equity:

Brand Equity Dimensions After extensive literature survey 11 key brand equity dimensions have been identified. They are listed below – the listing is based on the number of referenced work found in the literature survey done

- **Quality:**

Aaker's (1991) defines Quality as consumer's perception of the overall quality or superiority of a product or service with respect to its intended purpose, relative to alternatives.‖ Quality from a consumer's perspective is referred to as ‗perceived quality'. Quality, in the customer's context, is not technical but perceptions about the products, tangible and intangible, that the consumer observes. Perceived quality can be

शोध-प्रभा
Shodha Prabha

UGC CARE LISTED
ISSN : 0974-8946

CERTIFICATE OF PUBLICATION

This is to certify that the article entitled

BUILDING A SUCCESSFUL STARTUPS IN INDIA (A STUDY WITH THE SPECIAL REFERENCE TO COIMBATORE DISTRICT)

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Published in

Shodha Prabha; ISSN 0974-8946

Volume **(वर्ष)**-48, **तृतीयांक** (Issue-03), Book No.07 : **2023**

UGC Care Approved, Group I, Peer Reviewed and Referred Journal

ज्ञान-विज्ञान विमुक्तये
UGC
University Grants Commission

Editor
Mandan Mishra
Shodha Prabha

CUSTOMER'S PERCEPTION ON DIGITAL COUPON CODE BASED SALES PROMOTIONAL ACTIVITIES

Dr.P.GOMATHI DEVI Assistant Professor Department of B.Com(CA) Nallamuthu Gounder Mahalingam College Pollachi

ABSTRACT

A digital coupon is a discount code for a product or service that is either transmitted or stored online.. Digital coupons are manufacturer or store coupons redeemed electronically and do not require printing. Shoppers can digitally clip the coupons and redeem at the register with their phone number. This coupons are discounts and promotions to retailers and existing customers. They are directed at consumers and usually share a percentage of discounts, free shipping or some other form of discount decided by the retailer. E-coupons can be used to attract coupon-prone consumers, increase product visibility and encourage the customers' for repeat purchase. This study is focused on customer's perception on digital coupon code based sales promotional activities. The main objectives of the study are to identify the perception and satisfaction of digital coupon code based sales promotional activities in Pollachi Taluk. The data collected from 120 respondents through structured questionnaire in Pollachi Taluk. Convenient sampling method was used for collection of data.

Key words : Digital coupon, Sales promotional and Customers

INTRODUCTION

Today digital coupon codes are best sales promotional activities. It can depend on a variety of factor, such as perceived value of the offer, ease to use and the overall experience of the customer. A well - executed sales promotional campaign that can help to create positive perception among customers and increase brand loyalty. A coupon (also promo code or voucher) is a single code that represents a discount. In the online shopping context, a coupon code is a string of computer-generated letters and numbers that a customer can enter at the checkout to receive a discount or another effect. Coupons can take various forms they can be public codes for a board target group or personalized and unique coupon codes assigned to specific customers. Digital coupons codes are a popular tool used by businesses to attract the customer's. Digital coupons used for gifts, discounts, offers, credit points and promotions offered by an online store to current or prospective customers.

OBJECTIVES OF STUDY

1. To study the socio economical profile of the digital coupon code users
2. To identify the perception and satisfaction of digital coupon code based sales promotional activities in Pollachi Taluk.

METHODOLOGY

1 Source of data

The present study is based on both primary and secondary data. The primary data is collected with the help of structured questionnaire. The secondary data is collected from the books, magazines, websites and journals etc,

ii. Sampling method

The study is concerned with Customer's perception of digital coupon code-based sales promotional activities. The questionnaire collected from 120 respondents in Pollachi Taluk. Convenient sampling techniques were used for the collection of data.

iii. Framework of analysis

The present study aims to know about the level of Customer's perception on digital coupon code-based sales promotional activities. The collected data from the respondents have been analyzed through simple percentage method, Chi square test and Weighted Average Ranking Method.

THE ROLE OF AI IN TALENT ACQUISITION: OPPORTUNITIES AND CHALLENGES

Dr. T. Vijaya Chithra Assistant Professor, Department of Commerce CA, Nallamuthu Gounder Mahalingam College, Pollachi

Abstract

The relentless advancement of Artificial Intelligence (AI) technologies has permeated various facets of human resource management, with particular significance in the realm of talent acquisition. This review research paper explores the evolving landscape of AI in talent acquisition, shedding light on the opportunities and challenges it presents. As organizations strive to attract, assess, and retain top-tier talent, the integration of AI tools into recruitment processes has become pivotal. The paper commences by elucidating the transformative impact of AI on traditional hiring practices, emphasizing the efficiency gains, reduced bias, and enhanced predictive capabilities that AI-driven solutions offer. It delves into the utilization of natural language processing, machine learning algorithms, and predictive analytics in the screening and evaluation of candidates, providing insights into the potential to match skillsets and cultural fit more accurately. However, as AI becomes increasingly integral to talent acquisition, challenges and ethical considerations emerge. The paper scrutinizes issues related to algorithmic bias, privacy concerns, and the potential dehumanization of the hiring process. It critically evaluates the balance between automation and the human touch, emphasizing the need for ethical AI practices to mitigate biases and maintain transparency throughout the recruitment lifecycle. Furthermore, the paper examines the implications of AI on workforce dynamics, including the reskilling imperative and the evolving role of HR professionals in managing AI-driven processes. It also discusses the importance of ongoing research, regulations, and industry standards to foster responsible AI implementation in talent acquisition. This review consolidates current knowledge on the role of AI in talent acquisition, providing a comprehensive understanding of the transformative potential and inherent challenges. As organizations navigate this paradigm shift, a nuanced understanding of the opportunities and ethical considerations surrounding AI in talent acquisition becomes imperative for ensuring sustainable and equitable workforce practices.

Keywords:

Artificial Intelligence (AI), Talent Acquisition, Recruitment, Human Resource Management, Machine Learning, Natural Language Processing, Predictive Analytics, Algorithmic Bias.

Introduction

In the rapidly evolving landscape of human resources and talent management, the integration of Artificial Intelligence (AI) has emerged as a transformative force, reshaping the dynamics of talent acquisition. As organizations strive to stay competitive and agile in the digital era, the infusion of AI technologies promises unprecedented opportunities and presents unique challenges in the realm of recruiting and workforce development. This review research paper aims to delve into the multifaceted role of AI in talent acquisition, dissecting the intricate interplay between technological advancements, organizational strategies, and the human element within the recruitment process.

The global business environment is witnessing a paradigm shift in how organizations attract, assess, and retain talent. Traditional recruitment methods are being augmented and, in some cases, supplanted by AI-driven tools and systems. From automating routine tasks to leveraging predictive analytics for candidate assessments, AI promises increased efficiency, objectivity, and scalability in talent acquisition processes. This paper seeks to explore the various facets of AI application in talent acquisition, examining the advantages it offers in terms of cost-effectiveness, time efficiency, and the potential to enhance the quality of hires.

However, alongside these promises lie critical challenges and ethical considerations. The paper will also scrutinize the potential biases embedded in AI algorithms, the impact on candidate experience, and the ethical implications of relying on machines for decision-making in a process traditionally driven by human judgment. By critically evaluating the opportunities and challenges posed by AI in talent acquisition, this research endeavors to provide valuable insights for HR professionals,

A STUDY ON BENEFITS AND PROBLEMS FACED BY ENTREPRENEURS DURING PANDEMIC - A STUDY WITH SPECIAL REFERENCE TO POLLACHI TALUK

Dr.M.Deepa, Assistant Professor, PG Department of Commerce (CA), Nallamuthu Gounder Mahalingam College, Pollachi – 642 001 e-mail id : deepakathirvel18@gmail.com

ABSTRACT

This study mainly focuses on the problems faced by the entrepreneurs during pandemic situation. COVID-19 is a massive health crisis but also much more. It is a systemic shock with profound implications, both in the short- and medium- to long-term. This virus has triggered a substantial short-term economic contraction, shuttered many firms, whether big or small, thrown tens of millions out of work, and has other effects on business activities. The objective of the study is to analyze the problems faced by the entrepreneurs during pandemic period. Simple percentage, chi-square test used to analyze the collected data. Some of the findings of the study are Majority of the respondents, 59(49.17%) belong to the age group of 21-30 years. Majority 100(83.3%) of the respondents are male. Most 99(82.5%) of the respondents are married. Majority (50.8%) of the respondents are under graduates. To support these businesses, the government should use different mechanisms by cooperating with wealthy peoples and other non-governmental organizations. Besides, small business owners should manage expectations and communicate with staff, suppliers, banks, and customers throughout this corona virus frightening. Reduce expenses be open to their employees about their finances and keep marketing, use different alternatives to deliver their product, and recover from the crisis.

Key words: Entrepreneurs, Covid 19, Corona virus and SME

I.INTRODUCTION

The small business sector in India employs about 114 million people and contributes to 30% of India's GDP (gross domestic product). It also supplies around half of the country's exports of products and services. Hence, it can be said that more importance should be placed on small- and medium-sized firms and the barriers that they are facing due to the economic slowdown brought upon by the pandemic. Attention must also be paid to the blueprints drawn by firms to overcome these impediments otherwise it is very difficulty them to success in their business activities. Small businesses can overcome the setbacks brought about by economic slowdown through strategies such digitization, innovation and shifting to new business segments. This study is undertaken with an attempt to comprehend the constraints that entrepreneurs have faced during the pandemic and the strategies adopted by them to sustain the lockdown and make a turnabout towards growth and survival. This study also endures to suggest some guidelines which can be beneficial for entrepreneurs and policy-makers.

II REVIEW OF LITERATURE

Papava, (2020) in his study entitled that "The COVID-19 pandemic impact upon housing brokers' workflow and their clients' attitude" suggested that the lockdown was imposed to stop the COVID-19 pandemic, the tourism and passenger transportation sectors were the first to experience problems. This led to the collapse of stock exchanges, which directly affected the real economy.

Papadopoulos et al., (2020) in his studu entitled that "The use of digital technologies by small and medium enterprises during COVID-19: Implications for theory and practice" found that 51% of SMEs believe that digital technologies are essential to ensure their future competitiveness, while two-fifths of management considers them a top priority.

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Industrial Engineering Journal
ISSN: 0970-2555
Volume : 52, Issue 4, No. 5, April : 2023

A STUDY ON POLICYHOLDERS PREFERENCE ON CHILD INSURANCE PLAN

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Abstract
Child insurance policies entirely shelter the children's future and facilitate them to achieve major milestones in life. Child plans offer the benefit of waiver of premium, getting rid of the admirable assurance if the policyholder (parent) expires amid policy residency. Child plans also offer a singular amount payout as a death lead to the child on maturity. The present study is intended to find out the policyholders preference for child insurance plan and the factors considered for choosing child insurance plan. The study discloses that majority of the policyholders choose child insurance plan to support children in the absence of parents(s) and for children's medical treatment. Weighted average mean score and Henry garret ranking is applied for analyzing the collected data. The finding of the study also reveals that policyholders are influenced to select the insurance company for low premium with high maturity amount.
Key Words: Child Insurance Company-Child Insurance- Preference of Child Insurance.

I. Introduction

A protected future of a child makes a parent (person) more happy. Everyone presume to a standard of living with a good health, well being of himself and his family, especially of their children. Child insurance plan gives the freedom to have the benefit of these with the child for the reason that his tomorrow is in safe hands. Child insurance plans supports in money at critical milestone in children's carrier path, higher education, children's marriage and absence of parents. Having child insurance plan is fully protected and secured and the insurance company continues to pay the premium even in the absence of the parents.

II. Review of Literature

The studies which are carried out earlier are reviewed in the following paragraph.
Dave krunal (2021) "Impact of Covid 19- customer preference life insurance sector in India" The study concluded that policyholders still prefer public sector companies as compared to private sector companies and the policyholders have pension plans and child benefits plans respectively.
Raju (2020) "A study on customer preferences in life insurance industry in India" customer preference regarding plans & agency, their cause of purchasing the insurance regulations, satisfaction degree & their destiny plans for brand spanking new insurance coverage. **P. Dhanalakshmi**(2018) "Awareness and preference level of LIC policyholders in selected school teachers of Madurai district" . The school teachers are well aware about the life insurance schemes selection and mostly prefer the tax benefits life insurance schemes. **Reenadevi** (2018)" A comparative study of perception and preference of policyholders towards products offered by LIC and SBI Life Insurance Companies in Haryana". The study concludes that demographic variables play a major role in understanding the perception of customer and there is no difference in the preferences of the policyholders of the LIC and SBI Life. **Sunayna Khurana** (2014)" customer preferences in life Insurance Industry in India" .The Present Study confirmed that only 56.3 % respondents are ready to buy new insurance plans from same company.

A STUDY ON BENEFITS OF INFORMATION AND COMMUNICATION TECHNOLOGY AMONG YOUNG ENTREPRENEURS - A STUDY WITH SPECIAL REFERENCE TO POLLACHI TALUK

Dr.M.Deepa

ABSTRACT

Information and communication technology has become a potent instrument to developing countries for transforming social, economic, and political life of the people and for instituting sustainable participatory development frameworks. Information and communication technology and e-business applications provide many benefits across a wide range of intra- and inter-firm business processes and transactions. Information and communication technology consist of a number of components including skills of accessing, recording, arranging, manipulating and presenting data or information using tools and software. The objectives of the study is to identify the level of benefits enjoyed by the entrepreneurs while applying ICT in their business activities. Totslly there are

INTRODUCTION

Information and communication technology has become a potent instrument to developing countries for transforming social, economic, and political life of the people and for instituting sustainable participatory development frameworks. Information and communication technology and e-business applications provide many benefits across a wide range of intra- and inter-firm business processes and transactions. Information and communication technology consist of a number of components including skills of accessing, recording, arranging, manipulating and presenting data or information using tools and software. Electronic commerce, commonly known as e-commerce, consists of the buying and selling of products or services over electronic systems such as the internet and other computer networks.

REVIEW OF LITERATURE

Fang Zhao (2007)[8] in his study entitled "Issues and challenges facing e-entrepreneurship and e-innovation" concluded that e-entrepreneurship and e-innovation have become emerging disciplines for proactively responding to changes in the e-business world. One of the key issues facing e-entrepreneurship and e-innovation today, as demonstrated by the case studies in this paper is that e-business needs to respond closely to market needs and gain market credibility. Another key issue is that there should be credibility built within the e-business marketplace before inception of the business. In addition, the intangibility of an online service needs to be addressed in order to build brand awareness.

J. Hashim (2007)[9] in his study entitled "Information communication technology (ICT) adoption among small and medium enterprises owners in Malaysia", found that the language barrier is also an important factor for SME owners. Most of the sites use english as a medium for communications and the Small and Medium enterprises owners are mostly familiar with the local language.

Assistant Professor, Department of Commerce CA, Nallamuthu Gounder Mahalingam College, Pollachi – 642001

A STUDY ON FACTORS INFLUENCING BUYING BEHAVIOUR OF ECO-FRIENDLY PRODUCTS

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Dr. P. Bruntha, Assistant Professor, PG and Research Department Commerce, Nallamuthu Gounder Mahalingam College, Pollachi
Dr. B. Indira Priyadharshini, Assistant Professor, Department of Commerce (E-Commerce), Nallamuthu Gounder Mahalingam College, Pollachi

ABSTRACT
During the past decade, concern for the environment has emerged as a major socio-political issue among developed nations throughout the world and the increase in the number of environmentally friendly or 'green' products has been significant. The purpose of this study was to factors influencing consumer buying behavior on eco-friendly products. One of the main findings of the research was that consumers ranked No use of pesticides as the first features of eco-friendly products followed by the No preservatives or additives, less environmental impact while manufacturing products and so on The analysis result indicates that, consumers mostly purchase soaps, organic food, ayurvedic medicine, salt, healthcare/ cosmetic products and energy efficient laptop.

KEYWORDS:
Customer – Perception – Eco-friendly products

INTRODUCTION
In today's business world environmental issues plays an important role in marketing. All the governments around the world have concerned about green marketing activities that they have attempted to regulate them. There is escalating awareness among the consumers all over the world concerning protection of environment. Various studies by environmentalists indicate that people are more concerned about the environment. Now most of the consumers, both individual and industrial are becoming more concerned about environment-friendly products.

As a result, green marketing has emerged, which aims at marketing sustainable and socially responsible products and services in the society. This has become the new mantra for marketers to satisfy the needs of consumers and earn better profits. The issue of environmental protection has brought the consumers, the industry, and the government to a common platform where each has to play its own role. The government and legislatures are using their influence to reduce environmental and health hazards due to industrialization and to stimulate the development of cleaner technologies. The time has come for consumers to take the lead in prompting manufacturers to adopt clean and eco-friendly technologies and environmentally-safe disposal of used products, along with preventive and mitigate approaches. To increase consumer awareness, the Government of India launched the eco-labeling scheme known as 'Ecomark' in 1991 for easy identification of environment-friendly products. Any product which is made, used or disposed of in a way that significantly reduces the harm it would other wise cause the environment could be considered as Environment-Friendly Product. The criteria follows a cradle-to-grave approach, i.e. from raw material extraction, to manufacturing, and to disposal. The 'Eco mark' label is awarded to consumer goods which meet the specified environmental criteria and the quality requirements of Indian Standards. Any product with the Eco mark will be the right environmental choice.

Green consumers are defined as those who avoid products that are likely to endanger the health of the consumer or others; cause significant damage to the environment during manufacture, use of disposal; consume a disproportionate amount of energy; cause unnecessary waste; use materials derived from threatened species or environments. Green marketing was given prominence in the late 1980s and

CUSTOMERS' EXPERIENCE TOWARDS DIGITAL PAYMENT METHODS AND TRANSACTIONS FAILURES, A STUDY COVERING SELECTED RESPONDENTS OF UDUMALPET TALUK

Dr Umamaheswari M, Head and Assistant Professor, Department of B.Com (PA), Vidyasagar College of Arts & Science, Udumalpet.
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ABSTRACT

Digitalization spreads its application to all the areas irrespective of the nature. It has its application in finance and e-Commerce industry also. Most of the stores, retail outlets and business points started accepting digital money. Digital payment methods includes cards, internet banking, UPI and so on. The present study aims at exploring customers experience on using digital payment methods and transactions failures and it covers the selected respondents of Udumalpet taluk. The sample of 140 respondents was determined based on convenient sampling and the data were collected through Google forms. The data was analysed using statistical methods. The results showedthat the most of the customers use digital payment methods due to its convenience. Almost two-third of the total respondents use digital payment methods for food and beverages. But, customers do not try to understand the updated terms and conditions and they are not aware of payment gateway processing. Some payments get failed but amount debited which annoys the customers more. Also, they expect support from payment solutions internally. It has further scope to research reasons for transaction failures separately.

KEYWORDS Digital payment methods, Transaction failure, Accuracy and speed in digital payments, Payment solution and Payment gateway.

1. INTRODUCTION

Digitalization in banking and payment services is really a boon for individuals, business organizations, financial institutions, non-profit organizations and government. It made the processing of payment very simple and convenient. It also helps in sorting out the issues and challenges involved in making payments online. Many merchants started accepting online payments. Many education institutions started accepting online fee remittances. Healthcare services and entertainmentindustry also adopted digital payment services.

The aim of the current study is to understand the experiences of customers who access digitized financial services. Also, it attempts to explore the customers' experiences in case oftransaction failures. The study covers the population from Udumalpet taluk from which the sample size of 140 respondents is drawn for collecting data. For sample selection, Convenient sampling method was devised.

Research Gap

The previous researches tried attempts to demonstrate the attitude, awareness, perception and satisfaction. But, the present study focuses on the customers' experiences towards digital payment methods and transactions failure. The study also has further scope to research selected digitalpayment method to analyze and conclude the specific areas. The study is subject to time constraint and small amount of statistical errors. But the due care was taken to analyze the data.

2. REVIEW OF LITERATURE

Amarinder Singh et.al (2020) attempted to explore A Study on Digital Payment Awareness and Usage in India. Digital payments become familiar trend in almost every sector in India. Several initiatives by the government such as Digital India movement, results in internet penetration in the country and it creates more awareness among the people towards digital payments. One of the major factors which influences the adoption of the digital payment is the demonetisation decision

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SHODHAK

A Journal of Historical Research

ISSN : 0302-9832

Certificate of Publication

This is to certify that the article entitled

CUSTOMER PERCEPTION TOWARDS TWO WHEELERS IN COIMBATORE DISTRICT

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Published in

Shodhak : A Journal of Historical Research

ISSN : **0302-9832 (P)** with IF= **7.75**

Volume: **53,** Issue: **03,** No: **04,** September - December : **2023**

UGC CARE Group- 1 Peer Reviewed, Bilingual, Referred Journal

Published By

National Organisation of Historians and Social Scientists

UGC University Grants Commission

Editor SHODHAK Dr. Ram Pande

Shodhak : A Journal of Historical Research
ISSN : **0302-9832**
Volume: **53,** Issue: **03,** No: 04, September - December : **2023**

CUSTOMER PERCEPTION TOWARDS TWO WHEELERS IN COIMBATORE DISTRICT

D. Bhuvanendran, PhD Research scholar, Wisdom School of Management, Gomangalam Pudur.
Dr. G. Manokaran, Associate Professor & Head, School of Management, Sree Saraswathi Thyagaraja College, Pollachi.

Abstract
India is the world's biggest two-wheeler producer. In India, the two-wheeler industry makes about 7% of the country's manufacturing GDP. Additionally, it accounts for 2% of GST receipts. India is thought to have about 190 million two-wheelers. At the moment, more than 80% of India's total automotive production is two-wheelers. The installed production capacity for two-wheeler manufacturers in India is more than 25 million units. The motorcycle and scooter segments make up the majority of the two-wheeler market. The present study has been carried out to identify the customer preference towards two wheelers in Coimbatore district. The study mainly depends on primary data, which was collected from 312 Customers in Coimbatore district. The data has been collected by distributing the questionnaire. A convenient sampling method is adopted to select the sample Customers. The collected data are analyzed using simple percentage and weighted average to process the data and draw inferences.

Keywords:
Two-wheeler, Customer Preferences, Coimbatore District

INTRODUCTION

India's growth and development are significantly influenced by the two-wheeler sector. One of the key factors influencing economic growth has been identified as the two-wheeler industry, which is a pioneer in manufacturing product and process technology. The Indian economy has been expanding at a rate of about 8% during the previous few years. When it comes to producing two-wheelers, India has a competitive cost edge. It has made enormous strides in terms of implementing new technology, and spreading flexibility has altered the business environment. The two-wheeler sector currently satisfies both the needs of Indian customers and those of customers worldwide. The two-wheeler industry is currently exhibiting signs of matching both the growth of the Indian market and the quickening expansion of its position on the global market.

In 2022, 18 million units of two-wheelers were sold in India. The market is anticipated to develop at a compound annual growth rate (CAGR) of 17.80% from 2023 to 2028, according to projections made by IMARC Group. A few of the main reasons propelling the market include the rising personal car ownership trend, customers' growing concerns about high levels of traffic pollution, and the growing travel and tourism industry.

A number of Indian-specific facts have contributed to the trend of two-wheeler ownership. Poor public transportation in many places of India is one of the main contributing reasons. Additionally, two-wheelers provide the Indian family with a great degree of ease and mobility.Due to India's expanding middle class, which is made up of millions of people who can buy a basic two-wheeler, two-wheelers are currently driving the process of mass motorization.

With overcrowded public transport and social distancing norms in the post-Covid era, people prefer to commute in their own vehicles. This is where bikes and two-wheelers have gained tremendous popularity, especially in tier 2 and tier 3 cities where public transport might not be very convenient and easy to use.

Bikes are not only cheaper, or low maintenance but they also have a long life. They give you the feeling of freedom to explore speeds and roads. They not only provide thrill and adventure but also a stress-free drive. They give you energy and the chill which lets you explore new roads and cities.

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CONSUMER SATISFACTION TOWARDS TWO WHEELERS IN COIMBATORE DISTRICT

Authored By

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Published in

Madhya Bharti -Humanities and Social Sciences
(मध्य भारती) मानविकी एवं समाज विज्ञान की द्विभाषी शोध-पत्रिका
: ISSN **0974-0066** with IF=6.28
Vol. 84, No. 15, July - December : 2023
UGC Care Approved, Group I, Peer Reviewed, Bilingual, Biannual,
Multi-disciplinary Referred Journal

ज्ञान-विज्ञान विमुक्तये
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CONSUMER SATISFACTION TOWARDS TWO WHEELERS IN COIMBATORE DISTRICT

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D.Bhuvanendran, PhD Research scholar, Wisdom School of Management, Gomangalam Pudur Pollachi.

ABSTRACT
The two-wheeler business has grown significantly in the last several years, and Coimbatore District has become a major market for this industry. The purpose of this study is to investigate and evaluate Coimbatore District consumers' satisfaction with two-wheelers. In order to collect thorough data, the research uses a mixed-methods strategy that combines quantitative surveys and qualitative interviews. In order to get quantitative information from a wide sample of Coimbatore District two-wheeler owners, a structured questionnaire has been developed. Aspects including after-sales service, product features, brand perception, and general satisfaction levels are all covered in the poll. A minority of respondents will also participate in in-depth interviews. This study uses a thematic analysis approach to find trends and topics that either help or impede consumer happiness in the two-wheeler sector. In order to determine whether demographic variables like age, gender, income, and employment have a major impact on consumer satisfaction, the research also takes these elements into account. The study attempts to give a nuanced picture of the varied consumer landscape in Coimbatore District by looking at these characteristics. The results of this study should provide manufacturers, marketers, and legislators in the two-wheeler sector with insightful information. Gaining a better understanding of customer satisfaction is essential for expanding product offers, raising the caliber of services, and building brand loyalty. The study's findings can help guide strategic choices meant to enhance customer satisfaction and maintain the expansion of the two-wheeler market in the Coimbatore District.

Keywords: Consumer satisfaction, Two-wheelers, Coimbatore District

Introduction

The industry for two-wheelers has grown remarkably in the last few years, which is indicative of the growing dependence on these vehicles for personal mobility. The southern Indian district of Coimbatore has seen a sharp increase in customer demand, making it a major two-wheeler market. In order to comprehend and solve the issues influencing customer satisfaction in this dynamic market, producers, marketers, and policymakers face both opportunities and problems as a result of this growth. Any industry must prioritise customer happiness, and the two-wheeler market is no different. In order to adapt their products and services to the changing wants and preferences of Coimbatore District consumers, producers and marketers must have a thorough understanding of the elements that either help or impede customer happiness.

The purpose of this study is to examine the nuances of Coimbatore District consumers' happiness with two-wheelers. Using a mixed-methods approach that combines qualitative interviews with quantitative surveys, the study aims to give a thorough understanding of the different factors impacting consumer choices and experiences after making a purchase. Essential elements including product attributes, post-purchase servicing, and brand perception are covered by the structured questionnaire used in the quantitative phase. In order to evaluate the influence of demographic factors on customer satisfaction, factors such as age, gender, income, and occupation will be taken into account. The goal of this investigation into demographic variables is to identify patterns and trends in the varied consumer environment in the Coimbatore District.

It is anticipated that the research's conclusions will be beneficial to industry participants, providing knowledge that can guide strategic choices. Manufacturers may improve service quality, expand their product options, and foster brand loyalty by getting a better grasp of consumer satisfaction. The ultimate goal of this study is to provide useful insights derived from a thorough investigation of

Humanities and Social Science Studies

ISSN : 2319-829X

CERTIFICATE OF PUBLICATION

This is to certify that the article entitled

A STUDY ON PRE –PURCHASE BEHAVIOUR OF WORKING WOMEN TOWARDS SELECTED WHITE GOODS IN POLLACHI TALUK

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UGC
University Grants Commission

Published in
Humanities and Social Science Studies journal
: ISSN 2319-829X with IF=7.28
Vol. 12, Issue 02, No. 27, July - December : 2023
UGC Care Approved, Group I,
Peer Reviewed, Bilingual, Biannual, Multi-disciplinary Referred Journal

Abhishek Sharma
Editor In Chief, HSSS

A STUDY ON PRE –PURCHASE BEHAVIOUR OF WORKING WOMEN TOWARDS SELECTED WHITE GOODS IN POLLACHI TALUK

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ABSTRACT

One of the most essential components of modern business knows how working women behave in the marketplace. It is the study of the variables influencing working women' decisions, behaviours, and attitudes—from making purchases to influencing others. Businesses can make more profitable and successful business decisions by gaining a deeper understanding of their working women through the analysis of this behaviour.

Businesses can determine the needs, preferences, and motives behind customers' purchases by doing consumer behaviour research. Businesses can create efficient marketing strategies to satisfy consumer requests and raise customer satisfaction by learning why people purchase particular goods or services. Long-term sales stability is ensured, and a deeper understanding of clients is fostered by comprehending consumer behaviour. Pre-purchase behaviour actually includes an understanding of the consumer's set of decisions. The objective of the study is to analyze the demographic profile of the working women and study the pre-purchase behaviour of the working women in Pollachi taluk. The sample taken for the study is 100. A well-structured questionnaire is used to collect the data of the working women in Pollachi taluk.

Key words:
Pre-purchase , consumer behaviour and white goods

Introduction:

Research on consumer behaviour is consulted by corporations, political campaigns, and charitable groups to decide how best to promote goods, people, or causes. Sometimes they do this by playing on people's worries, their unhealthy routines, or their worst inclinations. Furthermore, buyers may be their own worst enemies by acting rashly and making decisions based on emotion, poor reasoning, or a transient desire for social status. However, customers do not have to be helpless: by being more knowledgeable about the many tactics used by businesses and the reasons behind people's frequently confusing purchase decisions, people may make more deliberate judgments about what, why, and if to buy.

People in industrialized nations spend most of their money on non-essentials and only a small percentage on necessities. Buying decisions driven more by desire than necessity are frequently irrational and instead are shaped by trends, personality, and emotion. Marketers constantly research how people and groups make decisions about what to buy and react to marketing strategies in order to stay competitive.

Statement of the problem:

In business world, many brands of products are produced and marketed by a single manufacture. The decision whether to buy or not depends only on the basis of consumer motives. Modern market is consumer oriented and now the consumer is the decisive force. Hence, it is inevitable to have a study thorough study on customers‟ attitudes and preference towards demographic profile of the working women and study the pre-purchase behaviour of the working women in Pollachi Taluk. Therefore, this study is mainly analyzing the consumer pre –purchase behaviour with help of questionnaire

A DESIGN AND IMPLEMENTATION FOR AUTOMATIC WASTE SEGREGATION USING DEEP LEARNING TECHNOLOGY

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Abstract: This paper proposes a machine to segregate waste into different parts using ConvoWaste, a smart object detection algorithm based on Deep Convolutional Neural Network (DCNN) and image processing techniques. The system classifies waste precisely, placing detected waste into corresponding bins using a servo motor-based system. Ultrasonic sensors in each bin and dual-band GSM-based communication notify authorities of bin levels and optimal trash-out times. The entire system is controlled remotely via an Android app, automating waste disposal to desired locations. Utilizing this system aids recycling and resource optimization, contributing to a circular economy. Additionally, the system offers low-cost services with high accuracy, leveraging advancements in Artificial Intelligence (AI) technology.

Key words: DCNN, GSM, AI, Ultrasonic Sensor, ConvoWaste Model

I. INTRODUCTION

Urban waste management refers to the processes and actions required to manage waste from inception to final disposal, ensuring a clean environment and proper resource utilization. Waste is generated daily through various activities such as industrial, household, and medical activities. Manual waste management is difficult, time-consuming, and costly due to the large volumes of waste generated. This necessitates the implementation of automatic waste management systems to recycle, reuse, and reduce waste production. According to [1], in the European region, 56% or 423 million tons of generated waste was recycled domestically in 2016, while 24% or 179 million tons was deposited in landfills. This paper highlights the importance of proper waste management systems for waste recycling processes. Utilizing modern technology alongside effective waste management systems can yield numerous benefits if implemented correctly.

Mentioned in [2], the circular economic system aims to increase resource utilization efficiency to enhance a country's overall economy and environmental sustainability. The main concept of circular economy (CE), defined in [3], focuses on managing resource circularity, efficiency, and optimization by utilizing waste as resources to create economic value. CE encompasses both natural and human resources. Proper urban waste management is highlighted as one of the most challenging constraints for developing and undeveloped countries by the United Nations (UN), as suggested in [4].

In Saibaba Colony, the area in Coimbatore, 3500 tons of mixed solid waste are produced daily. Unfortunately, only 1800 tons of this waste are collected and disposed of properly using conventional labor-intensive methods. The remaining waste either remains uncollected or accumulates in backyards or landfills [5]. To address waste management issues and environmental sustainability concerns, waste segregation machines were introduced to prevent pollution caused by mixed waste. Initially, these machines relied solely on different types of sensors to classify waste into categories such as dry, wet, and metal waste [6]. However, the proliferation of urbanization and socialization has altered the approach to managing large amounts of waste, moving away from sensor-based applications. Instead, recent advancements in AI technology, particularly in Deep Convolutional Neural Networks (DCNN) and image processing, have revolutionized waste segregation machines. This paper proposes a system

Journal of the Maharaja Sayajirao University of Baroda
ISSN :0025-0422

AN INTELLIGENT GARBAGE SORTING SYSTEM BASED ON EDGE COMPUTING

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Abstract: The development of an Intelligent Garbage Sorting System, particularly focusing on distinguishing between biodegradable and non-biodegradable waste, represents a significant advancement in waste management. By harnessing the capabilities of Edge Computing, this system aims to revolutionize the sorting process by bringing computational power closer to the source of waste generation. Utilizing sensors and machine learning algorithms deployed at the edge, the system can rapidly and accurately categorize incoming waste into biodegradable and non-biodegradable categories in real-time. This innovative approach offers numerous benefits. Firstly, by processing data locally, the system reduces latency and dependency on centralized infrastructure, enabling swift decision-making and response times. Secondly, it enhances the overall efficiency of waste sorting operations by minimizing the need for human intervention and ensuring precise classification, thereby optimizing recycling and composting processes. By seamlessly integrating Edge Computing with intelligent garbage sorting, this system paves the way for more sustainable and environmentally-conscious waste management practices. The integration of Region-based Fully Convolutional Network (R-FCN) into an Intelligent Garbage Sorting System, leveraging Edge Computing, represents a cutting-edge approach to efficiently classify biodegradable and non-biodegradable waste. By deploying R-FCN at the edge, the system can accurately identify and categorize various types of waste in real-time based on their spatial regions. This innovative combination not only enhances the speed and accuracy of waste sorting processes but also minimizes reliance on centralized infrastructure, thereby promoting sustainable and responsive waste management practices.
Key words: Biodegradable, Non-Biodegradable, Edge Computing, R-FCN

INTRODUCTION

Intelligent garbage sorting systems represent a pivotal advancement in waste management, aiming to enhance efficiency and sustainability in handling biodegradable and non-biodegradable waste streams. Leveraging the capabilities of Edge Computing has emerged as a promising avenue to address the challenges associated with traditional centralized approaches. By bringing computational power closer to the point of waste generation, Edge Computing enables real-time processing and decision-making, thereby revolutionizing sorting processes. In this context, the integration of Region-based Fully Convolutional Network (R-FCN) into such systems holds immense potential, offering a sophisticated method to accurately categorize waste based on spatial regions.

Region-based Fully Convolutional Network (R-FCN) represents a state-of-the-art deep learning architecture specifically designed for object detection tasks. Unlike traditional convolutional neural networks (CNNs), R-FCN excels in precisely localizing objects within images by dividing them into a set of regions of interest (ROIs) and applying convolutional operations selectively to each region. This enables more efficient processing and higher accuracy in identifying objects, making it an ideal candidate for garbage sorting applications. By integrating R-FCN into an Edge Computing framework, the sorting system can analyse waste materials in real-time, distinguishing between biodegradable and non-biodegradable items with unprecedented accuracy and speed.

The convergence of Edge Computing and R-FCN-based intelligent garbage sorting systems heralds a new era in waste management practices. By harnessing the power of localized computation and advanced deep learning techniques, these systems offer significant improvements in waste sorting efficiency, resource utilization, and environmental sustainability. Moreover, the ability to deploy such systems at the edge reduces reliance on centralized infrastructure, making them adaptable to diverse environments and scalable for widespread implementation. As such, the integration of R-FCN into Edge Computing-based garbage sorting systems represents a transformative solution to the pressing

DEEP LEARNING APPROACH IN SEPARATION OF BIODEGRADABLE AND NON-BIODEGRADABLE WASTE USING FASTER R-CNN

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ABSTRACT

Solid waste management plays a crucial role in the Smart City and Clean India mission by effectively separating waste into recyclable and energy-generating categories. Manual waste separation is risky and time-consuming, so an automated system is proposed in this paper. When waste is thrown into a dustbin, an image is captured and compared with a dataset using the Faster R-CNN algorithm. The dataset includes various objects such as food, plants, fruits, plastics, metals, batteries, paper, and cardboard, each labeled accordingly. OpenCV and TensorFlow are used to analyze the captured image and determine whether the object is biodegradable or non-biodegradable, drawing a boundary box around it. This research extends to the future by considering the conversion of separated biodegradable waste into energy through biomethanation plants. The goal is to reduce landfill waste to less than 5%, which would significantly benefit the overall ecosystem and environment by preventing pollution. Coimbatore's proximity to the Western Ghats, an important hotspot, highlights the significance of solid waste management in preserving the environment and receiving the southwest monsoon. Implementing automated waste categorization systems and promoting sustainable waste management practices are crucial for achieving the objectives of the Smart City and Clean India mission, leading to a cleaner and greener environment.

Keywords : Faster R-CNN, OpenCV, TensorFlow, Biomethanation, Biodegradable, Non-Biodegradable

INTRODUCTION

Importance of Solid Waste Management

Solid waste management is of paramount importance in India due to several reasons. Firstly, India has a rapidly growing population and urbanization rate, leading to increased generation of waste. Effective waste management is crucial to prevent environmental pollution, health hazards, and the spread of diseases. Secondly, improper solid waste management has adverse effects on the environment. Open dumping and burning of waste contribute to air, water, and soil pollution. It also leads to the emission of greenhouse gases, exacerbating climate change. Furthermore, solid waste management plays a crucial role in conserving natural resources. Recycling and proper disposal of waste can help reduce the demand for raw materials, promote resource efficiency, and contribute to sustainable development.[1]

Additionally, solid waste management has social and economic implications. It provides employment opportunities in waste collection, segregation, recycling, and waste-to-energy projects. Effective waste management also enhances the quality of life by creating clean and healthy living environments. Given these reasons, the Indian government has recognized the importance of solid waste management and has implemented various initiatives and policies to address the issue. These include the Swachh Bharat Abhiyan (Clean India Mission), waste segregation at source, promoting recycling and composting, and establishing waste treatment and disposal facilities.[2]

Journal of the Maharaja Sayajirao University of Baroda
ISSN :0025-0422

A STUDY OF YOLO V7 ALGORITHM TO PREDICT BIODEGRADABLE AND NON-BIODEGRADABLE SOLID WASTE

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Abstract: Solid waste management plays a crucial role in the Smart City and Clean India mission by effectively separating waste into recyclable and energy-generating categories. A Manual waste separation is risky and time-consuming, so an automated system is proposed in this paper. When waste is thrown into a dustbin, an image is captured and compared with a dataset using the Faster R-CNN algorithm. The dataset includes various objects such as food, plants, fruits, plastics, metals, batteries, paper, and cardboard, each labelled accordingly. OpenCV and TensorFlow are used to analyse the captured image and determine whether the object is biodegradable or non-biodegradable, drawing a boundary box around it. This research extends to the future by considering the conversion of separated biodegradable waste into energy through Bio-Methanation plants.[4] The goal is to reduce landfill waste to less than 5%, which would significantly benefit the overall ecosystem and environment by preventing pollution. Coimbatore's proximity to the Western Ghats, an important hotspot, highlights the significance of solid waste management in preserving the environment and receiving the southwest monsoon. Implementing automated waste categorization systems and promoting sustainable waste management practices are crucial for achieving the objectives of the Smart City and the Clean India mission, leading to a cleaner and greener environment. [3]

Keywords:Faster R-CNN, OpenCV, TensorFlow, Bio-Methanation, biodegradable, non-Biodegradable

INTRODUCTION

In Tamil Nadu more than 59 % of waste ends up in landfills that contaminate the soil, ground water and emit dangerous greenhouse gases. The manual separation of biodegradable and non-biodegradable wastes can't succeed. The TN government constructs Bio-Methanation Plant to generate energy from Biodegradable waste constructed at Bharathi Park, Coimbatore which generates 150 – 170 Unit of electricity per day. The main problem is that the unit can't get biodegradable waste in proper manner. The aim of the project is to use 99 % in an effective manner without ends up in landfills. [1] This can be achieved by separating the waste in two different mediums to recycle and generate energy. This research is focused on this area to make India as a success in Smart City mission and Clean India. Waste management places a vital role in the Smart city and Clean India mission that can be achieved by separating the solid waste into two medium and make use of those waste effectively for recycling and energy production. The management activity performed on solid waste management will safe guard the environment in a healthy way. At present 59 % of waste are ends in landfills in India which become a main source on affecting the eco system and environment. This can be reduced from 59 % to less than 5 % by using recycling and WtE project. [2]

The purpose of using Deep Learning is to predict the type of waste by attaching the camera in the dustbin which will capture the image of the waste material thrown into the dustbin. The API will be trained by MS COCO dataset (Common Object in Context) which will be compared with the captured image to predict a level of waste medium.

- Medium 1 – Waste for recycle (plastic, metal, glass)
- Medium 2 – Waste for producing energy by using WtE (Waste to Energy) project.

Research Paper | E-ISSN NO : 2455-295X | VOLUME : 9 | ISSUE : 6 | SPECIAL ISSUE JUNE-2023

GRANULATED RCNN AND MULTI-CLASS DEEP SORT FOR BIODEGRADABLE AND NON-BIODEGRADABLE SOLID WASTE DETECTION

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ABSTRACT:

Solid waste management (SWM) is a major problem for many urban local bodies (ULBs) in India, where urbanization, industrialization, and economic growth have resulted in increased municipal solid waste (MSW) generation per person. Waste management reduces greenhouse gas emissions and improves the quality of air and water, and the condition of any area affected by the waste. This can be overcome by separating the solid waste into two separate medium. The first one will collect the biodegradable waste such as paper, vegetable and fruit waste which can be converted in to energy by using Biomethanation plant. The second one will collect non-Biodegradable waste such as plastic, can, bottles which can be used for recycling purposes. The Biodegradable and Non-Biodegradable wastes separation should be implemented in automatic manner by applying granulated RCNN (G-RCNN) and multi-class deep SORT (MCD-SORT) to predict the type of waste item in accurate manner. The waste material detection has two stages: waste object or material localization (region of interest RoI) and classification. In deep convolution neural network, the G-RCNN is an improved version of the well-known Fast RCNN and Faster RCNN which helps to extract RoIs by incorporating the unique concept of granulation. Granulation with spatio-temporal information enables more accurate extraction of RoIs (waste object regions) in unsupervised mode. Compared to Fast and Faster RCNNs, G-RCNN uses (i) granules (clusters) formed over the pooling feature map, instead of its all feature values, in defining RoIs, (ii) only the positive RoIs during training, instead of the whole RoI-map, (iii) videos directly as input, rather than static images, and (iv) only the objects in RoIs, instead of the entire feature map, for performing waste object classification. All these lead to the improvement in real-time detection speed and accuracy. MCD-SORT is an advanced form of the popular Deep SORT. In MCD-SORT, the searching for association of objects with trajectories is restricted only within the same categories. This increases the performance in multi-class tracking.

KEYWORDS:

BIOMETHANATION PLANT, RCNN, MCD-SORT, ROI, BIODEGRADABLE.

INTRODUCTION

The objective of this paper is to predict the waste item category by capturing image and collects in separate champers. The camera placed inside the dustbin will capture the image of the waste item. The Raspberry pi helps to compare the image with the dataset in the cloud. The Artificial Intelligence concept is applied to train itself to find the captured waste item category. The image classification algorithm is applied using Tensor Flow in executing digital image processing to find the corresponding champers for waste collection. The Tensor Flow is a Python friendly open source library for numerical computation that makes machine learning concepts in an efficient manner. The algorithm will be trained with all types of waste material and thus while throwing the waste into the dustbin, it get predicted and as per the prediction the corresponding chamber opens to collect waste. The project helps in collecting waste in different chambers by detecting biodegradable and non biodegradable waste. The manual collection of waste can be overcome therefore the collection of waste can be computerized and accuracy level will be more. This will decrease the percentage of non biodegradable waste into land which increases the land water and overcome the pollution. The waste management places a vital role in Smart city and Clean India mission that can be achieved by separating the solid waste into two medium and make use of those waste effectively for recycling and energy production.

PROBLEM STATEMENT

Most recyclable waste ends up in a dump yard due to the lack of efficient waste management. Waste management rules in India are based on the principles of "sustainable development", "precaution" and "polluter pays". These principles mandate municipalities and commercial establishments to act in an environmentally accountable and responsible manner—restoring balance, if their actions disrupt it. The increase in waste generation as a by-product of economic development has led to various subordinate legislations for regulating the manner of disposal and dealing with generated waste are made under the umbrella law of Environment Protection Act, 1986

A COMBINED POC- HBCR TECHNIQUE USING BLOCK CHAIN AND DEEP LEARNING FOR FAKE NEWS DETECTION AND PREVENTION

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Abstract

The detection and suppression of rumors and false information continues to be a significant challenge for researchers and architects of social networks. Verifying information legitimacy and dependability is in fact a crucial security requirement for social network platforms because the majority of users in social media typically spread newsworthy material. Block chain technology and machine learning have significantly advanced society in general and the field of artificial intelligence in particular, especially in terms of human vision. The leadership of block chain technology has been expanded to a number of industries that support significant developments in the artificial smart and machine network. Fake news is becoming prevalent in today's society. It is now simpler than ever to create and manufacture fake information because there is such a wide selection of free stuff available. It is feasible to create a prediction system and expand the scope of the classification of the news by combining block chain technology with machine learning for fake news identification and prevention. The Proof of Credibility (PoC) block chain-based strategy is introduced in this paper along with proposed HBCR (hybridized BERT, CNN, and RNN model), a deep learning model for identifying fake news and preventing its spread through social networks. On a fake news dataset of noteworthy tweets gathered from various news sources on Twitter, the functionality of the PoC protocol has been evaluated and tested using FAKE NEWS dataset. The findings showed that the suggested technique was effective in identifying rumors and preventing their spread. According to this new research, a suggested Deep learning framework and increased usage of block chain technology could help stop the spread of fake news by enabling content creators to concentrate on areas where the false information is most likely to cause harm to the general population.

Keywords: Block chain technology, Proof of Credibility (POC), social networks; fake news detection, deep learning, machine learning, HBCR technique.

1. Introduction

The development of decentralized apps, where security is a major concern, is now possible thanks to block chain technology. Any transaction that has ever been made is forever recorded here. Some unreliable sites have published phony and alluring news articles over the years. Since there are no regulatory frameworks in place, it is impossible to confirm this story. As a result, these unreliable sources are free to publish whatever they want, which occasionally even throws society into disarray. Unsuitable news can now spread more fast than ever before thanks to social media and the ease with which it is now possible to access the internet. Fake news might occasionally be more appealing than the truth. People end up being misled as a result. A new

Journal of the Maharaja Sayajirao University of Baroda
ISSN :0025-0422

HYBRIDIZED CNN-RNN-LSTM DEEP LEARNING TECHNOLOGY FOR FAKE NEWS DETECTION IN SOCIAL MEDIA

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Abstract: In today's culture, social media is the main way that people absorb news because it is the simplest and most convenient way for individuals to share news with one another. However, there's a danger that this will lead to the widespread dissemination of erroneous information. These erroneous reports have an adverse effect on both the person and society as a whole. These false reports undermine morality and encourage crime, which worsens people's mental and physical health as well as the spread of infections. In order to prevent the spread of misleading information, it is imperative to halt it at the source. We can only do this if there is proof that the news being reported is true and trustworthy. This can be done only if there is proof that the news being reported is true and trustworthy. In order to produce a flawless output, the aim of this paper is to generate real news and detect fake news with the highest degree of accuracy. As a result of previous survey carried out, a hybridized system utilizing CNN, RNN, and BERT have been proposed for fake news classification. In this proposed framework the BERT algorithm is used for extracting features from the news stories being posted. CNN machine learning classification technique is used in this proposed system to train the dataset, and RNN-LSTM classification algorithm is utilized to classify and detect fake news by cross-verifying it with other datasets. The results obtained shows that the proposed hybridized system work well for fake news classification and gave us an average accuracy of 99%.

Key words: CNN, RNN, BERT, fake news detection, evaluation metric, accuracy.

INTRODUCTION:

Numerous emerging technologies aid in our understanding of how people behave in this technological age. Human-machine contact was simply a fiction up to this point. A vast heavenly body, a civilization of living beings all across the world, and a tie that ties us to the same continent are all present. It gives us a large society to live in and ties us together because we share the same planet. This civilization is being built by a group of individuals with the authority to dominate a particular territory. Society is surrounded by a variety of elements, including people, the environment, and numerous sectors that could help people become better. The state's government establishes a set of rules that the populace must follow in order to keep an eye on these behaviors. The development of security policy by the government may benefit from several emerging technologies. Artificial intelligence, which was initially described by John McCarthy in 1955, is one of the most widely used technologies. Later discoveries included predictive analysis, neural networks, natural language processing, machine learning, and deep learning. Each discipline has made tremendous advancements as a result of the advent of new technologies. As a result, these technologies have been incorporated into every government policy that might be advantageous to the populace. Information that has been purposefully misrepresented or fraudulently asserted to be factual is referred to as fake news.

These stories are commonly used to support web publications because they have the potential to influence public opinion, advance political agendas, or simply confuse people. This topic was chosen because it is evolving into a major social issue. As a result, there are riots, lynchings, and a toxic internet atmosphere. A tool that can identify whether a certain piece of information is accurate or false and give users a sense of its authenticity so they may choose whether or not to take action is critically needed because fake news has the potential to be harmful. RNNs and Convolutional Neural Networks (CNN) are two examples of complex learning methods that are frequently employed to identify muddled representations.

To analyze sequential data, LSTM, a tree-coordinated discontinuous neural connection, is used. The front-to-back and back-to-front viewing of specific sequences is possible because to the bi-directional LSTM. The model's presentation is evaluated using easily accessible FAKE datasets of

Journal of the Maharaja Sayajirao University of Baroda
ISSN :0025-0422

A REVIEW ON BLOCK CHAIN TECHNIQUES FOR FAKE NEWS DETECTION IN SOCIAL MEDIA

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Abstract: The block chain is a relatively new piece of computer science technology. In recent years, interest in the Research and Scientific Industry has increased. Cryptocurrency is the first application to which it has drawn attention. Block chain acts as an unchangeable distributed ledger that conducts business with unreliable users in a decentralized network. It creates a novel distributed architecture without a centralized authority that uses smart contracts to execute transactions and communicate states. Block chain applications include Internet of Things, financial services, risk management, reputation systems, and online wallets based on crypto currency. This essay intends to disseminate information regarding the expanding significance of block chain technology in practical applications. Additionally, this study compared standard consensus algorithms with block chain's fundamental elements and technology.

Key words: Block chain, Fake News, Fake News Detection using block chain, consensus algorithm, block chain approaches..

INTRODUCTION:

Block chain is less complicated than other technology subjects like artificial intelligence, machine learning, etc. However, it is also significant since Block chain includes so many various components of differing degrees of complexity. They initially allow a group of users to record transactions in a distributed ledger that is only accessible to that group, ensuring that once a transaction is published, it cannot be modified. Block chain can be compared to a public, unchangeable ledger where all transactions must be committed to before being saved and where data is kept in a chain of blocks. When fresh blocks are added to the chain, it continues to climb. These features of block chain allow it to save money and increase efficiency dramatically.

Block chain has a much wider range of applications than cryptocurrencies do. It enables payments to be made without the use of a bank or arbitrator. Many financial services, including online payments, digital assets, remittance, etc., employ block chain technology. Other applications for block chain technology include managing medical records, banking transactions, notary services, user identity verification and status, data tracking, etc. [5] and internet interaction-based systems, including security services, secure transactions, smart contracts, public services, internet of things (IoT), etc. In order to understand how the block chain functions in general, this paper compares the normal consensus algorithm to the block chain, explores its uses, and clarifies some common misconceptions.

It demonstrates that there are alternatives to bitcoin, like as Ethereum, that are available on the market. As a result, the Ethereum and Litecoin implementation process was initiated by the block chain application developer. The technological features of block chains, their security, and their applicability are the main topics discussed in this article.

Block chain technology Overview

It is a method of storing data in a digital ledger in which a chronological chain of groups of valid transactions, known as blocks, is formed, with each block being cryptographically connected to the one before it. A very general explanation of a block chain is given by Wikipedia: "A block chain is a continuously expanding list of records, called blocks, that are linked and secured using cryptography." Each block includes a timestamp, a cryptographic hash of the preceding block, and

A REVIEW ON INTEGRATING BLOCK CHAIN AND MACHINE LEARNING TECHNIQUES FOR FAKE NEWS DETECTION IN SOCIAL MEDIA

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Abstract
In this Internet era, most of the communication among public is done through social media and this highly developed communication has led to many problems of which propagation of fake news through social media platforms has affected the public a lot. Each and every day millions of news are being broadcast among people, as it has become the faster mechanisms to reach the public easily. The main idea of propagating such kind of fake news through social media may be to disparage a famous person, to construct fake opinion, to create positive impact on elections or stock exchanges or to create violence and spoil the law and order situations prevailing in a particular location. Many researchers nowadays make use of block chain technology to detect and classify the fake news being propagated through news channels. Block chain technologies when used produces several advantages like transparency, immutability and back tracking facilities which can be used for the detection and spreading of fake news in social media. Block chain technology also provides a reliable decentralized network, which can be used to publish news. In addition, Block chain with the help of decentralized applications and smart contracts can provide a platform in which fake news can be detected through public participation. Hence in this paper a clear review on deep learning and how block chain technology can be used to detect fake news is discussed and the best algorithm suitable for detection of fake news in social media will be identified by comparing it with other traditional algorithms using several metrics. The results obtained clearly shows that RNN_LSTM deep learning technique when used with Ethereum based smart contract technique can be a secured framework for detecting fake news in social media.

Keywords: Block chain, Fake News, text mining; block chain; detection algorithms words; Fake News Detection using block chain, Block chain to curb fake news

Introduction
Technological improvement and advancement in internet communication has made it possible for public to make use of these smart electronic gadgets for reliable and faster communication from anyplace. This obvious benefit has opened the doors for gathering the information being distributed throughout an organization and to effectively build their social foundation and make their perspective heard. This situation has permitted the birth and formation of new websites which can provide enormous measures of knowledge to the public without any charge and huge number of audience are anxious to extend their knowledge through these websites. This simplicity of creating online news to share information among public has mislead to the concept of disseminate news of all kinds, so that also the transmission of distortions, alternate realities and lies has increased. This event is popularly called as Fake News which has created problems in finding out reliable information on the Internet. Social media platforms like face book, twitter, Instagram has become the source for creating all kinds of global and local news for majority of people in this generation. This broad casting revolution has motivated the fake news generators to spread fake news in social media which takes a short period of to spread tremendously all over the world. The news broadcasted in social media becomes viral worldwide just within few days. These opportunities motivated the individuals to take the advantage of people's tendency and start sharing appealing news without knowing its authenticity or consequences.

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Indian Journal of Natural Sciences *www.tnsroindia.org.in ©IJONS*

Vol.14 / Issue 81 / Dec / 2023 *International Bimonthly (Print) – Open Access* *ISSN: 0976 – 0997*

RESEARCH ARTICLE

Performance Evaluation of Proposed HBCR Deep Learning Model for Fake News Detection in Social Media

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Received: 21 Aug 2023 Revised: 25 Sep 2023 Accepted: 30 Nov 2023

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ABSTRACT

Social media is the primary means by which people in today's culture consume news since it is the simplest and most practical way for people to communicate with one another. There is a chance that this will result in the broad transmission of false information, though. These false reports have a negative impact on the individual and society as a whole. The spread of illnesses and morality are undermined by these erroneous claims, which also fuel criminality and impair people's physical and mental health. It is essential to stop false information at the source in order to stop its spread. This is only possible if there is evidence that the news being reported is reliable and true. The purpose of this paper is to generate true news and accurately identify phony news in order to achieve a faultless output. As a result of previous survey carried out in our previous works, a hybridized system utilizing CNN, RNN, and BERT (HBCR-Hybridized BERT,CNN and RNN) have been proposed for fake news classification. In this proposed HBCR framework the BERT algorithm is used for extracting features from the news stories being posted. CNN deep learning classification technique is used to train the dataset, and RNN-LSTM classification algorithm is utilized to classify and detect fake news by cross-verifying it with FAKES dataset. The results obtained shows that the proposed HBCR system work well for fake news classification and gave us an average accuracy of 99%. The performance of this proposed system has been compared with state of art algorithms like SVM, KNN, Random Forest, BERT, CNN, RNN and combined CNN&RNN. Among all this techniques this proposed HBCR technique has proved to be effective in terms of all the metrics like accuracy, precision, Recall and F1 score.

Keywords: CNN, RNN, BERT, HBCR, fake news detection, evaluation metric, accuracy.

Results in Chemistry 6 (2023) 101141

Contents lists available at ScienceDirect

Results in Chemistry

journal homepage: www.sciencedirect.com/journal/results-in-chemistry

Construction of 3-amino-9-ethylcarbazole scaffold for multifunctional applications: Chemosensor for copper(II) ions along with antibacterial, antioxidant and anti-inflammatory activity

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ARTICLE INFO

Keywords:
Carbazole based metal sensor
Naked eye detection of copper ions
Photo electron transfer
Oxidative stress reduction
Inflammation healing
Microbes inhibition

ABSTRACT

This work describes the fabrication of a carbazole derivative **1** namely (E)-5-(diethylamino)-2-((9-ethyl-9H-carbazol-3-yl)imino)methyl)phenol(1) based colorimetric probe for the selective detection of copper (II) ions. The as-prepared carbazole derivative was characterized using various spectral techniques including UV–visible absorption, Emission, FT-IR, ^{1}H NMR, ^{13}C NMR and mass spectra. The colorimetric chemosensing potential of the synthesized carbazole derivative **1** to detect Cu^{2+} ions in a solution of different cations at different emission wavelengths based on photo-induced electron transfer (PET) mechanism was undertaken. In addition, the probe **1** showed significant DPPH scavenging activity. Antimicrobial and anti-inflammatory activities of the carbazole derivative **1** were also assessed. The selectivity of probe **1** towards Cu^{2+} ions could be exploited to reduce copper induced toxicity.

Introduction

Copper is an essential trace element, the third most abundant metal in human (after Fe^{2+} and Zn^{2+}) and present in higher concentrations in the liver [1] and brain [2]. It is an inevitable, nutrient redox active ion for normal brain function [3] due to the high oxygen demand and oxidative metabolism of brain tissues, neurons and glia alike cells. Copper is a necessary cofactor for many brain-specific enzymes that control the homeostasis of neurotransmitters, neuropeptides and dietary amines. In addition, copper also functions as an active site in antioxidant enzymes such as cytochrome *c* oxidase (CcO) and Cu/Zn superoxide dismutase (SOD1) [3]. It is also needed for the production of ceruloplasmin, a protein that helps transport of iron in the blood and in the production of white blood cells and in the activation of enzymes which are the part of immune system. The excess concentration or deficiency of Cu^{2+} has led to several diseases such as Alzheimer's disease [4], Menkes syndrom, haematological manifestations [5]. Further, higher consumption of copper leads to accumulation in liver and kidney that may cause gastrointestinal diseases and neurological disorders such as Wilson's disease [6], amyotrophic lateral sclerosis [7], Parkinson's diseases, hypoglycomia [8], dyslexia and infant liver damage [9]. Therefore, monitoring of Cu^{2+} level in living cells with higher sensitivity and selectivity is vital [10]. Various techniques have been developed for the detection and determination of Cu^{2+} ions such as organic fluorophores [11] or chromogenic sensors [12], a DNA enzyme based method [13], colorimetric detection [14], absorbance spectrophotometry, atomic absorption spectroscopy (AAS) [15] and inductively coupled plasma mass spectroscopy (ICP-MS) [16]. However, a suitable probe for naked eye detection of Cu^{2+} ions is still desirable and chemosensors are the excellent choice, in this regard.

Developing a suitable chemosensor for heavy metal ions turn into substantial because of the direct benefits applied to major sectors such as environment, industry, biology and human health. Chemosensors are particularly attractive due to their metal ion specific fluorescence nature, high sensitivity, selectivity and ease of preparation. Compounds that are capable of detecting the heavy metals by fluorescence is the

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https://doi.org/10.1016/j.rechem.2023.101141
Received 4 September 2023; Accepted 28 September 2023
Available online 29 September 2023
2211-7156/© 2023 Published by Elsevier B.V. This is an open access article under the CC BY-NC-ND license (http://creativecommons.org/licenses/by-nc-nd/4.0/).

Health Sciences Review 9 (2023) 100115

Contents lists available at ScienceDirect

Health Sciences Review

journal homepage: www.elsevier.com/locate/hsr

Systematic Review / Meta-analysis

Unraveling the role of medicinal plants and Gut microbiota in colon cancer: Towards microbiota- based strategies for prevention and treatment

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ARTICLE INFO

Keywords:
Colon cancer
Gut-microbiota
Medicinal plants
Naturopathy treatment
Secondary metabolites

ABSTRACT

Colon cancer remains one of the leading causes of morbidity and mortality worldwide. Given its widespread prevalence, the identification of new anticancer drugs is crucial. Medicinal plants have provided many natural products that have proven to be successful anticancer drugs in clinical use and have shown significant efficacy. Over the last decade, researchers have gathered significant information regarding the contribution of gut microbiota to the development and progression of colon cancer. Manipulating the gut microbiota to reverse microbial dysbiosis is an innovative strategy for addressing human diseases and intestinal disorders. Recent scientific findings have shown that this approach has a significant positive impact on the prevention and treatment of colon cancer. This review aims to provide a comprehensive understanding of the fundamental concepts related to intestinal microbiota and dysbiosis, as well as the interactions between microbiota and phytochemicals that can affect the bioavailability and bioactivity of these compounds. The primary components of the gut, including carbohydrates, enzymes, lipids, vitamins, and secondary metabolites such as alkaloids, flavonoids, polyphenols, and terpenoids, can activate gut dysbiosis. While these strategies show promising outcomes by rectifying microbiota proportion, modifying innate immune systems, emphasizing gut barrier operation, inhibiting pathogen colonization, and exhibiting selective cytotoxicity against colon cancer cells, further research is necessary to fully understand their mechanisms of action. This review also highlights the relationship between medicinal plants, gut microbiota, and colon cancer, which may lead to the development and clinical translation of potential microbiota-based strategies for cancer prevention.

1. Introduction

Cancer is a complex malignancy and a major cause of morbidity and mortality worldwide. There are many different types of cancer, among which, colorectal cancer found in the colon or rectum and ranks as the third most common cause of cancer-related deaths in both men and women [1]. The exact cause of colon cancer is not fully understood, but it is believed to develop as a result of a combination of genetic, environmental, and lifestyle factors. Some known risk factors for colon cancer include age, inherited genetic mutations, inflammatory bowel disease, and unhealthy dietary choices [2]. In particular, a diet that includes red and processed meats has been shown to increase the risk of colon cancer. Excessive smoking and alcohol consumption are increasing the risk of cancerous growth by disrupting the lining of the colon and damaging the structure or sequence of Deoxyribonucleic acid (DNA) in colon cells [3]. According to estimates from the world health organization (WHO), there will be 20 million new cancer cases projected in 2025 [4]. Colon cancer is becoming increasingly prevalent in India, with a higher incidence rate in urban areas compared to rural areas. In fact, according to the Indian Council of Medical Research (ICMR), the incidence of colon cancer in India is expected to be 4.4 and 4.1 per 1,00,000 in men by the year 2025 [5]. There is a stigma attached to discussing health issues related to the colon, which can make people reluctant to seek medical attention for symptoms such as abdominal pain, changes in bowel habits, or rectal bleeding [6]. To address the increasing incidence of colon cancer, it is important to raise awareness about the risk factors

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https://doi.org/10.1016/j.hsr.2023.100115
Received 3 June 2023; Received in revised form 4 September 2023; Accepted 5 September 2023
Available online 7 September 2023
2772-6320/© 2023 The Author(s). Published by Elsevier Ltd. This is an open access article under the CC BY license (http://creativecommons.org/licenses/by/4.0/).

Biomass Conversion and Biorefinery
https://doi.org/10.1007/s13399-023-05031-w

ORIGINAL ARTICLE

An effective bio-inspired synthesis of palladium nanoparticles using *Crateva religiosa* G.Forst. leaf extract: a multi-functional approach for environmental and biomedical applications

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Received: 29 July 2023 / Revised: 10 October 2023 / Accepted: 17 October 2023
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Abstract

The biogenic synthesis of metal nanoparticles (MNPs) through the reduction of metal ions using secondary metabolites extracted from plants is considered an eco-friendly and bio-safe method. In this study, palladium nanoparticles (Pd-NPs) were synthesized through biogenic synthesis. Pd-NPs were obtained using an aqueous leaf extract of *Crateva religiosa*, exhibiting the desired physicochemical properties in terms of structure, optics, and photocatalytic activity. The characterization of prepared biogenic Pd-NPs was achieved by UV-Vis spectroscopy, FT-IR, XRD, SEM, EDX, and HR-TEM. As a result of characterization, UV-Vis spectrum exhibited a maximum absorbance at a wavelength of 420 nm. In the XRD analysis, five basic peaks attributed to Pd-NPs, and an average crystallite size was 10.31 nm. In addition, SEM and HR-TEM determined that Pd-NPs have a quasi-spherical shape, and an average size of 15–20 nm was tested antimicrobial activity with *Bacillus subtilis*, *Klebsiella pneumonia*, *Aspergilus niger*, and *Aspergillus tamarii.* Pd-NPs at 30 µg/mL exhibited bacteriocidal and anti-fungistatic activity. In addition, Pd-NPs inhibited the formation of the biofilm layer by *B. subtilis* and *K. pneumoniae* by 85.63% and 92.78%, respectively. Pd-NPs also exhibited potential free radical scavenging activity in a dose-dependent manner. Pd-NPs displayed a remarkable anti-inflammatory activity of 96.68% according to the albumin denaturation inhibitory assay. Furthermore, they exhibited anticancer activity against A549 cell lines, with an IC-50 value of 28.25 µg/mL determined through *in vitro* cytotoxicity assessment using the MTT assay. The photocatalytic activity was observed by the degradation of fast green dye (95.28%) and Rose Bengal dye (95.15%) at pH 3 and 150 min of exposure time and under sunlight. Moreover, the Pd-NPs positively impacted seed germination on horse gram. Overall, the results indicate that Pd-NPs, obtained through biogenic synthesis, have the potential to serve as agents for various biological and environmental applications.

Keywords *Crateva religiosa* G.Forst. · Palladium nanoparticles · Green synthesis · Anti-biofilm · Photocatalytic activity · Seed germination

1 Introduction

In today's world, pollution is a significant threat, mainly driven by industrial developments like the paper industry, textiles, and tanneries, which contaminate water sources [1]. Among these industries, textiles are particularly problematic due to their release of dye effluents, reducing dissolved oxygen solubility and increasing biological oxygen demand in aquatic ecosystems. Dye effluents harm aquatic ecosystems, reducing sunlight penetration and disrupting photosynthesis in plants, affecting aquatic life's food sources and causing lasting pollution [2]. Fortunately, nanotechnology's rapid advancement has given nanomaterials a vital role in treatment processes, drawing attention

Highlights
- An effective bio-inspired synthesis of Pd-NPs using *Crateva religiosa* extracts (CRE)
- Pd-NPs' distinct properties make them highly promising for biomedical use
- Synthesized Pd-NPs help FGD and RBD degradation in industrial effluents
- Pd-NPs positively impacted seed germination applications on horse gram
- This study offers a practical, affordable, and safe approach to producing inorganic NPs

Extended author information available on the last page of the article

Biochemical Systematics and Ecology 112 (2024) 104771

Contents lists available at ScienceDirect

Biochemical Systematics and Ecology

journal homepage: www.elsevier.com/locate/biochemsyseco

Influence of ecological factors on the phytochemical composition and bioactivity of *Berberis tinctoria* Lesch. wild edible fruits

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ARTICLE INFO

Keywords:
Berberis tinctoria
Ecological factors
Geographical variation
LC-MS
Antioxidants
Cytotoxicity

ABSTRACT

Berberis tinctoria Lesch. is an endemic wild plant with significant medicinal value in traditional ethnomedicine. Although its chemical composition has not yet been studied, tribal communities in Nilgiri-Hills (NH) and Palani-Hills (PH) use it as food and to cure various ailments. The present study aims to analyze the influence of ecological factors on the accumulation of active compounds and antioxidants in *B. tinctoria* fruits. The anti-proliferative effect was also evaluated. Thus, two distinct geographic locations within the *B. tinctoria* cultivation area were selected. The contents of soil pH, organic carbon, nitrogen, phosphorus, potassium and primary and secondary active metabolites in the fruits were measured. Bioactive compounds were tentatively identified by liquid chromatography-mass spectrometry (LC-MS) analysis. Qualitative and quantitative phytochemical screening revealed that major primary and secondary metabolites were more abundant in fruits from the NH region, especially in terms of total phenols and alkaloids. The data acquired highlight that soil physicochemical properties have a highly positive correlation with secondary metabolites content and bioactivity. In particular, NH ethyl acetate (NH-EAF) extracts showed higher antioxidant and anti-inflammatory activiy, as well as anti-bacterial activity against *Staphylococcus aureus* and *Enterococcus faecium*. Furthermore, NH-EAF extract showed cytotoxic effects with IC_{50} equal to 102.85 μg/mL and 123.39 μg/mL towards Raw 264.7 and Caco-2 cell lines, respectively. The results of this study confirmed that the fruit variability of phytochemicals and biological activities is due to geographical variation and ecological factors.

1. Introduction

Bioactive compounds found in wild edible fruits particularly those rich in antioxidants, have caught the attention of scientists in recent years due to their potential benefits for human health. Epidemiological reports have shown that plant-derived bioactive compounds may prevent the onset and progression of various types of cancer and cardiovascular diseases (Samtiya et al., 2021; Cai et al., 2022). Up to 50% of the drugs used in cancer and other treatments are derived from natural products such as morphine, vincristine, atropine and artemisinin sourced solely from plant resources (Veeresham, 2012; Newman and Cragg, 2020). As a result, herbal medicinal products that contain a defined concentration of plant-derived bioactive compounds are an attractive strategy for controlling diseases, as they can be readily used as dietary supplements with minimal toxic effects (Salehi et al., 2020). However, variations in bioactive metabolites within the same plant species from different geographical regions can pose challenges in selecting plants for therapeutic potential and developing herbal medicine (Ahmed et al., 2020). To address this, preliminary phytochemical screening of plants from different geographical locations is necessary to determine the concentration of key metabolites in specific plant parts, which can help to identify the quantitative variations of a particular bioactive compound during plant development under different environmental stress (Vilkickyte and Raudone, 2021). As a consequence, plants collected in different seasons exhibit distinct spatial-temporal variations, affecting their pharmacological activity (Vignesh et al., 2022a). Similarly, biotic stress can also induce variation in the secondary metabolites produced by plants inevitably imposing the development of herbal products (Sharma et al., 2022) (see Tables 8 and 9).

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https://doi.org/10.1016/j.bse.2023.104771
Received 4 September 2023; Received in revised form 7 December 2023; Accepted 9 December 2023
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Plant Physiology and Biochemistry 210 (2024) 108598

Contents lists available at ScienceDirect

Plant Physiology and Biochemistry

journal homepage: www.elsevier.com/locate/plaphy

Unraveling the impact of nanopollution on plant metabolism and ecosystem dynamics

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ARTICLE INFO

Handling Editor: Shivendra Sahi

Keywords:
Nanopollution
Nanoecology
Primary metabolism
Secondary metabolism
Phytoremediation

ABSTRACT

Nanopollution (NPOs), a burgeoning consequence of the widespread use of nanoparticles (NPs) across diverse industrial and consumer domains, has emerged as a critical environmental issue. While extensive research has scrutinized the repercussions of NPs pollution on ecosystems and human health, scant attention has been directed towards unraveling its implications for plant life. This comprehensive review aims to bridge this gap by delving into the nuanced interplay between NPOs and plant metabolism, encompassing both primary and secondary processes. Our exploration encompasses an in-depth analysis of the intricate mechanisms governing the interaction between plants and NPs. This involves a thorough examination of how physicochemical properties such as size, shape, and surface characteristics influence the uptake and translocation of NPs within plant tissues. The impact of NPOs on primary metabolic processes, including photosynthesis, respiration, nutrient uptake, and water transport. Additionally, this study explored the multifaceted alterations in secondary metabolism, shedding light on the synthesis and modulation of secondary metabolites in response to NPs exposure. In assessing the consequences of NPOs for plant life, we scrutinize the potential implications for plant growth, development, and environmental interactions. The intricate relationships revealed in this review underscore the need for a holistic understanding of the plant-NPs dynamics. As NPs become increasingly prevalent in ecosystems, this investigation establishes a fundamental guide that underscores the importance of additional research to shape sustainable environmental management strategies and address the extensive effects of NPs on the development of plant life and environmental interactions.

1. Introduction

Nanoparticles (NPs), often defined as particles with at least one dimension less than 100 nm, have found ubiquitous applications in diverse industries, including electronics, medicine, agriculture, and cosmetics (Alprol et al., 2023). Their remarkable properties, such as size-dependent reactivity and unique surface characteristics, have led to numerous technological advancements. NPs have extensive applications across various sectors, including agriculture, chemical manufacturing, consumer goods, coatings, optics, electronics, cosmetics, food production, medicine, textile manufacturing, plastics, paints, fuel additives, wastewater treatment, and environmental remediation (Jan et al., 2022). However, the proliferation of NPs in the environment raises concerns about their unintended impacts (Zhang et al., 2023). As the continuous production and utilization of NPs persist, reports from consumer products based on both nanotechnology and online databases indicate that over 600 products and 2870 products, respectively, incorporate NPs (Jan et al., 2022). The use of NPs in the fields of biology and medicine has undergone substantial growth, with reported values of US$17.5 billion in 2011, a notable increase to US$53.5 billion in 2017, and a further increase to US$79.8 billion in 2019 (Javed et al., 2019). The annual consumption of silver nanoparticles (Ag NPs) amounts to 450 tons, while the production of zinc nanoparticles (Zn NPs) reaches 5500 tons per year (Jan et al., 2022).

Pollution caused by nanopollution (NPOs) also referred to as “invisible pollution”, is considered the most serious pollution to be controlled and managed. The term "Nanopollution" encompasses these

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https://doi.org/10.1016/j.plaphy.2024.108598
Received 24 January 2024; Received in revised form 9 March 2024; Accepted 2 April 2024
Available online 3 April 2024
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JOURNAL OF NUTRACEUTICALS AND HEALTH
Jan-Mar 2024, VOL. 2, ISSUE 1, pp. 25-26
https://doi.org/10.61577/jnh.2024.100006

RESEAPRO JOURNALS

SHORT COMMUNICATION

OPEN ACCESS

An Investigation into the Impact of Millets on Global Health and Sustainability

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ABSTRACT

This article explores the resurgence of millet as a potential solution to global nutrition and wellness security challenges. Millets, ancient grains with rich nutritional content and remarkable adaptability, have been overshadowed by modern agriculture. However, their nutritional profile, resilience to climate variability, and socio-economic significance make them a promising ally in combating malnutrition, food insecurity, and diet-related chronic diseases. The article discusses the nutritional composition of millets, their health benefits, and their role in sustainable agriculture. It also examines the environmental sustainability and socio-economic impacts of millet cultivation. Despite their potential, challenges such as limited consumer awareness and policy support hinder their widespread adoption. The article underscores the importance of collaborative efforts among stakeholders to promote millets in mainstream diets and food systems. Ultimately, embracing millets can pave the way towards a more resilient, equitable, and healthier future for all.

KEYWORDS

Millets; Nutrition; Wellness; Food Security; Sustainability; Global Health

ARTICLE HISTORY

Received 2 February 2024;
Revised 11 March 2024;
Accepted 20 March 2024

Introduction

In an era characterized by growing concerns over global nutrition and wellness security, the rediscovery of ancient food crops offers a beacon of hope. Among these traditional treasures, millets stand out as a remarkable resource with the potential to address some of the most pressing challenges facing humanity today. Originating from the cradle of agriculture, millets have sustained civilizations for thousands of years, offering sustenance resilience, and vitality to millions across the globe [1]. Yet, their significance had been overshadowed by the rise of modern agriculture and the dominance of a few staple crops [2]. Today, as we confront the complex interplay of malnutrition, food insecurity, and diet-related chronic diseases, the renaissance of millets presents a timely and compelling opportunity. These humble grains, belonging to the Poaceae family, possess an array of nutritional virtues that rival, if not surpass, those of their more celebrated counterparts. Rich in proteins, fibers, vitamins, and minerals, millets offer a balanced and wholesome dietary foundation that can nourish bodies and fortify health [3,4]. Moreover, their gluten-free nature makes them a boon for individuals with celiac disease or gluten sensitivity, providing an inclusive option for diverse dietary needs [5,6]. Beyond their nutritional bounty, millets exhibit a remarkable capacity to thrive in diverse agro-climatic conditions, from arid savannas to mountainous terrains [7]. This inherent adaptability makes them a resilient crop, capable of withstanding environmental stresses such as drought, heat, and soil degradation [8,9].

In a world grappling with the impacts of climate change, where agricultural systems are increasingly vulnerable to disruptions, the resilience of millets offers a ray of hope. By diversifying cropping systems and promoting agro-biodiversity, millets can contribute to building more robust and climate-resilient food systems [10]. Furthermore, the cultivation and consumption of millets hold promise for fostering sustainable development and advancing socio-economic equity. In many regions, especially in sub-Saharan Africa and parts of Asia, smallholder farmers rely on millets as a vital source of livelihood [11]. Revitalizing millet-based agricultural systems can enhance food sovereignty, empower local communities, and alleviate rural poverty. Moreover, the promotion of millet-based value chains can generate employment opportunities along the entire food value chain, from production to processing, marketing, and distribution [12]. However, the journey towards harnessing the full potential of millets for global nutrition and wellness security is not without its challenges. Despite their nutritional and ecological virtues, millets have long been relegated to the margins of agricultural research, policy, and investment. The dominance of commodity-driven agricultural models and the lack of market incentives have hindered the widespread adoption of millets, perpetuating their underutilization and neglect [13].

Moreover, consumer preferences, shaped by decades of dietary homogenization and reliance on refined grains, pose a formidable barrier to the reintroduction of millets into mainstream diets. Addressing these challenges requires a concerted effort from multiple stakeholders, including policymakers, researchers, civil society organizations, and the private sector. Governments can play a crucial role in creating an enabling policy environment that incentivizes millet cultivation, supports smallholder farmers, and promotes consumer awareness and demand. Investment in research and development is equally essential to unlock the full potential of millets, from breeding high-yielding varieties to improving

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Food Chemistry Advances 5 (2024) 100749

Contents lists available at ScienceDirect

Food Chemistry Advances

journal homepage: www.elsevier.com/locate/focha

A review on the influence of nutraceuticals and functional foods on health

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ARTICLE INFO

Keywords:
Nutraceutical
Functional food
Food supplement
Probiotic
Gut health
Fiber

ABSTRACT

In recent years, functional foods have gained attention for their potential health benefits beyond basic nutrition, serving as rich sources of proteins, carbohydrates, vitamins, and dietary fiber. Enriched with bioactive compounds such as polyphenols, tannins, flavonoids, and alkaloids, these foods have shown promise in inhibiting cell signaling pathways related to proliferation, communication, and apoptosis. Key components in functional foods offer health benefits. Omega-3 fatty acids scavenge free radicals, reducing the risk of chronic diseases like heart disease and cancer. Antioxidants in foods such as sesame seed oil promote cardiovascular health and have anti-inflammatory effects. Curcumin inhibits cancer by suppressing inflammatory cytokines. Understanding their mechanisms of action is crucial for realizing therapeutic benefits. However, identifying suitable bioactive substances and comprehending their role in disease prevention are challenging. As we enter the functional food era, this review aims to present the current state of functional foods and nutraceuticals, exploring their applications for human wellness. Recognizing nutrition's individualized nature of nutrition is a central theme, emphasizing the importance of tailored dietary recommendations based on diverse responses to these functional elements, ensuring that personalized approaches are aligned with individual health goals.

1. Introduction

Functional foods are defined as foods that provide health benefits that extend beyond their fundamental nutritional value (Hammoudi Halat et al., 2023). In the past decade, despite the growing popularity of organic and natural foods, functional foods have significantly captured public interest. The food industry is keen to market these foods for their potential to promote health or maintain wellness. However, such claims are backed up by the lack of knowledge among the public, which is often linked to poor dietary choices (Bliss, 2024). The current state of the art on functional foods focuses significantly on the recovery, enhancement, and fortification of nutrients and bioactive compounds in foods to improve their health benefits. However, functional food design can only be applied when food side streams adopt a sustainable and health-oriented focus to develop new ingredients and formulations (Cena & Calder, 2020). Functional foods and nutraceuticals represent a departure from the customary fare, introducing a novel dimension to the concept of nourishment. Unlike their conventional counterparts, these specialized consumables are distinguished by their inherent capacity to go beyond providing basic sustenance and actively contributing to the promotion and preservation of health (Harford et al., 2011). This paradigmatic shift in nutritional philosophy has given rise to a fervent exploration of the multifaceted world of functional foods and nutraceuticals, prompting a deep inquiry into their composition, the intricate mechanisms through which they operate, and the robust scientific evidence that substantiates their potential impact on human health. At the heart of this review lies a comprehensive endeavor to unravel the complexities surrounding functional foods and nutraceuticals.

Delving into their composition unveils a diverse array of bioactive compounds that distinguish them from traditional foods (Akhtar et al., 2023). These compounds, ranging from vitamins and minerals to phytochemicals and essential fatty acids, endow these functional consumables with properties that extend beyond basic nutrition. Whether derived from natural sources or fortified with additional bioactive elements, these foods possess a unique amalgamation of ingredients that distinguishes them as potent contributors to holistic health (Singh et al., 2023). Understanding the mechanisms of action through which functional foods and nutraceuticals exert their influence is fundamental to appreciating their transformative potential. These consumables operate at the cellular and molecular levels, modulating physiological functions

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https://doi.org/10.1016/j.focha.2024.100749
Received 10 January 2024; Received in revised form 26 May 2024; Accepted 7 June 2024
Available online 8 June 2024
2772-753X/© 2024 The Authors. Published by Elsevier Ltd. This is an open access article under the CC BY-NC license (http://creativecommons.org/licenses/by-nc/4.0/).

Food Research International 191 (2024) 114739

Contents lists available at ScienceDirect

Food Research International

journal homepage: www.elsevier.com/locate/foodres

Review

Food contaminants: Impact of food processing, challenges and mitigation strategies for food security

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ARTICLE INFO

Keywords:
Food contaminants
Food processing
Food security
Hazardous chemicals
Health risks
Risk mitigation

ABSTRACT

Food preparation involves the blending of various food ingredients to make more convenient processed food products. It is a long chain process, where each stage posing a risk of accumulating hazardous contaminants in these food systems. Protecting the public health from contaminated foods has become a demanding task in ensuring food safety. This review focused on the causes, types, and health risks of contaminants or hazardous chemicals during food processing. The impact of cooking such as frying, grilling, roasting, and baking, which may lead to the formation of hazardous by-products, including polycyclic aromatic hydrocarbons (PAHs), heterocyclic amines (HCAs), acrylamide, advanced glycation end products (AGEs), furan, acrolein, nitrosamines, 5-hydroxymethylfurfural (HMF) and *trans*-fatty acids (TFAs). Potential health risks such as carcinogenicity, genotoxicity, neurotoxicity, and cardiovascular effects are emerging as a major problem in the modern lifestyle era due to the increased uptakes of contaminants. Effects of curing, smoking, and fermentation of the meat products led to affect the sensory and nutritional characteristics of meat products. Selecting appropriate cooking methods include temperature, time and the consumption of the food are major key factors that should be considered to avoid the excess level intake of hazardous contaminants. Overall, this study underscores the importance of understanding the risks associated with food preparation methods, strategies for minimizing the formation of harmful compounds during food processing and highlights the need for healthy dietary choices to mitigate potential health hazards.

1. Introduction

The term "chemical contamination" signifies the presence of chemicals in areas where they should not be or in concentrations exceeding safer levels (Perveen, 2023). Hazardous chemicals are the significant contributor to food contamination, which may cause serious health problems (Onyeaka et al., 2024). This may be accumulated in the food in their early stages as a result of environmental sources of contaminants such as air, soil, and water (Pathak et al., 2022). Hazardous chemical contaminants, particularly those generated during food processing methods, are widespread in many commonly used mass-produced cooking materials. These items include cooking vessels, vegetable disinfectants, pesticides, detergents, color deodorants, personal care products, and etc. (Lin et al., 2023). Even the food and water we consume are not safe from the accumulation of chemicals at unsafe concentrations. The occurrence of food contamination, whether accidental or deliberate, poses a regrettable situation with significant repercussions for human health (Unuofin & Igwaran, 2023). The human body is continuously exposed to a wide range of chemicals found in food, which have the ability to produce mutagenic reactions and cause a various disease. Exposure to food-borne diseases significantly contributes to the development of certain human diseases (Das et al., 2021;

Abbreviations: ADHD, Attention-deficit/hyperactivity disorder; AGEs, Advanced glycation end products; CO_2, Carbon dioxide; DiMeIQx, 2-Amino-3,8-dimethylimidazo[4,5-f]quinoxaline; DNA, Deoxyribonucleic acid; GMP, Good manufacturing practices; HACCP, Hazard analysis and critical control points; HCAs, Heterocyclic amines; HDL, High-density lipoprotein; HMF, 5-hydroxymethylfurfural; HNO_2, Nitrous acid; LDL, Low-density lipoprotein; MeIQx, 2-Amino-3,4,8-trimethylimidazo[4,5-f]quinoxaline); MSG, Monosodium glutamate; NH_3, Ammonia; NO_2^-, Nitrite; PAHs, Polycyclic aromatic hydrocarbons; PCBs, Polychlorinated biphenyls; PFCs, Perfluorinated compounds; PhIP, 2-Amino-1-methyl-6-phenylimidazo[4,5-b]pyridine; ROS, Reactive oxygen species; TFAs, Trans-fatty acids; WHO, World health organization.

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https://doi.org/10.1016/j.foodres.2024.114739
Received 6 May 2024; Received in revised form 2 July 2024; Accepted 4 July 2024
Available online 6 July 2024
0963-9969/© 2024 Elsevier Ltd. All rights are reserved, including those for text and data mining, AI training, and similar technologies.

JOURNAL OF ECOLOGY AND CONSERVATION
Apr-Jun 2024, VOL. 2, ISSUE 2, pp. 1-4
https://doi.org/10.61577/jec.2024.100006

RESEAPRO JOURNALS

SHORT COMMUNICATION

OPEN ACCESS

Plant ecosystems and sustainable development in the Western Ghats, India

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ABSTRACT

The Western Ghats of India, a United Nations Educational, Scientific and Cultural Organization (UNESCO) World Heritage Site, is a biodiversity hotspot crucial for ecological balance and human sustenance. This review explores the vital role of plant ecosystems in this region, highlighting their contributions to carbon sequestration, water regulation, and soil fertility. Despite their importance, these ecosystems face significant threats from deforestation, climate change, and unsustainable land-use practices. The advocates for integrated conservation and sustainable development strategies, emphasizing the need for biodiversity-friendly agricultural practices, robust governance, community involvement, and education. It also underscores the potential of sustainable tourism to generate economic benefits while promoting conservation. Examining successful case studies and outlining future directions, the review calls for a concerted effort to preserve the Western Ghats' ecological integrity, ensuring sustainable development and human well-being for generations to come.

KEYWORDS

Western Ghats; Plant ecosystems; Sustainable development; Conservation; Biodiversity.

ARTICLE HISTORY

Received 14 May 2024;
Revised 11 June 2024;
Accepted 17 June 2024

Introduction

The Western Ghats of India stand as a testament to our planet's incredible biodiversity and ecological richness [1]. Stretching along the Western coast of the Indian subcontinent, this United Nations Educational, Scientific and Cultural Organization (UNESCO) World Heritage Site is not only a haven for countless species of flora and fauna but also a crucial ecosystem that sustains life for millions of people [2]. At the heart of this natural wonder lie the plant ecosystems, the green guardians that provide us with invaluable services essential for our survival [3]. Yet, the delicate balance of these ecosystems is under threat, challenged by human activities and the changing climate [4]. Recognizing the critical importance of these ecosystems, several ongoing efforts aim to mitigate the threats to the Western Ghats [5]. Conservation initiatives include establishing protected areas, enforcing environmental laws, and promoting sustainable agricultural and forestry practices [2]. Community-based projects focus on raising awareness and engaging local populations in conservation activities. Organizations and government bodies are working together to develop and implement policies that balance development needs with ecological preservation [6]. This review proposes an integrated approach to conservation and sustainable development in the Western Ghats, emphasizing the need for a synergistic relationship between human activities and ecological health. The proposed solution includes enhancing biodiversity-friendly practices in agriculture and forestry, strengthening governance and enforcement mechanisms, and fostering community-led initiatives for natural resource management. Additionally, the paper advocates for sustainable tourism and education programs to create economic incentives for conservation and in still a culture of stewardship among local communities. Combining ecological science with socio-economic strategies, this review aims to provide a holistic framework for sustainable development in the region. The objective is to highlight the critical role of plant ecosystems, identify effective conservation practices, and propose actionable steps to ensure the long-term resilience of both natural and human communities in the Western Ghats. This integrated strategy not only aims to preserve biodiversity but also to enhance the well-being of millions of people dependent on these ecosystems.

Biodiversity and its Ecosystem

The Western Ghats are home to a diverse array of plant species, many of which are endemic to the region [7]. This biodiversity is a crucial component of ecosystem services that support agriculture, medicine, and local economies, as shown in Figure 1. For instance, the dense forests are vital for water retention and supply, providing water to major rivers such as the Godavari, Krishna, and Kaveri, which are lifelines for millions of people, supporting agriculture, drinking water supplies, and hydroelectric power generation [8]. Additionally, the plant ecosystems play a crucial role in soil fertility and erosion control, with tree and plant roots binding the soil to prevent landslides and soil erosion, especially during the monsoon season [9]. The Western Ghats' biodiversity includes over 7,400 species of flowering plants, with a significant proportion being endemic [10]. This rich floral diversity is essential for maintaining genetic diversity and ecosystem resilience. Plants like the Nilgiri Blue (*Strobilanthes kunthiana* (Nees) T. Anderson ex Benth), which blooms once every 12 years, and critically endangered species such as *Piper barberi* Gamble, highlight the unique botanical richness of the region [11]. This diversity supports a range of

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Journal of Photochemistry & Photobiology, A: Chemistry 458 (2025) 115985

Contents lists available at ScienceDirect

Journal of Photochemistry & Photobiology, A: Chemistry

journal homepage: www.elsevier.com/locate/jphotochem

Benzothiazole-based Schiff base for sensing Ca^{2+} ions: Synthesis, DFT studies, toxicity evaluation in zebrafish embryo and *in silico* analysis of MMP-9 inhibition

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ARTICLE INFO

Keywords:
Heterocyclic Schiff base
Calcium(II) ion sensing
Fluorescence-OFF mechanism
Anti-inflammatory
Zebrafish embryo toxicity
In silico analysis
MMP-9

ABSTRACT

A new heterocyclic Schiff base, 2-(2-benzo(d)thiazol-2yl)hydrazono)methyl)phenol **(BTAZ)** synthesized from 2-hydrazinobenzothaizole and salicyclaldehyde was characterized by spectral, mass and single crystal XRD data and subjected to sense Ca^{2+} ions in methanol–water mixture (1:1, v/v) using UV–visible absorption and fluorescence emission spectral studies. The probe **BTAZ** showed specific detection of Ca^{2+} ions in a solution containing various metal ions with a detection limit as low as 5.1×10^{-6} M via photo-induced electron transfer (PET) pathway. The binding stoichiometry between **BTAZ** and Ca^{2+} was determined to be 2:1 by Job's plot method. The stoichiometry and optical properties of both **BTAZ** and **BTAZ-Ca^{2+}** complex showed good correlation with theoretical results based on DFT and TD-DFT calculations. The pharmacological evaluation of the probe **BTAZ** against bacterial and fungal stains also demonstrated its notable efficacy to control their growth *in vitro* along with anti-oxidant capabilities. Further, toxicity assay of the probe **BTAZ** against zebrafish embryo did demonstrate that it is non-toxic to the test model *in vivo*. Ability of the probe **BTAZ** to inhibit matrix metalloproteinase-9 (MMP-9) enzyme was analyzed in detail using *in silico* experiments.

1. Introduction

Research on the detection of metal cations, anions and wide range of small molecules using chemical sensors has aroused interest because of their extensive applicability in the fields of biology and industries. Calcium is the most common mineral in aqueous environments, physiological fluids, biomaterials and the human body. Designing and synthesizing efficient probes for metal ions have become very significant because of their close relationship with the environment, industry, biology, and human health. Chemosensors based on ion-induced

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https://doi.org/10.1016/j.jphotochem.2024.115985
Received 22 May 2024; Received in revised form 13 August 2024; Accepted 21 August 2024
Available online 25 August 2024
1010-6030/© 2024 Elsevier B.V. All rights are reserved, including those for text and data mining, AI training, and similar technologies.

Journal of Pharmacognosy and Phytochemistry

Available online at www.phytojournal.com

E-ISSN: 2278-4136
P-ISSN: 2349-8234
https://www.phytojournal.com
JPP 2023; 12(1): 121-124
Received: 14-11-2022
Accepted: 20-12-2022

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Physicochemical parameters, phytochemical screening and qualitative analysis of inorganic nutrients of *Persicaria glabra* (Willd.) Gomez de la Maza

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Abstract
The present study investigated with physicochemical parameters, phytochemical analysis, and qualitative analysis of inorganic nutrients of *Persicaria glabra* (Dense flower Knotweed). Physicochemical parameters such as ash values, extractive values were determined. The methanolic extract of *P. glabra* leaves and stem revealed the presence of bioactive compounds such as alkaloids, flavonoids, tannins, glycosides, steroids, terpenoids, saponins, proteins, amino acids, reducing sugars, phenols, emodins, and phlobatannins. Whereas in the stem terpenoids and saponins were absent. The qualitative analysis of inorganic acid radicals in leaves showed the presence of carbonates and sulfates, whereas nitrates, phosphates, and sulfates were found in the stem. The inorganic basic radicals of the leaves and stem revealed the presence of arsenic, sodium, calcium, iron, and ammonium, whereas zinc is only found in the leaves. According to these findings, the presence of phytoconstituents and physicochemical parameters is useful for the development of novel drugs and assessing plant quality. Furthermore, this plant contains vital inorganic nutrient elements that may be useful for humans as dietary supplements for day-to-day life and to heal various ailments.

Keywords: *Persicaria glabra*, physicochemical parameters, extraction, phytochemical analysis, inorganic nutrients

Introduction

Phytochemicals are very simply plant-derived chemicals. They are naturally occurring defense chemicals present in different parts of plants such as leaves, roots, seeds, stems and barks etc. Medicinal plants produce primary and secondary metabolites with different functions. The secondary metabolites like alkaloids, terpenoids, and phenolic compounds are known to be responsible for the therapeutic potential of the medicinal plants.

In this study the physicochemical parameters studied are total ash, acid-insoluble ash, methanol and water soluble extractive values. Ash content is used to determine the quality and purity of crude drugs.

Water-soluble ash is used to estimate the amount of inorganic compounds in drugs, whereas acid-insoluble ash contains silica and indicates contamination with earthy material. The amount of the active constituents in a given amount of plant material when extracted with a particular solvent is determined by the estimation of extractive values.

A solution containing different Phytoconstituents is obtained by the extraction of any crude drug with a particular solvent. Whether the crude drug is exhausted or not is indicated by the composition of these Phytoconstituents, which depend on the nature of the drug and the solvent used.

Persicaria glabra belongs to the family Polygonaceae and is commonly known as dense flower knotweed. This is an entirely glabrous plant, except the leaves which are often red-gland dotted; the ochrea (stipules fused into a sheath surrounding the stem) is completely eciliate. Inflorescence is a dense raceme, small pink with white flowers. Fruits are achene, flattened, shiny, dark brown to black in color. It grows on wet areas like lake, pond, and margins of ditches [1, 2].

It is one of the medicinal plants that are used as an analgesic and anti-cancer. Generally, juice of this herb is used as a painkiller and leaf paste is used as an anti-cancer drug [3]. The present study deals with physicochemical parameters, phytochemical analysis and inorganic nutrients in the leaves and stem of *Persicaria glabra*.

Indian Journal of Natural Sciences *www.tnsroindia.org.in ©IJONS*

Vol.14 / Issue 79 / Aug / 2023 *International Bimonthly (Print) – Open Access* *ISSN: 0976 – 0997*

RESEARCH ARTICLE

Phytochemical Screening of *Parmotrema planatilobatum* (Hale) Hale. for Its Dye Yielding Potential

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Received: 14 Mar 2023 Revised: 20 May 2023 Accepted: 04 July 2023

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ABSTRACT

Lichens are symbionts that produce distinct, secondary chemicals with significant pharmacological potential. Many phytochemicals are revealed to be species-specific, and the chemical nature of lichen species differs. The present study investigated the major bioactive constituents of the lichen *Parmotrema planatilobatum* in five different solvents by increasing polarity (hexane, chloroform, ethyl acetate, acetone, and methanol). The qualitative phytochemical screening of crude extracts revealed the presence of alkaloids, phenols, proteins, amino acids, reducing sugars, tannins, steroids, terpenoids, flavonoids, and quinones. Lichens are the source of colorant due to their distinct metabolic components. Moreover, the dye yielding potential of *P. planatilobatum* was assessed using three methods; they are ammonia fermentation method (AFM), the cow urine method (CUM), and the DMSO extraction method (DEM). The different colors derived using the mentioned approaches were documented. The dye extraction results were buffy brown in the AFM method, isabella in the CUM method, and ivory yellow in the DEM method. These compounds have the ability to produce dyes as well as having exceptionally intense pharmacological effects.

Keywords: *Parmotrema*, phytochemical and dye extraction.

INTRODUCTION

Lichens are epiphytic, intelligent living form that develop from the symbiotic union of a specialised fungal partner and an algal partner (green algae or cyanobacteria) [1]. The lichens are classified by three distinct types, such as crustose, foliose and fruticose. Moreover, they thrive in a wide variety of habitats including tree trunks, bark, wood, leaves, rocks, moss and soil. Also, it can survive in harsh climatic conditions around the world such as adverse temperatures, drought, salinity, pollution, and unstable nitrified conditions [2].

Indian Journal of Natural Sciences *www.tnsroindia.org.in ©IJONS*

Vol.14 / Issue 79 / Aug / 2023 *International Bimonthly (Print) – Open Access* *ISSN: 0976 – 0997*

RESEARCH ARTICLE

Phytochemical Screening and GC- MS Profiling on Flowers of *Crossandra nilotica* Oliv.

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Received: 15 Feb 2023 Revised: 25 Apr 2023 Accepted: 30 May 2023

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ABSTRACT

The present work aims to perform phytochemical screening and Gas Chromatography-Mass Spectrometry analysis of flower extracts of *Crossandra nilotica* Oliv. Phytochemical screening of methanolic flower extracts revealed the presence of alkaloids, proteins, carbohydrates, phenols, flavonoids, betacyanins, coumarins, emodins, glycosides, steroids, terpenoids, and quinones. Furthermore, GC-MS analysis of the extract identified 72 bioactive compounds, out of which 20 were major compounds based on high peak areas such as 1,3-Dioxolane, 2-phenyl-2-(phenylmethyl)- (9.81%), Propylthiouracil (9.42%), 1,2,5-Oxadiazol-3-amine, 4-(phenylmethoxy)- (9.41%), 2-Methylheptanoic acid (9.38%), Tricyclo[4.2.2.0(1,5)]decane (9.37%), 2-Undecanethiol, 2-methyl- (9.37%), 1,2,4,5-Tetrazin-3-amine, 6-methyl- (9.19%), etc. It is the first report on *Crossandra nilotica* screened for phytochemicals and GC-MS analysis. The identified bioactive compounds have a wide range of biological activities, which may help in the protection against various diseases.

Keywords: Extraction, Phytochemical screening, GC-MS analysis, Bioactive compounds, Biological activity

CONSUMER PERCEPTION TOWARDS ECO-FRIENDLY PRODUCT

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ABSTRACT

"An ounce of prevention is worth a pound of cure" is the proverb that tells it's easier to stop something, before it has happens. The pandemic has caused people across world to pay closer attention to their health, symptoms of illness and to adopt new behaviors to minimize risk of transmission such as Conscious of environment, Social distancing, wearing mask and Hygiene Sanitization. This study explores how these factors affect the perception of the consumers towards the eco-friendly product. Consumers are now becoming more ecological and health conscious and desire to purchase the eco-friendly product. In this study, it brings the behavior of the consumer on eco-friendly product before and during pandemic will be discussed. The Coimbatore is the third largest city in Tamilnadu, it is also known as Manchester of South India. The main object of the study is to identify the demographic and usage profile of the selected consumers and to know the perception level of the consumer towards eco- friendly products. Questionnaire method will be used to collect the data from 125 consumers through convenient sampling method in Coimbatore district. The collected data have been analyzed using the Simple Percentage and Likert's scaling methods. The finding of the study will be definitely useful for the consumers to know the advantages of eco-friendly product, marketer to know the behavior of the consumer and government to take necessary steps to educate the consumers to buy the eco-friendly product.

Keywords: Eco-friendly, Products, Attitude, Perception, Pandemic

PREMABLE OF THE STUDY

The corona virus offers countries a chance to build revival plans that will reverse current trend and change our consumption and production pattern towards the eco-friendly product. The eco-friendly product and its production, are about the restructure of economic from environmental dilapidation, increase the efficiency of the resources and promoting eco-friendly product among the consumers. It can also contribute significantly to poverty mitigation and the transformation of the countries towards low-carbon and green economies. The eco-friendly product consumption and production refers to the use of services and related products, which looks after the basic needs of the consumers and provide the better quality of life by minimizing the use of natural resources and toxic material as well as that emission of water and pollutants over the life cycle of the services and to prevent the sources for the future generation. The pride and Farrell was rightly stated that eco-friendly product refers to an organizational effort in designing, promoting and pricing and distributing the product without any harm to the environment. The eco-friendly product plays a vital role particularly in the modern market. Additionally the development of eco-friendly product has opened the opportunity for the companies for co-brand their products into separate line. The silicon 'India reveals that the majority of Indian consumers are familiar with eco-friendly products, have confidence that eco-friendly products are better for environment and feel that bio based ingredients enhance the desirability of a product. More than 63 per cent of consumers are familiar with eco-friendly products and of those, 85 per cent have confidence that they are better for the environment. As a result of this businessman can increase the volume of consumers who are more anxious about the environment. These consumers show more concern about the environmental issues into their purchasing decision and the concentrate on the product whenever they purchases.

REVIEW OF LITERATURE

Anil kumar and Mridanish Jha (2017) in their study entiled "A study on attitude of consumers towards eco-friendly products" concluded that the producers ought to enhance the plan of eco-

EMPOWERING RURAL WOMEN THROUGH FREEBIE SCHEMES OF TAMIL NADU STATE GOVERNMENT

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Abstract

This article has mainly focused on the innovative scheme of free bus travel and how it benefited the people and sparked to empower the women in the male centric society. Tamil Nadu is a welfare State which implemented innovative schemes for enhancement of people status gradually. On the consequence, the Government of Tamil Nadu has announced the scheme for women welfare and empowerment named "Free Bus Travel Scheme" which has given the free travel to all women in Tamil Nadu. The intention of the scheme was announced by the Government of Tamil Nadu to increase the mobility of women. This scheme has increased the women's mobility and their savings. Tamil Nadu, being a role model for implementing the innovative free schemes for entire India. All the state has attributed the concept for their convenience and applied the different phenomenon. Earlier, Tamil Nadu Government has given the doles and freebies to the people, especially those have in the poverty line. Some of the electronic goods also provided to enhance the economic and educational enhancement. Now the tern has changed beyond the stereo type of schemes and programs. Conceptually, the Government has announced the free travel for all women might be stupendous character which directly or indirectly enhance the women status and empower the women in this society.

Keywords:, Innovative freebie schemes and Socio-Economic Empowerment of Rural Women

Introduction

Rural women in India are concentrated in agriculture to a much larger extent than men. Around 60 percent of India's population engaged in forming, women contribute to almost 70-80 percent of forming activities but they are neither legally nor socially recognized as farmers. The term "freebies" has become a point of contention in the political culture of India. In order to woo voters to their side, political parties try to outdo each other

Study on Transformations to Sustainable Development in Tamil Nadu in the Effect of Implementing Socio-economic Development Schemes by Government of Tamil Nadu

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Abstract : **The present study is mainly focused on the Socio Economic Development schemes implementing by the Government of Tami Nadu through various schemes namely Freebies Schemes through different channels namely Non-merit Freebie Schemes and Freebie Schemes and Social Reformations, Democratize the accessibilities of uplifting schemes for Survival growth, Education, Opportunities, Financial assistance, Women empowerment Schemes, Improving standard of living, strengthening economic stability for sustainable development by various socio-economic development oriented Tamilnadu Freebie Schemes, Policy Formulation based on the Social Justice Values and Equity in Society. Therefore, an attempt is made in the present study to highlight various supports as well as efforts of Government of Tamilnadu state's unique and inevitable initiatives for socio-economic development through freebie schemes. Transport for women, Pudumaippen, Makkalai Thedi Maruthuvam, Kalaingar Urimai Thohai Thittam, Seed money for Higher education, Illamthedikalvi, NaanMuthalvan, and other infrastructure facilities,**

Key words : Freebie, Schemes, Socio-economic, Society, Subsidize, Welfare, Development, Empowerment

INTRODUCTION

Tamil Nadu is still one of the few socialist-democratic states in India, Welfare schemes have long influenced Tamil Nadu politics. In 1967, when hunger was a major issue, Perarignar C.N.Annadurai became Chief Minister riding on his promise of 'One rupee for one padi (litre) rice'. The government soon found out that the promise was even expensive and unsustainable, but the welfarism continued which has, in the post-liberalisation period, managed to significantly increase its per capita income and Gross Domestic State Product (GSDP), while also maintaining a steady trend of interventions into welfare. Not only as 'freebies ' –Tamil Nadu has given India a market-friendly Dravidian welfare model. This is the story of Tamil Nadu – the state that has given India a unique template. One, by pursuing targeted welfare schemes, often exonerate as 'freebies', and two, by pursuing economic growth through market forces. The state shows that the twin track is

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Applied Organometallic Chemistry / Volume 37, Issue 9 / e7201

RESEARCH ARTICLE

Cobalt (II), Nickel (II) and Palladium (II) complexes appended terpyridine-based ligand: Synthesis, spectral characterization, anticancer activity and apoptosis investigation

Pathinathan Senthilrajkapoor, Giriraj Kalaiarasi, Ramasamy Indumathy, Sivadasan Dharani, Vincent M. Lynch, Gopal Sathyaraj

First published: 30 July 2023
https://doi.org/10.1002/aoc.7201

Abstract

Three new complexes containing 2-thiophenylterpyridine (**TP**) ligand, namely, **[Co(stpy)$_2$]Cl$_2$** (**Co-TP**), **[Ni(stpy)Cl$_2$]$_2$** (**Ni-TP**) and **[Pd(stpy)Cl]Cl** (**Pd-TP**) were synthesized and subsequently characterized employing various spectroscopic techniques including UV–Visible, IR, ^{1}H NMR, EPR, and ESI-MS analysis. ESI-MS spectra suggested the complexes **Co-TP** and **Ni-TP** to be six coordinated with two ligand units and the complex **Pd-TP** to be a four-coordinated mononuclear square planar complex. The dimeric nature of the complex **Ni-TP** (**M$_2$L$_2$Cl$_4$**) was established by X-ray diffraction analysis, which confirmed the bridging of two nickel centers by two chloride ions. The ligand and complexes were assessed for their cytotoxic behavior by using MTT colorimetric assay. The compounds **TP**, **Co-TP**, **Ni-TP** and **Pd-TP** displayed significant antiproliferative activity on A549 (human lung carcinoma) and MM2 (human breast cancer) cell lines and had no toxic effect on human normal embryonic kidney cells (HEK 293). Further, the morphological changes associated with MM2 and A549 cells triggered by the tested compounds due to apoptosis have been validated with the help of AO-EB and DAPI staining assays.

CONFLICT OF INTEREST STATEMENT

The authors declare no competing financial interest.

ScienceDirect

Materials Letters
Volume 349, 15 October 2023, 134720

Design and development of copper cobaltite ($CuCo_2O_4$) nanoparticle for antibacterial anticancer and photocatalytic activity

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https://doi.org/10.1016/j.matlet.2023.134720

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Abstract

In this paper, hydrothermal technique has been utilized for the fabrication of spinel-type copper cobaltite nanoparticles ($CuCo_2O_4$ NPs). The prepared nanoparticle was characterized using FT-IR, SEM, XRD and EDAX techniques. The XRD spectra of $CuCo_2O_4$ show the formation of a cubic spinel-type $CuCo_2O_4$ nanocomposite. The FTIR graph determines the existence of metal-oxygen bonds. SEM images reveal the morphology of the nanoparticles. The synthesized materials were tested against the pathogens using agar-well diffusion method. The $CuCo_2O_4$ nanoparticles shows that have potent bactericidal properties. MTT assay was done to evaluate the cytotoxic activity of $CuCo_2O_4$ NPs against a cervical cancer cell (HeLa) with an IC_{50} value of 0.72 μg/ml. Addition to these biological applications, the nanoparticle also degrade toxic dyes under direct sunlight.

Graphical abstract

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Chemical Physics Impact 7 (2023) 100308

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Parthenium hysterophorous flower template assisted SnO_2 nanostructure as photoanode for dye sensitized solar cell

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ARTICLE INFO

Keywords:
Dye sensitized solar cells
Parthenium hysterophorous
Tin oxide
Alizarin

ABSTRACT

The synthesis process of tin oxide (SnO_2) nanostructures and the performance of alizarin-based SnO_2 dye-sensitized solar cells have been investigated in the current work. For the first time, tin oxide nanostructures with various pH values are synthesized using the template taken from parthenium hysterophorous flower which acts as the photoanodes. SnO_2 film coated with alizarin dye, a platinum counter electrode, and an iodine electrolyte are used to fabricate DSSC. The structural, morphological, and optical characteristics of the SnO_2 nanostructures are investigated using powder X-ray diffraction (XRD), scanning electron microscopy (SEM), photoluminescence (PL), attenuated total reflectance (ATR) spectra, and UV–visible spectroscopy techniques. Current density-voltage (J-V) parameters are measured using electrochemical workstation with solar illumination.

1. Introduction

Dye sensitised solar cells (DSSCs) have gained significant attention over the past 20 years when compared to silicon and thin film solar cells due to their low cost, simple manufacturing process and higher efficiency. When using nanostructures of TiO_2 [1], SnO_2 [2], ZnO [3], Nb_2O_5 [4], and CeO_2 [5] as the semiconductor layer, the light collecting efficiency of DSSC is primarily reliant on the light absorption of dye molecules attached to the semiconductor surface layer. SnO_2 with higher bandgap and electron mobility [6] finds superior applications when compared to TiO_2 and SnO_2 nanostructures.

The dye molecules Ruthenium (Ru) which is synthetic, toxic and high cost material is nowadays substituted by plant pigments which are eco-friendly, low cost, simple, irrespective of their low stability and efficiency. The natural dyes are synthesised synthetically and employed as dye molecules for the fabrication of DSSC in order to address this low stability and low efficiency. Alizarin (1, 2-dihydroxyanthraquinone) used to colour textile is one of the most well-known red dyes ever used in DSSC. Traditionally, it was derived from the roots of plants of the madder genus [7,8] and herein it was purchased commercially from sigma aldrich.

Amongst the advanced available techniques adopted for the synthesis of nanostructures, template assisted technique is a low cost and user friendly method. Despite having modest anti-inflammatory and antioxidant qualities, it has very little economic significance [9]. Extracts prepared from the leaves of this plant were utilized for the preparation of silver nanoparticles, ZnO and TiO_2 etc. [10,9].

As far as we are aware, there are no reports of Parthenium Hysterophorous blooms being used as a template for the production of SnO_2 nanostructures. Using a template made from a parthenium hysterophorous flower, SnO_2 nanostructures are synthesised in this study at four different pH levels (7, 8, 9 and 10). The effect of these pH levels on the structural, morphological, and DSSC performance of the nanostructures is then investigated using X-ray diffraction, field emission scanning electron microscopy, infrared spectroscopy, UV – Vis spectroscopy and photoluminescence spectroscopic studies.

2. Experimental details

2.1. Materials used

Tin chloride (II) dehydrate, FTO Glass Slide, Chloroplatinic acid Hexahydrate ($H_2PtCl_66H_2O$), Ethanol, Alizarin dye, methanol and Ethylene glycol are purchased from Sigma Aldrich and were used. Flowers from a nearby patch of Parthenium hysterophorus are gathered and dried in the shade.

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https://doi.org/10.1016/j.chphi.2023.100308
Received 13 April 2023; Received in revised form 24 August 2023; Accepted 9 September 2023
Available online 10 September 2023
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Digest Journal of Nanomaterials and Biostructures Vol. 18, No. 2, April - June 2023, p. 767 - 771

Effect of pH on the morphology of TiO_2 nanostructures

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Titanium oxide (TiO_2) nanostructures with different morphologies ranging from spheres, rods to sheets were prepared using solvothermal route. The effects of pH on the structural, morphological and optical properties of TiO_2 nanoparticles were investigated. Nanostructures are characterized using Attenuated Total Reflectance (ATR), Powder X-ray Diffractometer (XRD), Scanning electron Microscope (SEM) and UV- Visible Spectroscopy.

(Received February 25, 2023; Accepted June 20, 2023)

Keywords: Titanium oxide, Nanostructures, Morphology

1. Introduction

Titanium dioxide has been one of the most studied materials for many ecological and universal applications. Titanium oxide (TiO_2) is available in the form of nanocrystals or nano rods having a high surface area.Titanium oxide exhibits good photo catalytic properties, hence is used in antiseptic and antibacterial compositions(1), degrading organic contaminants and germs (2) , as a UV-resistant material (3), manufacture of printing ink, self-cleaning ceramics and glass coating (4), making of cosmetic products such as sunscreen creams, whitening creams, morning and night creams (5), used in the paper industry for improving the opacity of paper (6). TiO_2 exists in three main phases: anatase, brookite and rutile. Precipitating nanoparticles from a solution of chemical compounds can be classified into six major categories: colloidal methods, sol – gel processing, water – oil microemulsions method, hydrothermal synthesis, solvothermal synthesis and polyol method. When compared to other techniques solvothermal synthesis has many advantages such as easy and precise control of the size, shape distribution , crystalline of the final product through adjusting the parameters such as reaction temperature, reaction time , solvent type , surfactant type, precursor type and also pH .

Solvothermal synthesis is a method for preparing a variety of materials such as metals, semiconductors, ceramics, and polymers. The process involves the use of a solvent under moderate to high pressure and temperature that facilitates the interaction of precursors during synthesis. pH is an important factor that influences the synthesis of nanoparticles by solvothermal synthesis. pH of the solution has considerable effect on morphology, size, surface area and properties of nanomaterials. Therefore, nanoparticle size can be controlled by altering the pH of the solution media. Hence, in this present study, TiO_2 nanostructures are prepared by solvothermal method and the effect pH on the nature of TiO_2 nanostructure is studied.

2. Experimental

2.1. Preparation

The $Ti(OH)_2$ colloidal suspension was prepared by hydrolysis of titanium tetra isopropoxide(TTIP). In a typical process, 3 ml of titanium tetra isopropoxide was mixed with 10

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https://doi.org/10.15251/DJNB.2023.182.767

Digest Journal of Nanomaterials and Biostructures Vol. 18, No. 4, October-December 2023, p.1451-1459

Synthesis, characterisation and ethanol sensing applications of MoO_3 – MoO_2 nanostructures at room temperature

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In the present work, MoO_3 - MoO_2 nanocomposite is synthesised via hydrothermal method and is characterised using various state-of-the-art techniques. The high crystallinity of the sample is observed from XRD and FESEM reveals the 2D plate like layered structures with hexagonal facets. The prepared composite is subjected to ethanol sensing at room temperature and it is observed that the material exhibits 4.5% for 25 ppm ethanol with response time as 98 s and recovery time as 219 s. The observed small response of the composite material MoO_3 – MoO_2 with longer response-recovery time might be due to the large sized fibrils observed.

(Received August 14, 2023; Accepted November 23, 2023)

Keywords: Molybdenum oxide, hydrothermal, Ethanol, Sensitivity, Room temperature

1. Introduction

Transition metal oxides like chromium oxide, tungsten oxide, vanadium oxide, molybdenum oxide formed by 2D / 3D framework of octahedra or tetrahedra results in complex structures [1 - 4]. Among these common metal oxides, a low cost and low toxic 'Molybdenum oxide' exists in various compositions with multiple valence states from stoichiometric molybdenum oxide (MoO_3) to partially reduced MoO_{3-x} ($2<x<3$). Molybdenum trioxide (MoO_3) exists in three phases - a thermodynamically stable orthorhombic phase (α- MoO_3), a metastable monoclinic phase (β - MoO_3) and a hexagonal phase (h-MoO_3) [1, 4]. MoO_3, an n-type semiconductor with band gap 3.2 eV [5] is a pioneer component with rich structural polymorphism and stable bilayered structure held by van der waal forces [6]. The redox reactions and van der waals gap between octahedran Mo-O sheets in MoO_3 favours superior ion intercalation capability resulting in various applications like catalysis, display devices, petroleum refining, gas sensor devices, photoluminescence, etc [1, 7]. The band gap of the material could also be modulated due to the presence of oxygen vacancies. Because of the unique double layer structure, MoO_3 possess high theoretical capacity, high chemical and thermal stability. But MoO_3 in bulk form is limited due to low electrical conductivity, slow ion diffusivity which results in rapid capacity fading and lower capacity [4]. MoO_2 possess a strong metallic Mo-Mo bond resulting in good electrical conductivity even at room temperature. The morphological evolution [6 - 11] of molybdenum oxides (MoO_2 and MoO_3) with different nanostructures have been identified as the suitable promising candidates for device fabrication especially gas sensing applications.

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https://doi.org/10.15251/DJNB.2023.184.1451

Results in Chemistry 6 (2023) 101043

Contents lists available at ScienceDirect

Results in Chemistry

journal homepage: www.sciencedirect.com/journal/results-in-chemistry

Synthesis and characterization of NiO nanoparticles using *Sesbania grandiflora* flower to evaluate cytotoxicity

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ARTICLE INFO

Keywords:
Nickel oxide nanoparticles
Green synthesis
Sesbania grandiflora
SEM and XRD analysis
Cytotoxicity

ABSTRACT

Conventional nanoparticle (NP) synthesis based on physical and chemical processes are costly and are mostly associated with harmful effects on environment, whereas the use of plant extract is eco-friendly and cost effective which could act as reducing, stabilizing and capping agent. Herein, the present study is aimed to synthesize nickel oxide nanoparticles from nickel nitrate precursor and *Sesbania grandiflora* flower extract. Synthesized nickel oxide nanoparticles were characterized by Ultraviolet–Visible, FT-IR, SEM and XRD analyses. Ni-O stretching vibrations at 418 cm^{-1} in the FT-IR spectrum confirmed the formation of NiO NPs. The XRD pattern revealed the crystallite size of the NiO NPs to be in range of 19.9–60.4 nm. The morphology of the NiO NPs as revealed by the SEM images, which was rod like structure. The anticancer activity of the synthesized NiO NPs was evaluated with MM2 (human breast cancer cells) and HeLa (human cervical cancer cells) and compared with *cisplatin*. In MM2, the IC_{50} value of the NiO NPs is 33.57 ± 1.37 μg/mL whereas in HeLa, the IC_{50} value is 26.92 ± 1.67 μg/mL. The value is significant when compared with the conventional standard drug *cisplatin* (17.80 ± 0.30 μg/mL for MM2 and 15.06 ± 0.84 μg/mL for HeLa).

Introduction

Nanotechnology is one among the most active interdisciplinary research fields and has potential industrial and pharmaceutical applications. Its significance is much realized in the last decade since it enabled the researchers, producers and consumers to engineer functional systems at nano-level to cover a majority of applications [1]. Nanoparticles range from 1 to 100 nm in size and possess optical, electrical, magnetic and chemical properties owing to the increase in surface area [2–4]. Recent years have witnessed a glory in the synthesis of metal and metal oxide nanoparticles, which are potential candidates for catalysis and medicine [5]. There are different synthetic procedures for nanoparticles like hydrothermal, solvothermal, sol–gel, thermal decomposition, co-precipitation etc., [6–15]. These protocols mostly involve the use of complex procedures, special equipment's and toxic chemicals. Hence in the recent studies, there is a need for easy, eco-friendly and low toxic procedures to prepare nanoparticles [8,16].

In this regard, Green synthesis is an environmentally friendly approach, in which various plant extracts, are utilized for the preparation of metal oxide nanoparticles [17–25]. The plant *Sesbania grandiflora* known as agati in Tamil language and humming bird tree in English, belongs to the family Fabaceae. It contains valuable phytochemicals like alkaloids, terpenoids, flavonoids, steroids, anthraquinone, catechin, phytosterol tannins, etc., [26,27]. It is one of the rare plants having both flowers and leaves edible, their nutrients could be easily absorbed with no allergic reactions reported so far. The flowers are excellent source of calcium, iron and also contain Vitamin B. All the parts of the plant are widely used in traditional ayurvedic medicine to treat a broad spectrum of diseases including tumor, liver disorder, constipation, intestine inflammation and urinary infection [28].

Among transition metal oxide nanoparticles, Nickel oxide nanoparticles (NiO NPs) have received significant attention in recent years due to their unique physicochemical properties and potential applications in various fields such as catalysis, batteries, printing, textiles, pseudo-capacitors, optical switches, biomolecule immobilization (mainly through magnetic force exerted by Ni NPs), adsorption and additive manufacturing [29–37]. NiO NPs are the most engineered due to their wide band gap energy, p-type conductivity, correlated with

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https://doi.org/10.1016/j.rechem.2023.101043
Received 30 March 2023; Accepted 17 July 2023
Available online 21 July 2023
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ChemistrySelect / Volume 8, Issue 36 / e202302722

Research Article

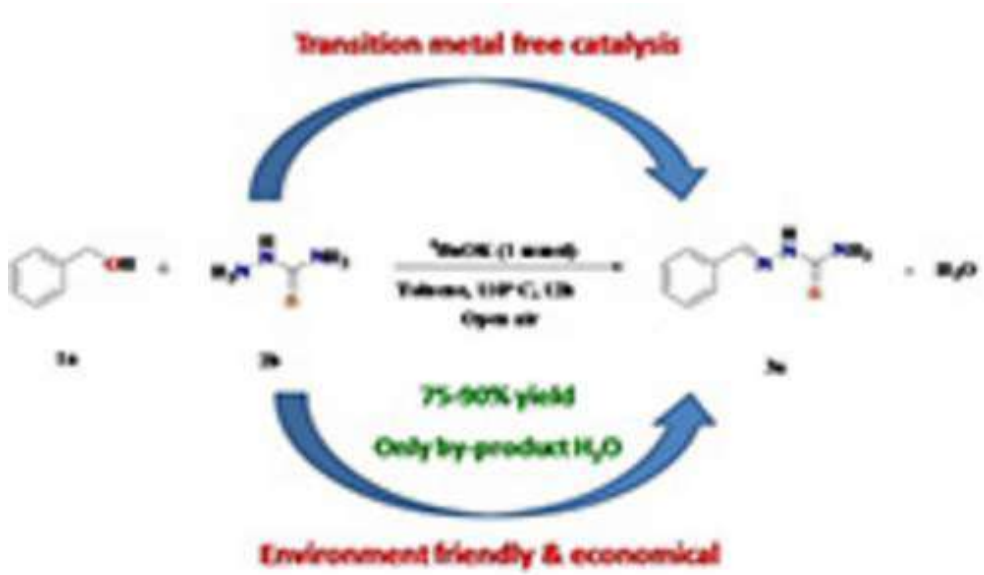
Transition Metal Catalyst Free and Single-Step Synthesis of Significant Thiosemicarbazones *via* Oxidative Coupling Strategy

Dr. S. Dharani, Dr. V. Nithya, Dr. R. Indumathy, Dr. G. Kalaiarasi

First published: 21 September 2023
https://doi.org/10.1002/slct.202302722

Graphical Abstract

The efficacy and selectivity of the transition metal-free catalysis have been emphasized in constructing thiosemicarbazone derivatives from the dehydrogenative coupling of alcohols and thiosemicarbazides under aerobic conditions. A broad spectrum of thiosemicarbazones was obtained in good-to-excellent yields up to 90 %, with water as the only by-product



Abstract

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Ceramics International

Volume 50, Issue 10, 15 May 2024, Pages 16929-16939

Versatile biopolymer–functionalized copper cobalt oxide nanocomposite (Ch/$CuCo_2O_4$): Synthesis and applications in antibacterial, anticancer, and photocatalysis

K. Tamil Thendral [a], M. Amutha [a], R. Ragunathan [b]

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https://doi.org/10.1016/j.ceramint.2024.02.168

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Highlights

- $CuCo_2O_4$ nanoparticles were prepared, and their surface were coated with the biopolymer chitosan.
- Explored the antibacterial capabilities of the Ch/$CuCo_2O_4$ nanocomposite.
- Used as an anticancer agent in an in vitro study against the HeLa cell line.
- Biocompatibility assessment was performed with the normal L-929cell line.

AN EMPIRICAL STUDY ON STUDENT AWARENESS OF UNIFIED PAYMENT INTERFACE SERVICES

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Abstract
This empirical study investigates the sources of awareness of Unified Payment Interface (UPI) services among students, focusing on their knowledge, and the factors influencing their awareness. UPI, a real-time payment system in India, has revolutionized digital payments, making it crucial to understand its penetration among the tech-savvy student demographic. The study found that both personal networks and digital media play pivotal roles in shaping UPI awareness among the study's participants. The chi-square analysis underscores the significant associations between gender, age, and family income with the sources of awareness for the Unified Payment Interface. These findings illuminate the intricate interplay between socio-economic variables and sources of awareness concerning UPI awareness, offering insights into how individuals access and accumulate knowledge about digital payment systems.

Keywords:
UPI Services, Awareness, Digital Payment, Socio-Economic Variables, Information Sources.

I. Introduction

In an era marked by rapid technological advancement and digital transformation, payment systems have undergone a significant evolution. One such innovation is the Unified Payment Interface (UPI) services, which have gained immense popularity in India. As the use of UPI services continues to grow, it is crucial to understand the awareness levels among students, who are often early adopters of technology. Unified Payments Interface (UPI) is a revolutionary digital payment system that has transformed the way financial transactions are conducted in India. Developed by the National Payments Corporation of India (NPCI), UPI has gained immense popularity and has become a cornerstone of the country's digital economy. At its core, UPI is a real-time payment system that allows individuals to link their bank accounts to a mobile application, enabling seamless and secure transactions. It operates 24/7, allowing users to transfer funds, pay bills, make purchases, and even invest in financial products with just a few taps on their smartphones. UPI transactions can be conducted through various channels, including mobile apps, websites, and USSD (Unstructured Supplementary Service Data) codes, making it accessible to a wide range of users.

This empirical study seeks to examine and analyze students' awareness of UPI services, providing insights into their understanding and the factors that impact their awareness.

II. Review of Literature

Rajeswari et al. (2021) investigated that the over the past decade, India has experienced substantial growth in internet and mobile phone usage, driven by factors like government initiatives such as Digital India. This has led to a significant increase in the adoption of digital payments, encompassing transactions made through internet and mobile banking, as well as card payments at point of sale (POS). The study highlights the importance of consumer perception in driving the adoption of digital payments and aims to analyze awareness levels and usage purposes. Results indicate that respondents are highly aware of debit cards, and digital payment systems are predominantly used for utility payments, reflecting the convenience and positive perception of these methods.

Rastogi et al. (2021) found that a multi-faceted impact of UPI on financial literacy, financial inclusion, and economic development. Financial literacy significantly influences financial inclusion, which in turn plays a crucial role in driving economic development. This relationship is mediated by factors

SATISFACTION TOWARDS WOMEN EMPOWERMENT SCHEMES IN TAMILNADU STATE TRANSPORT CORPORATION LIMITED, COIMBATORE

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ABSTRACT

Tamil Nadu State Transport Corporation Ltd. (TNSTC) is a government owned public transport bus operator in Tamil Nadu, India. It operates intercity bus services to cities within Tamil Nadu, and from Tamil Nadu to its neighbouring states. In an era of encouraging as much as possible the shift of passenger traffic to public transport and to more environmentally friendly transport modes in general, transport operators have a major role to play. Recently, the government announces free travel facilities for all women including working women, Transgender and girls who are pursuing higher education in ordinary fare city buses operated under the control of the Tamil Nadu State Transport Corporation since 2021. Thus, this study has aimed to analyse the satisfaction towards women empowerment schemes in Tamilnadu State Transport Corporation Limited, Coimbatore. The nature of this study is descriptive and quantitative method. For this purpose, the researcher has selected 75 women passengers randomly who are travelling in Tamilnadu State Transport Corporation Limited, Coimbatore. A structured questionnaire has been framed and distributed among population to collect the primary information. The collected data are entered in Microsoft Excel 2013 and analyzed by applying the statistical techniques namely percentage analysis, standard deviation and Chi-square test with the help of SPSS 22.0. The result indicated that high level of satisfaction towards women empowerment schemes is perceived by women passengers who accepted as 'providing valuable service' and 'playing dynamic role at women empowerment schemes'.

Keywords: Satisfaction, Social Welfare Schemes, Women Passengers, Perception, Women Empowerment Schemes, Tamilnadu State Transport Corporation Limited.

1. INTRODUCTION

Before independence, there had been continuing road passenger transportation business in unrecognized system. In India, the states and city transportation is managed by Respective State Governments. Tamilnadu State Transport Corporation Limited is one of them and it provides valuable services & safety to the passengers particularly women. The government of Tamil Nadu announced a women empowerment scheme that enables all working women in the State to travel free of cost in government-owned city and town buses with immediate effect. Since a concrete definition has not been given for the term 'working women', every woman would qualify as a beneficiary in this scheme. The main intention behind this scheme is to increase the work participation rate of women and to promote public transportation. Since there is no restriction on the number of trips a day or month, it appears to be a simple and straightforward scheme of open-ended subsidies for travel by women. The previous government implemented a scheme aimed at women's empowerment by providing direct subsidies to buy two-wheelers to working women whose annual income was below a certain level. However, the main criticism of the scheme was that the women who would otherwise use public transport were incentivised to use two-wheelers, creating the possibility of increasing traffic congestion on the roads and polluting the air by burning fossil fuels.

2. REVIEW OF LITERATURE

According to Yannis Tyrinopoulos (2014) revealed that female respondents tended to place their attention on punctuality, waiting conditions and driver behavior, while male respondents on invehicle transport conditions and the existence and quality of transfer information. Also, the analysis indicated that male respondents were, in general, more satisfied with transit services than

CUSTOMER SATISFACTION TOWARDS FEATURES OF DIGITALISED BANKING SERVICES

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DOI: 10.31838/ecb/2023.12.si6.093

Abstract

As the banking sector in India rapidly moves towards digitisation,customer satisfaction towards digitalized banking services has become increasingly important in the modern era. With the advancement of technology, customers expect banks to provide digital solutions that are convenient, efficient, and user-friendly.Digitalized banking services have enabled customers to access banking services 24/7 without the need for visiting a physical branch.Thisstudy examines the level of customer satisfaction towards the features of digitalised banking services in Coimbatore, India.The convenient sampling method was employed, which included a questionnaire survey and semi-structured interviews with customers of various banks in Coimbatore.Primary data collected from 531 bank customers in Coimbatore District of Tamilnadu.The Factor analysis is applied for the data analysis.The results of a study that identified seven factors related to customer satisfaction in the banking industry. The significant factors that raised customer satisfaction were identified based on their component loading of 0.5 and above.The contribution of each factor towards customer satisfaction was also identified, with factor one contributing the most at 33.767 percent, and the other factors contributing in descending order. This study provides insights that can help banks to enhance customer satisfaction by addressing these concerns.

Keywords: *Digitalised Banking, Customer Satisfaction, Features of Digitalised Banking Service, Factor analysis, Kaiser-Meyer-Olkin and Bartlett's test of Sphericity.*

I. Introduction

Digitalisation has transformed the way customers interact with their financial institutions. In India, the adoption of digital banking services has been increasing steadily over the years. The
Reserve Bank of India (RBI) has actively encouraged digital banking as a strategy to enhance financial inclusion and improvethe accessibility to banking services.The COVID-19 pandemic has also accelerated the adoption of digital banking services as customers look for safer and more convenient ways to manage their finances.

According to Ismail and Alawamleh (2017)[1] the banking industry has been revolutionized by electronic communications and e-commerce, resulting in changes to both

Shodhak : A Journal of Historical Research
ISSN : **0302-9832**
Volume: **53,** Issue: **03,** No: 02**,** September - December : **2023**

OVERVIEW OF UNIFIED PAYMENTS INTERFACE IN INDIA: REVOLUTIONIZING DIGITAL PAYMENTS

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Abstract

India has witnessed a remarkable transformation in its digital payments landscape, with the Unified Payments Interface (UPI) emerging as a game-changer. UPI, a real-time payment system developed by the National Payments Corporation of India (NPCI), has redefined the way people transact, making digital payments more convenient, accessible, and secure than ever before. This article provides an overview of UPI's journey, its impact on the Indian economy, and the factors that have contributed to its widespread adoption.

Keywords: Unified Payments Interface, Features, Impact on the Indian Economy.

Introduction

In an era marked by technological advancements and a shift towards digital solutions, the Unified Payments Interface (UPI) has emerged as a groundbreaking innovation that has revolutionized the way financial transactions are conducted in India. Launched in 2016 by the National Payments Corporation of India (NPCI), UPI has rapidly transformed the landscape of digital payments by offering a seamless, secure, and real-time platform for transferring funds, making payments, and conducting various financial transactions. With its user-centric approach and transformative impact on financial inclusion, UPI stands as a testament to India's journey toward becoming a digitally empowered economy. This article delves into the key features, benefits, and the overarching significance of UPI in reshaping the country's payments ecosystem.

Hota (2016)[1] Indian payment systems have rapidly evolved, driven by the Reserve Bank of India's Vision Document on Payment Systems emphasizing reduced cash usage. The adoption of mobile and card payment systems is integral to this effort. The National Payments Corporation of India (NPCI) has introduced a transformative project allowing bank customers to conduct real-time money transfers using an email-like financial address. This applies to both person-to-person (P2P) transactions and Business to Consumer (B2C) collections.

The Unified Payments Interface aims to simplify person-to-person (P2P) and person-to-merchant (P2M) transactions. UPI enables users to link multiple bank accounts to a single mobile application, offering a seamless and interoperable platform for transferring funds instantly. This revolutionary system effectively bridges the gap between various banks, providing a standardized, user-friendly interface for all types of transactions.

Review of Literature

Franciska and Sahayaselvi (2017)[2] discover that the Information Technology (IT) has brought about a transformative impact on various aspects of our lives, notably simplifying digital payments. The Indian government's push during the Demonetization period prompted a shift towards digital transactions. This transition from traditional to digital payment systems ensured safety, security, and convenience. Technological advancements in smartphones and internet accessibility have further accelerated the adoption of digital payments in the Indian market. The percentage of digital payments through alternative modes is also rapidly increasing. The expanding coverage of mobile networks, internet access, and electricity is extending the reach of digital payments to remote regions. It is evident that the future of transaction systems is moving towards a cashless mode.

Mohapatra (2017)[3] explores India's payment systems have rapidly evolved. The Reserve Bank of India's Vision Document on Payment Systems outlines measures to establish a cash-reduced society, with a focus on adopting mobile and card payment systems. A transformative project by the National

SOUTH INDIA JOURNAL OF SOCIAL SCIENCES
ISSN: 0972 – 8945

MAKING THE RIGHT CHOICE: REASONS TO CHOOSE LIC INSURANCE POLICY

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ABSTRACT

This study aims to identify the reasons for preferring Life Insurance Policy and examine the satisfaction level towards selecting a Life Insurance policy. This study also shows how policyholders feel about the life insurance company policy in the Coimbatore district. About 100 samples were taken from the Coimbatore district population and analyzed using statistical tools like Chi-square and simple percentages. The result shows how policyholders are willing to take the policy to safeguard their lives and families.

Keywords: *Policyholders, Insurance, Reasons and Preference*

Introduction

Insurance is a risk transfer mechanism through which one entity pays another entity in the event of loss, according to a signed contract between the insurer and the life assured. It has grown to encompass a wide variety of products. Insurers conceptualize, design, obtain approvals, and offer their products. In return for these products, the intended beneficiary is convinced to buy. Nowadays, consumers are increasingly comfortable using social media, mobile phones, and other items to get recommendations from friends, family, and colleagues, buy from wherever they are located, and share their experiences afterwards. People are always looking for security, which is vital in forming families, tribe communities, and groups. The policyholders' attitude level indicates the extent to which they have availed themselves of the services.

Review of Literature

Sneha Singh et al. (2022) examined that customers and businesses consider customer happiness an essential factor in providing value to their products and services, resulting in customer satisfaction.

Arathi (2021) stated that LIC has many strategies for nationwide and different regions, and nowadays, insurance is most famous as a more transparent instrument against death and life. Customer awareness programs should take place in rural areas to educate all about the benefits of life insurance.

Nisha et al. (2019) found that as consumer preferences for products fluctuate occasionally, market analysis should be carried out regularly to monitor consumers' changing needs and wants. GST is one of the current issues for the insurance sector, and the rural area people were affected by this tax. Therefore, Life Insurance Companies should provide better awareness activities to their customers.

Nivedita et al. (2018) found that customers are satisfied with the features and premiums of life insurance policies. Most have a long business history with their current agents, but few wish to buy more products from their current agents or recommend others to buy a product from them.

Sanmugam Annamalah (2013) developed that the primary intention for purchasing life insurance is financial security for the family. However, individuals now buy life insurance as a medium to long-term tax-favoured savings and investment vehicle.

Objectives

1. To find the reasons for preferring the Life Insurance Policy of policyholders.
2. To examine the satisfaction of LIC policyholders towards selecting a Life Insurance policy.

SOUTH INDIA JOURNAL OF SOCIAL SCIENCES
ISSN: 0972 – 8945

"IMPACT ASSESSMENT OF GST IMPLEMENTATION ON SMALL AND MEDIUM SCALE TRADERS"

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ABSTRACT

Implementing the Goods and Services Tax (GST) posed a significant challenge, particularly in educating India's population of 1.33 billion about the new system. This was especially difficult in regions where change is often met with resistance. In the post-GST period, many returns were mismatched, leading to technical difficulties for Indian taxpayers and further complicating the new tax system. Consequently, most dealers faced issues submitting reports and reclaiming Input Tax Credits (ITC). As a result, the World Bank has deemed GST as a complex tax system. This study aims to investigate potential issues arising from the implementation of GST. Data was collected from 275 respondents who operate businesses in and around the Coimbatore District using a questionnaire. Respondents were selected using a convenience sampling method. The data was then analyzed using simple percentage, ANOVA and T-test statistical tests. The findings of this study will benefit traders in enhancing their understanding of the GST concept. It will also guide them on how to avoid common errors when filing monthly returns and effectively claim common problems they may encounter under various circumstances.

Keywords:
Traders, GST, Small and Medium Traders, Tax

INTRODUCTION

The Goods and Services Tax (GST) is a significant indirect tax reform adopted by many countries, each implementing it uniquely. GST replaced all other indirect taxes in India, including state VAT, central excise duty, service tax, and central sales tax. GST is a value-added tax on goods and services that applies to every stage of the production process, benefiting all parties involved, from the producer or service provider to the ultimate consumer. GST has fundamentally transformed India's tax structure intending to create a unified Indian market by eliminating distortions in the cost of goods and services. India categorizes its goods and services into four sectors based on GST rates: 5%, 12%, 18%, and 28%. Overall, GST simplifies the tax payment process. Organizations registered for GST are required to submit monthly, quarterly, and annual returns via the Government of India's GST portal. They must disclose their purchases and sales of goods and services and the taxes collected and paid. As per Prime Minister Narendra Modi, businesspeople and traders with zero transactions, known as "Nil filers," can now file taxes via SMS (The Hindu, dated 30th June 2019). The MSME Act of 2006 was established to assist Micro, Small, and Medium Enterprises (MSMEs) in their initiation and expansion. It also enhances their competitiveness both domestically and internationally. Several modifications were recently made to simplify the GST returns filing process. On 30th October 2017, the Ministry of Micro, Small, and Medium Enterprises Development Act (MSME) launched MSME Samadhaan to support micro and small business owners nationwide. Specific funds are allocated for fostering enterprise competitiveness, with various programs and schemes available.

REVIEW OF LITERATURE

Ahmad et al. (2016) conducted a study to examine taxpayers' awareness, perceptions, and acceptability of the GST implementation. The findings indicated that public awareness of GST has not

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Aruchamy Rajini

AUGMENTED DOLPHIN SWARM OPTIMIZATION-BASED SECURED GAUSSIAN AD-HOC ON-DEMAND DISTANCE VECTOR (ADSO-SGAODV) ROUTING FOR QUALITY OF SERVICE ENHANCEMENT IN MOBILITY-ENABLED …

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Authors	V VEERAKUMARAN, ARUCHAMY RAJINI
Publication date	2023/10/15
Journal	Journal of Theoretical and Applied Information Technology
Volume	101
Issue	19
Description	Mobility-Enabled Wireless Sensor Networks (ME-WSNs) are a specialized class of wireless sensor networks (WSNs) that incorporate the capability of node mobility. Node mobility in ME-WSNs introduces several advantages but brings new challenges in efficiently routing data packets and allowing intruders to join the network. To address the routing challenges in ME-WSNs and enhance Quality of Service (QoS), an “Augmented Dolphin Swarm Optimization-Based Secured Gaussian Ad-Hoc On-Demand Distance Vector (ADSO-SGAODV)” routing protocol is proposed. ADSO-SGAODV works by efficiently discovering and maintaining routes for data transmission while conserving energy and ensuring secure communication. It employs a hybrid optimization-based approach, combining Gaussian AODV and Dolphin Swarm Optimization (DSO). ADSO-SGAODV utilizes a Support Vector Machine (SVM) to ensure intelligent decision-making in route selection. ADSO-SGAODV selects cluster heads based on fuzzy logic and specific criteria such as energy level and distance to the base station. This feature enhances network scalability and load balancing, ensuring efficient utilization of resources in a dynamic ME-WSN environment. ADSOSGAODV focuses on providing robust security measures to safeguard data during transmission. Secure Communication protocols are implemented to encrypt data, preventing unauthorized access and maintaining data confidentiality. Trust-Based Access Control with Encryption is employed in ADSO-SGAODV to establish trust among nodes and ensure data communication integrity within the network. Through extensive …
Scholar articles	AUGMENTED DOLPHIN SWARM OPTIMIZATION-BASED SECURED GAUSSIAN AD-HOC ON-DEMAND DISTANCE VECTOR (ADSO-SGAODV) ROUTING FOR QUALITY OF SERVICE ENHANCEMENT IN MOBILITY-ENABLED WIRELESS SENSOR NETWORK V VEERAKUMARAN, A RAJINI - Journal of Theoretical and Applied Information …, 2023 Related articles All 2 versions

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A New Opinion Mining Method Based On M-Cuckoo with M-Cat and SVM with NB Classification Algorithm

Authors	Dr Antony selvadoss thanamni M.Malathi
Publication date	2022
Journal	International Journal of Health Sciences (IJHS)
Volume	6
Issue	e-ISSN: 2550-696X, p-ISSN: 2550-6978
Pages	12776 to 12785
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OPINION MINING USING HYBRID DEEP LEARNING WITH MACHINE LEARNING ALGORITHMS

Authors	Dr. Manicka Chezian. R Kanimozhi. J
Publication date	2023
Journal	European Chemical Bulletin
Volume	12
Issue	Special Issue 8
Pages	310-331
Publisher	European Chemical Bulletin (ISSN 2063-5346)

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OPTIMAL EPOCH SELECTION METHOD FOR ENHANCED CNN ALGORITHM

Authors	Dr. R. Manicka Chezian D. Poobathy
Publication date	2023
Journal	European Chemical Bulletin
Volume	12
Issue	Special Issue 8
Pages	1474-1481
Publisher	European Chemical Bulletin (ISSN 2063-5346)

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BREAST CANCER PREDICTION USING MODIFIED SUPPORT VECTOR MACHINE AND GREY WOLF OPTIMIZATION TECHNIQUE

Authors	Dr. R. Manicka Chezian Mr.K.Madhavan
Publication date	2023
Journal	European Chemical Bulletin
Volume	12
Issue	Special Issue 4
Pages	8788-8796
Publisher	European Chemical Bulletin (ISSN 2063-5346), doi: 10.48047/ecb/2023.12.si4.783

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A REVIEW ON SMART HEALTHCARE IN CYBER PHYSICAL SYSTEM

Authors	Dr R.ManickaChezian A. Kavitha
Publication date	2023
Journal	European Chemical Bulletin
Volume	12
Issue	Special Issue 8
Pages	3646-3662
Publisher	European Chemical Bulletin (ISSN 2063-5346)
Total citations	Cited by 2

2023

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Research Paper E-ISSN NO : 2455-295X | VOLUME : 9 | ISSUE : 6 | SPECIAL ISSUE JUNE-2023

NOVEL DEEP LEARNING APPROACHES FOR OPINION MINING WITH MACHINE LEARNING

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ABSTRACT:

The popularity of online marketplaces over the past several decades, online vendors and merchants now request feedback from their customers on the goods they have purchased. As a consequence, millions of evaluations are produced every day, which makes it challenging for a potential customer to decide whether to buy the goods or not. For product makers, it is challenging and time-consuming to analyse this massive volume of comments. The challenge of categorizing reviews accordingto their general semantic content (positive, negative, neutral) is examined. SVM and Nave Bayes, two different supervised machine learning approaches, have been tested on Amazon beauty goods to perform the study. Then, their accuracy levels were contrasted. The outcomes demonstrated that the SVM technique performs better than the Nave Bayes.

KEYWORDS:

INTRODUCTION

online marketplaces over the past several decades, online vendors and merchants now request feedback from their customers on the goods they have purchased. Every day, millions of evaluations are written about various goods, services, and locations online. Due of this, the Internet is now considered to be the most significant source for information about products and services. Peoplefrequently shop online at Amazon, one of the biggest e-commerce sites, where they may read hundreds of evaluations left by other consumers about the things they want to buy. These evaluations provide insightful thoughtsregarding a product, such as its features, quality, and suggestions, which aids buyers in understanding nearly all of its details. Customers gain from this, but it also benefits merchants who produce their own goods since it makes it easier for them to comprehend customers' wants.

2. SENTIMENT CLASSIFICATION AND ANALYSIS

Sentiment analysis, commonly referred to as opinion mining, is a challenge in natural language processing (NLP), which entails finding and extracting subjective data from text sources. The goal of sentiment classification is to categorise user evaluations that have been published as either positive or negative, so the system does not have to fully comprehend the semantics of each word or document.

Yet, it's not enough to just assign words a good or bad connotation. There are several difficulties present. It is not always effective to categorise words and sentences based on their preceding positive or negative polarity. For instance, the word "amazing" has a positive connotation by itself, but if it is used with a word of negation, such as "not," the context might radically shift

2.1 SENTIMENT CLASSIFICATION USING MACHINE LEARNING METHODS

By employing example data, machine learning seeks to create an algorithm that will improve the system's performance. There are two primary phases to the sentiment analysis solution that machine learning offers. The model must first "learn" from training data before it can be used to categorise unobserved data in the subsequent stage.

Different categories may be used to classify machine learning algorithms:

Learning that is either supervised, semi-supervised, or unsupervised.

In supervised learning, the algorithm learns from training data in a manner similar to a teacher monitoring their pupils' learning (Brownlee 2016). The supervisor is somehow instructing the algorithm as to what results it should produce. Data for both the required input and output are therefore given. Additionally, the training data must already be labelled.

Unsupervised learning is taught on unlabeled data with no matching output, as opposed to supervised learning. The underlying structure of the data collection should be discovered by the algorithm on its own. This implies that in order to decide the output without having the correct answers, it must find comparable patterns in the data. Clustering is one of the most crucial techniques for unsupervised learning issues. Semi-supervised learning, which combines the advantages of supervised and

Book Supporting Documents

Aruchamy Rajini

Artificial Intelligence

Authors	Mr. V. Veerakumaran Dr. Aruchamy Rajini
Publication date	2023
Publisher	Notion Press

Journal of the Maharaja Sayajirao University of Baroda
ISSN :0025-0422

A STUDY ON UVA AND UVB FILTERS WITH RELATED TO DERMATOLOGY RECOMMENDATIONS FOR EFFECTIVE GROWTH OF HUMAN LIFE

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Abstract
Skin cancer remains the most common cancer affecting States population, estimating at least 9,500 cases diagnosed per day. The National Cancer Institute predicts that approximately 99,780 new cases of melanoma will be diagnosed in 2023. Exposure of ultra violet radiation (UVR) to the skin is a major preventable risk factor. UVR, composed of UVA (320-400nm) and UVB (280-320nm) radiation, has damaging acute and chronic effects on the skin barrier, detrimentally associated with 90% of non-melanoma skin cancers (NMSCs) and 65% of malignant melanomas. With increasing incidences for all types of skin cancer, decreasing exposure to UVR, in the form of sunscreen application and photo protective clothing, is essential for protecting against potential skin cancer development
Keywords: Ultra-violet rays, Cosmetic Ingredient, Sunscreen, Photo-reactive, Dermatitis

Introduction
Sunscreens are a constantly evolving component of the dermatologist′s therapeutic armamentarium. This article attempts to compile some of the important aspects of sunscreens, including their classification, various indices related to photo protection, and some of the debatable issues related to sunscreens in general. The focus is on material which is current, while at the same time being relevant for the postgraduate. The primary use of sunscreens is to protect the skin from the short-term and long-term effects of ultraviolet radiation. In today′s scenario of procedure-centered dermatology, sunscreens have become an indispensable part of every patient′s post-procedure skin care routine.

Spectrum of UV radiation
The biologically active components of ultraviolet (UV) radiation include UVA and UVB radiation. The primary targets of UV radiation in the skin and their corresponding effects are given below

UVB (290-320 nm)
- Responsible for the most severe damage
- Direct impact on cell DNA and proteins
- Acute damage - sunburn
- Long-term damage - cancer

UVA (320-400 nm)
- Not directly absorbed by biological targets
- Penetrates deeper than UVB
- Affects connective tissue by producing reactive oxygen species; produces profound immune suppression
- Responsible for tanning, photo aging, photo carcinogenesis, exogenous photosensitization and many idiopathic photo dermatoses (including polymorphous light eruption)

Sea-level solar UV radiation is approximately 95-98% UVA and 2-5% UVB. UVC is completely absorbed by stratospheric ozone that also attenuates UVB. A given solar UVR spectrum varies with the solar zenith angle (the angle between an imaginary perpendicular line and a line from its base to the sun), which is dependent on time of day, season, and latitude. The highest UVB content is found when the sun is directly overhead with the shortest path (e.g., noon, at the equator, at high altitude).

Classification of Sunscreens
The last FDA sunscreen monograph was issued in 1999, with a list of 16 approved sunscreen agents. It recommends that sunscreens be classified as organic and inorganic, replacing the previously used terms "chemical" and "physical", respectively. There are three commonly used nomenclatures for

Journal of the Maharaja Sayajirao University of Baroda
ISSN :0025-0422

EFFECTIVE DEEP LEARNING ARCHITECTURES TO IMPROVE AGRICULTURAL PRODUCTION QUALITY

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Abstract: Agriculture, a powerful word that requires no definition, contributes the most profitable share of the Indian Economy. On a wider view, intensifying productivity requires very basic things like improving the quality and quantity of the productivity and dwindling the agricultural expenses. There are certain cases that affect productivity, among which the presence of weeds and pests in crop fields stands top. Traditional methods, such as manual removal of weeds and spraying of agrochemical products like herbicides, and pesticides have chances of harming the crops and also add to the expenses. Selective treatment against weeds and pests is a cost-effective method that reduces manpower and usage of the agrochemical, at the same time it requires an effective computer vision system to identify issues and should be smaller in size to run in the resource-constrained device. Machine learning-based activities for identifying weed portions and pest detections are tedious and time-consuming processes. This research work presents a method of effective segmentation in the agricultural field, to accomplish this; a convolution neural network is proposed named Reduced Residual U-Net Convolution (RRUNC) network. It is an encoder-decoder based architecture. This network employs semantic process to analyse the crop field images pixel-wise. In order to reduce the parameter size, the deep convolution technique is used which curtails the number of parameters generated by the model with a very negligible in the accuracy. The experimental findings show that the proposed deep learning-based RRUNC model outperformed well in terms of segmentation results with good accuracy and less error-rate.

Key words: Agriculture, Convolution, Pest, Residual, Weeds.

I.INTRODUCTION

The agricultural sector plays a crucial role in the economy and is considered to be one of the cornerstones of the economy of developing countries, especially India. Because food and raw materials are not the only things that agriculture provides: it also gives employment for a huge number of the population in India. According to the Indian Agriculture and Allied Industry report published in November 2021, about 58% of India’s population relies on agriculture as its primary source of income. A total of 17.8% of India's Gross Value Added (GVA) in FY20 came from agriculture and related sectors. Globally, India is ranked fifth in terms of production, consumption, export, and expected growth.

Traditional agricultural activities spend a lot of time and expenditure on their agricultural work due to the lack of use of technological advancements. To preserve their production from weeds, farmers utilized physical weeding and spraying of herbicides in the past. Manual weed removal increases expenditures and takes more time and effort, thus increasing labour costs. While spraying herbicides over agricultural land may spoil the soil, it also has the potential to turn plants deadly, posing a risk to human health. Farmers are losing interest in their agricultural labour as a result of this, and are leaving the industry. To address these difficulties and boost production with existing agricultural land, agricultural activities should utilize modern research and technology development. This research focuses on finding a more efficient strategy to deal with weeds and pests.

Weeds are the most important biotic constraint impacting agricultural production. Weeds are invasive plants. The presence of weeds in a crop field impairs the yield, quantity, and quality. It degrades the crop yield invisibly. The weeds absorb all the nutrients required by the crops from the

Journal of the Maharaja Sayajirao University of Baroda
ISSN :0025-0422

A NETWORK APPROACH FOR LOAD BALANCING AND PRIVACY PATH SELECTION IN WIRELESS COMMUNICATION

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Abstract: A Load Balancing in Privacy Path Selection (LBPPS) in wireless Network process for searching straight paths to transfer packets from source to destination through cluster head with the selected base station is implemented. This LBPPS method performs gateway mobility load balancing in the network order to achieve higher aggregated throughput among data transfer. The Load Balancing in Privacy Path Selection (LBPPS) detection scheme path grouping protocol examines every node in the network and monitors its neighbours' behaviour. Also, it detects any abnormal action of neighbours' to ascertain whether the node abnormally behaving is indeed malicious. As a result, the abnormal node is considered as a malicious node.

Key words: Load Balancing, Privacy, Preserving, Routing, Gateway.

INTRODUCTION:

Mechanism of Load Balancing in Privacy Path Selection (LBPPS) is a key component in traffic and refers to distributing traffic load more evenly in the network. Uneven load distribution is caused by varying user demands or uneven node distribution, where the latter may be a consequence of the unplanned and mobile nature of MANETs. Furthermore, specific network nodes are more vulnerable to become congested than others due to their location or assigned role. Nodes located in the centre of the network tend to be more congested than nodes in the periphery, either because most packets have to traverse these central nodes or contend with a higher number of neighboring nodes for the medium. Nodes having the role as *gateways* between network domains may be more congested since all inter-domain traffic has to traverse through them.

Avoiding congestion at such key nodes is critical in maintaining network connectivity and the services they provide. Figure 1.1 describes the Mechanism of Load Balancing in Privacy Path Selection process flow. Existing load balancing protocols adjust the routes dynamically to balance the traffic load based on current load distribution knowledge.(Broch et al. 1998) used multi-path routing to share the traffic equally to different nodes or path, which introduces much additional overhead. A novel approach (Hasanpour et al., 2017) is developed in targeting load balancing in ad hoc networks using quantum game theory's properties. The Quantum Load Balancing (QLB) algorithm proposed is implemented, and significant gain is stated about the QoS metrics such as delay and jitter.

REVIEW OF LITERATURE

Nodes in wireless sensor networks, which are difficult to replenish with limited energy consumption. If the energy consumption is fast, the unbalanced load will reduce the node lifetime and affect the network performance. Therefore, it is essential to study how to reduce sensor nodes' energy consumption and improve nodes energy use rate to prolong the network lifetime. Wang et al. (2020) proposed load balancing routing method for cluster head optimization in WSN. It helps to calculate an optimal number of clusters. CH selection uses unequal clustering algorithm for unbalanced nodes. The experimental results showed that the proposed algorithm when compared with LEACH and UCDP algorithm, will balance the loading and effectively extend the life cycle of wireless sensor network. The algorithm was divided into two stages: unequal clustering and establishing paths between clusters. In order to solve the problem of unbalanced, the nodes were formed as clusters. The study used tiny OS2 simulator. The simulation results showed that the method could save the sensor nodes energy consumption in a cluster. Wajgi and Thakur (2012) proposed a load balancing technique using the cluster to increase network scalability. The model

Journal of the Maharaja Sayajirao University of Baroda
ISSN :0025-0422

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Abstract: A Load Balancing in Privacy Path Selection (LBPPS) in wireless Network process for searching straight paths to transfer packets from source to destination through cluster head with the selected base station is implemented. This LBPPS method performs gateway mobility load balancing in the network order to achieve higher aggregated throughput among data transfer. The Load Balancing in Privacy Path Selection (LBPPS) detection scheme path grouping protocol examines every node in the network and monitors its neighbours' behaviour. Also, it detects any abnormal action of neighbours' to ascertain whether the node abnormally behaving is indeed malicious. As a result, the abnormal node is considered as a malicious node.

Key words: Load Balancing, Privacy, Preserving, Routing, Gateway.

INTRODUCTION:

Mechanism of Load Balancing in Privacy Path Selection (LBPPS) is a key component in traffic and refers to distributing traffic load more evenly in the network. Uneven load distribution is caused by varying user demands or uneven node distribution, where the latter may be a consequence of the unplanned and mobile nature of MANETs. Furthermore, specific network nodes are more vulnerable to become congested than others due to their location or assigned role. Nodes located in the centre of the network tend to be more congested than nodes in the periphery, either because most packets have to traverse these central nodes or contend with a higher number of neighboring nodes for the medium. Nodes having the role as *gateways* between network domains may be more congested since all inter-domain traffic has to traverse through them.

Avoiding congestion at such key nodes is critical in maintaining network connectivity and the services they provide. Figure 1.1 describes the Mechanism of Load Balancing in Privacy Path Selection process flow. Existing load balancing protocols adjust the routes dynamically to balance the traffic load based on current load distribution knowledge.(Broch et al. 1998) used multi-path routing to share the traffic equally to different nodes or path, which introduces much additional overhead. A novel approach (Hasanpour et al., 2017) is developed in targeting load balancing in ad hoc networks using quantum game theory's properties. The Quantum Load Balancing (QLB) algorithm proposed is implemented, and significant gain is stated about the QoS metrics such as delay and jitter.

REVIEW OF LITERATURE

Nodes in wireless sensor networks, which are difficult to replenish with limited energy consumption. If the energy consumption is fast, the unbalanced load will reduce the node lifetime and affect the network performance. Therefore, it is essential to study how to reduce sensor nodes' energy consumption and improve nodes energy use rate to prolong the network lifetime. Wang et al. (2020) proposed load balancing routing method for cluster head optimization in WSN. It helps to calculate an optimal number of clusters. CH selection uses unequal clustering algorithm for unbalanced nodes. The experimental results showed that the proposed algorithm when compared with LEACH and UCDP algorithm, will balance the loading and effectively extend the life cycle of wireless sensor network. The algorithm was divided into two stages: unequal clustering and establishing paths between clusters. In order to solve the problem of unbalanced, the nodes were formed as clusters. The study used tiny OS2 simulator. The simulation results showed that the method could save the sensor nodes energy consumption in a cluster. Wajgi and Thakur (2012) proposed a load balancing technique using the cluster to increase network scalability. The model

Journal of the Maharaja Sayajirao University of Baroda
ISSN :0025-0422

EFFECTIVE DEEP LEARNING ARCHITECTURES TO IMPROVE AGRICULTURAL PRODUCTION QUALITY

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Abstract: Agriculture, a powerful word that requires no definition, contributes the most profitable share of the Indian Economy. On a wider view, intensifying productivity requires very basic things like improving the quality and quantity of the productivity and dwindling the agricultural expenses. There are certain cases that affect productivity, among which the presence of weeds and pests in crop fields stands top. Traditional methods, such as manual removal of weeds and spraying of agrochemical products like herbicides, and pesticides have chances of harming the crops and also add to the expenses. Selective treatment against weeds and pests is a cost-effective method that reduces manpower and usage of the agrochemical, at the same time it requires an effective computer vision system to identify issues and should be smaller in size to run in the resource-constrained device. Machine learning-based activities for identifying weed portions and pest detections are tedious and time-consuming processes. This research work presents a method of effective segmentation in the agricultural field, to accomplish this; a convolution neural network is proposed named Reduced Residual U-Net Convolution (RRUNC) network. It is an encoder-decoder based architecture. This network employs semantic process to analyse the crop field images pixel-wise. In order to reduce the parameter size, the deep convolution technique is used which curtails the number of parameters generated by the model with a very negligible in the accuracy. The experimental findings show that the proposed deep learning-based RRUNC model outperformed well in terms of segmentation results with good accuracy and less error-rate.

Key words: Agriculture, Convolution, Pest, Residual, Weeds.

I.INTRODUCTION

The agricultural sector plays a crucial role in the economy and is considered to be one of the cornerstones of the economy of developing countries, especially India. Because food and raw materials are not the only things that agriculture provides: it also gives employment for a huge number of the population in India. According to the Indian Agriculture and Allied Industry report published in November 2021, about 58% of India’s population relies on agriculture as its primary source of income. A total of 17.8% of India's Gross Value Added (GVA) in FY20 came from agriculture and related sectors. Globally, India is ranked fifth in terms of production, consumption, export, and expected growth.

Traditional agricultural activities spend a lot of time and expenditure on their agricultural work due to the lack of use of technological advancements. To preserve their production from weeds, farmers utilized physical weeding and spraying of herbicides in the past. Manual weed removal increases expenditures and takes more time and effort, thus increasing labour costs. While spraying herbicides over agricultural land may spoil the soil, it also has the potential to turn plants deadly, posing a risk to human health. Farmers are losing interest in their agricultural labour as a result of this, and are leaving the industry. To address these difficulties and boost production with existing agricultural land, agricultural activities should utilize modern research and technology development. This research focuses on finding a more efficient strategy to deal with weeds and pests.

Weeds are the most important biotic constraint impacting agricultural production. Weeds are invasive plants. The presence of weeds in a crop field impairs the yield, quantity, and quality. It degrades the crop yield invisibly. The weeds absorb all the nutrients required by the crops from the

Journal of the Maharaja Sayajirao University of Baroda
ISSN :0025-0422

PERFORMANCE ANALYSIS OF TRADITIONAL DEEP LEARNING-BASED MODEL: RF-DCNN CLASSIFIER WITH CCNN

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Abstract
Data mining is essential in the healthcare industry. In this study, we created predictive ensemble models that are well-suited for multiclass dermatitis by combining several basic and weighted rules. The results obtained in this research were contrasted with other information from previous studies to showcase the efficacy of our method. We conducted numerous technical studies utilizing the identical data but different classification methods to evaluate the effectiveness of the suggested skin classification treatment, and subsequently established a multi-model ensemble approach to assess its efficiency. Following this, we employ a multi-model ensemble method to merge the two data mining techniques in order to achieve a maximum accuracy.
Keywords: Accuracy, Dermoscopy, Texture, Classifier, Conventional.

Introduction
The skin is the primary component of the human body. The skin protects the body from UV rays, diseases, injuries, temperature, and harmful radiation, while also assisting in the production of vitamin D3. Since the skin plays a crucial role in regulating body temperature and defending against skin issues, it's essential to maintain its health. Skin conditions may seem benign, but they can pose a threat if not managed correctly. Numerous illnesses exhibit initial symptoms that are often similar, posing a challenge in early diagnosis. Skin disorders can lead to psychological issues as well as physical problems, especially for individuals with facial scarring or deformities. Skin can be affected by a variety of external and internal factors. Some of the factors that impact skin disorders include artificial skin damage, harsh chemicals, challenging illnesses, an individual's immune system, and genetic abnormalities. Skin conditions greatly impact individuals' overall well-being. Treating skin conditions is particularly difficult in the field of science due to the complexities involved in managing symptoms and their variability in different circumstances. Skin conditions are common among various ailments, and using inappropriate treatments for those conditions can lead to adverse consequences. People often contract skin diseases that require prompt treatment.

Literature Review
Imaging Techniques for Skin Lesion
Multiple imaging methods have been identified for examining skin lesions. Photography is the simplest perception method, providing an image of the skin's outer layer. The next phase involves using a polarized light camera in dermoscopy techniques, which reduces surface reflections and highlights the image of the epidermis, the second skin layer. Because of this, it is simpler to predict the formations of lesions like dots, globules, and networks, which are the primary signs of diagnosing skin lesions. Dermoscopy is a technique that enhances the link between medical science and specific visual traits, creating a new form of imaging called epiluminescence microscopy (ELM). This approach has provided a new way to explore pigmented skin lesions through clinical examination of morphological markers. Additionally, ultrasound can visually perceive the lesion, providing another method of diagnosis. Ultrasound imaging is commonly employed to measure the depth of skin lesions, and if there are no differences from healthy skin, then both regions will appear identical. At this stage, the expert examines lesions and employs high-frequency ultrasound (over 30 MHz) to assess how deeply they have infiltrated in order to ensure precise incision and proper surgical approach. On the other hand, optical coherence tomography (OCT) and confocal laser scanning microscopy (CLSM) are also available modalities. Examining with the naked eye has limited sensitivity in detecting early abnormalities such as a lesion. In this specific situation, several non-invasive techniques for examining skin lesions like dermoscopy are utilized. The focus is on

Journal of the Maharaja Sayajirao University of Baroda
ISSN :0025-0422

A STUDY ON ENHANCED RF-DCNN CLASSIFIER BASED ON CNN

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Abstract
Ensemble classifications are the most significant techniques in the field of ML and choosing the suitable classifier is a challenging task. As a result, the primary goal of this thesis is to identify the appropriate classifier for competitive among various classifiers. This proposed algorithm helps to identify suitable combinations of methods which provide better classification output in terms of accuracy for different classifications of skincare problems using Dermatology publicly accessible dataset ISIC2019 images. Moreover, exploring different combination methods provides better classification out comes on Dermatology datasets and is able to categorize skin disorders.

Keywords:
Skincare, Dermatology, Scaling, Lesion, Detection

Introduction

To solve the skin lesion localization problem by approximating the correct boundaries of it. The approaches used for boundary detection are divided into three parts as manual, semi-automated, and automated approaches to image segmentation. The adopted approach in this thesis is based on self-learning model of neural network. This approach mimics the behavior of visual cortex to perceive the localized object as a lesion. The procedure is based on automated delineation of lesion boundaries for all class skin lesions. The proposed approach performs the activity in minimum computation time with improved accuracy.

To extract features from the skin lesion images which give the clinically relevant information. This information is useful for the understanding of dermatologists and helps to interpret the abnormalities in skin lesion images. However, the clinical inspired system is difficult to implement, but the approaches discussed in the thesis characterize the clinical attributes of the lesion in image space.

To perform the categorical recognition of all ten classes of skin lesions, more vibrant feature descriptors are required. Therefore, there is a need for a competent approach that can empirically improve the feature extraction process for skin lesion recognition in a diagnostic system of dermatology. The robust approach is able to recognize multi-class samples of skin lesions.

Lesion Segmentation

This is a difficult task that literature has carefully researched. The wide range of lesion shapes, sizes, and colors, as well as various skin types and textures, make it crucial to develop an accurate segmentation technique. A lesion border approximation is a needed step for proper extraction of features and consequently describe the characterization of lesions. To avoid miss-classification, there is a demand of appropriate segmentation approach, due to this, these approaches is categorized into manual, semi-automated and automated for a variety of CAD systems used for skin lesion diagnosis.

The change in human opinion about lesions boundary tracing equally promotes for automated approach related to lesion border approximation using segmentation. Dermatologists have reportedly used higher-level knowledge to estimate the lesion border, resulting in the average reproducibility of segmentation results. However, Silletti et al. argued that the state-of-the-art related to automatic segmentation approaches, with the exception of the Fuzzy C-Means (FCM), were poorly performed in comparison with expert dermatologists. The complexity can be attributed, along with many other things such as low contrasts, damage to surrounding skin, blurred boundaries, the existence of artifacts and irregular structures characterizing the skin lesion images. Readers can refer to the pre-processing techniques in the above section for enhancing image contrast and removing other artefacts typically found in global and local image processing in microscopic images. A part of literature, suggested that the tumor areas manually extracted by dermatologists have been found to be inconsistency, sometimes

Journal of the Maharaja Sayajirao University of Baroda
ISSN :0025-0422

VARIOUS METHODS AND POSSIBILITIES OF MEDICAL DIAGNOSTIC CRITERIA IN DERMATOLOGY SECTION

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Abstract
Healthcare systems provide personalized services in wide spread domains to help patients in fitting themselves into their normal activities of life. Skin disease is one of the most important serious challenges in the medical field. Since most of the time is wasted in diagnosing the disease. Classification is one of the most important decision-making techniques in many real-world problems. The main objective is to classify the data as skin lesions or healthy skin layers and improve the classification accuracy. Machine learning and deep learning for diagnosis of skin disease, is about learning structures from the skin disease dataset which is provided. Machine learning in recent years have been the evolving, reliable and supporting tool in medical domain.

Keywords:
Diagnosis, Processing, Sensory, Classifier, Disease.

Introduction

This research is focused on the prediction of several common skin disease types of patients based on their personal and clinical information using machine learning classifiers. In this chapter, summarization of the works proposed by various researches in the past decade is done. It is useful to identify the limitations in the works which are proposed in the area of skin disease diagnosis-based machine learning classifiers. The problem in diagnosis of skin disease is a dynamic area in the research field.

During the years, there are several studies has been done on skin disease classification using image processing and machine learning techniques. Before conducting this study a survey was carried to gather the available data on skin disease diagnosis using a machine learning approach. The data were summarized in three categories, that is multi-class, binary and other types of classification studies; to know the current scenario of the technology usage in skin disease diagnosis. This chapter reviews certain aspects of skin lesion having medical orientation. It also provides general information about skin structure and skin abnormalities associated with dermatology, along with some more information about the diagnostic methods used by medical experts. This review not only presents the important work done and published, but also plans to provide general details and ideas on skin lesion issues and attempts to elaborate its medical viewpoints. The limitations of these studies were listed at the end along with the solutions to overcome the same.

Anatomy of Skin

Skin is the longest organ in the human body and provides a cover around the body. It protects from heat, sunshine, injury and infection. Skin also helps to manage the warmth of the body and consists of water, fat, vitamins and minerals of various types. As shown in Figure 2.1, there are two main types of human skin. One is non-hairy (smooth) skin found on the palms and soles, it can be found on the surface as the ridges and sulci, with distinctive patterns for each of them commonly called as dermatoglyphics. It is distinguished by a thick epidermis, which divides them into multiple well-marked layers, as well as a compact stratum corneum, the existence of embodied sensory organs in the dermis, and the lack of hair follicles and sebaceous glands. The second type is hair-bearing skin, made up of hair follicles and sebaceous glands, but lack of encapsulated sensory organs. In addition to this, skin types also differ widely between different types of body.

Journal of the Maharaja Sayajirao University of Baroda
ISSN :0025-0422

PERFORMANCE ANALYSIS OF CLASSICAL CNN BASED MODEL VERSUS RF-DCNN CLASSIFIER MODEL

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Abstract
The most important element of the human body is the skin. The skin preserves the body from UV rays, illnesses, wounds, temperature, and damaging radiation, as well as aiding in vitamin D3. Because the skin is so vital in managing core temperature and protecting the body from skin disorders, it's important to keep it healthy. Skin disorders may appear harmless, yet they can be dangerous if not treated properly. Many diseases have early symptoms, but most of them are identical, making it difficult to diagnose the condition at an initial point. Skin disorders cause not only physical but also psychiatric disorders, particularly in individuals whose faces have been scarred or deformed. Skin can be influenced by a range of external and internal factors.

Keywords:
Classification, Mining, Computational, Machine Learning and Deep Learning

Introduction
Artificial skin injury, severe chemical causes, adversity illnesses, a person's immunity, and genetic anomalies are some of the factors that influence skin disorders. Skin diseases have a big influence on people's lives including well. Dermatological illnesses are the most challenging subfields of science to cure because of the complications in treating symptoms and how symptoms alter in various situations. Skin diseases are frequent among many illnesses, and if these tactics are not fit for that form of skin condition, it will cause negative effects. People are frequently infected by skin illnesses, which must be treated as soon as possible.

Problem Statement
This research work addresses the problem of abnormalities detection in skin lesion images. It endeavors to develop efficient and robust approaches for the non-invasive detection of anomalies. The main indications of structured and unstructured skincare data using Ensemble Machine Learning (ML) and Deep Learning (DL) techniques are discussed for skincare Data Analysis. These approaches follow a framework of image processing with the following phases as pre-processing, segmentation, feature extraction, and classification of skin lesion images.

Challenges in skin lesion analysis
Empirical examinations illustrate that people having no medical guidance and no exact education about dermatology are able to group the images of a skin lesion into consistent classes or sub-classes. This sign advocates that some inherent visual features which can serve as guidance in the task of classification. The machine learning approaches can be used to extract these features from the visual classes using image processing and finally establish an automated system.

Challenges for early detection of skin lesions
Existence of blood vessels on a stretch of skin can be easily recognized by a viewer. But as long as there is variability in its pattern and the presence of “discontinuities” (e.g. visible patterns of skin and hairy region), it is difficult to detect them by computer vision approach in automated systems.
Diagnostic criteria like as the ABCD rule does not reflect any knowledge of medical system used by dermatologists during the diagnosis.
An important issue for lay people is the visual system design, and human perception to perceive skin lesion. The difficulties arise in identifying the multiple-color shades of each lesion. For, discriminating the color shades, human inspired visual models are adopted. This phenomenon identically happens in

Multimedia Tools and Applications
https://doi.org/10.1007/s11042-023-16255-3

Bootstrapping of fine-tuned segmentation and classification network for epidermis disorder categorization

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Received: 5 April 2022 / Revised: 19 May 2023 / Accepted: 4 July 2023
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Abstract
As all people have been affected by various skin related illnesses, categorization of skin disorders has become prominent in recent healthcare system. To identify and categorize skin related syndromes, many transfer learning frameworks were used. Amongst, a Fine-tuned Segmentation and Classification Network (F-SegClassNet) achieved better efficacy by using the novel unified loss function. Nonetheless, it was not apt for the datasets that lack in training images. Hence in this article, Bootstrapping of F-SegClassNet (BF-SegClassNet) model is proposed which solves the imbalanced images in the training set via generating the group of pseudo balanced training batches relying on the properties of the considered skin image dataset. This model fits the distinct abilities of Deep Convolutional Neural Network (DCNN) classifier so that it is highly useful for classifying the skin disorder image dataset with a highly imbalanced image data distribution. According to the Bootstrpping, better tradeoff between simple and complex image samples is realized to make a network model that is suitable for automatic skin disorders classification. In this model, statistics across the complete training set is calculated and a new subset is produced that retains the most essential image samples. So, the skin images are segmented and categorized by this new model to identify the varieties of epidermis infections. At last, the testing outcomes exhibits BF-SegClassNet-model accomplishes the mean accuracy with 96.14% for HAM dataset which is compared to state-of-the-art models.

Keywords Epidermis infection · Deep transfer learning · F-SegClassNet · Imbalanced data · DCNN · Bootstrapping

1 Introduction

Because of the implications in dealing with illnesses and the discrepancies in varying treatments, epidermis or dermatological illnesses are perhaps the vastest and varied sub-fields of medications. Epidermis infections are known amongst many other illnesses, especially

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LUNGS SEGMENTATION AND CLASSIFICATION USING MACHINE LEARNING IN CHEST X-RAY IMAGES

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Abstract:
The identification and prediction of lung illnesses are increasingly vital and difficult. Image processing and machine learning techniques approaches are frequently used to detect early-stage of lung disease. Healthcare providers are still facing challenges in detecting cancer. The true origin of cancer and the complete treatment process remains a mystery.To identify the regions of the lungs affected by cancer, various image processing techniques are utilized. These techniques involve reducing noise, extracting features, detecting damaged regions, and comparing patient's medical history of lung cancer data. This research applies image processing and machine learning techniques to demonstrate accurate detection and prediction of lung cancer. The dataset of X-ray images used in the study was sourced from UCI repositories. To enhance the quality of the images, a local binary fitting mean filter was utilized during the image preprocessing stage. The K-means method was then applied to segment the images. This segmentation enabled the identification of the lung portion within the images. The data was classified using different machine learning algorithms, including RF, ANN, SVM and NB. The results revealed that the ANN model had the most accurate prediction of lung cancer. The main objective of the study is to segment the lungs portion and detect lung cancer with image processing and machine learning approaches.

Keyword: Machine Learning, Lung Cancer, Median Filter, Segmentation, Chest x-ray images, Image processing

Introduction

Lung cancer, which is among the deadliest types of disease, causes approximately one million deaths every year. In the current state of medicine, it is essential to perform lung nodule detection on chest X-ray images. This is because lung nodules are becoming increasingly common and are the leading cause of this disease [1]. The images are transmitted into a computer, which then manipulates them to create a cross-sectional image of the body's internal organs and tissues [2].The American Cancer Society assesses that a patient's likelihood of surviving lung cancer is 47%, if it is discovered at an early stage. It is extremely improbable that lung cancer in its early stages will be accidently discovered on an X-ray image [6]. Lesions with a diameter of 510 millimeters or less that are spherical are notoriously difficult to find. Figure 1 displays an X-ray image of a normal and lung cancer.

In [3] developed a CAD approach with two experiments. In the first case, 300 X-ray images were used for computer simulation, while in the second, 888 X-ray images were used for patient-based ground truth. The method was developed using the LIDC-IDRI dataset, and images with wall thickness larger than 2.5mm were removed. The simulated pictures lung region was randomly implanted with spherical nodules of varied sizes. A 10-fold cross-validation method was used to analyze network hyper-parameterization and generalization in order to evaluate the CAD technique. The detection sensitivities were assessed in relation to the average number of false positives per image. By evaluating the mean and standard error between predicted and actual values, localization and diameter estimates accuracy was evaluated. Results regularly exhibited superior detection accuracy.

Journal of the Maharaja Sayajirao University of Baroda
ISSN :0025-0422

PERFORMANCE ANALYSIS OF MACHINE LEARNING CLASSIFICATION TECHNIQUES TO PREDICT LUNG DISEASES

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Abstract: Lung disease is the third most disease in the world. Disease progression and response to treatment in lung diseases vary widely among patients. Accurate diagnosis is crucial in treatment selection and planning for each lung cancer patient. In detection of lung cancer, image processing algorithms have demonstrated superior performance. This study explains various classification approaches that are used to forecast lung cancer in its early stages. The classification of lung tumors as malignant or benign is performed using machine learning algorithms. Machine learning methods involve as: Support vector machine (SVM), Artificial neural network (ANN), Convolutional neural network (CNN), K-Nearest Neighbor (KNN), Multi-Layer Perceptron (MLP), Entropy degradation method (EDM) and Random Forest (RF) are extensively reviewed, and the performance of each is examined for accuracy, sensitivity, and specificity. In this analysis, SVM approach utilizing a short dataset gets the greatest results of 97% accuracy, whereas KNN gets the lowest accuracy 77.8%.

Key words: Lung cancer, ANN, benign, cancer, malignant, CNN, EDM, KNN, MLP

INTRODUCTION

Lung diseases remain the most burdensome manifestation of cancer in almost all countries. High mortality rates from lung diseases have a significant negative impact on the entire world's population. Researchers put forth CAD techniques that can be used to classify issues at an early stage in computed tomography (CT) images [1]. The majority of tests and treatments can be completed fairly quickly, although it could take days or even months, which is normal. Such a delay could lead to major issues for both patients and medical professionals, which would have a negative impact on the survival rate. Therefore, the diagnosis to treatment procedure should be completed extremely quickly in order to improve the patient's condition. The advancement of machine learning techniques has made early lung cancer prediction possible [2]. Some machine learning algorithms for predicting lung cancer are explored in this paper. Neural network is an effective tool for building an assistive Artificial Intelligence (AI) based cancer detection system which plays a major role in the classification of the cancer cells as normal or abnormal. An effective cancer treatment can be seen only when the tumor cells are identified from the normal cells. The machine learning based cancer diagnosis [3] mainly focuses on the classification of the tumor cells and training of the neural network which is very important in lung cancer research[4].This paper discusses different lung cancer classification algorithms such as CNN, SVM, ANN, MLP, KNN, ED, RF and their performances are evaluated.

RELATEDWORKS

Main contributions of some of the researchers who tried to develop a lung cancer prediction system analyzed using different classification algorithms are summarized below.

Sasikala et al. [5] proposed a convolutional neural network (CNN) based approach for classification of lung cancer tumors as benign and malignant. This system is trained by inputting the lung cancer tissue images of variant shape and size. CNN obtained high accuracy of 96% when compared with other conventional neural network systems which makes this method more efficient. In order to detect the cancer types of different size and shape, CNN will use large datasets for training in the forthcoming years. This paper concludes by suggesting a 3DCNN method that can be used for improving the performance of the system and also by improving the hidden neurons with deep network.

DEVELOPMENT OF CROP YIELD PREDICTION MODEL IN AGRICULTURE USING IMPROVED EXTREME LEARNING MACHINE

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Article History: Received: 11.05.2023 **Revised:** 26.06.2023 **Accepted:** 24.07.2023

Abstract

The finest utility sector is agriculture, particularly in emerging nations like India. Utilizing historical data in agriculture may change the context of decision-making and increase farmer productivity. Approximately a part of India's population is employed in agriculture, however this sector contributes just 14% of India's GDP. This may be explained in part by farmers not making sufficient decisions on yield forecast. Increased agricultural yield is the outcome of accurate crop forecast. With this goal in mind, this work proposes the Improved Extreme Learning Machine (IELM) approach, which aims to forecast the best-yielding crop for a specific region by analyzing a variety of atmospheric factors, such as rainfall, temperature, humidity, etc., and land factors, such as soil pH and soil type, as well as historical data on crops grown. In this study, feature selection strategies are used to forecast crops using classification algorithms that recommend the best crop(s) for a given plot of land. After pre-processing the data to eliminate any undesirable information like NULL and other entries, this system is meant to forecast the best yield based on the dataset it has been given. Weak characteristics are eliminated using the Recursive Feature Elimination (RFE) feature selection approach until the necessary attributes are fulfilled. The IELM classifier beats the other learning strategies, according on the experimental findings.

Keywords – Agriculture, crop yield prediction, Improved Extreme Learning Machine, rainfall, temperature, humidity, land factors, feature selection and Recursive Feature Elimination

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DOI: 10.31838/ecb/2023.12.6.231

Tuijin Jishu/Journal of Propulsion Technology
ISSN: 1001-4055
Vol. 44 No. 3 (2023)

An EWOA-WTDCNN Model: Effective Whale Optimization Algorithm Incorporating with Weight-Tuned Deep Convolutional Neural Network for Forecasting Indian Crop Yielding Process

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Abstract: Field-level crop yield prediction (CYP) is essential for quantitative and economic analysis when developing agricultural commodity plans for import-export strategies and raising farmer incomes. Crop breeding has traditionally been a time- and money-intensive process. To predict increased agricultural output, CYP was developed. This research suggests effective dimensionality reduction (DR) and deep learning (DL) techniques for CYP for Indian regional crops. The three phases of this paper were preprocessing DR and classification. The dataset is first used to gather information about South Indian agriculture. Data cleaning and normalization are then applied as preprocessing to the gathered dataset. Squashed exponential kernel-based principal component analysis (SEKPCA) is then used to perform the DR. CYP, which forecasts the high crop yield profit, is built on a weight-tuned deep convolutional neural network (WTDCNN) with an Effective Whale Optimisation Algorithm (EWOA). According to the simulation results, the suggested strategy achieves greater performance for CYP compared to existing methods with enhanced accuracy.

Keywords: Crop Yield Prediction, Deep Learning, Effective Whale Optimization Algorithm, squared exponential kernel-based principal component analysis

1. Introduction

People in the past were skilled at predicting weather conditions, and they chose their crops and had a chance to predict the yield before the harvest season based on the weather and monsoon of that particular year[1]. The practice of agriculture and the dissemination of its knowledge have considerably decreased over time. The farmers also turned their attention to automated systems and machinery[2]. Because agriculture can only be practiced with learning and knowledge, an automated system based on AI can be put into place in this situation[3]. In AI, this is possible using the deep learning methodology, which uses the neural network concept to simulate the workings of the human brain [4]. Researchers frequently use Deep Learning techniques to estimate agricultural yields based on the aforementioned variables[5]. The structure of this paper is organized as follows.

Journal of **N**onlinear **A**nalysis and **O**ptimization
Vol. 15, Issue. 1, No.4 : 2024
ISSN : **1906-9685**

ENSEMBLE RANDOM FOREST WITH LSTM NEURAL NETWORK (ERF-LSTM) METHOD FOR CLASSIFICATION OF TWITTER SENTIMENT ANALYSIS

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Abstract - This study presents a novel approach for stock classification by harnessing the power of Yahoo Finance stocks data and Twitter data. We employ a fusion of the Random Forest Classifier and LSTM Neural Network to create an ensemble model capable of enhancing stock classification accuracy. Structured financial data from Yahoo Finance provides a solid foundation, while Twitter data contributes real-time sentiment insights. Weighted averaging optimizes the ensemble's performance by assigning different weights based on historical model accuracy. This approach empowers traders and investors with more reliable and timely stock classifications, facilitating informed decision-making in the ever-evolving world of stock trading.
Keywords: Stock Classification, Yahoo Finance, Twitter Data, Random Forest Classifier, LSTM Neural Network, Ensemble Model;

1. Introduction

In the age of information, financial markets are not only driven by traditional data sources but are also significantly influenced by the vast and dynamic landscape of social media. Among the plethora of social media platforms, Twitter has emerged as a prominent source of real-time financial information and sentiment. Traders, investors, and financial analysts actively engage with Twitter to gain insights into market trends, news, and public sentiment regarding various stocks. This intersection of finance and social media has paved the way for innovative research endeavors, one of which involves harnessing Yahoo Finance stocks' Twitter data for classification and analysis. Yahoo Finance, a renowned platform for real-time financial data and news, provides a rich source of structured data related to stocks, including historical prices, financial statements, and market news. Complementing this, Twitter serves as a treasure trove of unstructured data, filled with discussions, opinions, and news regarding stocks. Integrating these two data sources allows for a holistic understanding of the financial market's pulse, and this fusion has garnered significant attention from researchers, data scientists, and financial professionals alike.

This research embarks on a journey to explore the immense potential that Yahoo Finance stocks' Twitter data offers for classification tasks. The central objective is to leverage this data fusion to enhance research understanding of stock market dynamics and investor sentiment. To achieve this, the study employs a multifaceted approach, encompassing heuristic-based and supervised classifiers, as well as cutting-edge deep learning techniques such as recurrent neural networks (RNNs) specifically Long Short-Term Memory (LSTM) networks. The primary motivation behind this research is the recognition of the inherent complexity and nuances present in Twitter data. Unlike traditional financial data sources, Twitter is characterized by its brevity, informality, and the use of hashtag, mentions, and emojis, which can make sentiment analysis and classification a challenging endeavor. Moreover, Twitter is prone to the emergence of homonyms and collisions, where the same symbol or acronym is used to refer to both company tickers and cryptocurrencies. This ambiguity can lead to significant data distortion and misclassification if not properly addressed.

Tuijin Jishu/Journal of Propulsion Technology
ISSN: 1001-4055
Vol. 44 No. 4 (2023)

Twitter Data Feature Selection Using Enhanced Genetic Algorithm

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Abstract

Feature selection is a basic critical task in sentiment analysis, especially while analyzing Twitter data for stock market sentiment. This paper proposes an enhanced genetic algorithm (GA) for feature selection utilizing Finance Yahoo stocks data and openly accessible Twitter data. The objective is to distinguish the most relevant features that can successfully anticipate stock market sentiment. The proposed GA integrates methods to enhance the investigation and double-dealing capacities, empowering it to look through a bigger feature space and work on the nature of chosen features. The algorithm starts by introducing a populace of random binary chromosomes, with every chromosome addressing a feature subset. Wellness assessment is performed utilizing sentiment analysis strategies to survey the prescient force of each feature subset. Trial assessment utilizing Finance Yahoo stocks and Twitter data shows that the enhanced GA beats customary GA and PSO strategies concerning exactness and forecast performance. The proposed approach gives important experiences to sentiment analysis and feature selection with regards to stock market sentiment utilizing Twitter data.

Keywords: *Sentiment analysis, Twitter, Feature selection, Genetic algorithm, Chi Square;*

I. Introduction

The widespread adoption of social networking platforms like Facebook, Twitter, Google, and similar platforms has reshaped the internet, turning it from a static repository into a dynamic arena where information is in constant flux. Within this dynamic online landscape, sentiment analysis plays a pivotal role in assessing public sentiment and enhancing user interfaces (UI). Amidst the myriad of available platforms, Twitter stands out as one of the largest social networks, boasting a user base of 326 million active users worldwide and generating a staggering 500 million tweets on a daily basis. The Twitter Dataset is widely acknowledged as a valuable resource for sentiment analysis due to its simplicity and easy accessibility. By employing a variety of machine learning techniques, sentiment analysis categorizes the emotions conveyed in tweet messages as positive, negative, or neutral.

Machine learning is a method that empowers computers to gain knowledge and make predictions within a given context. Among the numerous machine learning algorithms available, Naïve Bayes is renowned for its effectiveness and extensive use, particularly in classification tasks. The Chi-square algorithm, crafted for feature selection, can be smoothly incorporated with Naïve Bayes. This integration elevates the accuracy and efficiency of classification, surpassing the constraints of prior approaches and delivering an optimal solution for Twitter sentiment analysis.

Twitter, a widely recognized micro-blogging platform, serves as a digital arena where users communicate through concise status messages referred to as tweets. These tweets provide users with a means to convey their personal emotions, share viewpoints, and often incorporate elements such as hashtags, emoticons, or regular words to engage in discussions about various subjects, including events, movies, products, or celebrities. Sentiment Analysis (SA) frequently revolves around the task of categorizing these messages into

Twitter Sentiment Analysis For Feature Extraction Using Support Vector Machine (SVM) With TF-IDF

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Abstract - The goal of this research is to perform sentiment analysis on Twitter data by extracting relevant features using the Hybrid Support Vector Machine (SVM) with TF-IDF (term frequency-inverse document frequency) weighting scheme. Sentiment analysis involves analyzing the emotional tone of a piece of text, and in this case, is specifically interested in classifying tweets as positive, negative, or neutral. To achieve this, using a yahoo stock market dataset of tweets using the Twitter API and preprocess the data by removing stop words, special characters, and URLs. Proposed the SVM-TF-IDF to extract features from the preprocessed tweets calculates the importance of each word in a tweet by taking into account both its frequency within the tweet and its rarity across the entire stock dataset. The research aims to demonstrate the effectiveness of the SVM-TF-IDF for feature extraction in sentiment analysis tasks and to provide insights into the sentiment trends and patterns present in Twitter data.

Keywords: Stock Market, Machine learning technique, Twitter, Sentiment analysis, Feature extraction, Tweet annotation.

1. Introduction

The age of the web has had an impact on the manner in which people express their ideas. The social networking websites depend largely on the user-generated content. Typically, when people intend to purchase a product, they browse through a lot of websites to gain some information about the products before they make their purchase. They take into consideration the available reviews and ratings of these products on these websites before making purchases. The amount of data is inordinate for an ordinary individual to dissect it utilizing naive techniques. Hence, to make this interaction effective and to robotize it, a few opinion examination procedures are utilized. Symbolic techniques or knowledge based approach and machine learning procedures are commonly used to foster such models. In knowledge-based approach, research requires a comprehensive data set that contains pre-characterized feeling data and an efficient knowledge representation for identifying sentiments. Machine learning approach utilizes training informational index to recognize the feelings of each word accurately. Thus, this technique does not require the database of words like knowledge-based approach and therefore, is better. Using a mixture of both this techniques, predominantly machine learning technique; build a hybrid model which will be capable of analyzing sentiments of almost any text. A detailed overview of various techniques is discussed in this paper.

The Yahoo stock market dataset of tweets obtained through the Twitter API is a collection of text data that contains information about the sentiment of Twitter users towards Yahoo's stock prices. The dataset includes tweets that were posted during a specific period of time and contain keywords related to Yahoo's stock market performance. Preprocessing of this dataset is an important step in preparing the data for analysis. The preprocessing stage involves cleaning and transforming the data to remove any noise and make it suitable for further analysis. Some of the preprocessing steps that can be applied to this dataset include text cleaning, which involves removing stop words, punctuation marks, and other irrelevant characters. Tokenization is another important preprocessing step, which involves breaking the text data into individual words or tokens.

Twitter Sentiment Analysis

Due to increase in contents over social media such as Twitter, Facebook, and Trip advisor, express opinion about products, services, or any government policy among others. Twitter having 336 million1 active users monthly is now a main source of feedback for government, private organization, and other service providers. On Twitter around 500 millions tweets are produced per day2, generating huge measure of unstructured text information. Sentiment analysis (opinion Mining) is utilized to retrieve the knowledge data from the tweets posted by clients. Twitter sentiment is used to classify the tweets into neutral, positive, or negative. Many researchers have presented classification methods in sentiment analysis

With the advent of social media platforms, in the last 15–20 years, their popularity and the number of active users on these platforms are only increasing. And rightly so, after-all they provide efficient means to connect to family, friends, people care about, mentors, recruiters and everyone else on the platform, with access to internet. Now its noticeable phenomenon that when two or more people get together scope for crisis to arise. And here are talking about millions,

A Novel Hybrid Approach for Twitter Sentiment Analysis in Machine Learning

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Abstract- **Sentiment analysis on social media platforms, like Twitter, assumes a vital part in figuring out open emotions and opinions. In this paper, we propose a clever half-and-half methodology called Deep Learning with Linguistic Knowledge (DLLK) for Twitter sentiment analysis. The proposed system consolidates the qualities of deep learning, move learning, and feature engineering. Our methodology includes sentiment-explicit preprocessing to hold emoticons, emojis, and shoptalk, a sentiment-explicit word inserting model, and move learning utilizing pre-prepared sentiment analysis models on related social media data. Additionally, we integrate emotion-explicit lexicons and sentiment design mining to improve tweet representations. The ensemble of deep learning models, lexicon-based classifiers, and sentiment-explicit features empowers a more nuanced and exact sentiment analysis. Experimental results demonstrate the viability of the DLLK approach in further developing sentiment figuring out on Twitter data.**

Keywords- Twitter sentiment analysis, deep learning, transfer learning, social media, sentiment pattern mining

I. INTRODUCTION

Twitter sentiment analysis has earned huge attention in the fields of machine learning and natural language processing (NLP) because of the tremendous prevalence of social media platforms like Twitter. The capacity to fathom the sentiments communicated by clients at this stage has become significant for businesses, governments, and people as it gives important bits of knowledge into public opinion, brand perception, and moving points. Sentiment analysis includes the programmed classification of tweets into positive, pessimistic, or unbiased emotion classes. It presents a few difficulties because of the casual idea of tweets, the utilization of slang, abbreviations, emoticons, and restricted context. Nonetheless, it holds huge potential for understanding public sentiment on a large scale and in real-time.

The primary objective of this research paper is to conduct a comprehensive study of Twitter sentiment analysis using various machine-learning techniques. The goal is to develop an accurate and efficient model that can effectively classify tweets into sentiment categories. To achieve this, the proposed methodology leverages the latest advancements in NLP, deep learning, and feature engineering. The paper begins by conducting a thorough literature survey to explore the existing methodologies in the field of Twitter sentiment analysis. By analyzing previous research, the strengths and weaknesses of different approaches are identified, providing valuable insights into the current state of the art. The core of the approach lies in leveraging the power of deep learning, which has shown remarkable success in various NLP tasks. Deep learning models, such as recurrent neural networks (RNNs), long short-term memory (LSTM), and transformers, have proven to be adept at capturing sequential information and learning complex patterns from textual data.

To further enhance the model's performance, feature engineering techniques are employed. These techniques extract relevant features from the tweet text, such as n-grams, part-of-speech tags, and sentiment lexicons. These additional features provide the model with valuable contextual information, improving its ability to differentiate between sentiments. In addition to deep learning and feature engineering, transfer learning is also explored in the proposed methodology. Pre-trained language models, like BERT and GPT, are fine-tuned on large-scale Twitter sentiment datasets to leverage the knowledge gained from a related domain and improve the model's generalization capabilities. To evaluate the proposed methodology, extensive experiments are conducted on various benchmark datasets of Twitter data. The performance of the model is compared with state-of-the-art methods, and

A STUDY ON INNOVATIVE STRATEGIES ADOPTED BY SELECTED INSURANCE COMPANIES (WITH SPECIAL REFERENCE TO COIMBATORE DISTRICT)

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ABSTRACT

Universally the Insurance Industry has adored the business conditions for the past limited years but deteriorating view will likely pose some of the challenges over the year ahead. Though, Insurance company is said to be a matured / developed industry driving profitable part is quite difficult due to increase in competitors among global level and from other Insurance related sector too. This study aims to identify the various schemes suggested by Insurance companies to Insurance holders, factors influencing the innovative strategies and to investigate the innovative strategies adopted by Insurance Companies. The present research is descriptive in nature and brings out the significance difference in the Innovative strategies adopted by Insurance Companies. The data collection is done in Primary and secondary method considering the selected Insurance Companies inside Coimbatore City. The Study reveals about the most prominent innovative strategies adopted by Insurance Companies. The main statistical tools like Simple percentage analysis, Ranking Analysis and Chi-square analysis is used to test the variables as per the respondents collected. In summary, this research study appears to focus on the challenges and innovations in the insurance industry, with a particular emphasis on the strategies adopted by insurance companies in Coimbatore City. It suggests that embracing technology-based innovation can provide a competitive edge in a competitive and mature industry.

Key words: challenges, innovative strategies, profitable, technology-based, competitive.

1. Introduction

An innovation strategy is a commitment to a common innovation mission and a structured set of activities which aim to support the future growth of the organization. Advertising and promoting activities and practices are quite common to all Industries either it may be a Manufacturing Sector or Service Sector, these activities are intended to communicate their product and services related information with customers including with the Company idea and vision. The promotional strategy adopted by any company is informing, persuading, and influencing in a consumers decision making. Insurance business can broadly be classified into general and life/ long term. Despite this classification, the different classes of insurance businesses can be viewed as lines of business along the profit centre concept. The Survey revealed that the General insurance business is facing two major challenges. The first challenge is to come up with a solution for companies whose viability is threatened by their inability to meet policy holder claims. The second major challenge is how to generate growth for an industry that has significant potential for growing as a percentage of GDP but has been stagnant.

1.1 Statement of the Problem

Globally, the insurance industry has enjoyed strong business conditions over the last few years but worsening economic outlook will likely pose considerable challenges in the years ahead. These challenges will be especially pronounced in the property and casualty segment, where growing pricing pressure as the market softens will drive a need for cost-cutting and greater efficiency. In Present scenario, the Insurance Companies faces a number of Challenges Digitizing small commercial, Commoditization, Cyber Security etc..Most of the researchers focuses only on the innovation strategy introduced in bank sectors but most researcher have not focused on the innovative strategies introduced in Insurance Companies.

MODERN BUSINESS CHALLENGES FACED BY FIRST GENERATION WOMEN ENTREPRENEURS IN COIMBATORE CITY – WITH SPECIAL REFERENCE TO APPAREL SECTOR

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Introduction

As the First - generation women entrepreneurs do not have previous industrial experience, they carry on their industrial activities on trial-and-error basis involving wastage of time and energy, and material resources. It is evident from the experience of many first - generation women entrepreneurs that they fall sick in the take-off stage itself. ***(Selvaraj N, 2016).*** Entrepreneurship is a pivotal role trending term these days. It is defined as the process of thinking something innovative and converting these ideas into new business. Now this business typically begins with small businesses like that of a startup company. It is also explained as the tendency and willingness to develop, organize and manage a business or venture taking up any of its risk with a motive of making money. ***(P. Balamurugan, 2021)*** Despite the apparent benefits of women entrepreneurs to an economy, the full potential of the women entrepreneur's sector has not been unleashed. The women entrepreneurs are today at crossroads. The existing incentive system no more meets the needs of the sector and the challenges posed by the new economy. New incentives and support to women entrepreneurs are imperative to help them build capabilities and to stay ahead of competition, both locally and in overseas markets. In many economies governments seek to develop programmes to attract, retain and advance women thus it is hoped that the results of this research will be used to design and implement remedial programme strategies and ongoing research to support women entrepreneurs.

The important reasons for starting a new business are some of the most recognized individual motivation factors for entrepreneurship are the Independence, Market Opportunity, Challenge, Family Background, New Idea, and Challenge Dream and so on. "Earning better life, influence of success stories, personal satisfaction, desire to utilize own skills and talents, unfavourable present working environment, self-employment and employment for others.

The assurance of carrier and family security, fulfilment of the creative urge of the borrower's, experience in family business, self-confidence, non-availability of suitable job or work and advice of family members.

Review from the earlier studies

Many research studies have been conducted on the subject of generation apparel and entrepreneurs in respective areas. These studies have revealed that certain variables are consistently correlated with new generation of entrepreneurs in various sector. This segment presents a brief review of earlier literature relevant to the current study of ***"Modern Business Challenges Faced by First Generation Women Entrepreneurs in Coimbatore City – With Special Reference to Apparel Sector".*** The collection of reviews has been made from various studies undertaken by academic journals, magazines, publication, working papers, books and the like.

Study Conducted in India

A few reviews collected and presented on study conducted and measured on generation apparel and entrepreneurs in Indian context from the various academician and experts.

Study Conducted in Abroad

A few reviews collected and presented on study conducted and measured on generation apparel and entrepreneurs in Outside of Indian context from the various academician and experts.

Selvaraj N (2016), examine that the ***"Marketing Problems Encountered by First Generation Entrepreneurs - A Study with Reference to Madurai in Tamil Nadu",*** The main objective of the study is based on the marketing and location problems encountered by the first - generation women entrepreneurs. The primary data have been collected from the respondents

Journal of Indian Intellectual Tradition
Vol.XVII(2),OCT-2023
ISSN:-2249-7129

Impact of Covid-19 on Migrant Workers in Tiruppur District

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ABSTRACT

The inward transient laborers in India, notwithstanding being profoundly helpless as far as physical and psychological wellness, have stayed the foundation of the Indian economy. In any case, the new lockdown circumstance made by pandemic has placed them in a more tricky condition. On one hand, they have lost their positions and income, while on different; they needed more assets to get by at the spot of movement. Thus, the country saw mass migration, where people were seen getting back to their local puts by walking. This study is an endeavor to distinguish the situation with traveler laborers in India in the midst of lockdown and systems that might assist with moderating the circumstance. This concentrate additionally investigates the future game-plan that can work on transient specialist's way of life.

KEYWORDS: Lockdown-Covid-19-Migrant laborers - Impact

I. INTRODUCTION

The public authority of India sent off the Garib Kalyan Rojgar Abhiyaan drive to handle the effect of Corona virus on traveler laborers in India. It is a country public work plot which was sent off on 20 June 2020 with an underlying subsidizing of Rs.50,000 crore for 116 regions in 6 states. Because of the shaky idea of work occupations in India, numerous day by day workers, who are regularly travelers, lost their job because of lockdown. This has made issues including starvation, detachment from family and no elective types of work. The between state traveler labor force addresses the least paying and most unreliable positions, in key areas, for example, development, accommodation, materials, producing, transportation administrations and homegrown work. As lockdowns all over the planet increment joblessness, numerous weak specialists will be driven into more unstable circumstances and need insurance. Lack of work is probable in those areas, expanding the chance of double-dealing the leftover laborers, and what this will mean for transients before very long. Unfortunate wages, inconsistent business, dangerous work conditions and absence of fundamental

WOMEN INVESTOR SATISFACTION ON POST OFFICE SAVING SCHEMES

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ABSTRACT

Satisfaction is one of the fundamental measurements of success in any forms of business. (Copper and Artz, 1999). For more than 150 years, the Department of Posts (DOP) touches the lives of Indian citizens in many ways in form of delivering mails, accepting deposits under Small Savings Schemes, providing life insurance cover under Postal Life Insurance (PLI) and Rural Postal Life Insurance (RPLI) and providing retail services like bill collection, sale of forms, etc. In this backdrop, an attempt has been made in this article to ascertain the women investors level of satisfaction and the variables that determine the satisfaction of post office saving schemes. In order to ascertain the nature and quantum of relationship of variables with investor satisfaction on post office saving schemes, Correlation analysis is used. Out of twenty eight variables selected for Correlation analysis, thirteen variables are found to be significant. Occupation, Savings per month, Location of Post Office, Period of Investment, Monthly Investment, Method of Premium Paid, Mode of Payment, A vailed any Loan, Level of Awareness and Level of Preference are found to be significant at one per cent level. Educational Qualification and frequency of investment is found to be significant at five percent level.

Keywords:
Women Investors, Post Office Saving Schemes, Small Savings Schemes.

INTRODUCTION

A woman is the nucleus around whom the family, the society and the whole community move. Few decades back in India, women were considered only to look after their family and children. They were not allowed to work outside as it would ruin the reputation of the family and also they were not accepted by the society. Transformations in educational system, economic policies, political upliftments, cultural changes, technological enhancements, etc., have changed the role of women today and they have become not only a significant part of the family and society but also influence the course of social changes in the nation. At present, they are shining in every field thereby they enjoy both personal and professional life. Women not only earn but they invest the same for the future for varied reasons, such as children's education or marriage, house construction, regular income after retirement and the like. Women are more cautious when it comes to money and they are not ready to take high risk investment as men.
A variety of investment avenues are available such as Bank Savings a/c, Fixed Deposits a/c, Post Office Saving Schemes, Government Securities, Corporate Bonds, Insurance Policies, Real Estates, Commodities, Shares and Mutual Funds, Chit Funds, Gold and Silver. So as above said the investment avenues in which Post Office Saving Schemes play a predominated role among women investors for their investment.

For more than 150 years, the Department of Posts (DOP) has been the backbone of the country's communication and has played a crucial role in the country's socio-economic development and act as a major partner in financial inclusion. Post Offices in India play a vital role in the rural areas. There are a number of attractive schemes, well designed to meet the individual requirements of different investors. Tax saving features of those schemes attracts the higher income groups more than small savers. The investment avenues provided by the Post Offices are generally marketable as they

Shodhak : A Journal of Historical Research
ISSN : **0302-9832**
Volume: **53,** Issue: **03,** No: 01, September - December : **2023**

CONSUMER'S AWARENESS, PERCEPTION AND SATISFACTION TOWARDS ONLINE MEDICINE BUYER'S-WITH SPECIAL REFERENCE TO COIMBATORE CITY

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INTRODUCTION

The Internet has developed over the last decade into a first-line information source about all aspects of life for many people. Interest in purchasing products online has similarly increased, including medicines. Gallagher and Colaizzi asserted in 2000 that 'As Internet pharmacy has grown in the past year, it has become apparent to the major pharmacy chains that they must pursue the online route as well to prevent a loss of market share. An online pharmacy might fulfil any or all of a number of functions: (a) The sale or supply of medicines, including repeat prescription services, (b) The sale or supply of other healthcare products, (c) Providing information about medicines, (d) Providing advice about symptoms and hosting online support groups. Information or advice might be personalised (through personal email/message board/live chat contact) or general (hosted on static pages and as FAQs). (Nicola J Gray, 2011)

Consumer preference means an individual's subjective taste for a particular product. While buying a product a consumer analyzes various alternating brands, products. It is normally measured by their satisfaction with those. While studying consumer preference various factors like- offer/ discount, location, belief, thought, communication may affect the preference. The recent growth of e-commerce in India has attracted the customer to purchase medicine from online websites. The online drug store is one of the items which is going to encourage a gigantic interest in impending days. An online drug store is a web-based merchant of physician-recommended drugs. The sale of medicine through an online platform is not new. It has quite recently thrived in this internet age. In the late 1980s, drug stores started selling physician-endorsed meds employing mail requests in the US. Later this mail request business changed into the first web-based drug store, soma.com, in January 1999. Soon after that, the web drug store was dispatched in the UK. Assessments showed that there were more than 1000 sites selling medicines as of mid-2004. The retail drug store has so far stayed the greatest wellspring of medicines for the Indian populace. Maybe, since they don't know about the idea called online drug stores or the absence of fundamental prerequisites like the internet, a tremendous part of the Indian populace isn't buying medicine online. (Dipankar Dutta and Bedanta Bhattacharjee,2021)

REVIEW OF LITERATURE

Many research studies have been conducted on the subject of online-medicine and buyers in respective areas. These studies have revealed that certain variables are consistently correlated with online-medicine as well as buyers. This segment presents a brief review of earlier literature relevant to the study of "Consumer's Awareness, Perception and Satisfaction Towards Online Medicine Buyer's-With Special Reference to Coimbatore City". The collection of reviews has been made from various studies undertaken by academic journals, magazines, publication, working papers, books and the like.

(a) Study Conducted in India

A few reviews collected and presented on study conducted and measured on awareness and perception online medicine buyers in Indian context from the various academician and experts.

(b) Study Conducted in Abroad

A few reviews collected and presented on study conducted and measured on awareness and perception online medicine buyers in outside the Indian context from the various academician and experts.

GROWTH AND SATISFACTION LEVEL TOWARDS ONLINE MEDICINE BUYER'S-WITH SPECIAL REFERENCE TO COIMBATORE CITY

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INTRODUCTION

India is one of the largest generic drug distributors in the world. Indian pharma industry fulfils the need of 40 percent of various vaccines globally. Moreover the 40 per cent of USA and 25 per cent of UK generic medicines demand is catered by the Indian pharma industry. India is recognized as the core pharmaceutical drug exporter worldwide. The country also has a large scale of scientists, researchers, pharmacists, manufacturers and technical engineers who have potential to push the industry few steps ahead from the current position. With the advent and propagation of globalization retail era it has become same tough to sustain for a longer period of time not only in the global marketbut also in the national market. The pharmaceutical industry is also one of the industries which is facing the harsh competition in global era as here, In the drug selling process In India takes place through two different modes: offline mode and online mode. In offline mode the medicines are sold out through physical counters such as retail shops, pharmacy, hospitals and mega malls but on the other hand there is an online mode which operates on the principle of mobile application, websites telecalling etc. Hence, these are the two different ways through which we get the required medicines. Nowadays pharmaceutical sector has widened its scope and is gradually acting as an advanced fast- moving consumer goods industry.

The consumers are getting everything under a single canopy whether it's fruits, vegetables, garments and now the medicines too. pharma industry is fulfilling the needs of worldwide population by exporting the branded as well as generic medicines and it also caters to the needs of Indian population by domestic distribution. In domestic distribution process, it is achieved through retail market and institutional market such as Sun pharma, Medlife, Himalaya, Dabur etc. Retail marketing further proceeds with the help of unorganised pharmacy (i.e.) local pharmacy stores or chemist shops. In India there is high number of such unorganised stores. Now when it comes to the point of distribution through organised stores, Religare pharmacy, Apollo pharma are the big tycoons in this particular segment. Online pharmacy is the new way of purchasing medicines online in Indian market.
i.e. Medlife, pharm etc. *(Rajan Mishra and Pranav Mittal (et.al), 2019)*

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REVIEW OF LITERATURE

Many research studies have been conducted on the subject of online-medicine and buyers in respective areas. These studies have revealed that certain variables are consistently correlated with online-medicine as well as buyers. This segment presents a brief review of earlier literature relevant to the study of ***"Growth and Satisfaction Level Towards Online Medicine Buyer's-With Special Reference to Coimbatore City".*** The collection of reviews has been made from various studies undertaken by academic journals, magazines, publication, working papers, books and the like.

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Shodhak : A Journal of Historical Research
ISSN : **0302-9832**
Volume: **53,** Issue: **02,** No: 12**,** May - August : **2023**

FARMERS' VIEWS ON TRANSFORMING AGRICULTURAL LAND: A SURVEY-BASED STUDY

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Abstract

Agriculture is one of the oldest and most significant occupations of humankind. The transformation and development of agriculture are multi-dimensional. In recent years, there has been an increase in the proportion of agricultural landscapes being transformed into built-up land. This transformation has led to a loss of biodiversity and degradation of the ecological capacity of the landscape. Physical and socio-economic factors closely control farming activities and cropping patterns. The physical environment plays an essential role in agriculture.

In this study, 80 farmers were interviewed using purposive sampling techniques to analyze the factors responsible for agricultural land transformation and evaluate farmers' perceptions about changing land use decisions among farmers living in Coimbatore. The study aims to provide insights into the factors influencing agricultural land transformation and how farmers perceive these changes. The results of this study could help policymakers develop strategies to mitigate the negative impacts of agricultural land transformation on biodiversity and ecological capacity.

Keywords: agriculture, farmers, land transformation.

INTRODUCTION

The history of agriculture began thousands of years ago. After gathering wild grains beginning at least 105,000 years ago, nascent farmers began to plant them around 11,500 years ago. Pigs, sheep, and cattle were domesticated over 10,000 years ago. Plants were independently cultivated in at least 11 regions of the world. By 6000 BCE, most of the farm animals we are familiar with today had been domesticated. By 5000 BCE, agriculture was practised in every major continent except Australia. Agriculture has often been conceptualized narrowly in terms of specific combinations of activities and organisms—wet-rice production in Asia, wheat farming in Europe, and cattle ranching in the Americas. The development of agriculture about 12,000 years ago changed the way humans lived.[1]

Farming in India dates back to the Indus Valley Civilization around 6000 BCE. The Indus Valley Civilization was an agricultural civilization that relied on the Indus River for irrigation. The Harappan people were skilled farmers and grew wheat, barley, peas, and cotton. They also domesticated cattle, sheep, goats, and pigs. Agriculture has been an integral part of Indian culture since ancient times. The Vedas mention agriculture as one of the main occupations of the people. The Mauryan Empire (321-185 BCE) was known for its agricultural reforms and irrigation systems.

India is a country with a population of about 1.3 billion people. Approximately 68% of India's population lives in rural areas where agriculture is the primary occupation. Indian agriculture is characterized by small farm holdings, with an average farm size of only 1.57 hectares. Nearly 93% of farmers have land holdings smaller than 4 hectares and cultivate almost 55% of the arable land. Agriculture is one of the oldest and most significant occupations of humankind. The development of agriculture is essential for the economy of any country because it is a primary sector of the economy that

[1] Agriculture & Agricultural Technology Portal | Britannica. https://www.britannica.com/browse/Agriculture

Education and Society (शिक्षण आणि समाज)
(UGC Care Journal)
ISSN: 2278-6864
Vol-47, Issue-2, No.15, October-December: 2023

ASPIRATIONS AND AMBITIONS: ANALYSING THE CAREER STRUGGLES AND ETHICAL STRUGGLES FACED BY CHARACTERS IN CHETAN BHAGAT'S WORKS

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Abstract

Chetan Bhagat is a popular Indian author known for his contemporary fiction novels that often revolve around the aspirations, ambitions, and challenges faced by young individuals in India. While analyzing the career and ethical struggles of characters in Chetan Bhagat's works, it's important to consider some of his well-known novels like *Five Point Someone*, *One Night @ the Call Center*, *Two States*, and *Half Girlfriend*.

Chetan Bhagat's works often reflect and explore the aspirations and ambitions of the characters, particularly the younger generation in contemporary Indian society. This article also explores the career and ethical struggles faced by the characters in Chetan Bhagat's works.

Keywords: Aspiration, Ambition, Ethical, Generation, Struggles

Chetan Bhagat is often regarded as a novelist who effectively captures the essence of the younger generation in India. His works resonate with readers, especially those in their late teens, twenties, and thirties, by addressing themes and issues that are particularly relevant to this demographic. Bhagat's novels delve into contemporary themes and issues that directly impact the lives of young Indians. Whether it's the pressure of academic expectations, career dilemmas, intercultural relationships, or the challenges of modern urban life, his works reflect the realities faced by the younger generation. Bhagat creates characters that readers can relate to on a personal level. His protagonists are often individuals dealing with relatable challenges and aspirations, making it easy for the younger generation to connect with the stories emotionally.

Bhagat's novels often revolve around the complexities of relationships, including friendships and romantic entanglements. He explores the dynamics of modern relationships, addressing issues such as communication gaps, societal expectations, and the pursuit of love. The aspirations and struggles depicted in Bhagat's works mirror the dreams and challenges faced by young Indians. Whether it's the desire for academic success, a fulfilling career, or navigating the complexities of love and family expectations, his novels capture the multifaceted nature of the younger generation's journey.

DIASPORIC CRISIS: LANDSCAPE AND IDENTITY IN UMA PARAMESWARAN'S MANGOES ON MAPLE TREE

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Abstract

Uma Parameswaran, a prominent Indo-Canadian author, skillfully captures the diverse dimensions of cultural pluralism in Canada during its third phase of expatriation. Residing in Manitoba, she keenly observes the Canadian government's bilingual policy. As an ethnic minority writer, Parameswaran navigates the 'third space,' a concept evident in her works. In her debut novel, *Mangoes on the Maple Tree* (2002), she delves into the lives of two families, the Bhaves and Moghes, who have migrated from India to Canada. The narrative unfolds the diasporic crisis faced by these families in a foreign land, shedding light on the ethnic challenges encountered. The novel intricately explores the tensions within the families and the broader societal tensions they confront as minorities. Beyond the impact of the Canadian landscape on daily life, Parameswaran emphasizes the significance of socially constructed landscapes such as individual property, houses, and land in shaping human experiences. This article aims to articulate the sense of rootlessness and uprooted identity, highlighting the struggle for group consciousness among oppressed minorities. The focus is on portraying the complex reality of immigrant life, navigating both the geographical and socially constructed landscapes that influence the lived experiences of these individuals.

Keywords: Ethnic Minority, Group consciousness, Uprooted Identity.

Jean Paul Sartre the well-known French philosopher uses the term 'engagement' to refer to the process of acceptability among individuals for their actions signifying a political consequence. The same concept of 'engagement' can be applied in Uma Parameswaran's novel *Mangoes on the Maple Tree* where the main character Sharad Bhave decides to leave his homeland to settle in a foreign place. As a result, the family experienced a sense of loneliness which made Sharad to realize of his wrong decision and finally to establish a 'collective solidarity' within themselves through mutual support. The feeling of uprooted identity, rootlessness is one of the major issues concerned in the life of diasporans which Parameswaran also rationally records. The isolation and interdependence the immigrant family faces there and

Education and Society (शिक्षण आणि समाज)
(UGC Care Journal)
ISSN: 2278-6864
Vol-47, Issue-2, No.15, October-December: 2023

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IDENTITY AND INDIVIDUALISM: TRACING THE PLIGHT OF INDIVIDUALS IN POST-INDEPENDENCE INDIA IN NAYANTARA SAHGAL'S WORKS

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Abstract

Nayantara Sahgal's works are known for their nuanced exploration of characters within the socio-political context of post-independence India. She addresses the complexities of identity formation, examining how personal choices, political events, and societal expectations intersect to shape the individual's sense of self. Her narratives often highlight the struggles of individuals who find themselves at the crossroads of tradition and modernity, personal desires, and societal pressures, providing readers with a rich tapestry of characters whose stories mirror the broader challenges faced by individuals in the evolving landscape of post-independence India.

Keywords: Identity, Tradition, Modernity, Desires, Landscape.

Nayantara Sahgal, a prominent Indian author, has made significant contributions to Indian literature with her insightful works that often explore social and political issues. Her novels reflect a keen understanding of the complexities of post-independence India, and the themes of identity and individualism are central to many of her writings. The novels of Nayantara Sahgal, not only constitute an impressive segment of the Indian English novel but also sum up the saga of India's struggle for freedom and the changes it has brought about in the traditional social set-up in India. Although Mrs. Sahgal is unique in her artistic sensibility as well as in the particular manner of possessing the resources of national experience in terms of imaginative projection, she also reflects, like the other Indian novelists in English, the consciousness of change, and the strange and sudden ways in which it has come to shape the character of individuals and the temper of the collective life as well as the competing structures of human values and human destiny.

The major legacy of cultural change in modern India has been the new historical sense, containing in itself a feeling for the past as well as an awareness of the future, as both dramatize themselves in the personality of the present. Sahgal's work has a certain dialectical quality which has been generalized into its wide cultural connotations in terms of social tradition and political

The Influence Of Social Media On Shaping Literary Trends And Reading Habits

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Abstract:

This article explores the significant role of social media platforms in shaping contemporary literary trends and transforming reading habits. In an age dominated by digital connectivity, social media has become a powerful force in promoting and disseminating literature, influencing what readers choose to read and how they engage with texts. Drawing on examples from various genres and mediums, this research examines the multifaceted ways in which social media platforms impact literary consumption patterns, book marketing strategies, author-reader interactions, and the overall landscape of contemporary literature. By analyzing the intersection of technology, culture, and literature, this study sheds light on the complex dynamics between social media and the literary world, highlighting both the opportunities and challenges posed by this digital phenomenon.

Keywords: Social media, Technology, Culture, Literature.

Introduction:

In recent years, the proliferation of social media platforms has revolutionized the way people communicate, share information, and consume content. From Twitter to Instagram, Facebook to Goodreads, these digital spaces have not only facilitated social networking but have also emerged as influential hubs for promoting and discussing literature. In this article, we delve into the dynamic relationship between social media and contemporary literature,

Research Article

Feminist Perspectives in Modern Indian Writing: Voices of Empowerment

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Abstract

This research article explores the emergence and impact of feminist perspectives in modern Indian literature. It highlights how contemporary Indian writers have used their work to challenge traditional gender norms and empower women. Through analyzing key literary works and authors, this article examines the themes of identity, agency, and resistance that characterize feminist writing in India today. It also considers the role of literature as a tool for social change and how Indian writers are contributing to global feminist discourse.

Keywords: Feminism, Indian Literature, Empowerment, Gender, Social Change, Contemporary Writing

Introduction

The landscape of Indian literature has undergone significant transformations in recent decades, with feminist perspectives emerging as a powerful force. This article aims to delve into the role of feminist writing in contemporary Indian literature, examining how authors use their narratives to address gender inequalities and empower women. By focusing on modern writers and their works, we can understand how literature serves as a medium for social change and the advancement of feminist ideals.

The Historical Context of Feminist Writing in India

Early Feminist Voices

The roots of feminist writing in India can be traced back to pioneering authors such as Kamala Das, Ismat Chughtai, and Amrita Pritam, who broke societal taboos by exploring female sexuality and autonomy in their works. These writers laid the foundation for future generations, encouraging them to address issues of gender and identity more openly.

Transition to Contemporary Feminism

The shift from early feminist literature to contemporary narratives reflects broader societal changes. Modern writers build upon the legacy of their predecessors, exploring complex themes and embracing diverse perspectives to address the multifaceted nature of feminism in India.

Research Article

Globalization And Cultural Hybridity In Twenty-First Century Literature

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Abstract:

This paper explores the complex interplay between globalization and cultural hybridity in twenty-first-century literature. As the world becomes increasingly interconnected through processes of globalization, literature reflects and responds to the dynamics of cultural exchange, migration, and diaspora. Drawing on a diverse range of literary texts from around the globe, this research examines how contemporary authors negotiate issues of identity, belonging, and cultural hybridity in the context of globalized societies. Through close analysis of novels, short stories, and poems, this study explores the ways in which literature both reflects and challenges traditional notions of national identity, cultural authenticity, and literary tradition in an era of unprecedented global mobility and transnational flows of people, ideas, and cultures.

Keywords: National Identity, Cultural Authenticity, Hybridity, Diaspora

Introduction:

The twenty-first century is marked by unprecedented levels of global interconnectedness, driven by advancements in technology, transportation, and communication. As borders blur and cultural boundaries dissolve, literature emerges as a vital site for exploring the complexities of globalization and cultural hybridity. This paper examines how contemporary authors navigate the shifting terrain of identity and belonging in a globalized world, exploring the ways in which literature reflects and responds to the diverse experiences of cultural exchange, migration, and diaspora.

Globalization and Cultural Hybridity:

Globalization, the process of increased interconnectedness and interdependence among countries, has significantly impacted cultures around the world. One of the notable outcomes of globalization is cultural hybridity, the blending and mixing of different cultural elements to create new and dynamic cultural forms. This phenomenon is particularly evident in literature, where authors often explore themes of identity, migration, and diaspora in response to the complexities of globalization.

Cultural hybridity in literature reflects the diverse experiences of individuals and communities navigating the challenges and opportunities of living in a globalized world. Authors draw from their own cultural backgrounds and experiences to create narratives that capture the complexities of cultural exchange and interaction. These narratives often highlight the fluidity and multiplicity of identities, challenging traditional notions of cultural authenticity and purity.

In addition to exploring individual experiences of cultural hybridity, literature also addresses broader social and political issues related to globalization. Authors may critique the

Research Article

Dystopian Fiction: Reflections Of Contemporary Sociopolitical Concerns

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Abstract:

Dystopian fiction serves as a mirror reflecting the anxieties, fears, and aspirations of contemporary society. Through the portrayal of bleak, authoritarian futures, dystopian narratives offer a lens through which to examine and critique existing sociopolitical structures. This paper explores the thematic and narrative elements of dystopian fiction, analyzing how authors draw from current sociopolitical concerns to construct their imagined worlds. Drawing upon examples from seminal works such as George Orwell's "1984" and Margaret Atwood's "The Handmaid's Tale," as well as more recent contributions like N.K. Jemisin's "The Fifth Season," this paper demonstrates the enduring relevance of dystopian fiction in interrogating power dynamics, surveillance, environmental degradation, and social inequality. By engaging with these fictional worlds, readers are prompted to reflect on the trajectory of their own societies and the actions necessary to safeguard against dystopian futures.

Keywords: Dystopian, Bleak, Dynamics, Inequality, Degradation.

Dystopian fiction has long captivated readers with its dark imaginings of oppressive regimes, ecological collapse, and societal decay. Yet, beneath the surface of these fantastical narratives lie profound reflections of contemporary sociopolitical concerns. Authors of dystopian fiction often leverage the genre to critique existing power structures, warn against

Research Article

Gender Representation And Queer Narratives In Contemporary Novels

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Abstract:

Contemporary literature has seen a significant shift towards more diverse and inclusive representations of gender and sexuality. This paper examines the ways in which contemporary novels explore gender identity, representation, and queer narratives. By analyzing a selection of works from various genres and cultural backgrounds, including "Giovanni's Room" by James Baldwin, "Middlesex" by Jeffrey Eugenides, and "The Song of Achilles" by Madeline Miller, this paper explores how authors challenge traditional gender norms, depict LGBTQ+ experiences, and contribute to broader conversations surrounding identity and belonging. Through nuanced characterizations and empathetic storytelling, these novels offer readers a deeper understanding of the complexities of gender and sexuality in contemporary society.

Keywords: Gender, Queer, Sexuality, Identity, Cultural.

Introduction:

In recent years, the landscape of literature has undergone a profound transformation, with authors increasingly exploring themes of gender identity, representation, and queer experiences. From poignant coming-of-age stories to epic historical dramas, contemporary novels offer diverse perspectives on gender and sexuality, challenging traditional narratives and expanding the boundaries of literary representation. This paper examines the ways in which

Journal of the
Oriental Institute
M.S. University of Baroda
ISSN: 0030-5324

CONSUMER AWARENESS ON E MARKETING A STUDY WITH SPECIAL REFERENCE TO POLLACHI TALUK

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Abstract
The introduction of internet has created a new market for both manufacturing and service providers. Internet has been used as a marketing channel with which the consumers were introduced to a new trading pattern. Present consumers are well aware about the economic surroundings due to the availability of information. E Marketing is the process of marketing a product or service using the Internet. It uses a range of technologies to help connect businesses to their Consumers. E-marketing is one of the latest and emerging tools in the marketing world. Electronic Marketing is convenient than the traditional marketing for both consumer and the marketer. The facility of E-Marketing has allowed customers to identify the different types of products available in the global market. Due to rapid globalization, all types of products are available on the internet .Goods and services, consumer durables, books, CDs and services like air ticket, train ticket, can also be purchased online. This study aims to identify the Consumer Awareness on E Marketing with special reference to Pollachi Taluk

Keywords:
Consumer, Internet, E-Marketing, Product, Service.

INTRODUCTION

The introduction of internet has created a new market for both manufacturing and service providers. Today's generation does not know a life without internet. Evolution of Internet made the world rest in our hands. Internet has been used as a marketing channel with which the consumers were introduced to a new trading pattern. Present consumers are well aware about the economic surroundings due to the availability of information.

E-marketing is the process of marketing a product or service using the Internet. It not only includes marketing on the Internet, but also includes marketing done via e-mail and wireless media. It uses a range of technologies to help connect businesses to their Consumers. Digital marketing is one of the latest and emerging tools in the marketing world .Electronic Marketing (E-Marketing) is also known as Internet Marketing, Web Marketing, Digital Marketing, or Online Marketing. The major advantages in E-marketing are it helps in extremely low risk, reduction in cost through automation and use of electronic media, can get universal accessibility. E-marketing is convenient than the traditional marketing for both consumer and the marketer. It offers large number of variety for the particular product relatively with lower prices.

The facility of E-Marketing has allowed customers to identify the different types of products available in the global market, Due to rapid globalization, all types of products are available on the internet .Goods and services, consumer durables, books, CDs and services like air ticket, train ticket, can also be purchased online.

REVIEW OF LITERATURE

Dr. Ravindra Borkar and Dr. Ajay Pethe (2022)in their study on customers' awareness towards online shopping reveals that , Most respondents believe that the advantage of online shopping is a time-saving, security and quality process. Most respondents prefer cash on delivery, home delivery and

Journal of the Maharaja Sayajirao University of Baroda
ISSN :0025-0422

FACTORS INFLUENCING THE ONLINE CONSUMERS BUYING BEHAVIOUR IN POLLACHI TALUK

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ABSTRACT

Buying Behavior is the decision processes and acts of people involved in buying and using products. The new improvement of online business and the buyer's growing interest in purchasing over the internet has basically changed the nature of Indian retail market. Due to the rapid advancement in internet marketing, Buyers prefer online purchase instead of offline. Numerous organizations have begun use the web to reduce their expenses, and to create awareness about their products to the consumers. This research aims to identify the factors influencing the online consumers buying behavior in Pollachi Taluk.

Keywords: Consumer, Internet Marketing, Product, Buying Behavior.

INTRODUCTION

The new improvement of online business and the buyer's growing interest in purchasing over the internet has basically changed the nature of market. Today a large number of people around the world are using online shopping. Over the last few years, E-commerce has become an essential part of global retailing, and it has also undergone a number of changes and will keep changing according to the trends. Online Shopping is growing rapidly in India, predominantly driven by tremendous and substantial activities among millennial consumers. Due to the rapid advancement in internet marketing, Buyers prefer to puchase products through online instead of offline purchase. Numerous organizations have begun use the web to reduce their expenses, and to create awareness about their products to the consumers. In this era where competition is considered, marketing has become the keystone for competition. Online buying is becoming more popular and is attracting great attention because it has great potential for both consumers and sellers. The features of online shopping make it more successful and became an emerging trend among consumers. When all the companies are striving against one another, certain factors influence the buying behavior of consumers.

REVIEW OF LITERATURE

Dr. Vandana Sonwaney, Snehal Chincholkar (2019) , "Identifying the Factors Impacting Online Consumer Buying Behaviour", concluded that family or friends do not influence online consumer buying behaviour but consumer may like to do online shopping to avoid sales person. In case of psychological factors convenience of doing shopping from anywhere and less time consuming are most important factors influencing consumers for doing online shopping.

Anurag Pandey,Jitesh Parmar (2019) in their study , Factors affecting consumer's online shopping buying behavior, there are seven factors affect consumers online shopping behaviour. These factors are ease of use, perceived risk, perceived usefulness, effect of website design, economic factor, availability of products, and customer satisfaction.

R. Ganapathi(2015),A study on factors affecting online shopping behavior of consumers in Chennai,reveals that Majority of consumers of online shopping are males and most of them belong to the age group of 31 – 40 years. Majority of consumers of online shopping are graduates and most of them belong to the annual income group of Rs.4, 01,000 – Rs.5, 00,000. The exploratory factor analysis shows that convenience, website features, security and time saving are the factors affecting online shopping behaviour of consumers.

ASTOUNDING PERFORMANCE OF WOMEN ENTREPRENEURS IN UNORGANISED SECTOR WITH SPECIAL REFERENCE TO POLLACHI

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ABSTRACT

Women who take responsibility to organize the resources of enterprises and bear all the risks in expectations of deriving profit can be termed as women entrepreneur. When a women or group of women embark on initiating, organizing and managing their enterprise, they are termed as women entrepreneur. Despite their efforts and expertise, women entrepreneurship often struggles a lot to make rough and get recognized within the business area. Hence, this study has assessed that astounding performance of women entrepreneurs in unorganised sector in Pollachi. The nature of this study is descriptive research design. The population of this study are women entrepreneurs and the sample size is 105. The required sample data are collected by approaching random sampling method. For collecting the astounding performance of women entrepreneurs through 5 points Likert scale method, a structured questionnaire has been administered and distributed among them. The researchers have utilized the MS-Excel software to preserve the collected data and performed the statistical methods namely percentage analysis, mean score, standard deviation and ANOVA. In addition, they framed the null hypotheses to examine the significant difference in mean astounding performance of women entrepreneurs. From the analysis, it is mentioned that maximum level of astounding performance is perceived by the women entrepreneurs who belong to 41-50 years of age category, qualified college level, sole proprietorship, textile garments and run business for 11-15 years.

Keywords: Astounding Performance, Women entrepreneurs, Unorganised sector, Collateral security, Finance support, Loan facility.

1. INTRODUCTION

Women Entrepreneur is a person who accepts challenging role to meet her personal needs and become economically independent. A strong desire to do something positive is an inbuilt quality of entrepreneurial women, who is capable of contributing values in both family and social life. Women entrepreneurship in India is still emerging. The representation of women as entrepreneurs is quite limited. Entrepreneurship is an area of research that has been of immense interest to researchers, academicians and policy makers. Entrepreneurship is significantly correlated to economic development of any economy by accelerating growth and prosperity, and. In the last few decades woman as entrepreneur are emerging both in developed and developing economies. It is evident that women entrepreneurs contribute immensely to improved poverty levels, increased per capita income and employment creation. Women entrepreneurship is instrumental for achieving economic and societal growth. Despite constituting around half of the total population of India, the economic participation of women is very limited. Women entrepreneurs of India are now emerging in non-traditional sectors. Women entrepreneurs are a heterogeneous segment having diverse demographic, economic and educational background. It is imperative that the policies and schemes cater to the unique needs of every segment.

2. REVIEW OF LITERATURE

In view of Rahabhi Mashapure et al. (2022) revealed that the inadequate support from government schemes, patriarchal societal structure of my community, lack of relevant entrepreneurial knowledge to manage the businesses, lack of collateral security to access funding, lack of market information, occurrence of disasters in the localities, time limitation or role conflict to balance family pressures negatively influenced women entrepreneurship. Interestingly interviews

Shodhak : A Journal of Historical Research
ISSN : **0302-9832**
Volume: **53,** Issue: **03,** No: 03**,** September - December : **2023**

CHALLENGES OF WOMEN ENTREPRENEURS IN UNORGANISED SECTOR WITH SPECIAL REFERENCE TO POLLACHI

Dr. R. AMSAVENI Assistant Professor, Department of Commerce (Finance), Nallamuthu Goundar Mahalingam College, Pollachi.

ABSTRACT
Women entrepreneurs may be defined as a woman or a group of women who initiate, organise and run a business concern. Women Entrepreneurship implies a process in which a female initiate, lead, own and organize an enterprise or industry and give employment to others and also contribute in improving the standard of living of their families. Women engaging in entrepreneurship in unorganized sector face many challenges and their success in their businesses depends greatly on their ability to cope up with these challenges. They are affected by lack of entrepreneurial, managerial and marketing skills, difficulties accessing financial resources, discriminatory regulatory practices, inadequate intellectual property protection and cultural differences. So, this study has analyzed that the challenges of women entrepreneurs in unorganised sector in Pollachi. This study has adopted descriptive research and survey method. The population of this study have women entrepreneurs of unorganized sector in Pollachi and the sample size has included of 137 women entrepreneurs through random sampling method. The sample data of this study are collected by undertaking survey among population. A structured questionnaire has been developed and spread among them for collecting the demographic profile and challenges of women entrepreneurs with the help of 5 points Likert scale method. The researchers have approached MS-Excel software to maintain the collected data and carried out the statistical methods such as percentage analysis, mean score, standard deviation and ANOVA. Also, they developed the null hypotheses to examine the significant difference in mean challenges of women entrepreneurs in unorganized sector. The result from study depicted that most of women entrepreneurs are doing private limited company and doing handicrafts for above 20 years. Also, high level of challenges in unorganized sector is perceived by the women entrepreneurs belong to 41-50 years of age group, business with partnership, handicrafts sector and make business for 16-20 years.

Keywords:
Women entrepreneurs, Challenges, Unorganised sector, Lack of Entrepreneurial, Lack of Financial Resources and Cultural Differences.

1. INTRODUCTION

The increasing presence of women as entrepreneurs has led to significant business and economic growth in the country. Women-owned business enterprises are playing a prominent role in society by generating employment opportunities in the country, bringing in demographic shifts and inspiring the next generation of women founders. Entrepreneur is the nucleus of economic development. It is more important and influential in nourishing the process of economic development. Every country,both developed and developing countries aims towards economic development for success and betterment of society. So, the contribution of both men and women is important for building the economy of a nation. A few decades before, entrepreneurship was meant only for the male. But in recent years, the country has witnessed a titanic surge in the form of number of women entering into the entrepreneurial activity. The hidden entrepreneurial potentials of women have undergone a drastic change with the mounting sensitivity to the role and economic status in the society. Further, when compared to organised sector, the Indian economy's strength is highly witnessed with the growth of unorganised sector and the contribution of women entrepreneurs towards unorganised sectors in terms of manufacturing and trading activity is tremendously high. With a vision to promote the sustainable development of women entrepreneurs for balanced growth in the country, Startup India is committed towards strengthening women entrepreneurship in India through initiatives, schemes, creation of

A STUDY ON COMMON TRANSPORTATION AND ITS USER PREFERENCES IN POLLACHI REGION

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INTRODUCTION

Passengers' preferences towards common transportation have always played a crucial role in shaping the transportation industry. Understanding what passenger's desire and value in their transportation experience is essential for transportation providers to meet their needs effectively. From convenience and affordability to comfort and sustainability, passengers have a wide range of preferences that influence their choice of common transportation modes. The comparison of passenger choice between public and private transportation is a trending area of study in the realm of urban mobility and transportation planning. Understanding the factors that influence individuals' decisions to use public transit or private vehicles is essential for developing effective, sustainable, and inclusive transportation systems. This introduction sets the stage for exploring the complexities of passenger preferences, considering aspects such as convenience, cost, environmental impact, accessibility, and individual preferences. By examining the dynamics of public versus private transportation choices, we can gain valuable insights into the diverse needs and behaviours of passengers, ultimately informing the development of transportation infrastructure and services that cater to a wide range of preferences and contribute to the overall efficiency and sustainability of urban mobility.

REVIEW OF THE STUDY

Juan de Ona, Esperanza Estevez and Rocio de Ona, etal (2021), has examined "Public transport users versus private vehicle users: differences about quality of service, satisfaction and attitudes toward public transport in Madrid". In his study aims to further understand the main factors influencing the behavioural intentions (BI) of private vehicle users towards public transport to provide policymakers and public transport operators with the tools they need to attract more private vehicle users. Findings from this study can be used to develop policies and recommendations for persuading more private vehicle users to use the public transport services.

Karishma Maharani Raijaya, Chotib,etal (2020), has examined "The Dilemma of the Choice Between: Public Transportation or Private Transportation Case Study: Sarbagita Metropolitan Area" in his study to identify the probability of public transportation use by workers in the sarbagita region. The study uses sakernas 2018 data, using the binary logistic regression model. The results of that study are the use of public transportation depends on individual characteristics such as distance, sex, education, age, and marital status. One of the solutions to traffic congestion in Bali is to improve public transportation facilities and infrastructure, increase stopping points, and be more on time so that commuter workers can switch from private transportation to public transportation.

PROBLEM STATEMENT

To understand the factors influencing passengers' preference towards common transportation options and to identify the key drivers that determines their choice of transportation mode. This study aims to gather insights into passengers' preferences in terms of convenience, affordability, comfort, reliability, safety, and environmental sustainability. By analysing these preferences, transportation authorities and service providers can make informed to improve the quality of common transportation services and attract more passengers towards these modes, ultimately reducing traffic congestion and promoting sustainable urban mobility. As a part of International Business, the researcher was impulse to carry the study in Logistics field and focused on "Passenger's choice towards common transportation with special focus to pollachi region"

OBJECTIVE OF THIS STUDY

- To identify the most preferred common transportation options among passengers.

EXPORT PERFORMANCE OF COFFEE PRODUCTS DURING PRE AND POST-COVID PERIOD

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1.1 INTRODUCTION

The Coffee Board of India is an autonomous body, functioning under the Ministry of Commerce and Industry, Government of India. The Board serves as a friend, philosopher and guide of the coffee industry in India. Set up under an Act of the Parliament of India in 1942, the Board focuses on research, development, extension, quality up gradation, market information, and the domestic and external promotion of Indian coffee In India, coffee is traditionally grown in the Western Ghats spread over Karnataka, Kerala and Tamil Nadu. Coffee cultivation is also being expanding rapidly in the nontraditional areas of AP and Odisha as well as in the North East states. Coffee is predominantly an export oriented commodity and 65% to 70% of coffee produced in the country is exported while the rest is consumed within the country. Indian coffee industry earns a foreign exchange to the tune of about Rs.4000 Crore. Indian coffee has created a niche for itself in the international market and the Indian Coffees are earning high premium, particularly Indian Robusta which is highly preferred for its good blending quality. Arabica Coffee from India is also well received in the international market. Coffee is an export product with low import intensity and high employment content. This is evident from the fact that more than six lakh persons are directly employed and an equal numbers of individuals get indirect employment from this sector. During 1940's, the coffee industry in India was in a desperate state due to the II World war resulting in very low prices and ravages of pests and diseases. At this time, the Government of India established the 'Coffee Board' through a constitutional act "Coffee Act VII of 1942" under the administrative control of Ministry of Commerce and Industry. The Board comprises 33 members including the Chairman, who is the Chief Executive and appointed by the Government of India. The remaining 32 members represent the various interests such as coffee growing industry, coffee trade interests, curing establishments, interests of labour and consumers, representatives of governments of the principal coffee growing states, and Members of Parliament After pooling was discontinued in 1996, Coffee Board serves as the friend, philosopher and guide to the Coffee sector covering the entire value chain. The core activities are primarily directed towards research & development, transfer of technology, quality improvement, extending development support to growing sector, promotion of coffee in export and domestic markets. The activities of the Board are broadly aimed at (i) enhancement of production, productivity & quality; (ii) export promotion for achieving higher value returns for Indian Coffee and (iii) supporting development of Domestic market.

1.2 STATEMENT OF THE PROBLEM

In India, coffee is traditionally grown in the Western Ghats spread over Karnataka, Kerala and Tamil Nadu. Coffee cultivation is also being expanding rapidly in the nontraditional areas as well as in the North East states. Coffee is predominantly an export oriented commodity and 65% to 70% of coffee industry earns a foreign exchange nearly Rs. 4000 Cores per year. Indian coffee has created a niche for itself in the international market and the Indian Coffees are earning high premium, particularly Indian Robusta which is highly preferred for its good blending quality. Critical issues that plague Indian coffee Export at present are the knowledge deficit and infrastructure deficit, especially in the rural areas. Problems related to irrigation infrastructure, market infrastructure and transport infrastructure add significant cost to farmers operations. Another issue is lack of delivery mechanisms. The study on export performance of coffee, taking in to consideration the major coffee producing states, would bring out the importance of coffee exports. The study also identifies and analysis the processing of coffee in our country.

शोध-प्रभा
Shodha Prabha

UGC CARE LISTED
ISSN : 0974-8946

CERTIFICATE OF PUBLICATION

This is to certify that the article entitled

A COMPREHENSIVE EXAMINATION OF MACHINE LEARNING IN IMAGE COMPRESSION TECHNIQUES

Authored By

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Research Scholar, Department of Computer Science, Nallamuthu Gounder Mahalingam College, Pollachi

Published in

Shodha Prabha; ISSN 0974-8946

Volume **(वर्ष)**-48, **तृतीयांक** (Issue-03), Book No.07 : **2023**

UGC Care Approved, Group I, Peer Reviewed and Referred Journal

ज्ञान-विज्ञान विमुक्तये
UGC
University Grants Commission

Editor
Mandan Mishra
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AIP Conference Proceedings

RESEARCH ARTICLE | DECEMBER 14 2023

Ensemble voting machine learning model for prediction of campus placement of the student

B. Kalaiselvi ; S. Geetha

Check for updates

AIP Conf. Proc. 2914, 050022 (2023)
https://doi.org/10.1063/5.0175866

View Online
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15 December 2023 04:03:14

AIP Publishing

Ensemble Voting Machine Learning Model for Prediction of Campus Placement of the Student

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Abstract. Placements in campus interviews are the dream of every student in college. Placement in campus interviews is a vital measure of an educational institution's standards and student performance. Machine learning with the knowledge discovery process helps to forecast the student's performance in on-campus interviews. This paper suggested an ensemble model-based voting classifier with BayesNet and J48 is used to classify the student's academic data and forecast the placement opportunity. This work compares two ensemble stacking models and a voting-based classification model with J48 for obtaining an efficient model of placement prediction. Both ensemble stacking models use BayesNet and J48 classifiers as the base classifiers. The J48 classifier is used as the meta classifier in one stacking process and the voted perceptron is used in another. In the ensemble voting model, BayesNet and J48 are used as the base classifiers and the probability average of a class of base classifiers is used for the combination rule. The ensemble voting model gains high accuracy with a minimum error rate than other models. This model produced 91% of accuracy in the placement prediction. J48 and BayesNet classifiers are combined with probability average-based combination rules in the ensemble voting model.

15 December 2023 04:03:14

INTRODUCTION

Indian higher education institutions provide the highest count of placements in the world. At the same time, the count of higher educational institutions is also very high. So, each and every institution needs to improve the quality of education and increase placement opportunities. Educational Data Mining (EDM) plays a vital role in improvising the quality of education, identification of learning difficulties, forecasting weak students and placement opportunities and updating educational settings. EDM creates a knowledge base for institutions and students by extracting hidden knowledge from educational data. Obtaining good scores in semester exams and getting a placement with a high package from premier organizations by the student are the most used evaluation pattern in college education. Every higher education institution needs to forecast placement opportunities for the students in campus interviews at an earlier stage. It facilitates tuning the students and improving their performance in campus placement interviews. In the forecasting of placement status, a high accuracy rate is necessary to group the students by the placement cell to provide more training and attention, so a better system is required for placement status forecasts with a high accuracy rate.

This paper presents an ensemble machine-learning classification model for the placement status forecasting process. Combined classification techniques are used in stacking and voting models to forecast the placement details. The performance of this ensemble model in the student data is examined and the best ensemble model for the further placement status forecasting process of the student data is selected.

International Conference on Innovations in Robotics, Intelligent Automation and Control
AIP Conf. Proc. 2914, 050022-1–050022-6; https://doi.org/10.1063/5.0175866
Published by AIP Publishing. 978-0-7354-4770-7/$30.00

सत्यं शिवं सुन्दरम्

Estd. 1949

Journal of
The Maharaja Sayajirao University of Baroda

Certificate of Publication

Certificate of publication for the article titled:

EFFICIENT TASK SCHEDULING AND LOAD BALANCING TECHNIQUES TO OPTIMIZE RESOURCE UTILIZATION IN CLOUD ENVIRONMENT

Authored by

Dr. C.R. Durga Devi
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Volume No .**57** No.**1(VII)** **2023**

in

Journal of The Maharaja Sayajirao University of Baroda

ISSN : 0025-0422

(UGC CARE Group I Journal)

Editor
Journal MSU of Baroda

सत्यं शिवं सुन्दरम्

Estd. 1949

Journal of
The Maharaja Sayajirao University of Baroda

Certificate of Publication

Certificate of publication for the article titled:

A REVIEW PAPER ON CURRENT TECHNOLOGIES FOR LEAF DISEASES PREDICTION USING MACHINE LEARNING TECHNIQUES

Authored by

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Research Scholar Department of Computer Science Nallamuthu Gounder Mahalingam College Pollachi, Coimbatore

Volume No .57 No.1(VII) 2023
in
Journal of The Maharaja Sayajirao University of Baroda

ISSN : 0025-0422

(UGC CARE Group I Journal)

Editor
Journal MSU of Baroda

सत्यं शिवं सुन्दरम्

Estd. 1949

Journal of
The Maharaja Sayajirao University of Baroda

Certificate of Publication

Certificate of publication for the article titled:

TRANSFORMATION SEARCH: ENHANCING WEB PAGE RE-RANKING WITH TRANSFORMER-BASED DEEP LEARNING ALGORITHMS

Authored by

Dr. C. R. Durga Devi
Assistant Professor, Department of Information Technology, NGM College, Pollachi, Coimbatore India

Volume No .57 No.1(VII) 2023
in
Journal of The Maharaja Sayajirao University of Baroda

ISSN : 0025-0422

(UGC CARE Group I Journal)

Editor
Journal MSU of Baroda

Poisson Wavelet Quantized Piecewise Regressive Distributed Coding for Image Compression and Transmission

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Abstract:- Image compression is the process of minimizing the size of a digital image file while attempt to preserve its visual quality as much as possible. This file size reduction process is achieved by eliminating redundant or unnecessary information in an image. Therefore image compression is essential for various applications, including reducing storage space requirements, improving data transmission efficiency, and enhancing the user experience in multimedia applications. The existing compression method faces most important challenges to enhance the quality of the reconstructed image with minimum time and higher compression ratio. A novel technique called Poisson Wavelet Quantized Piecewise Regressive Distributed Coding (PWQPRDC) technique for achieving higher compression ratio. First, the numbers of natural images are collected from the dataset. The PWQPRDC first performs the Camargo's indexive gamma map filtering technique to preprocess the input image and to remove the noisy pixels from input image. Then the PWQPRDC technique performs the image compression to obtain the storage efficiency and transmission. The image compression process includes three different process namely Poisson Wavelet Transformation, Dead-Zone Quantization and Absolute piecewise regressive Geometric Distributed Coding. In PWQPRDC techniques, Poisson wavelet transformation is used for decomposing the input image into low and high frequency coefficients. After that, Dead-Zone Quantization is applied to quantize the low frequency coefficients and effectively rounding to the nearest discrete value. Finally, the Absolute piecewise regressive Geometric Distributed Coding is applied for mining the size of the quantized image with higher compression ratio. This compressed image is transmitted through the network channel. The decompression is performed as a reverse process of the compression technique such as Decoding, Dead-Zone De-Quantization and inverse Poission wavelet transformation. Experimental evaluation is carried out on factors such as peak signal-to-noise ratio (PSNR), compression ratio, compression time and Storage saved, with respect to image size. The analyzed results indicates that the superior performance of our proposed PWQPRDC techniques model when compared with existing methods.

Keywords: : *Image compression, Camargo's indexive gamma map filtering, Poisson wavelet transformation, Dead-Zone Quantization, Absolute piecewise regressive Geometric Distributed Coding*

1. Introductions

Image compression is the fundamental processes in the field of digital image transmission through the wireless channel. They play a crucial role in various applications, ranging from multimedia content delivery to medical

सत्यं शिवं सुन्दरम्

Estd. 1949

Journal of
The Maharaja Sayajirao University of Baroda

Certificate of Publication

Certificate of publication for the article titled:

STUDY ON MACHINE LEARNING AND CRYPTOGRAPHIC METHODS FOR IMAGE COMPRESSION AND SECURED TRANSMISSION

Authored by

V.Prabavathi,
Research scholar, Department of Computer Science, Nallamuthu Gounder Mahalingam College,Pollachi.

Volume No .57 No.1(IV) 2023
in
Journal of The Maharaja Sayajirao University of Baroda

ISSN : 0025-0422

(UGC CARE Group I Journal)

Editor
Journal MSU of Baroda

INVESTOR'S AWARENESS ON POST OFFICE SAVINGS SCHEMES

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ABSTARCT

"***It's not about how much money you make. It's how you save it!*** Is the famous quote. Now People are aware about savings and they are more willing to save than spending it. The society must consume less and save more of its current income Importance of savings for economic growth is highlighted in all economics textbooks. Capital investment is crucial to grow an Economy. Though the central and state government provides many options for savings, Post office saving is considered to be the most safest and preferable savings by the people. This study is focused on Investor's awareness on post office savings schemes in Pollachi taluk. Primary data were collected from 60 investors who have savings in various schemes provided by the Indian Postal department. The study reveals that majority of the respondents are aware about the schemes available in Post Office.

Key Words: Savings, Post Office schemes, Investors.

INTRODUCTION

One of the most well-known and easily reachable savings accounts in India is a Post Office Savings Account. It is Considered to be a highly secure instrument to deposit funds into and offer the option of full or partial liquidation of funds at very short notice in case if the need arises. In October 1st 1854, the Indian postal system was created that is run by the Indian Government, and its main office is located in Dak Bhwan in New Delhi. The postal system in India is very important in giving many investment opportunities. Post offices now provide financial services in addition to postal and remittance services. For those living in remote areas without access to financial services, it is quite helpful. Post office savings holds various savings schemes which are ideal for senior citizens and people who are looking to earn a regular income without much risk. It provides various savings and investment schemes like Post Office Savings Accounts, Recurring Deposit Accounts, Term Deposit Accounts, Monthly Income Scheme Accounts, Senior Citizen Savings Plans, Public Provident Fund (PPF) Plans, National Savings Certificate (NSC) Plans, Kisan Vikas Patra Plans, and Sukanya Samriddhi Account Plans. These programmes provide investors a number of advantages, including tax exemption, risk-free investment, long-term return investment, etc. Even though Banks offer deposit plans, post office savings plans continue to grow in popularity in rural regions. This programmes aims to encourage rural residents' attitudes about saving.

REVIEW OF LITERATURE

Chandru. N and M. Nithiya Devi [2023] finds that highly secured and availability of Post offices in all the areas are the main reason for the preference of savings.

Keerthana. T and D. Vijayakumar [2023] revealed that Post offices are offering best services as like banking and Post office saving is considered to be the best saving option among the public.

Naveen .M and D. Shanmugavel [2021] states that respondents are satisfied with the easy procedures followed with the Post office saving scheme and the amenities available in the Post office.

Benazir. A [2020] revealed that lack of adequate information made unaware about the various schemes available in Post office and the Post office department should conduct awareness campaigns for the public.

STATEMENT OF THE PROBLEM

Post office saving is one of the savings scheme introduced by Central Government. It is considered to be the safest one among all the other modes of savings. There are many savings schemes available in post office. Though there are many schemes available, some of the schemes are not

Journal of Advanced Zoology
ISSN: 0253-7214
Volume 44 Issue S-7 Year 2023 Page 1927:1930

Job Stress Of Women Employee In It Industry With Reference To Coimbatore City

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ABSTRACT

Women are playing a vital role in the economic and social development of the nations all over the world. Working women have a whole set of problem involving both family and professional lives. Women have to play their role as a wife, a mother and an earner. They have to manage their career while maintaining traditional roles. The Means for working women it is two sets of overlapping responsibilities. Women are so busy that they do not take time to slow down long enough to think about how stress is negatively affecting them. Long term stress can lead to serious health problems. It seems to be common knowledge that women are generally busier and more stressed than men. It is widely believed that they have juggle more roles and balance their life especially for the women employee who working in IT Industry.

Keywords: *Women Overlapping Responsibility and Job Stress.*

INTRODUCTION

The composition of the workforce has seen a gradual change during the past few decades. More and more women are working now a days and hence workforce has more working mother. As women are considered to be more responsible for maintaining the children and household chores, they face a lot of problem in retaining he balance between work and non-work life. Dealing with family issues as well as work issues has resulted in women dealing with an increasing amount of stress. Workplace stress is a condition that affects one's disposition, way of thinking, and feelings. The mismatch between the demands of the job and the resources at hand will lead to stress at work and a rise in negativity and unhappiness. In these situations, working from home could lead to role ambiguity, overwork, role conflict, and time pressure, all of which can reduce job satisfaction (Kim et al. 2019). Work stress is another crucial indication that has a considerable impact on job satisfaction (Hsu et al. 2019). The numerous data provided by Chao et al. (2015) show that work stress has a detrimental effect on job satisfaction.

JOURNAL OF THE ORIENTAL INSTITUTE
ISSN: 0030-5324

WORK LIFE BALANCE AND JOB STRESS OF WOMEN EMPLOYEE IN IT INDUSTRY WITH REFERENCE TO COIMBATORE CITY

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ABSTRACT

Every sector and organisation in the world have been significantly impacted by the early 2020 corona virus (COVID-19) outbreak, which has also changed how people live and work. Several organisations have begun to develop a new way of working that includes teleworking or a work from home policy in order to effectively respond to these transformations. This study aims to fill any gaps by looking at a wide range of potential indicators of job satisfaction when working from home when affected by COVID-19, including work-life balance and work stress. 343 forced home-workers in the IT industry from all over India participated in a quantitative study, and SPSS was used to analyse the results. The study found that work stress, work-life balance, and working from home had a major impact on job happiness, both directly and indirectly. Working from home as a new pace of work aids Indian women IT employees in maintaining job satisfaction in their existing working environment. Given the collectivist climate, working from home can be a positive thing that the company should take into consideration.

Keywords: Work from home; Job satisfaction; Work stress; Work–life balance; IT; COVID-19.

1. INTRODUCTION

A global economic and social shock brought on by the coronavirus (COVID-19) outbreak that started in early 2020 is anticipated to have an effect on how businesses and industries function as well as how people live and work. One of the most noticeable changes as a result of the COVID-19 pandemic is in information technology (IT), telecommuting, or the policy of working from home across occupations (Kramer and Kramer 2020). In order to stop the virus from spreading while yet allowing for business as usual, the World Health Organisation advised governments and enterprises to utilise teleworking as a new workplace innovation. This entails a flexible working arrangement that is not constrained by time, place, or the preferred medium of technical communication. The possibility of working from home had always existed, but the outbreak made it necessary. This current global job norm is

SOUTH INDIA JOURNAL OF SOCIAL SCIENCES
ISSN: 0972 – 8945

ISSUES FACED BY WOMEN ENTREPRENEURS IN E-BUSINESS

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Dr. S.Poongodi Assistant Professor, PG Department of Commerce-CA, Nallamuthu Gounder Mahalingam College, Pollachi, Tamil Nadu, India.

Abstract

The research paper aims at exploring the issues faced by women Entrepreneurs doing e-business in Pollachi Taluk. Data for study have been collected from 114 women entrepreneurs through questionnaire method by adopting convenience sampling technique. Simple Percentage and Chi-Square test have been used to analyze the data. The study reveals that majority of the women entrepreneurs are residing in rural area who are married and lives as nuclear family whereas most of the women entrepreneurs doing e-business have 1-3 years of experience. It is found that most of the women are strongly agree with issues faced by e-business like hiring right employees, time management. Also, majority of the women agree with issues faced by e-business like handling latest technology, competitors, network problems, security threads, unknown customers and return and refund policies, whereas most of the women disagree with marketing and lack of personal touch. It is also found that area, marital status, educational qualification, family income and experience in business have significant association with the level of issues faced by women entrepreneurs in e-business.

Keywords: Issues – Women – Entrepreneurs –E-business.

Introduction

Women entrepreneurs in e-business have a unique set of opportunities and challenges in today's digital economy. On the one hand, the rise of E-commerce and online marketplaces has made it easier than ever for women to start and grow their own business without the traditional barriers of physical retail spaces. On the other hand, there are still a number of challenges that women entrepreneurs face in the E-business world. Such as the gender bias and discrimination that persists in many industries and the need for specialized skills and resources to compete in a rapidly evolving digital landscape. Ravi Chaturvedi et.al (2018) found that challenges faced by Indian women entrepreneurs are balance between family and career, socio-cultural barriers, male dominated society, illiteracy or low level of education, dearth of financial assistance, lack of technical skills, lack of self-confidence and mobility constraints. So, in this study an attempt has been made to examine the level of issues faced by women entrepreneurs in e-business.

Review of Related Literature

Lakshmi Priya and **Smilee Bose (2021)** in their research entitled **"**A study on opportunities and constraints faced by women entrepreneurs in e-commerce**"** to determine the opportunities and challenges faced by women entrepreneurs in e-business. Data have been collected by using questionnaire to 60 women entrepreneur using random sampling method. Chi-square test has been used to analyse the data. The result of the study reveals that, there is significant relationship between education qualifications of women entrepreneurs in e-commerce. It is also formed that there is no significant relationship between experience and challenges faced by women entrepreneurs in e-business.

Nidhi Khatrani (2021) in their research entitled **"**A study on challenges faces by women entrepreneurs in Surat" to focus on the challenges faced by women entrepreneurs in India and problem faced by small scale women entrepreneurs in Surat. The data is collected from 141 women residing in surat using questionnaire. Paper mostly based on primary data using questionnaire method. Simple percentage has been used to analyze the data. The study reveals that majority of the women belong to the age group of 25-29 and 30-34 and they faces challenges like doubt of self-confidence, financial issues for

WORKING WOMEN PERCEPTION TOWARDS E-BIKE

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Dr. P. Jayanthi Assistant Professor, PG Department of Commerce-CA, Nallamuthu Gounder Mahalingam College, Pollachi, Tamil Nadu, India.

ABSTRACT
This research study aims at exploring working women perception towards e-Bike and variables associated with level of preference towards e-bike. Data for the study have been collected from 110 working women through issue of structured questionnaire by adopting convenience sampling method. Simple Percentage and Chi-square test have been used to analyze the data. The study reveals that majority of the working women are in the age group of 31 to 40 years and majority of them are undergraduates employed in non-government sector with an earning between Rs.20001 to Rs.40,000 per month and they are aware about E-Bike through self, friends, relatives and advertisement. The factors influence to purchase e-bike are Incentives/subsidiesfrom government, durability, high performance, more storage space, inexpensive, can be used as external power, less maintenance, , eco-friendly, publicity, less dependence on fossil fuels, less pollution, no fuel cost, smooth driving and appearance of vehicle. Chi-square test reveals that age, type of family, monthly income, family income and period of usage are significantly associated with the level of preference for e-bike.

Keywords:
Working women- e-bike-preference.

Introduction
Indians prefer two wheelers because of their small manageable size, low pricing, maintenance, and availability of loans on liberal terms. Indian streets are full of people of all age group riding two-wheelers. Majority of Indians, especially the youngsters prefer motorbikes rather than cars. Capturing a large share in the two-wheeler industry, bikes and scooters cover a major segment. Large varieties of two wheelers are available in the market, known for their latest technology and enhanced mileage.Indian bikes, scooters and mopeds represent style and class for both men and women. India is the second largest producer and manufacturer of two-wheelers in the world. The face of auto industry that was redefined with the invention of fuel-efficient technology is all set to see dawn of a new era in two- wheeler industry. During the last few decades, environmental impact of the petroleum-based transportation infrastructure, along with the peak oil prices, has led to renewed interest in electric transportation infrastructure. Electric vehicles differ from fossil fuel-powered vehicles in that the electricity they consume can be generated from a wide range of sources, including fossil fuels, nuclear power, and renewable sources such as tidal power, solar power, and wind power or any combination of those. Global warming is becoming the major concern all aroundthe world. There are several policies, promise and pledges with the ever-increasing emission of greenhouse gases. There is an increased fear of environment pollution at every step with modern technology and innovation. Transportation and communication have under gone paradigm shift along with this. In this regard the present study brief about working women perception towards e-bike.

Literature Review
Sheela Srivastava and Sivakoti Reddy (2011), in their study made an attempt to identify the customer perception on green brands of two wheelers and four wheelers in the state of Andhra Pradesh. The data for the study have been collected by issuing questionnaire to 200 respondents using interview techniques. The data have been analysed using simple percentage. The findings of the study shows that majority of the customers are satisfied with price and availability of spare parts in the local market

ROLE OF EDUCATIONAL INSTITUTIONS IN FOSTERING ENTREPRENEURSHIP

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Abstract

Entrepreneurs have been making a major impact in all segments of Indian economy. Entrepreneurship education is important part in developing entrepreneurial qualities in students. Accordingly, it becomes essential to study role of educational institutions in fostering entrepreneurship in Pollachi Taluk. Data for study have been collected from 104 students through questionnaire by adopting convenience sampling method. Simple Percentage and Chi-Square test has been used to analyze the data. The study reveals that majority of the students belong to the age group of 17-20 years residing in rural who lives as joint family whereas most of the students family income is between Rs.25001 between Rs.50000. It is found that majority of the students are aware of entrepreneurship. it is observed that majority of the students are strongly agree with initiatives taken by educational institutional like inspiring speeches by real life entrepreneurs, workshops on entrepreneurship, Courses related to entrepreneurship in curriculum, Students motivated by Entrepreneurship Development Cell and Mentorship beyond Formal Education. Also most of the students agree with initiative like Seminars (Personnel from Govt. Agencies like MSME, SIDBI) and Guest lecturer to develop ideas for new business. It is also found that Age, Area of Residence, Educational Qualification and Family Income have significant association with initiatives taken by educational institutions.

Keywords: Educational – Institutions– Role – Entrepreneurship - Development.

Introduction

India has been developing at great speed in the recent years, and is possible to the largest economy in the world by 2050. Entrepreneurship is getting more attention from policy makers and experts as it contributes to economic development by new ideas of budding entrepreneurs in to business venture. Educational institutions is playing significant role in business development. Skill required for development of entrepreneurship like technical, financial literacy, skill to engage in self-employment & employment in entrepreneurship can foster at institutional level. Hahn (2020) the universities can offer Entrepreneurship education courses to provide students with entrepreneurial skills and prepare them to engage in entrepreneurial activities. So, in this study an attempt has been made to explore the role of educational institutions in fostering entrepreneurship.

Review of Related Literature

Mitchell Dias and Seema Pereira (2020) in their article entitled "A Study on role of universities in fostering entrepreneurship- A study exclusively in Mangalore region" to identify the awareness of the students and steps taken by the educational institutions. Data have been collected from students using random sampling method. Simple percentage has been used to analyse the data. The finding of the study reveals that majority of the students are aware of the concept of entrepreneurship. It is also found the most of the respondents have only theoretical and practical training on subject of entrepreneurship. **KrzysztofWach and Agnieszka Glodowska (2013)** in their article captioned "The role of university in the development of entrepreneurial intentions of younger generations: Selected Models" to know the role of universities and higher education in the creation, shaping and maintenance of entrepreneurial intentions among the youngest generations. The findings of the study shows that role models may be relevant to perceived self-esteem and desirability, and also boarder knowledge of entrepreneurial environment also implies its perception, which determine the individuals entrepreneurial process. **Leo-Paul Dana et al., (2021)** in their research entitled "Entrepreneurship education and training in Indian higher education institutions: a suggested framework" to evaluate the components of entrepreneurship education and training (EET) in India.

ANALYSIS OF HEART DISEASES DATASET USING NEURAL NETWORK APPROACH

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ABSTRACT

One of the important techniques of Data mining is Classification. Many real-world problems in various fields such as business, science, industry and medicine can be solved by using classification approach. Neural Networks have emerged as an important tool for classification. The advantages of Neural Networks help for efficient classification of given data. In this study a heart diseases dataset is analysed using Neural Network approach. To increase the efficiency of the classification process parallel approach is also adopted in the training phase.

Keywords: Data mining, Classification, Neural Networks, Parallelism, Heart Disease

1. INTRODUCTION

Data mining is the process of automating information (knowledge) discovery. Knowledge Discovery in Databases (KDD) is the process of getting high-level knowledge from low-level data. Data mining plays an important role in the KDD. Data mining is an interdisciplinary field.

Its main aim is to uncover relationships in data and to predict outcomes. Researchers are trying to find satisfactory solutions in a reasonable time through search techniques as many problems are difficult to be solved in a feasible time by analytically. Hence data mining got its importance. Data mining helps to extract patterns in the process of knowledge discovery in databases in which intelligent methods are applied. The emerging field of data mining promises to provide new techniques and intelligent tools which help the human to analyse and understand large bodies of data remains on difficult and unsolved problem. The common functions in current data mining practice include Classification, Regression, Clustering, Rule generation, Discovering association rules, summarization, dependency modelling, and sequence analysis. Classification is one of the important techniques of data mining. The input to the classification problem is a data-set called the training set having a

EMERGING TECHNOLOGIES FOR TRANSFORMING TEACHING AND LEARNING

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Abstract

The landscape of education is undergoing a profound transformation due to the rapid advancement of Information and Communication Technologies (ICT). These emerging technologies have the potential to revolutionize teaching and learning methodologies, fostering more personalized, engaging, and effective educational experiences. This paper explores some of the most promising ICT technologies and their implications for reshaping education. From Artificial Intelligence (AI) and Virtual Reality (VR) to Gamification and Learning Analytics, each technology's unique contributions to the educational sphere are examined.

Artificial Intelligence (AI) is revolutionizing the way students learn by providing personalized learning pathways. AI-powered educational tools can analyze individual learning patterns, identify strengths and weaknesses, and offer tailor-made content and assessments. Virtual Reality (VR) and Augmented Reality (AR) create immersive and interactive learning environments, enabling students to explore virtual worlds and conduct simulated experiments. Gamification, through its use of game elements, motivates and engages learners, making the learning process enjoyable and rewarding.

Internet of Things (IoT) devices in smart classrooms streamline administrative tasks and enable data-driven decision-making for educators. Blockchain technology ensures data security and transparency, particularly in credentialing and certification processes. Mobile Learning (m-Learning) enables flexible access to educational content anytime and anywhere, empowering learners with continuous access to knowledge.

Collaborative tools facilitate group projects and peer-to-peer learning, promoting critical thinking and teamwork skills. Learning Analytics, with its data-driven insights, helps educators identify areas of improvement and provide timely support to struggling students. Cloud Computing enhances accessibility to educational resources and facilitates seamless collaboration.

While these emerging technologies hold great potential for transforming education, their successful integration requires addressing challenges such as digital equity, data privacy, and teacher professional development. Striking a balance between technological innovation and preserving the human connection in education is vital. By harnessing the power of ICT responsibly, educators and learners can collaboratively create dynamic and inclusive learning environments, equipping students with the skills they need to thrive in the digital age.

Keywords: *Artificial Intelligence, Virtual Reality, Information and Communication Technologies (ICT), Augmented Reality, Internet of Things (IoT)*

Introduction

In recent years, the world has witnessed rapid advancements in Information and Communication Technologies (ICT). These innovations have profoundly impacted various sectors, and education is no exception. As traditional teaching methods are gradually being supplemented and transformed, educators and learners are exploring the potential of

ISSN 2063-5346

THIRD ORDER SUBLINEAR NEUTRAL DELAY DIFFERENCE EQUATION

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Article History: Received: 10.05.2023 Revised: 29.05.2023 Accepted: 09.06.2023

Abstract

We derive new sufficient conditions for oscillatory and asymptotic behavior of all solutions of third order delay difference equation with a sublinear neutral term. We have compared the third order difference equation into second order delay difference equation with some oscillation characteristics and obtained oscillation results. Examples are provided to illustrate our results.

Keywords: Oscillation, difference equation, third order, sublinear, neutral delay.

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DOI:10.48047/ecb/2023.12.9.78

Neutrosophic Sets and Systems, Vol. 57, 2023

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On Hypersoft Semi-open Sets

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Abstract. A generalisation of soft sets called a hypersoft set incorporates a multiargument function. The major goal of this study is to provide appropriate examples for the introduction of hypersoft semi-open sets (SOS) and hypersoft semi-closed sets (SCS). Additionally, we investigate the definition and characteristics of hypersoft semi-open sets in hypersoft topological spaces (TS). The hypersoft semi interior and hypersoft semi closure of the hypersoft set are defined at the end.

Keywords: hypersoft set; hypersoft topology; hypesoft semi-open and closed set; hypersoft semi-interior; hypersoft semi-closure.

1. Introduction

Molodstov [14] established the concept of a soft set in 1999 to handle difficult problems in finance, technical education, and ecological science when no mathematical instruments could effectively address the many types of uncertainty. [13] constructed a number of soft set theory operators and carried out a more thorough conceptual analysis.

Numerous applications of topology, a subfield of mathematics, may be found in the computer and physical sciences. Soft topology is determined on soft sets in two different ways, one by Shabir [20] and the other by Cagman et al. [5].

Soft SOS and soft SCS were first presented in soft TS by Sasikala, V., E. and Sivaraj, D., [19]. Soft semi connected and soft locally semi connected characteristics in soft TS were

Indian Journal of Natural Sciences *www.tnsroindia.org.in ©IJONS*

Vol.14 / Issue 80 / Oct / 2023 *International Bimonthly (Print) – Open Access* *ISSN: 0976 – 0997*

RESEARCH ARTICLE

Generalized Semi Operators in Soft Multi Topological Spaces

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Received: 16 Aug 2023 Revised: 30 Aug 2023 Accepted: 04 Sep 2023

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ABSTRACT

This paper's major goal is to investigate the properties of generalized semi soft multi course and generalized semi soft multi interior with the help of generalized semi closed soft multiset and generalized semi open soft multiset notions and to acquaint the conception of generalized semi soft multi neighbor hoods.

AMS Subject Classification: 03E70,54A05,54B05

Keywords and Phrases: Soft multiset, soft multi topology, generalized semi closed soft multiset, generalized semi soft multi closure, generalized semi soft multi interior and generalized semi soft multineighbourhood.

INTRODUCTION

In 2013, Babitha and John [1] was acquainted the conception of soft multisets as a combination of soft sets and multisets. Then Deniz Tokat et al. [2,3] acquainted the concept of the soft multi topology and its basic properties. S. A. El-Sheikh et al. [4,5] acquainted the generalized closed soft multisets and generalization of open soft multisets and mappings in soft multi topological spaces. In 2022, Inthumathi et al. [6] acquainted the concept of generalized semi closed set in soft multi topological space. In this paper, we acquaint the conception of generalized semi soft multi closure, generalized semi soft multi interior and generalized semi soft multi neighbourhood and discuss few important attributes in detail.

Indian Journal of Natural Sciences *www.tnsroindia.org.in ©IJONS*

Vol.14 / Issue 80 / Oct / 2023 *International Bimonthly (Print) – Open Access* *ISSN: 0976 – 0997*

RESEARCH ARTICLE

Interval-Valued Intuitionistic Fuzzy Convex Optimization Techniques

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Received: 15 Feb 2023 Revised: 25 Apr 2023 Accepted: 30 May 2023

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ABSTRACT

Optimization is a procedure of finding and comparing feasible solutions. Convex optimization is one of the fields among several fields of Optimization techniques. This article presents the definition of interval-valued intuitionistic fuzzy local maximum point and interval-valued intuitionistic fuzzy global maximum point and its characterizations.

Keywords: IVIF-convex set, TOPSIS, IVIF-convex objective function, IVIF-convex constraints

INTRODUCTION

In this paper, we introduced the interval-valued intuitive fuzzy local maximum point. (abbreviated $IVIF^{LM}$ point) and the interval-valued intuitionistic fuzzy global maximum point (abbreviated $IVIF^{GM}$ point) of $convex_{IVIF}$ sets and its properties. Throughout this paper U as universal crisp set, I is the collection of all subintervals of the closed interval [0,1] and I^U represents the family of all closed subintervals of [0,1]. with respect to the specified set U

Convex $_{IVIF}$-sets: Characteristics

Definition 2.1.
Let A be an on empty sub set of I^U. An element $x^p \in supp$ (A)is called an $_{IVIF}$ ^{LM} point of A if there exists ϵ >0 such that $[\underline{\mu},\overline{\mu}]_A(x^p) \geq [\underline{\mu},\overline{\mu}]_A(x)$ and $[\underline{\nu},\overline{\nu}]_A(x) \leq [\underline{\nu},\overline{\nu}]_A(x^p)$ for all $x \in B(x,r)$

Indian Journal of Natural Sciences *www.tnsroindia.org.in ©IJONS*

Vol.14 / Issue 80 / Oct / 2023 *International Bimonthly (Print) – Open Access* *ISSN: 0976 – 0997*

RESEARCH ARTICLE

Trapezoidal Intuitionistic Fuzzy Sequencing Problem

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Received: 16 Aug 2023 Revised: 30 Aug 2023 Accepted: 04 Sep 2023

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ABSTRACT

This study examines various sequencing issues where the processing times are trapezoidal intuitionistic fuzzy numbers. Through the use of Graded Mean Ranking Methodology of Pascal's Triangle and the Zero Identifier method, an algorithm is shown for determining the ideal sequence, the minimum total time spent and the idle time for each machine. To demonstrate the viability of the sequencing problem, numerical examples have been provided.

Keywords: Trapezoidal Intuitionistic Fuzzy Number, Optimal Sequence, Total elapsed time, Idle time, Pascal's Triangle Graded Mean Ranking value.

INTRODUCTION

Operations Research assists us in making wiser judgements in difficult situations. Considered to be one of the most crucial applications of operations research is the Sequencing problem. When we are worried about the situation, where there is an option regarding how a number of activities can be done, job sequencing concerns occurs. Sequencing refers to a set of actions or tasks that must be carried out in a particular order. Johnson's method [1] , which he provided in 1954 for production scheduling and which minimized the overall idle time of machines and the total production times of the jobs, is one of the most well-known works in this field still being used today. Later in 1967, Smith and Dudek created a general method for the flow shop's 'n' task on 'm' machines sequencing problem when the number of passing is permitted. In most cases, Processing times in sequencing problems are accurately

Indian Journal of Natural Sciences *www.tnsroindia.org.in ©IJONS*

Vol.14 / Issue 80 / Oct / 2023 *International Bimonthly (Print) – Open Access* *ISSN: 0976 – 0997*

RESEARCH ARTICLE

Third Order Semi-Canonical Nonlinear Difference Equations

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Received: 16 Aug 2023 Revised: 30 Aug 2023 Accepted: 04 Sep 2023

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ABSTRACT

We provide some novel oscillation conditions for semi-canonical difference equations using the canonical transformation method. Our findings reinforce and improve certain earlier ones. Examples have been generated to highlight the relevance of the consequences.

Keywords: Semi-canonical, asymptotic, oscillatory, difference equation, nonlinear.

INTRODUCTION

Consider the third order difference equation in this instance.

$\Delta(q(\varsigma)\Delta(r(\varsigma)\Delta\Psi(\varsigma))) = s(\varsigma)\Psi^{\kappa}(\varrho(\varsigma)), \varsigma \geq \varsigma_0$ (1.1)

where ς_0 is a positive integer. We assume the subsequent hypothesis

H1) $\{q(\varsigma)\}, \{r(\varsigma)\}, \{s(\varsigma)\}$ are positive real sequences;

H2) $\{\varrho(\varsigma)\}$ is an increasing sequence of positive integer with $\varrho(\varsigma) \geq \varsigma + 1$;

H3) κ is a real positive integer with $\kappa > 1$;

H4) the equation (1.1) is in semi canonical form, that is

$\sum_{\varsigma=\varsigma_0}^{\infty} \frac{1}{q(\varsigma)} = \infty$ and $\sum_{\varsigma=\varsigma_0}^{\infty} \frac{1}{r(\varsigma)} < \infty$. (1.2)

A real sequence $\{\Psi(\varsigma)\}$ that satisfies (1.1) for any $\varsigma \geq \varsigma_0$ is referred to as a solution of (1.1). Nontrivial solutions to (1.1) are either oscillatory or non oscillatory depending on whether the final result is positive or negative.

Finding out the qualitative behavior of various types of second order difference equations has garnered a lot of attention in recent years. Despite the fact that discrete models are used in many other areas of mathematics, including economics, mathematical biology, and [1] and [2], difference equations have a wide range of applications in these fields.

Indian Journal of Natural Sciences *www.tnsroindia.org.in ©IJONS*

Vol.14 / Issue 80 / Oct / 2023 *International Bimonthly (Print) – Open Access* *ISSN: 0976 – 0997*

RESEARCH ARTICLE

Qualitative Behavior of Fourth Order Neutral Difference Equations

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Received: 16 Aug 2023 Revised: 30 Aug 2023 Accepted: 04 Sep 2023

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ABSTRACT

"The goal of this paper is to illustrate the qualitative behaviour of a fourth order difference equation with neutral terms of the form
$\Delta\left(s_1(\vartheta)\left(\Delta^3 q(\vartheta)\right)^{\beta_1}\right) = s_2(\vartheta)y^{\beta_2}(\vartheta - n + 1) + s_3(\vartheta)y^{\beta_3}(\vartheta + n^*)$
where $q(\vartheta) = y(\vartheta) - s_4(\vartheta)y^{\beta_4}(\vartheta - k)$ Here $\beta_1, \beta_2, \beta_3, \beta_4$ are the ratios of odd positive integers $\beta_1 \geq 1, s_1, s_2, s_3, s_4$ are positive sequences and $n, n^*, k \in N$ are such that $n > 3, n^* > 3$, $k < n - 2$. With the help of comparison techniques, we are able to acquire some novel oscillations results. Examples are given to illustrate the importance of the discoveries.

Keywords : comparison techniques, fourth order, neutral terms, oscillation.

INTRODUCTION

Due to the fact that neutral difference equations are used in the study of economics, mathematical biology, and many other areas of mathematics, the issue of establishing oscillation phenomena for these equations has drawn a lot of attention in recent years [1],[2],[11],[12],[17]. The sources cited there as well as [4], [21], [22], [23] provide some fascinating new findings on the oscillatory behavior of second-order differential equations. A examination of the literature reveals that every conclusion made for fourth order difference equations with neutral terms ensures that each solution oscillates or monotonically approaches to zero. As far as we are aware, no conclusions have been drawn for fourth order neutral difference equations that suggest that all solutions are just oscillatory. This study's goal is to provide the equation some revised oscillation restrictions as a result.

$$\Delta\left(s_1(\vartheta)\left(\Delta^3 q(\vartheta)\right)^{\beta_1}\right) = s_2(\vartheta)y^{\beta_2}(\vartheta - n + 1) + s_3(\vartheta)y^{\beta_3}(\vartheta + n^*) \quad (1)$$

Nonexistence of Kneser solution of neutral delay difference equation

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Abstract

By creating suitable standards for the nonexistence of so-called Kneser solutions, this study seeks to augment the third order neutral delay difference equations current oscillation results. The results of combining new and previous findings. All of the answers to the studied equations oscillate thanks to our work.

Keywords : Non-oscillation, difference equation, Kneser solution, neutral delay.
MSC:39A10

1. Introduction

In this paper, we look into the third-order neutral delay difference equation's Kneser solution.

$$\Delta\left(a_2(\iota)\Delta\left(a_1(\iota)\Delta y(\iota)\right)\right)+c_1(\iota)x\left(\varsigma(\iota)\right)=0, \iota \geq \iota_0 > 0, \tag{1}$$

where $y(\iota)=x(\iota)+\omega(\iota)x(\mu(\iota))$.

In this paper, we assume the following:

(A1) $\omega(\iota)$ and c_1 are positive real sequences, $0 \leq \omega(\iota) \leq \omega_0 < \infty$ and $c_1(\iota)$ does not vanish identically;

(A2) ς is a real valued increasing sequence with $\varsigma(\iota) < \iota$ and $\lim_{\iota\to\infty}\mu(\iota)=\infty$, μ is a real valued increasing sequence with $\mu(\iota) < \iota$ and $\lim_{\iota\to\infty}\mu(\iota)=\infty$;

(A3) The real sequences are $\{a_1\}$, $\{a_2\}$ which satisfy $\sum_{\iota_0}^{\infty}\frac{1}{a_1(\iota)}=\infty; \sum_{\iota_0}^{\infty}\frac{1}{a_2(\iota)}=\infty;$

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TATRA MOUNTAINS
Mathematical Publications
DOI: 10.2478/tmmp-2023-0034
Tatra Mt. Math. Publ. **00** (xxxx), 1–12

NEW CRITERIA ON THE OSCILLATORY BEHAVIOUR OF SECOND ORDER NONLINEAR DIFFERENTIAL EQUATIONS WITH MIXED NEUTRAL TERMS

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ABSTRACT. The authors present some new criteria for the oscillation of second order nonlinear differential equations with mixed nonlinear neutral terms and mixed deviating arguments. The approach used is to linearize the equation under consideration and then to deduce the oscillation from that of the linear form. In so doing, the authors obtain new oscillation criteria via a comparison with the first order equations whose oscillatory behaviors are known. They illustrate their results with some examples.

1. Introduction

This paper is devoted to obtaining some new criteria on the oscillatory behavior of all solutions of the nonlinear second order differential equation with mixed neutral terms

$$\Big(a(t)\big(y'(t)\big)^{\alpha}\Big)' + q(t)x^{\alpha}\big(\tau(t)\big) + p(t)x^{\alpha}\big(\omega(t)\big) = 0, \tag{1}$$

where $y(t) = x(t) + p_1(t)x^{\beta}\big(\sigma(t)\big) - p_2(t)x^{\delta}\big(\sigma(t)\big)$. We will assume that:

(i) α, β, and δ are the ratios of odd positive integers with $\alpha \geq 1$;

(ii) p_1, p_2, a, p, q, $c : [t_0, \infty) \to \mathbb{R}^+$ are continuous functions;

© 2023 Mathematical Institute, Slovak Academy of Sciences.
2020 Mathematics Subject Classification: 34K11, 34C10, 34C15.
Keywords: Oscillation, Second Order, Neutral, Mixed Arguments.
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Communications on Applied Nonlinear Analysis
ISSN: 1074-133X
Vol 31 No. 1 (2024)

Oscillatory and Property Conditions for Third Order Difference Equation with Negative Middle-Term

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Article History:

Received: *18-09-2023*

Revised: *25-10-2023*

Accepted: *19-11-2023*

Abstract:
This paper presents a detailed analysis of the oscillation and Property A conditions for third-order advanced difference equations with negative middle terms. The authors employ the generalized Riccati transformation technique and summation by parts to establish sufficient criteria for the solutions to be oscillatory or have Property A. The main results and their proofs are presented clearly and concisely. The difference equations have been a topic of interest in various scientific fields such as economics, physics, and mathematical biology. The results presented in this paper can be used to inform the development of more accurate models for real-world problems in various scientific fields. Additionally, this paper explores the economic theory of business cycles and its mathematical foundations, specifically Samuelson's model, which outlines five potential trajectories or trends that economic activity can follow based on different combinations of the marginal propensity to consume multiplier parameter(α) and the accelerator coefficient (β).

Keywords: Advanced equation, property A, oscillation criteria, Riccati transformation, semi-canonical.

1. Introduction

In this article, we will discuss the economic theory of business cycles and its mathematical foundations. Specifically, we will explore Samuelson's model, which outlines five potential trajectories or trends that economic activity can follow. These paths are determined by different combinations of the marginal propensity to consume (α) and the accelerator coefficient (β). Each combination results in a unique pattern of economic movement. We will examine the model in detail and highlight its key features, including the dynamic of economic cycles and their relationship to changes in consumption and investment.

The article will also delve into the mathematical foundations of the model, including second-order difference equations in the context of business cycles. We will explore the oscillatory behavior and Property A conditions for third-order difference equations, which have applications in economics, physics, and mathematical biology. The paper will highlight the connection between these equations and Samuelson's model, demonstrating how they can be used to gain insights into the behavior of economic cycles.

Finally, we will present practical examples to demonstrate the main results, providing to apply in real-world scenarios. This chapter aims to provide readers with a comprehensive overview of Samuelson's

Communications on Applied Nonlinear Analysis
ISSN: 1074-133X
Vol 31 No. 1 (2024)

Qualitative Behavior Of Second Order Difference Equation with Non Positive Neutral Term

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Article History:

Received: *15-09-2023*

Revised: *24-10-2023*

Accepted: *18-11-2023*

Abstract:

The oscillation of second order difference equations with a nonlinear nonpositive neutral component is the subject of this study. We come up with a sufficient condition that guarantees that all solutions to the examined equation are either oscillatory or going towards zero. Through examples, the improvement of our primary findings is demonstrated.

Keywords: Oscillatory, neutral term, non positive, second order.

MSC: 39A10.

1. Introduction

In this article, we study some oscillatory manners of a second order non linear non positive neutral delay difference equation of the form

$$\Delta(r(\wp)\Delta(z(\wp) - p(\wp)z^{\gamma_1}(\tau_1(\wp)))) + q(\wp)z^{\gamma_2}(\sigma_1(\wp)), \quad \wp \geq \wp_0 > 0. \tag{1}$$

subject to the restrictions outlined below :

(R1) γ_2 and $0 < \gamma_1 \leq 1$ are ratio of odd positive integers;

(R2) $\{r(\wp)\}, \{q(\wp)\}$ and $\{p(\wp)\}$ are positive real sequences such that $0 < p(\wp) \leq p < 1, \forall\, \wp \geq \wp_0$ and

(R3) σ_1 and τ_1 are positive integers with $\tau_1\wp) \leq \wp, \Delta\tau_1(\wp) > 0$, $\sigma_1(\wp) \leq \wp, \Delta\sigma_1(\wp) > 0$, $\lim_{\wp\to\infty}\tau_1(\wp) = \lim_{\wp\to\infty}\sigma_1(\wp) = \infty$.

A real sequence {z(℘)} is said to be a solution of (1) if it is defined for all ℘ ≥ ℘_0. A nontrivial solution of (1) is called oscillatory if it is neither eventually positive nor eventually negative. Otherwise, the solution is said to be non oscillatory. An equation is oscilltory if all its solutions oscillate.

Since neutral type equations are prevalent in the study of economics, mathematical biology, and many other fields of mathematics, determining oscillation conditions for these equations has garnered a lot of attention in recent years. (see for example $[1] - [9]$) . To the best of our knowledge, there are no results in the literature that guarantee that all solutions for the second order difference equation are just oscillatory. This conclusion is drawn from a review of the literature. All results ($[10] - [14]$) established for neutral type difference equations are guaranteed that every solution is either oscillatory or tends to zero monotonically. In order to define conditions for the oscillation of all solutions under the following condition, the authors considered (1) with $p(\wp) < 0$,

Ratio Mathematica Volume 51, 2024

Generalized soft multi connectedness and compactness

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Abstract

The significance of connectedness and compactness plays a vital role in studying the properties of topological spaces. Numerous authors explored several characterizations of topological spaces using these notions. Researchers had attempted to generalize the concepts of connectedness and compactness in various generalized topological spaces like ideal topological spaces, soft topological spaces, fuzzy topological spaces etc. In the year 2013, Babitha and John studied the concept of connectedness in soft multi topological spaces. Since then the study of these concepts has created a gap in the literature. The uniosity about the generalizations of connectedness and compactness in soft multi topological spaces explored this article.

Keywords: Soft multiset, soft multi topology, generalized semi closed soft multiset, generalized semi soft multi connectedness and generalized semi soft multi compactness.

2020 AMS subject classifications: 03E70, 54A05, 54B05, 54A10. [4]

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[4] Received on May 20, 2023. Accepted on Juanuary 23, 2024. Published on Juanuary 31, 2024. DOI:10.23755/rm.v51i0.1225. ISSN: 1592-7415. eISSN: 2282-8214. © Inthumathi *et al*. This paper is published under the CC-BY licence agreement.

Hindawi
Applied Computational Intelligence and Soft Computing
Volume 2024, Article ID 6974363, 18 pages
https://doi.org/10.1155/2024/6974363

Research Article

The Characteristics of Circular Fermatean Fuzzy Sets and Multicriteria Decision-Making Based on the Fermatean Fuzzy t-Norm and t-Conorm

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Received 25 July 2023; Revised 27 December 2023; Accepted 11 January 2024; Published 10 February 2024

Academic Editor: Yiming Tang

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When diverse decision makers are involved in the decision-making process, taking average of decision values might not reflect an accurate point of view. To overcome such a scenario, the circular Fermatean fuzzy (CFF) set, an advancement of the Fermatean fuzzy (FF) set, and the interval-valued Fermatean fuzzy set (IVFFS) are introduced in this current study. The proposed CFF set is a circle with a centre as association value (AV) and nonassociation value (NAV) with a radius at most equal to $\sqrt{2}$. It is built in such a way that it covers all the decision makers' opinion value through a circle. Due to its geometric structure, the CFF set resolves ambiguity and risk more accurately and effectively than FF and IVFF. FF t-norm and t-conorm are used to investigate the properties of CFF sets, subsequent to which the algebraic operations between them are defined. A couple of CFF distance measures between CFF numbers are introduced and used in the selection of an electric autorickshaw along with the CFF weighted averaging and geometric aggregation operators. The overview and comparison analysis of the generated reports exemplifies the viability and compatibility of the CFF set strategy for selecting the best choices.

1. Introduction

In 1965, Zadeh [1] pioneered the conception of the fuzzy set (FS) by employing AV that takes a value stretching from 0 to 1 instead of a characteristic function that concurs with the value of either 0 or 1 to address the consistency difficulties in real-life situations.

FS is capable of administering the AV. In reality, the NAV should be brought into consideration in many additional circumstances, and that is not essential that the amount of NAV remains the same as the AV reduced by one. As a consequence of this, Atanossav [2] proposed the intuitionistic fuzzy set (IFS) concept in 1986 that considers both AV and NAV into account, in which the NAV is not obtained from the AV and that culminates in the concept of hesitation degree with the assumption that the sum of AV, NAV, and hesitation degree is 1.

Despite the reality that IFS has been used in several areas, there were challenges. In particular, the IFS lacks the capacity to handle such information when a decision maker provides it, but the total amount of AV and NAV is higher than 1. With regard to this, Yager and Abbasov [3] put forwarded the Pythagorean fuzzy set (PFS) theory in 2013 by means of manipulating IFS's perspective. PFS provides the additional feature that the sum of squares of AV, NAV, and hesitation degree is 1, which extends the acceptance range.

The FF set proposed by Senapati and Yager [4] has comparatively extensive range of acceptance to IFS and PFS

Communications on Applied Nonlinear Analysis
ISSN: 1074-133X
Vol 31 No. 1 (2024)

Picture Fuzzy Set with Disaster Management & Decision Making by Measures

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Article History:
Received: *20-10-2023*
Revised: *02-12-2023*
Accepted: *18-12-2023*

Abstract:
Picture fuzzy sets are extension of intuitionistic fuzzy sets. One method to ascertain the relationship between two picture fuzzy sets is to use the correlation coefficient of those sets. In this research, we introduce the refusal membership grade for picture fuzzy sets in the implementation of similarity measure, correlation coefficient and Distance based Similarity Measure in the application of disaster management. We will get the accurate value while considering refusal value in the utilization of picture fuzzy set. It has universal applications in numerous disciplines such pattern recognition, clustering analysis, and disaster management, among others. A picture fuzzy set can be used to convey the character of a decision-making problem, both positively and negatively and comparative study also made with the help of Distance measure, Similarity measure and Correlation coefficient.

Keywords: Picture fuzzy set, Distance Measure, Similarity Measure, Correlation coefficient, Disaster management, picture fuzzy operations.

1. Introduction

In 1965, Zadeh[34] presented the fuzzy set (FS) theory. Following that, FSs and their applications have drawn the attention of other authors, including Chen and Jong (1997)[8], Manoj et al. (1998) [21], and Singh et al. (2019, 2020) [28] [29]. The non-membership degree is automatically regarded as one-minus membership degree in the FS theory, which only takes an element's membership degree into account. As a result, knowing the membership degree of an element may undoubtedly be used to determine its non-membership degree. However since they are aware of the membership degree in real life, a researcher might not be as positive about the non-membership degree (Deschrijver and Kerre 2003) [11]. Atanassov (1986)[3] developed the idea of intuitionistic fuzzy sets (IFSs) employing membership and non-membership functions. In such a scenario, it is desirable to have both an independent non-membership function and a membership function.

Even though IFSs have been applied to many different fields, there are still some situations in daily life that they are not able to handle, such as voting, medical diagnosis, feature selection, personal selection, etc. Cuong and Kreinovich (2013)[6] introduced the concept of picture fuzzy set (PFS) to address these situations. It is an exact extension of Atanassov's (1986)[3] IFSs and Zadeh's (1965)[33] FSs. Every element in a PFS has three degrees: neutrality, non-membership, and membership.

On the other hand, the correlation coefficient is a commonly employed statistical instrument that holds significance in various domains such as data analysis, classification, pattern recognition,

Hypersoft Sets in a Game Theory-Based Decision Making Model

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Abstract

In this study, we offer a hypersoft set theory-based game model for handling uncertainties. The term "hypersoft game" refers to this newly suggested game. Four techniques of game solution are identified: hypersoft saddle points, hypersoft upper and lower values, hypersoft dominated strategy and hypersoft nash equilibrium. We build a two-person hypersoft game first. Additionally, we present real-world problems that the hypersoft saddle point approaches and hypersoft dominating strategy are used to tackle. In conclusion, we expand the hypersoft games from two players to n players.

Keywords: hypersoft set, two person hypersoft games, hypersoft payoff functions, hypersoft dominated strategies, hypersoft lower and hypersoft upper values, hypersoft nash equilibrium.

1 Introduction

Soft set theory was developed by Molodtsov[18] as a generic Mathematical instrument for handling uncertainties. Soft sets have been widely employed to solve decision-making issues. A soft set application for decision-making problems was proposed by Maji et al.,[17] Cagman and Enginoglu.[10]

By replacing the function with a multi argument function specified in the cartesian product with a new set of parameters, Smarandache[21] extended the idea of a soft set to a hypersoft set. Compared to soft sets, this idea is more flexible and more suited to problems requiring decision-making. The hypersoft sets were effectively employed in the COVID-19 decision-making approach by Inthumathi et al.[11] In addition, they presented hypersoft matrices[12] and their uses.[13] They have introduced the concept of hypersoft semi-open sets.[14]

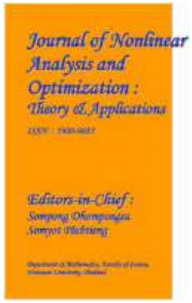
The study of strategic decision-making is known as game theory. The two-person zero-sum game and its proof served as the foundation for contemporary game theory, which was first presented by Neumann and Morgenstern[19] in 1944. Aliprantis and Chakrabarti[2] provided decision-making games. The concepts of fuzzy sets have been embedded into several intriguing game theory applications. Numerous writers have examined the two-person zero sum games with fuzzy objectives and payoffs in game theory.[4,5,7-9,16,22] Additionally, the max-min solution for the degree of attainment of a fuzzy objective has been examined. Soft games, as described by Irfan Deli and Naim Cagman,[15] are applicable to challenges that involve ambiguity and uncertainty.

In this research, we develop a novel uncertainty-handling game model for games dubbed hypersoft games. This game is highly practical and easy to apply in practise since the hypersoft payoff functions of the hypersoft game are set valued functions and the solution of the hypersoft games acquired by applying the operations of sets.

DOI: https://doi.org/10.54216/IJNS.240107

Received: August 11, 2023 Revised: December 21, 2023 Accepted: March 24, 2024

Journal of **N**onlinear **A**nalysis and **O**ptimization
Vol. 15, Issue. 1, No.8 : 2024
ISSN : **1906-9685**



SOME DISTANCE-BASED TOPOLOGICAL INDICES OF DOUBLE STAR STARBELL GRAPH AND PETERSENSTARBELL GRAPH

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Abstract:
A topological index is an analytically derived numerical index for the graph structure. In this paper, we study some distance-based topological indices, such as, Wiener index (W), hyper-Wiener index (WW), Harary index (H), Reciprocal Complementary Wiener index (RCW), Wiener Polarity index (W_P), Terminal Wiener index (TW), Reverse Wiener index (∧) and Reciprocal Reverse Wiener index (R∧) of Double Star Starbell graph $BSS_{r_1,r_2,\ldots,r_{m+n}}$ and Petersenstarbell graph $PS_{m_1,m_2,\ldots,m_5}$.
MSC: 05C12, 05C76

Keywords:
Wiener index, Hyper-Wiener index, Harary index, Reciprocal Complementary Wiener index, Wiener Polarity index, Terminal Wiener index, Reverse Wiener index Reciprocal Reverse Wiener index, Double Star Starbell graph and Petersenstarbell graph.

1. INTRODUCTION

In this paper, we consider only finite, undirected, connected and simple graphs. For a graph $G = (V, E)$, the number of vertices and edges will be denoted by $|V(G)|$ and $|E(G)|$ repectively. If $u, v \in V(G)$, length of the shortest distance between u and v in G is denoted by $d_G(u, v)$, we simply denote it by $d(u, v)$ if there is no ambiguity in the graph under consideration. The eccentricity of a vertex u in a graph G is $e(u) = \max\{(d(u, v): v \in V(G)\}$. The radius (resp. diameter) of G is $r = rad(G) = \min\{e(v): v \in V(G)\}$ (resp. $d = diam(G) = \max\{e(v): v \in V(G)\}$). In a graph, a vertex of degree 1 is known as a pendent vertex or terminal node or leaf node or leaf. Definitions which are not seen here can be referred in[1,2] .

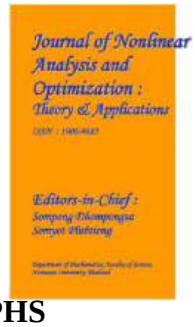
A topological index is an analytically derived numerical index for the graph structure. Indices are graph invariants used to study graph structure. Graph techniques have many applications in various fields such as Chemistry, Physics, Biology, Computer Science, etc. The Wiener index is the distance based topological index introduced by the chemist Harry Wiener in 1947[3] and also known as the "Wiener number"[4,5]. Wiener index which is widely used based on the chemical applications of graph theory which counts the number of bonds between pairs of atoms and sum the distance between all pairs by generating a distance matrix[6]. The Wiener index is defined by the sum of distances between all unordered pairs of vertices of a graph G,

$$W(G) = \sum_{u,v \in V(G)} d(u, v).$$

The hyper-Wiener index is the generalization of the Wiener index introduced by Milan Randić in 1993[7] and is defined as follows:

$$WW(G) = \frac{1}{2} \sum_{u,v \in V(G)} [d(u, v) + d(u, v)^2].$$

Journal of **N**onlinear **A**nalysis and **O**ptimization
Vol. 15, Issue. 1, No.4 : 2024
ISSN : **1906-9685**



THE GEODETIC NUMBER IN THE COMB PRODUCT OF GRAPHS

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Abstract
Let G and H be two simple, nontrivial and undirected graphs. Let o be a vertex of H, the comb product between G and H, denoted by $G \rhd H$, is a graph attained by taking one copy of G and $|V(G)|$ copies of H and grafting the ith copy of H at the vertex o to the ith vertex of G. A set of vertices S of a graph G is a geodetic set, if all the vertex of graph G lies in at least one interval between the vertices of S. The minimum cardinality of the geodetic set in G is the geodetic number of $g(G)$. In this paper, we determine an exact value of geodetic number in comb product of graphs.

1. Introduction

By a simple and connected graph $G = (V, E)$, we further assume that G has noisolated vertices. For graph theoretic terminology we refer to Chartrand and Lesniak [8].

The notions of distance in graphs is a well-studied topic with several practical applications. For any two vertices u and v of a connected graph G, the *distance*$d_G(u, v)$ is thelength of a shortest $u - v$ path in G. The *eccentricity* of a vertex u of a graph G is themaximum distance between u and any other vertex of G. The *diameter* of G, denoted by$diam(G)$, is the maximum eccentricity of vertices in G, and the *radius* is the minimum sucheccentricity. The *interval*$I_G[u, v]$ between u and v is the set of all vertices on all shortest$u - v$ paths. Given a set $S \subseteq V(G)$, its *geodetic closure*$I_G[S]$ is the set of all vertices lyingon some shortest path joining two vertices of S; that is,

$I_G[S] = \{v \in V(G) : v \in I_G[x, y], x, y \in S\} = \bigcup_{x,y \in S} I_G[x, y]$

A set $S \subseteq V(G)$ is called a *geodetic set* in G if $I_G[S] = V(G)$; that is, every vertex in Glies on some geodesic between two vertices from S. The *geodetic number*$g(G)$ of a graph $G$is the minimum cardinality of a geodetic set in G.

In chemistry [1], some families of chemicalgraphs can be measured as the comb product graphs. Let G and H be two connected graphs.Let o be a vertex of H. The *comb product* between G and H, denoted by $G \rhd H$, is a graphobtained by taking one copy of G and $|V(G)|$ copies of H and identify the i^{th}copy of H atthe vertex o with the ith vertex of G. By the definition of comb product, we can say that$V(G \rhd H) = (a, v)|a \in V(G), v \in V(H)$ and $(a,v)(b,w) \in E(G \rhd H)$ whenever $a = b$ and$vw \in E(H)$, or $ab \in E(G)$ and $v=w=o$. We consider two different vertices $a,b \in V(G)$and a vertex $o \in V(H)$. We define $H(a) = (a, v)|v \in V(H)$, $G(o) = (v, o)|v \in V(G)$, and$P_G(a, b)$ is the shortest path from a to b in G.

We find main results. The first result is related to $G \rhd H$ when G is a connectedgraph and H is the classes of graphs such as Path, Cycle, Completed Graph, Trees andWheel Graph. In the literature, the problem of the geodetic number of a graph was initiatedby Harary, Loukakis, andTsouros in 1986 and their result appeared as a published paper in1993[10]. We collect the basic definitions in graphs and geodetic sets which are used in thesubsequent chapters; for graph theoretic terminology we refer to the Chartrand and Lesniak[8] few basic results on the geodetic number of cartesian and strong product of graphs.These results are in Bresar et al. [3] and in Caceres et al. [5]

Lemma 1.1. [6] *Every geodetic set of a graph contains its extreme vertices*.

Lemma 1.2. [9] *Let deg : $V(A) \to V(B)$ be an isomorphism between graphs A and B.The set S is a*

Hindawi
Journal of Mathematics
Volume 2024, Article ID 6503747, 21 pages
https://doi.org/10.1155/2024/6503747

Research Article

Modern Approach in Pattern Recognition Using Circular Fermatean Fuzzy Similarity Measure for Decision Making with Practical Applications

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Received 24 October 2023; Revised 17 March 2024; Accepted 8 April 2024; Published 7 May 2024

Academic Editor: Ghous Ali

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The circular Fermatean fuzzy (CFF) set is an advancement of the Fermatean fuzzy (FF) set and the interval-valued Fermatean fuzzy (IVFF) set which deals with uncertainty. The CFF set is represented as a circle of radius ranging from 0 to $\sqrt{2}$ with the center at the degree of association (DA) and degree of nonassociation (DNA). If multiple people are involved in making decisions, the CFF set, as an alternative to the FF and IVFF sets, can deal with ambiguity more effectively by encircling the decision values within a circle rather than taking an average. Using algorithms, a pattern can be observed computationally or visually. Machine learning algorithm utilizes pattern recognition as an instrument for identifying patterns and also similarity measure (SM) is a beneficial pattern recognition tool used to classify items, discover variations, and make future predictions for decision making. In this work, we introduce the CFF cosine and Dice similarity measures (CFFDMs and CFFSMs), and their properties are studied. Unlike traditional approaches of decision making, which emphasize a single number, the proposed CFFSMs observe the pattern over the circular region to help in dealing with uncertainty more effectively. We introduce an innovative decision-making method in the FF setting. Available bank loans and applicants' eligibility levels are represented as CFF set using their FF criteria and are taken as loan patterns and customer eligibility patterns. The loan is allocated to the applicant by measuring the CFFCSM and CFFDSM between the two patterns. Also, laptops are suggested to the customers by measuring the similarity between specification pattern and requirement pattern. The correctness and consistency of the proposed models are ensured by comparison analysis and graphical simulations of the input and similarity CFFNs.

1. Introduction

Pattern recognition is a developed but exciting field that keeps growing swiftly. It provides a platform for developments in associated disciplines notably computer vision, image processing, gene expression analysis, protein structure prediction, medical image analysis, text classification, sentiment analysis, named entity recognition, speech recognition, gesture recognition, biometric identification, neural networks, and many more.

The nearest neighbor algorithm, initiated in 1967, is the origin of pattern recognition. Statistical pattern recognition methods, machine learning algorithms, and deep learning techniques are some of the pattern recognition methods.

Journal of Nonlinear Analysis and Optimization
Volume 15, Issue 1, No 13: 2024
http://www.math.sci.nu.ac.th
ISSN : 1906-9685

Computing of Some Degree Based Topological Indices of $K_m \odot K_n$

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Abstract : In this paper, we study some degree-based topological indices, such as, first Zagreb index ($M_1(G)$), second Zagreb index ($M_2(G)$), third Zagreb index ($M_3(G)$), Hyper-Zagreb index ($HM(G)$), Sigma index ($\sigma(G)$), Sombor index ($SO(G)$), Forgotten index ($F(G)$), SK index, SK_1 index and SK_2 index of $K_m \odot K_n$

MSC : 05C07, 05C10.

Keywords: Zagreb Indices, Hyper-Zagreb index, Sigma index , Sombor index, Forgotten index, SK index, SK_1 index, SK_2 index and Corona product.

1. Introduction

The study of graphs, which are mathematical structures made up of vertices (also known as nodes) and the edges (also known as arcs) that link these vertices, is the focus of the field of graph theory. When utilizing graphs to explore molecule structures and their characteristics, chemical graph theory is an essential tool. It entails representing molecules as graphs, with chemical bonds acting as edges and atoms acting as vertices. In this study, we consider only simple, finite, undirected and connected graphs.
A graph G is an ordered triple $(V(G), E(G), \chi_{(G)})$ consisting of a nonempty set $V(G)$ of vertices, a set E(G), disjoint from $V(G)$, of edges, and an incidence function $\chi_{(G)}$ that associates with each edge of G an unordered pair of

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Indian Journal of Natural Sciences *www.tnsroindia.org.in ©IJONS*

Vol.14 / Issue 77 /April / 2023 *International Bimonthly (Print) – Open Access* *ISSN: 0976 – 0997*

RESEARCH ARTICLE

Pharmacognostical Characterisation and Phytochemical Profiling of the Medicinal Plant, *Ehretia ovaliafolia* Wight

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Received: 12 Jan 2023 Revised: 24 Feb 2023 Accepted: 27 Mar 2023

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ABSTRACT

Pharmacognostical characterisation and phytochemical profiling is more important for a plant before the plant was utilized in the drug industry. The plant, Ehretia ovalifolia, belongs to family Boraginaceae is an important medicinal plant. The present investigation was carried out to evaluate the pharmcognostical, phytochemical studies to explore the characters of this plant. The organoleptic characters of stem and leaf expressed with some characteristic bitter taste, odour, with brown and deep green in colour forms. Morphologically the plant with 23cm of Girth, 6.5 cm leaf area with 5-8 pairs of veins. The reaction of stem powders with various chemicals were made and some of the powders were well reacted and it was observed under various light sources. Some the powders appeared to be black under UV light of 256nm from Dark green. Similarly the green coloured leaf powder was also appeared to be black in colour. The qualitative phytochemical study showed presence of important phytochemical component like alkaloids, saponins, terpernoids, coumarins, flavonoids, tannins and phenols. The chloroform extract also expressed the presence of important phytochemicals like phenols and flavonoids with other phytochemicals. The leaf study showed the presence of all studied phytochemicals except glycosides and whereas the steroids and terpenoids were absent. The GCMS analysis of methanol extract was detected with some 6 important compounds i.e Ethyl. alpha. -d-glucopyranoside n-Hexadecanoic acid and 3,4-Secodammar-4(28)-en-3-oic-acid,20,24-epoxy-25-hydroxy-, (24s)-. The total ash value of stem is 8% and water soluble as of 6.67% and 0.7% of acid soluble ash. The ash value of leaf is 17.6% with 17% of water

ISSN: 2573-962X

Research Article

Journal of Pharmaceutical Research

Phytochemical Screening, GC-MS Analysis of Methanolic Extract of the Fern Adiantum Caudatum from Southern Western Ghats

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Submitted: 2023, Oct 09; **Accepted:** 2023, Nov 01; **Published:** 2023, Nov 10

Citation: Sowmiya, D. (2023). Phytochemical Screening, GC-MS Analysis of Methanolic Extract of the Fern Adiantum Caudatum from Southern Western Ghats. *J Pharmaceut Res, 8*(2), 322-326.

Abstract

The present study was to screen the presence of phytochemicals in the methanol extract of fern Adiantum caudatum species by composed with qualitative and quantitative screening methods. In qualitative analysis, the presence of pharmacologically active phytochemicals such as alkaloids, flavonoids, glycosides, steroids, tannins, terpenoids, saponins, phenols, volatile oils and resins were screened. GC-MS chromatogram analysis of the methanolic extract of Adiantum caudatum showed 12 peaks corresponding to 12 different compounds. The percentage of major bioactive compounds were 2-Hydroxymethyl-9-[Beta.-D-Ribofuranosyl] Hypoxanthine (17.995%), 2-Undecene,5-methyl- (33.497%), Pentadecane,2,6,10,14-Tetramethyl- (14.977%), Nonadecane (7.588%), Dodecane, 2,6,10-trimethyl- (1.421%), 3,7,11,15-Tetramethyl-2-Hexadecen-1-ol (2.825%), Nonadecane (7.855%). The identification of bioactive compounds is based on the retention time, peak area, molecular formula, and probability.

Keywords: Phytochemicals, Qualitative, Adiantum Caudatum, Methanol and GC-MS.

1. Introduction

It is impossible to imagine the survival of human race if the earth had no plants on it. The dependence of human beings on plants dates to the start of the human race. Medicinal plants are common sources of medicine. Solid evidences can be cited in favor of herbs being used for the treatment of diseases and for restoring and fortifying body systems in ancient systems of medicine such as Ayurvedic, Unani and Chinese traditional medicine. The innately desired purpose of the use of herbs was to obtain a positive interaction with body chemistry [01].

Traditional medicinal information is important not only for its potential contribution to the drug development as well as people's healthcare. According to the World Health Organization 80% of the world's population mostly individuals of developing countries depend on plant-derived medicines for their healthcare needs. Most of the aboriginal people are not well identified about the uses of Pteridophytes ever since it's not simply available like flowering plants. Pteridophytes are represented by 144 genera and about 1200 species distributed in India [02]. Pteridophytes are regarded as a facultative wetland plant and which can also adopt well in terrestrial habitat. They have a vital role in the earth's biodiversity [03].

Ferns have measurable indications that may reflect the effects of change in environmental factors. The ferns are not only taxonomic oddities but those are plants with dynamic relationship to their environment [04]. Pteridophytes are of immense economic importance and there is a great need for their exploitation towards the economic utility in daily life [05]. Since prehistoric times, plants have been used as a source of treatment. The use of traditional medicine is increasing day by day due to high cost of the allopathic medicines and their potential side effects [06]. Several plants or their parts have been exploited for this purpose. The value of these plants is attributed to the presence of some chemical substances, which produce a definite physiological action. These chemical constituents. These non-nutritive plant chemicals have protective or disease preventive properties. They are nonessential nutrients, meaning that they are not required by the human body for sustaining life. It is well-known that plant produces these chemicals to protect them, but recent research demonstrates that they can also protect humans against diseases [07].

Considering the rich diversity of Indian medicinal plants including pteridophytes, it is expected that, the screening of plant extract for antibacterial activity may be beneficial for humans and plants diseases. The synergistic interaction among crude extracts or the active compounds may be useful in the preparation of improved herbal or drug formulations. The extensive survey of antibiotic activity among the ferns conducted and reported about a hundred species having such property. Traditionally people

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Vol.14 / Issue 78 / June / 2023 *International Bimonthly (Print) – Open Access* *ISSN: 0976 – 0997*

RESEARCH ARTICLE

Eco-Friendly Dyeing of Cotton Fabric from Aqueous Herbal Extracts and its Antibacterial Activity

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Received: 27 Feb 2023 Revised: 25 Apr 2023 Accepted: 31 May 2023

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ABSTRACT

Natural dyes are found to be environmentally friendly and possess many advantages over their synthetic counterparts. Among various clothing, cotton may act as a nutrient, becoming a suitable medium for bacterial and fungal growth. Therefore, an attempt has been made to study the dyeing capacity and antibacterial activity of some plants like *Ocimum santum, Acalypha indica, Phyllanthus reticulatus, Impatiens balsamia* and *Clitoria ternatea* and the mordant used were *Terminalia chebula* and *Acacia sinuate* on cotton fabric. The work comprises the preparation of dye and mordant from the parts of different plants by means of aqueous extraction. The dyeing ability of *A. indica, O. sanctum, P. reticulatus, C. Ternatea* and *I. Balsamia* showed good results when the mordant *T. chebula* was used. Among the fabricated clothes, *O. sanctum and A. Indica* showed good antibacterial activity with the zone of inhibition 1.00 mm, 0.5 mm respectively. It can be inferred from this study that the naturally dyed clothes showed high compatibility with the environment, softer colour shades, naturalness, cost effective and antibacterial activity.

Keywords: Dye, Mordant, Fabrication, Antibacterial, Gram positive and Gram negative

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Vol.15 / Issue 83 / Apr / 2024 *International Bimonthly (Print) – Open Access* *ISSN: 0976 – 0997*

RESEARCH ARTICLE

Qualitative and Quantitative Analysis of the Unexplored fern, *Thelypteris meeboldii* from Southern Western Ghats, Tamil Nadu

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Received: 06 Nov 2023 Revised: 09 Jan 2024 Accepted: 07 Mar 2024

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ABSTRACT

The present study was to screen the presence of phytochemicals in the petroleum ether, chloroform, ethyl acetate and methanol of fern *Thelypteris meeboldii* species by composed with qualitative and quantitative screening methods. In qualitative analysis, the presence of pharmacologically active phytochemicals such as alkaloids, flavonoids, glycosides, steroids, tannins, terpenoids, saponins, phenols, volatile oils and resins were screened. The methanol fern extract performed well to show positivity rather than other studied fern extracts. Methanol extract showed strong positivity for 6 phytochemicals out of 10 phytochemicals tested. In quantitative analysis the important secondary metabolites such as total phenols, total tannins, total alkaloids, total flavonoids, total saponins and total terpenoids content were quantified.

Keywords: phytochemicals, qualitative, quantitative, *Thelypteris meeboldii*, methanol.

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Vol.14 / Issue 78 / June / 2023 *International Bimonthly (Print) – Open Access* *ISSN: 0976 – 0997*

RESEARCH ARTICLE

Edible Coating from Nontoxic Biomaterials for Extending Shelf Life of Fruits and Vegetables

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Received: 20 Jan 2023 Revised: 23 Mar2023 Accepted: 29 Apr 2023

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ABSTRACT

The present work has been designed to create ecofriendly edible coating from the isolated biomaterials. The biomaterials were extracted from the selected plants such as *Kappaphycusalvarezii* (Doty) Doty ex Silva (Solieriaceae), *Pancratiumtriflorum*Roxb. (Amaryillidaceae), *Terminaliacatapa*L. (Combretaceae) and *Cyanodondactylon*(L.) Pers. (Poaceae). These plants were frequently available biomass and are edible. The extracted biomaterials were mixed together with different ratios to produce the edible coating solution A, B, C, D and E. The colour, odor, pH, bubble, heating resistance, water content and water resistance of the coating solutions were recorded. The coating solution of composition (E) gives the positive result. The produced edible coating solution is colourless and has good stability, quality and shelf life may better alternative to chemical and wax based edible coating solutions. The results of microbiological studies revealed that the edible coating solution has decreased the fungal as well as bacterial contamination and no toxicity. The successfully produced edible coating solutions were applied to selected fruits and vegetables. The following parameters such as shelf life, sensory evaluation, weight loss, pH, shrinkage percentage, shrivelling percentage and decay percentage were analysed at regular intervals and recorded.

Keywords: Biomaterials, biofilm, edible coating, shelf life.

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Vol.14 / Issue 78 / June / 2023 *International Bimonthly (Print) – Open Access* *ISSN: 0976 – 0997*

RESEARCH ARTICLE

Effect of Synbiotics on Saliva in Completely Edentulous Patients- a Prospective Study

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Received: 05 Mar 2023 Revised: 05 Apr 2023 Accepted: 09 May 2023

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ABSTRACT

Xerostomia in older individuals is one of the cause of failure of complete dentures due to lack of retention and stability of dentures. The treatment of choice for such patients is the use of salivary stimulants, topical agents, saliva substitutes, synbiotics and systemic sialogogues and prosthodontically by means of a salivary reservoir incorporated denture. To assess the effect of synbiotics on quantity and pH of saliva in completely edentulous individuals. The study prospectively reviewed pH and quantity of saliva from samples taken from completely edentulous individuals at baseline and after intervention in Control (Group 1) and Study group (Group 2) respectively. Synbiotics did show an increase in quantity of saliva, however, change in quantity and pH of saliva was not statistically significant (P>0.05) The

PLANT SCIENCE TODAY
ISSN 2348-1900 (online)
Vol 10(1): 91–95
https://doi.org/10.14719/pst.1872

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RESEARCH ARTICLE

Chemical profiling of fern *Cheilosoria mysurensis* (Wall. ex Hook.) Ching & Shing and its biological activity

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OPEN ACCESS

ARTICLE HISTORY

Received: 02 may 2022
Accepted: 31 August 2022

Available online
Version 1.0 : 23 October 2022
Version 2.0 : 01 January 2023

Check for updates

Additional information

Peer review: Publisher thanks Sectional Editor and the other anonymous reviewers for their contribution to the peer review of this work.

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Indexing: Plant Science Today, published by Horizon e-Publishing Group, is covered by Scopus, Web of Science, BIOSIS Previews, Clarivate Analytics, NAAS etc.
See https://horizonepublishing.com/journals/index.php/PST/indexing_abstracting

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CITE THIS ARTICLE

Rakkimuthu R, Sowmiya D, Ananthi P, Sathishkumar P, Kumar A A M. Chemical profiling of fern *Cheilosoria mysurensis* (Wall. ex Hook.) Ching & Shing and its biological activity. Plant Science Today. 2023; 10(1): 91–95. https://doi.org/10.14719/pst.1872

Abstract

Cheilosoria mysurensis (Wall. ex Hook.) Ching & Shing, a medicinal fern traditionally used to treat burns, throat pain and bone fracture. There is no any scientific report regarding anticancer studies of this species. The aim of the study was to find out the chemical components through GC/MS analysis with their antioxidant and cytotoxic activity. GC-MS analysis shows primary ingredients viz, Cis-9, 10-epoxyoctadecan-1-ol and Oxiraneundecanoic acid, 3-pentyl-, methyl ester, trans were present. High free-radical scavenging activity has been discovered in 2, 2-diphenyl-1-picrylhydrazyl (DPPH) and showed the IC_{50} value of 52.13±0.33. Furthermore, *C. mysurensis* also showed good cytotoxic effects against DLA and EAC cell lines with values of 72.9% and 79.5% at 200 µg/ml dose respectively. Overall findings suggested that the identified chemical compounds proved to be rich in antioxidant properties. Further, this fern can be a good resource for the pharma industry to produce novel anti-cancer drugs.

Keywords

Antioxidant, *Cheilosoria mysurensis*, cytotoxicity, GC/MS, medicinal fern

Introduction

Cheilosoria mysurensis (Wall. ex Hook.) Ching & Shing is commonly called as lip fern and belongs to family Pteridaceae. The genus *Cheilosoria* consists of about 874 species worldwide and 11 species are reported in Indian subcontinent (1). This fern is commonly found in dry, rocky places, plains and in foot hills (2). Traditionally the ash of the study fern mixed with coconut oil and applied topically on skin to fasten the healing of burns (3) to treat throat pain (4) and bone fracture (5).

Several diseases have become more prevalent in recent years. There is an immediate need for search of novel compounds to treat cancer and infectious diseases caused by microorganisms. Plant sources with diverse natural bioactive ingredients play an important role in curing deadful diseases (6). Many chemical compounds show impressive *in vitro* activity against pathogenic microorganisms resistant to recent allergenic drugs. Plants have a rich source of secondary metabolites (terpenoids, phenolics and alkaloids), that exhibit a broad spectrum of bioactivities including antitumor activity (7). The identification and characterization of above said molecules in terms of their biological activity on the spectrum, potency, toxicity and safety is most needed.

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Vol.15 / Issue 83 / Apr / 2024 *International Bimonthly (Print) – Open Access* *ISSN: 0976 – 0997*

RESEARCH ARTICLE

GC/MS Analysis of Methanolic Extract of *Pancratium triflorum* Roxb. bulbs

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Received: 14 Nov 2023 Revised: 29 Jan 2024 Accepted: 16 Mar 2024

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ABSTRACT

This study presents the chemical composition of the methanolic extract obtained from *Pancratium triflorum* bulbs through gas chromatography and mass spectrometry analysis. Six distinct compounds were identified, namely 2,3-Anhydro-D-Galactosan, Triacontanoic Acid, Methyl Ester, 1-Hexadecyne, Eicosonoic Acid, Cis-9,10 Epoxyoctadecan-1-OL, and 2-Isopropyl-5-Methylcyclohexyl 3-(1-(4-Chlorophenyl)-3-Oxobutyl)-C. This comprehensive profiling provides insights into the molecular constituents of Pancratium triflorum, contributing to our understanding of its chemical composition and potential pharmacological applications. Further investigations into the biological activities of these identified compounds may unveil novel therapeutic possibilities associated with *Pancratium triflorum*.

Keywords: *Pancratium triflorum*, Bulb, GC-MS, Bioactive compounds, medicinal plant

INTRODUCTION

Pancratium triflorum. Roxb, a perennial herbaceous plant native to the Indian subcontinent, has a long-standing history of traditional use in various indigenous medicinal systems. Its cultural importance is underscored by its botanical nomenclature in which 'Pancratium' signifies 'all strength' and 'triflorum' refers to its characteristic three-flowered inflorescence [1]. In traditional practices, *Pancratium triflorum* is celebrated for its therapeutic attributes,

AI IN THE ENGLISH LANGUAGE CLASSROOM: TRANSFORMING TEACHING AND LEARNING PRACTICES

Dr. T. SuryaPrabha
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NGM College, Pollachi

Abstract:

This article examines the transformative impact of artificial intelligence (AI) on teaching and learning practices within the English language classroom. AI technologies offer personalized learning experiences by analyzing students' individual learning styles and providing tailored content and activities. Additionally, AI enhances language instruction through virtual language assistants and interactive applications, making learning more engaging and immersive. Automated assessment tools powered by AI offer instant feedback to students, promoting continuous learning and skill development. Moreover, AI facilitates differentiated instruction by providing insights into students' learning profiles and adjusting task difficulty levels accordingly. While AI presents challenges such as data privacy concerns and algorithmic bias, its responsible integration can enhance the quality of English language instruction and prepare students for success in a digital world.

Keywords: Algorithmic bias, Data, Integration, Challenges, Instruction.

Introduction:

Artificial intelligence (AI) is revolutionizing various aspects of our lives, and education is no exception. In particular, AI has made significant strides in transforming teaching and learning practices within the English language classroom. This article explores the myriad ways in which AI is reshaping English language education, from personalized learning experiences to automated assessment tools.

Personalized Learning with AI:

One of the most significant benefits of AI in the English language classroom is its ability to provide personalized learning experiences. AI-powered platforms analyze students' strengths and weaknesses, adapt content to their individual learning styles, and offer tailored exercises and activities. For example, AI algorithms can identify a student's preferred learning modality—whether visual, auditory, or kinesthetic—and deliver content accordingly, thereby optimizing learning outcomes and engagement.

Enhanced Language Instruction:

AI technologies are also enhancing language instruction by offering innovative tools and resources for both teachers and students. Virtual language assistants powered by AI, such as chatbots and voice recognition software, provide students with opportunities for real-time language practice and feedback. Additionally, AI-enabled language learning applications offer interactive exercises, multimedia resources, and gamified activities, making language learning more engaging and immersive.

Research Article

The Impact Of Technology On Narrative Structure In Contemporary Fiction

Dr. T. SuryaPrabha
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Abstract:

This article explores the evolving landscape of narrative structure in contemporary fiction in response to advancements in technology. With the proliferation of digital platforms and interactive media, authors are experimenting with new narrative techniques and storytelling formats, blurring the boundaries between traditional and digital literature. Drawing on examples from diverse genres and mediums, this research examines how technology influences the construction of narrative in fiction, from nonlinear storytelling and hypertext narratives to augmented reality and interactive storytelling experiences. By analyzing the intersection of technology, narrative theory, and literary innovation, this study sheds light on the transformative effects of technology on the storytelling craft, challenging conventional notions of authorship, reader engagement, and the future of storytelling.

Keywords: Fiction, Augmented reality, Technology, Digital Literature.

Introduction:

The advent of technology has revolutionized every aspect of human life, including the way stories are told and consumed. In the realm of contemporary fiction, authors are harnessing the power of digital tools and platforms to experiment with narrative structure, pushing the boundaries of traditional storytelling conventions. This article explores the profound impact of technology on narrative form in contemporary fiction, examining how authors adapt to and embrace the possibilities afforded by digital innovation.

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Synergistic impact of cationic surfactants on the performance of ZTO for supercapacitor applications

Davidthomas Victorjayakumar Ezhilarasi Gnanakumari [a], Thirumalaisamy Esvaramoorthy Manjulavalli [a], Kajamohideen Habeeba [a], Annapoornam Ganesan Kannan [a], Sakunthala Ayyasamy [b], Gokul Gopinath [b]

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Available online 8 April 2023.

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Abstract

Zinc stannate (ZTO) nanopowders are synthesized using different cationic surfactants (CTAB, EDA, TEA) via hydrothermal technique. The as prepared samples were then characterized for their structure and optical properties through XRD, FESEM with EDAX, UV-DRS and FTIR techniques. It has been observed, that the surfactant played a crucial role in modifying the morphology of the samples. The reduction in the crystallite size was found when TEA was used as a surfactant. The specific capacitances of the prepared electrode materials using the synthesized samples were evaluated through three electrode system and that the capacitance value increased from 32 to 41F/g at the scan rate of 5mV/s for TEA assisted ZTO nanopowder.

Introduction

Depletion of natural resources has encouraged the scientist to create and design technologies that will help meet the ever increasing energy demand. Over the past few years many flexible and environmentally benign energy conversion and storage systems have attracted much attention worldwide which necessitates the development of high performance, low cost and green electrochemical devices for efficient energy conversion which includes battery, fuel cells, etc.,. Among the different energy storage devices supercapacitors are considered to be the promising candidate due to its superior current density with excellent conductivity, high capacitance, high charging rates and longer life cycle with good stability [1]. Mixed metal oxides that are ternary metal oxide materials have captivated the interest of the research community more than their binary counterparts due to the tunable band gap and work function and the structural cum physicochemical properties by simply varying the composition. Oxides of metal undergo reduction reaction at high temperatures and at the specific equilibrium temperature, the reoxidation takes place which is so important for a supercapacitor especially for an EDLC capacitor [2], [3]. Among various metal oxides ($CuMn_2O_4$, $ZnWO_4$, $NiCo_2O_4$, $MnFe_2O_4$), Zn_2SnO_4 (ZTO) has a feasible property towards a vast range of applications like photocatalysis, sensors, dye degradation, lithium-ion batteries, supercapacitors, solar cells, etc. Due to its special electrical property with the wide band gap value of 3.6eV, this n-type semiconducting metal oxide (ZTO) with

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Available online 21 March 2023

In Press, Corrected Proof What's this?

Exploration and study on the influence of Zinc substituted Barium Stannate ($BaSnO_3$) nano powders for ammonia sensing applications

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CHALLENGES FACED BY FEMALE TRIBAL STUDENTS IN PURSUING HIGHER EDUCATION

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University Grants Commission

Published in

Madhya Bharti -Humanities and Social Sciences
(मध्य भारती) मानविकी एवं समाज विज्ञान की द्विभाषी शोध-पत्रिका
: ISSN **0974-0066** with IF=6.28
Vol. 85, No. 15, January - June : 2024
UGC Care Approved, Group I, Peer Reviewed, Bilingual, Biannual,
Multi-disciplinary Referred Journal

ज्ञान-विज्ञान विमुक्तये
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ISSN 2278 - 1641
UGC Care Listed Journal

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முனைவர் **த. பரமேஸ்வரி**
இணைப் பேராசிரியர், துறைத்தலைவர்
நல்லமுத்து கௌண்டர் மகாலிங்கம் கல்லூரி,
பொள்ளாச்சி.

முன்னுரை

சமூகம் என்பது மனிதர்களின் கூட்டம் என்ற நிலையில் அவர்களிடையே நிலவும் வாழ்க்கைச் சூழலே சமூகமாகக் கருதப்படுகின்றது. மக்கள் விடுதலைக்குப் பிந்தைய காலகட்டத்தில் தங்களை மக்களாட்சியில் நிலைநிறுத்திக் கொள்ளத் தொடங்கிய பொழுது செல்வந்தர், செல்வம் அல்லாதவர் என்ற பாகுபாடு மக்களிடையே பெரும் குழப்பத்தை ஏற்படுத்தியது. செல்வத்தின் மதிப்பு உயரத் தொடங்கியது. ஆண்டான், அடிமை, முதலாளி, தொழிலாளி என்ற பாகுபாடுகள் பல்கிப் பெருகின. இதனால் சமூகத்தில் மனிதர்களின் மனநிலைகளில் மாறுபாடு ஏற்பட்டது. மேலும் சாதி, மத பேதங்கள் மக்களைப் பிரித்தாளும் சூழ்ச்சியில் ஈடுபட்டன. இது குறித்துப் பல புதினங்கள் எடுத்தியம்பியுள்ளன. அந்த வகையில் எஸ்.அர்ஷியா அவர்கள் தனது புதினங்களில் இப்பேதங்களைச் சுட்டியதோடு அதன் எதிர்மறையான பக்கங்களை ஆராயாது நேர்மறையான பக்கங்களை எடுத்துக் காட்டியுள்ளார். எவ்வித பேதம் இருந்த போதிலும் தமிழர்கள் என்ற நிலையில் மக்கள் ஒன்றுபட்ட நிலையைப் பதிவு செய்துள்ளார் என்பதை ஆய்வதாக இந்த ஆய்வுக்கட்டுரை அமைகின்றது.

செல்வத்தின் இன்றியமையாமை

மக்கள் பண்டமாற்று முறையில் வாழ்ந்த காலம் மாறி செல்வத்தைக் கொண்டு வாணிபம் செய்யத் தொடங்கியது முதல் செல்வத்தின் முக்கியத்துவம் பெருகத் தொடங்கிவிட்டது. செல்வம் வைத்திருப்பவர் உயர் வர்க்கத்தினராகவும், செல்வம் இல்லாத ஏழைகள் அடிமைகள் போன்றும் நடத்தும் நிலை உருப்பெற்றது: எனவே செல்வத்தை ஈட்டுவதற்காக மக்களுள் சிலர் குறுக்கு வழிகளைத் தேடத் தொடங்கினர். இதன் விளைவு உறவுகளுக்கிடையே இருந்த அன்பில் பிளவு ஏற்பட்டது.

"பொருளல் லவரைப் பொருளாகச் செய்யும்
பொருளல்லது இல்லை பொருள்"1

என்ற குறளுக்கு இணங்க செல்வம்தான் ஒருவரது தகுதியைத் தீர்மானிக்கும் அளவுகோலாக அமைகின்றது. செல்வத்தையே குறிக்கோளாகக் கொண்டு சுற்றித் திரிபவர்களின் பேச்சுக்கள் செல்வத்தை மையமிட்டதாகவே இருந்தது. நாவில் தேனூறப் பேசிய போதிலும் மனம் கறுத்திருந்தது.

"மைபொதி விளக்கே அன்ன
மனதினுட் கறுப்பு வைத்து"2

என்ற கூற்றிற்கிணங்க சிலரின் செயல்பாடுகள் மாறத் தொடங்கின.

அர்ஷியா அவர்களின் ஏழரைப் பங்காளி வகையறா என்ற புதினத்தில் இஸ்லாமிய திருமண முறைகள் பற்றிச் கூட்டுகின்றார். இஸ்லாமியத் திருமண முறைகளில் ஒன்று நிக்காஹ் பத்திரம் வாசிக்கும் பொழுது மஹர் பணத்தைக் கொடுக்க வேண்டும் என்பது நபி மரபு என்று கட்டப்படுகின்றது. ஆனால் தாலூக் - ஆயில்யீ திருமண நிச்சயத்தின் பொழுது தாலூக்திடம் நிக்காஹ் மஹர் பணம் கையில் இல்லை. நிச்சயத்திற்கான பத்திரத்தைப் படித்த குத்தூஸ்சாமர்த்தியமாக,

"தாலூக், வீட்டுக்கு ஒரே பையன். சொந்து முழுகம் அவனுது தான். அவன் சொத்துள்ளா அவன் பொண்டாட்டிக்குத்தானே? அதை இப்ப கையில குடுத்தா என்ன? பிற்பாடு குடுத்தா என்ன? ரெண்டும் ஒண்ணுதான்னு விளக்கம் வேற குடுத்தாரா? அந்தக் கொரலுக்கு மறுபேச்க எதுவும் கிளம்பல. அதோட நிக்காஹ், இப்படி அதிரடியா முடிவு எடுக்க குத்தூஸால மட்டுந்தான் முடியும்னு பிரஸ்தாபம் வேற உருவாயிருச்சு"

என்ற கூற்றிலிருந்து குத்தூஸ் கூறியதற்கு யாவரும் ஒப்புக் கொண்ட தன்மையை அறிய முடிகிறது. மேலும் மனிதாபிமானத்துடன் திருமணம் தடைபடாது இருக்க குத்தூஸ் செய்த உபகாரம் என்று கூட எண்ணத் தோன்றுகின்றது.

ஆனால்; இந்த மஹர் தொகை பின்னர் அளிக்கப்படும் என்று கூறிய குத்தூஸ் செல்வந்தக் குடும்பத்தைச் சார்ந்தவன். ஆகவே அவனது குரலுக்கு எந்த ஒரு மறுப்பும் எழுப்பப்படவில்லை. இதுவே மாப்பிள்ளை வீட்டாரின் குரலாக இருந்திருந்தால் நிகழ்வு வேறு விதமாக அமைந்திருக்கும்.

செல்வத்தைக் கவர்தல்

ஒருவர் பலர் முன்னிலையில் நல்விதமாகப் பேசிப் பழகிய போதும் அவர் மனம் செல்வத்தைக் கவர்வதில் குறியாக இருப்பதை ஆசிரியர் தனது புதினத்தில் பதிவு செய்கின்றார்.

"மனத்துக்கண் மாசிலன் ஆதல் அனைத்தறன்
ஆகுல நீர பிற"3

என்ற குறளின் படி மனதில் வஞ்சனை இல்லாத தூய்மை வேண்டும். என்கிறார். ஆனால் வாக்கில் தண்மையும் நெஞ்சில் வன்மையும் கொண்டு மக்கள் பழகுவதை ஆசிரியர் தனது புதினத்தில் பதிவு செய்கின்றார்.

குத்தூஸ் மஹர் கொடை பின்னர் அளிக்கப்படும் என்று கூறியது அவன் மனதிற்குள் வேறு திட்டம் தீட்டப்பட்டதே காரணம் ஆகும். அனைவர் முன்னிலையிலும் மஹர் கொடை பத்தாயிரம் பின்னர் அளிக்கப்படும் என்று கூறிய அதே குத்தூஸ் பின்னாளில் தாலூக்தின் சொத்தைக் கவர வேண்டும் என்ற பேராசை ஏற்பட்ட காரணத்தினால் தான் தாலூக்திற்குத் திருமண ஏற்பாட்டைத் தானாக முன்வந்து நிகழ்த்தினார். தந்தை இல்லாத பையன், தாயும் பொறுப்பின்றி இருக்கிறார். பையனும் விபரம் விளையமின்றி இருக்கிறான் என்ற காரணத்தினால் தன் உறவு என்றெல்லாம் அக்கறைப்படவில்லை. அவனது சொத்து மட்டுமே இத்திருமண ஏற்பாட்டைச் செய்வதற்குக் காரணமாக இருந்தது. உனக்காக நான் செய்கிறேன் என்று அன்பை வலையாக விரித்து அவன் சொத்து முழுவதையும் ஏமாற்றி எழுதி வாங்கிய நயவஞ்சகன் குத்தூஸ் என்பதை,

"ஏற்கனவே தாலூதை பத்திர ஆபீசுக்கு கூட்டிட்டுப் போகாமலேயே, வீட்ல வெச்ச அவன்ட்ட வாங்குன கையெழுத்தை வைத்து பவராப் பதிஞ்சுதந்த பத்திரத்தை எடுத்துட்டு வந்தாரு. அதை ஒரு தடவை ஆமா வாசிச்சுப் பார்த்தவரு, 'நாளைக்கே கிரையம் பதிஞ்சுறணும்!' ன்னாரு"4

என்ற கூற்று தெளிவுறுத்துகின்றது. இதிலிருந்து பணமே உறவுகளைக் கூட தீர்மானிக்கின்றது என்ற வருத்தத்தை ஆசிரியர் பதிவு செய்கின்றார்.

நட்பு

இலக்கியங்களில் நட்பிற்கு உதாரணமாகப் பலர் காலத்தால் அழியாது நிலைபெற்று வரும் குழலில் செல்வம் நட்பையும் சூழ்ச்சிக்கு உள்ளாக்கும் நிலையை ஆசிரியர் பதிவு செய்கின்றார். பணம் பத்தும் செய்யும் என்பது பழமொழி.

"துளியே கடல்
என்கிறது
காமம்
கடலும் துளி
என்கிறது
நட்பு"5

என்ற அறிவுமதி அவர்களின் கவிதைப்படி நட்பிற்கு எந்த வரையறையும் கிடையாது. நட்பு எதையும் எதிர்பார்த்துப் பிறப்பது இல்லை. ஆனால் செல்வத்திற்காக நட்பிலும் சூழ்ச்சி செய்யும் காலத்தை ஆசிரியர் தனது புதினத்தில் பதிவு செய்கின்றார். இரு நண்பர்கள் சேர்ந்து தொழில் தொடங்கி அதில் வரும் லாபத்தைப் பங்கிட்டுக் கொள்ளும் நிலை பல்வேறு காலகட்டங்களில் இருந்து வரும் ஒன்று தான். அதேபோல் படைப்பாளரின் பொய்கைக் கரைப்பட்டி புதினத்திலும் இரு நண்பர்கள் தொழில் தொடங்க எண்ணுகின்றனர். இருவரும் செல்வந்தர்களாக இருந்தபோதிலும் முதலீடு செய்தல் என்று வரும்பொழுது இருவருக்கும் மறைமுகமாக மனம் தொழிற்படுகின்றது. உடனே ரத்நேஷ் குமார் ஒரு ஆலோசனை கூறுகின்றார்.

"நம் பார்ட்னர்ஷிப்ல சின்ன ஒரு சேஞ்ச் இதுல நீங்களும் பணம் போட வேண்டாம் நானும் பணம் போடலை நாம ரெண்டு பேரும் ஃபிப்டி ஃபிப்டி பார்ட்னர்ஸ். கம்பெனி பேர்ல நாம லோன் வாங்குறோம். கம்பெனி அதை அடைச்சுக்கும். ஆனா லோனுக்கு உங்க சைடுலருந்து அரேஞ்ச் பண்ணனும்.

ரத்நேஷ் குமாருக்கு இந்த திட்டமும் ரொம்பவே பிடித்திருந்தது. எப்படி இவனால் அடுக்கடுக்காகப் புதிய விஷயங்களை யோசிக்க முடியுது என்று ஆச்சரியமாக பார்த்தான். கையிலிருந்து காசு போட வேண்டாம். ஆனால் புதிதாய் ஒரு தொழில். முன்னால் போனால் முட்டாது; பின்னால் வந்தால் உதைக்காது உடனே சரி சொல்லி விட்டான். தன் பணத்தையே வேறு ஒரு நண்பரிடம் வாங்கியதாகச் சொல்லி முதலீடு செய்ய அவன் மனசு இட்டமிட்டிருந்தது. வட்டிக்கு வட்டியுமாச்சு, பங்குதாரர் எனும் அந்தஸ்து வேறு."'

என்ற கூற்று நண்பனுடன் தொழில் தொடங்குவதற்கான பணத்தைக் கூட வேறு ஒருவரிடம் பெற்றதாகக் கூறி அதற்கான வட்டியைப் பெற எண்ணும் நிலையையும், ஆசைக்கு அடிமையாக்கி கடன் பெறும் ஏற்பாட்டைத் தொடங்கியதையும் ஆசிரியர் பதிவு செய்துள்ளார். காலமாற்றத்தில் நட்புறவும் பணத்திற்கு அடிப்பட்ட நிலையைப் புதினத்தில் பதிவு செய்துள்ளார்.

சலுகைகள்

"சலுகை போனால் போகட்டும்
என் அலுவல் போனால் போகட்டும்
தலைமுறை ஒருகோடி கண்ட என்
தமிழ் விடுதலை ஆகட்டும்"

என்றார் பாரதிதாசன். சலுகைகளுக்காக வாழ்தல் வீண். சமீப காலகட்டத்தில் மிகப் பெரிதாகப் பேசப்படும் ஒரு வார்த்தை சலுகை. சலுகை அளிப்பதாக இருந்தால் எந்தப் பொருளும் உடனே விற்பனையாகிவிடும் என்ற மனநிலை விற்பனையாளர்களிடமும் சலுகைப் பொருளுக்கும் சேர்த்து நாம் தான் பணம் கட்ட வேண்டும் என்ற நிலை அறியாத வாடிக்கையாளர்களும் இருக்கும் காலகட்டம் இது. சலுகைகள் என்ற பெயரில் பலர் தொடர்ந்து மக்களை ஏமாற்றி வருகின்றனர் என்பது நாம் அறிந்ததே. அரசியல் கூட சலுகைகளை நம்பித் தான் இருக்கின்றன. ஆனால் புதின ஆசிரியர் புதிய கண்ணோட்டத்தில் இதனை வெளிப்படுத்து கின்றார். ஒரு கம்பெனி கட்டுவதற்கான கட்டுமானப் பொருட்கள் வாங்க ஒரு நபரை அணுகும் பொழுது, அவர் சாமர்த்தியமாக,

"விளம்பரத்தைத் தொடர்ந்து நிலமும் ஏழு எட்டு கார்கள் அந்தப் பக்கத்தில் வந்து விசாரித்துவிட்டு போக, ஊருக்குள் உயிருள்ள சிமெண்ட்டை விற்கும் கடைகளும், நம்பிக் கற்றதா சொல்லிக் கொள்ளும் கம்பிக்கடைகளும் தங்கள் கிளைகளை அந்தப் பக்கத்தில் உண்டாக்க இடம் தேடத் துவங்கின. விவரமான ஒரு கம்பிக்கடை ஆராமி, உங்கள் கிளையண்ட்ஸ் எல்லாத்தையும் எங்கிட்ட கம்பி வாங்கச் சொல்லுங்க ஆபீஸ் கட்டுறதுக்கான செலவை நான் ஏத்துக்கிறேன் என்று பேரத்துக்கு வந்து விட்டார்."'

Arimaa Nokku

அரிமா நோக்கு

ISSN 2320-4842

ஆசிரியர்: ஈரோடு தமிழன்பன்

மொழி, இலக்கியம், கலை, பண்பாடு, வரலாறு, மெய்யியல், அறிவியல்சார் பன்னாட்டுக் காலாண்டுதழ்

INTERNATIONAL QUARTERLY ON LANGUAGE, LITERATURE, ART, CULTURE, HISTORY, PHILOSOPHY AND SCIENCE

பல்கலைக்கழக நல்கை ஆணையத்தின் ஏற்பினைப் பெற்ற ஆய்விதழ்

UGC - CARE LISTED AND PEER REVIEWED JOURNAL

ISSN 2320-4842

எஸ். அர்ஷியாவின் புதினங்களில் புலனாகும் நடப்பியல் அரசியல்

க. சரவணன்

முனைவர் பட்ட ஆய்வாளர்
(பகுதி நேரம்)

முனைவர் த. பரமேஸ்வரி

நெறியாளர், இணைப்பேராசிரியர் & துறைத் தலைவர்,
நல்லமுத்துக் கௌண்டர் மகாலிங்கம் கலலூரி,
பொள்ளாச்சி

முன்னுரை

உலக வரலாற்றில் வள்ளுவர், பிளேட்டோ, அரிஸ்டாட்டில், கௌடில்யர் போன்ற மேதைகள் அன்று ஆட்சி முறையில் ஏற்றுக் கொள்ளப்பட வேண்டிய பல கொள்கைகளையும் நத்துவங்களையும் சொல்லி வைத்தார்கள். "அரசாங்கம் தோன்றுவதற்குக் காரணங்கள் எவையாக இருந்தாலும், தொடக்கத்தில் மன்னராட்சியும் அந்த மன்னர்கள் பலவீனம் அடைந்த போது பிரபுக்கள் ஆட்சியும் பிரபுக்களின் பிடிப்பு வலுவடைந்த போது, அதிலிருந்து விடுதலையாக வேண்டும் என்ற விருப்பத்தின் விளைவாக இன்றைய ஜனநாயக ஆட்சியும் ஏற்பட்டது என்பது உண்மை" என்று கூறும் இலக்குமணப் பெருமாள். "இது ஜனநாயகயுகம், அதனால் மக்களுக்குக் குறைந்த அளவு கட்டுப்பாடுகளோடு நிறைந்த அளவு உரிமைகள் வழங்கப்பட்டுள்ளன." (இராசம்பத். புதுக்கவிதையில் இலக்கிய இயக்கம்.ப.77) என்றும் கூறுகின்றார். முடியாட்சி முறைகள் ஒழிக்கப்பட்டு மக்களுக்காக மக்களே ஆளுகின்ற முறையே மக்களாட்சி எனப்படுகின்றது. மக்களால் தேர்ந்தெடுக்கப்பட்டு ஆட்சியாளர்கள் தேர்ந்தெடுக்கப்படும் இம்முறையின் நன்மையை கவிஞர் தமிழன்பன்,

> **முடியரச ஆட்சிக்கு முத்தாய்ப்பு வைத்து**
> **முழுத்து வந்த நல்லாட்சி முன்னேற்றம் காண**
> **விடிவரக தோன்றியிலன் விளைத்து வந்த நன்மை**
> **விரிவாக்கும் எண்ணிக்கையில் விளங்கிவிடப் போமோ**

என்ற கவிதை வரிகளில் நிழல்கள் கரையேறுகின்றன, தமிழன்பன் ப.58) குடியாட்சி பற்றிக் கூறுவதோடு "அரசியல் முறைமை தன்னில் அணிந்திட வேண்டும் தூய்மை" நிழல்கள் கரையேறுகின்றன, தமிழன்பன் ப.22) என்ற வரிகளின் மூலமும் வெளிப் படுத்துகின்றார். மேற்கண்டவாறு வரையறை கொடுக்கப்பட்ட அரசியல்

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தள இலக்கண முறைப்படி இல்லை எனபதை படைப்பாளர் எஸ். அர்ஷியா தனது படைப்பில் பல இடங்களில் பதிவு செயதுள்ளார். அவ்வாறு எடுத்துரைக்குமிடத்தில் நடப்பு அரசியல் நிகழ்வுகளை பலவாறு சாடியுள்ளார். இதை நாம் மீமெய்ம்மைக கண்ணோட்டம் எனலாம். இந்தகு நிகழ்வுகளைக் குறித்து ஆயவதாக இந்த ஆயவுக கட்டுரை அமைகிறது.

கட்சிப் பரப்புரை

தலைவர்கள மீது உண்மையான அன்பு கொண்ட தொண்டர்களது செயல்களின் அடிப்படையில் தான் கடசியின் வளர்ச்சி அமையும். தொண்டர்களே தலைவர்களின் சிறப்பினை உலகறியச் செய்யும் பணியைச் செயகின்றனர். தொண்டர்கள் தலைவர்களின் மீது கொண்டுள்ள அளவில்லாத பற்று அவர்களது பெயர்களைப் பச்சை குத்திக்கொளவது, தம் குழந்தைகளுக்குத் தலைவர்களின் பெயர்களைச் சூடடுவது என்று தொடயகி கூட்டத்தோறும கொள்கைப் பரப்புச் செயலாளராகச் செயல்படுவது என்று அவர்களது பணி விரிந்தது. தலைவர்களுக்காகத் தொண்டர்கள் தன் வீடு, குடும்பம், வேலை என அனைத்தையும் மறந்து பரப்புரை செயகின்றனர். இப்படியான உணமை பரப்புரையாளர்களின் செயலினை எஸ். அர்ஷியா தனது சொட்டாங்கல் எனும் புதினத்தில் கட்டிக்காட்டியுள்ளார்.

> 'வெளியே தர்ஹாவிலிருந்து நேரே சென்று வடக்கேயும் தெற்கேயுமாய் பிரியும் சாலையைப் பார்த்தபடி எதிர்க் கட்சியின் பிரச்சாரக் கூட்ட மேடை அமைக்கப்பட்டு, பாடல்கள் ஒலித்துக் கொண்டிருந்தன. அக்கட்சித் தலைவரின் வாழ்க்கை வரலாறு, பிரிக்கப் பட்ட பல கட்டங்களாய் கனத்த, கரகரத்த குரலில் இலக்கியமாய் இளகி வழிந்தது. மரித்த பின்பும் நினைவில் நிற்கும் குரலாய் அது இருந்தது. மினாராக்களில் அடைத்திருந்த புறாக்கள் அக்குரலில் கவனம் பெற்று வெளியே வந்து சிறகடித்தன. பரிதவித்துத் திரிந்தன. பிறகு அக்கட்சியின் தலைவர், தனது தலைவரின் இறப்பில், இரவலாய் இதயத்தைக் கேட்டு, தான் வரும்போது, அதைத் திருப்பித் தந்து விடுவதாய் 'பிராமிசி நோட்' வாசித்த கடன் கவிதை இரைச்சலுடன் ஓடியது. நாற்பது ஆண்டுகளுக்கும் மேலாக தேயத்தேய ஓட்டப்பட்ட கழல் தட்டிலிருந்து குறுவட்டாகி,இப்போது பென்டிரைவிலும் அதே குரல்' (சொட்டாங்கல் ப. 28)

எனும் வரிகள் மூலம் எஸ். அர்ஷியா அரசியல் கட்சிப் பரப்புரைகளில் ஈடுபடும் தொண்டர்களை அடையாளங் காட்டியுள்ளார்.

தொண்டர்கள் தங்கள் தலைவர்கள் மீது கொண்ட அதிதப் பற்று காரணமாக மேடையில் பேசும் பொழுது எதிர் கடசியினரின கொள்கைகளைத் தாழ்த்திப் பேகின்றனர். தங்களது பேச்சால் தன் கட்சி சார்ந்த சிறப்புகளையும் எதிர் கட்சி சார்ந்த குறைகளையும் சுட்டிக் காட்டும் தன்மை காணப்படுகிறது. ஒரு சில பேச்சாளர்கள் தங்களது சிறப்பு களை எடுத்துரைப்பதைக் காட்டிலும் எதிராளியைக் குறைபாடுவதை மட்டுமே குறிக்கோளாகக் கொண்டு செயல் படலாயினர். காலம் செல்லச்செல்ல மேடை நாகரிகம் எனபதை அரசியல் பேச்சாளர்கள் கைவிட்டனர் எனலாம். கண்ணியமாக மேடைக்கு வருதல் என்ற நாகரிகமும் மாறிப்போயிறு என்ற தனது ஆதங்கத்தை எஸ். அர்ஷியா தனது சொட்டாங்கல் புதினத்தில் பல

DEMOGRAPHIC FACTORS AND THEIR IMPACT ON STOCK MARKET PREDICTIONS: A STUDY ON RETAIL INDIVIDUAL EQUITY INVESTORS

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ABSTRACT

This article explores the art of investment, focusing on the stock market as a volatile but potentially rewarding avenue. It emphasises the importance of diversification and risk analysis in pursuing financial growth. The study investigates the demographics of 117 investors and their influence on stock market predictions. Statistical tools such as simple percentages,

t-tests, and ANOVA were employed to analyse the data. The results indicate that gender, occupation, residential area, and annual income do not significantly impact investors' predictions or future investment plans. Interestingly, age was found to be the sole determinant influencing future investment plans, although it did not affect stock market predictions. This research provides valuable insights into the dynamics of investment behaviour and the role of demographics in financial decision-making.

***Keywords*:** Stock market, demographics, prediction, plan.

1.1 Introduction

Investment involves allocating surplus funds into assets that yield income over time. Various forms of financial investments exist, including fixed deposits, post office deposits, precious metals like gold and silver, real estate, insurance, equities, and mutual funds.

These investments can be broadly categorised into low-risk or no-risk investments and high-risk investments. Individuals who prefer less risk tend to opt for fixed deposits, post office savings, insurance, and similar options. Conversely, those willing to take on more risk may choose more volatile assets like equities. The selection of investment avenues depends mainly on the expected rate of return and the investor's risk tolerance. It is understood that higher risks are associated with higher potential rewards. The stock market is one such high-risk, high-reward investment avenue.

Since its establishment, the SENSEX indicated the stock market has grown 560 times. The primary goal for most people who invest their money is wealth accumulation. However, investment decisions are influenced by a multitude of factors. Investors must ensure that their investment choices align with their age, income, and other demographic factors. Therefore, demographic variables significantly influence investment decisions, particularly among Indian investors. Geetha and Ramesh (2012), in the study "A study on the relevance of demographic factors on investment decision", determine whether these demographic variables influence investors' market predictions and future investment plans.

1.2 Review of Literature

Rawal and Chowdhury (2018) conducted a study to understand the association between psych demographics and the trading patterns of retail investors. The data of 300 respondents were analysed using the chi-square technique. The study found an association between demographic profiles, such as age, gender, and annual income, and the trading behaviour of retail investors.

Patel & Modi (2017) undertook a study to identify the factors influencing investment decisions, to examine the association between various demographics and investment objectives, and to determine the most preferred investment avenue among the investor community. Data were collected from 100 respondents. Independent sample t-tests and ANOVA were used to analyse the data. The findings revealed that demographic variables like age, gender, and income significantly impact investors' decision-making.

SOUTH INDIA JOURNAL OF SOCIAL SCIENCES
ISSN: 0972 – 8945

DETERMINANTS OF CUSTOMERS LEVEL OF AWARENESS ABOUT ONLINE FOOD ORDERING AND DELIVERY SERVICES – WITH SPECIAL REFERENCE TO COIMBATORE DISTRICT, TAMILNADU.

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Abstract
This paper aims to identify the customer's level of awareness about online food ordering & delivery services in Coimbatore district. The study is based on the primary data which are collected for the period of one month from 1st June 2023 to 30th June 2023 through questionnaire method. The collected data have been used for analysis with the help of statistical tools namely, percentage analysis and ANOVA. The primary data for the study have been collected from a sample of 75 customers based on convenient sampling method. Finally, the study concludes that the variable gender has a significant relationship with the awareness index.

Keywords:
Online food delivery, Awareness level, social media advertisement

Introduction

Now a days, dining habits of food among customers have changed tremendously. Because of fast growth in technology development and high usage of smartphone. Online food delivery platforms recast the way people access enjoy food, better convenience, broad range of outlet options, effective doorstep delivery. The concept of food delivery in India has a durable history, with traditional home-made meals and local restaurants gives limited distribution services. Yet, the incoming of the internet and the uptrend of mobile apps has revised this skull practice, introducing an excellent and adequate system that caters to the fast-paced lifestyles of dwellers.

The first Online Food delivery app Foodie Bay established in July 2008 by Deepinder Goyal and Pankaj Chaddah. The website started as a restaurant-listing-and-recommendation portal. They renamed the company's name Zomato in 2010. After, this they expanded their services within and outside India. In August 2014 Swiggy online food ordering and delivery service company launched by Sriharsha Majety, Nandhan Reddy, and Rahul Jaimini headquarters located in Bangalore, India. ZOMATO and SWIGGY play major role in Online Food Delivery industry in India. Many Online Food Delivery Apps are still running in big cities like Chennai, Mumbai, Delhi, Kolkata, Pune, Ahmadabad etc., in the name of Food Panda, Uber Eats, Domino's, Faasos, Deliveroo, Grubhub, Dunzo, etc., Not only big cities have these types of services regional based food delivery services running in small towns.

In this paper an attempt has been made to study about the customers level of awareness about Online Food ordering & Delivery Services in Coimbatore district.

REVIEW OF LITERATURE

Munavver Azeem Mullapally Kayam Kulath (2019)[1], has conducted a study entitled ***"CUSTOMER PERCEPTION TOWARDS ONLINE FOOD DELIVERY SERVICES WITH SPECIAL REFERENCE TO CALICUT DISTRICT"*** with the objective to understand the customers' awareness about online food delivery services. Data have been collected from 100 respondents through questionnaire. Convenience sampling technique is used in this study. The author finds that respondents are highly aware of the benefits of online food delivery services and offers and discounts available in

Indo American Journal of Multidisciplinary Research and Review (IAJMRR)
ISSN: 2581 - 6292 / Impact Factor: 6.885 / Website: www.iajmrr.com

PREFERENCE OF CUSTOMERS TOWARDS VARIOUS BRANDS OF TELEVISION

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Cite This Article: Dr. P. V. Nandhini, "Preference of Customers Towards Various Brands of Television", Indo American Journal of Multidisciplinary Research and Review, Volume 7, Issue 2, July - December, Page Number 48-52, 2023.

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Abstract:

People nowadays depend more on television to spend their leisure time to watch different shows, news, or movies, matches likewise. The people feel tiresome to get ready, put mobile in silent, even to applaud as an encouragement for the participants in the program in a public show, dramas, and theatres and prefer mostly to be in home stiff and stun to sit in before television and watch whatever is telecasted. This lead to availability of different brands of television in the market. Here, in the present day we have undertaken to know the preference and satisfaction of customers towards different brands available in the market. The invention of the television was the work of many individuals in the late 19th century and early 20th century. Individuals and corporations competed in various parts of the world to deliver a device that superseded previous technology.

Key Words: Television, Customers, Brand Preference, Satisfaction

Introduction:

Television came to India on September 15, 1959 with experimental transmission from Delhi. It was a modest beginning with a make shift Studio, a low power transmitter and only 21 community television sets. All India Radio provided the engineering and programme professionals. A daily one-hour service with a news bulletin was started in 1965. In 1972 television services were extended to a second city-Mumbai. By 1975 television stations came up in Calcutta, Chennai, Srinagar, Amritsar and Lucknow. In 1975-76 the Satellite Instructional Television Experiment brought television programmes for people in 2400 villages in the most inaccessible of the least developed areas through a satellite lent to India for one year.

Doordharsan is a public broad cast terrestrial television channel run by prasar bharati, a board formed by the government of India. Television programs were first transmitted in black-and-white. Scottish inventor John Logie Baird demonstrated the world's first colour television transmission on July 3, 1928 using a mechanical process. In present day, the market situation and its outcome are becoming increasingly uncertain. In the light of this scenario, the organizations are becoming more and more desperate to hold the customers, to retain the market share and to survive. The scenario in the home appliances industry is equally challenging. The leading companies like Samsung, Videocon, Sony, LG and others by introducing brands at various price points have effectively segmented the market which has resulted in faster market expansion and penetration. Product differentiation and innovative marketing efforts have resulted in attracting more and more customers to their brands.

Review of Literature:

- Nidhi Rani, Vikas Sharan (2016) is their study entitled "Impact on Television Commercial on Purchasing Behavior of Masses." Both the primary and secondary data was collected from the study. The sampling data was collected from 250 respondents by using structured method. The tools that have used in the study is simple percentage method. The finding of the study is reversed that adults have strong belief that Television commercial has considerably influenced their buying behavior.
- P. Jayasubramanian, P. Kanagaraj, K. Mahendran (2015) in their study entitled "A Study of Consumer Satisfaction towards LED Technology With Reference To LED TV Coimbatore of Tamilnadu". The secondary data was collected from related websites and books. The survey was conducted from 50 respondents by using questionnaire method. The selection of sample is convenient sampling method. The finding from then study reveals that LED Technology has made a great change in the world of Television.
- A. Dharmaraj (2014) in his study entitled "A Study on Customer Satisfaction Selective LG Product with Special Reference to Gobichettipalayam". Both the primary and secondary data was collected from the study. The sampling data was collected from 100 respondents by using questionnaire method. The analytical tools applied for this study is simple percentage analysis and chi-square test. The finding from the study is that customer satisfaction on LG product is based on sales promotion and advertisement.
- H. S. Adithya (2013) in his study entitled "Customer Satisfaction towards and Preference of Color TV Brands with Special Reference to Bangalore City". Primary data was collected personally and individually. The data was collected from 100 respondents by using questionnaire method. The

International Journal of Interdisciplinary Research in Arts and Humanities (IJIRAH)
Impact Factor: 5.225, ISSN (Online): 2456 - 3145
(www.dvpublication.com) Volume 8, Issue 2, 2023

EMOTIONAL WELL-BEING OF NON RESIDENT INDIANS: ROLE OF SELF- ESTEEM AND LIFE SATISFACTION

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Cite This Article: P. Karthika & Dr. P. Bruntha, "Emotional Well-Being of Non Resident Indians: Role of Self- Esteem and Life Satisfaction", International Journal of Interdisciplinary Research in Arts and Humanities, Volume 8, Issue 2, July - December, Page Number 14-18, 2023.

Abstract:

A person with good emotional well- being is more likely to have a positive self-esteem and greater sense of life satisfaction .This ability leads to practicing self-awareness, adopting positive coping strategies, nurturing healthy relationship with society, setting goals and engaging in activities that ring more joy and fulfilment in life. This study has demonstrated the emotion well-being of Non-Resident Indians. The objective was to assess the factors influencing to be an NRI status and challenges faced by them and also the relationship between self-esteem and life satisfaction of NRIs. A sample of 105 Non-Resident Indians were included for this study to collecting quantitative data. The collecting data was analysed by weighted average rank analysis, Friedman rank test and chi-square test. The finding reveals that, the main reason for going abroad was for enlarging knowledge and updating skills and the racism will be most challenging element for their survival. The NRI have average level Self-Esteem and Level satisfaction. It was also found that, NRI self-Esteem has a positive impact on Life satisfaction.

Key Words: Emotional Well-Being, Fulfilment in Life, Self-Esteem, Life Satisfaction.

Introduction:

Emotional well-being refers to the overall emotional state of a person's health and happiness. It encompasses the ability to effectively manage and navigate one's emotions, cope with stress and challenges, and experience a sense of contentment, fulfillment, and positive mental state. Emotional well-being encompasses various dimensions of an individual's emotional life and is closely linked to psychological and mental health. The emotional well-being of Non-Resident Indians (NRIs) is a complex and multifaceted aspect of their lives, shaped by a delicate interplay of cultural identity, social dynamics, and the challenges inherent to living in a foreign land. As individuals who have ventured beyond their home country in pursuit of various opportunities, NRIs face a unique set of emotional experiences that deserve exploration and understanding. The emotional well-being of Non-Resident Indians (NRIs) can be influenced by a variety of factors, including their cultural background, social support networks, and the challenges they face while living abroad. Leaving behind familiar surroundings, family ties, and cultural norms, NRIs embark on a journey that often entails not only geographical distance but also emotional and psychological shifts. This process of adaptation and adjustment can evoke a range of emotions, from excitement and anticipation to nostalgia, homesickness, and even feelings of isolation. The delicate balance between maintaining connections to one's roots while assimilating into a new culture adds another layer to the emotional landscape.

On the other hand, the NRI experience also offers opportunities for personal growth, self-discovery, and the forging of new relationships across cultural boundaries. The ability to adapt to diverse environments, embrace novel perspectives, and build a global network can contribute positively to one's emotional well-being. Understanding and addressing the emotional well-being of NRIs requires a nuanced approach. It involves acknowledging the complex interplay of emotions, fostering a sense of belonging in both the host and home countries, and providing avenues for social support and mental health resources. By recognizing the unique challenges and strengths of the NRI experience, we can work towards nurturing emotional well-being and enabling NRIs to thrive as they navigate the intricate tapestry of their lives between cultures.

Review of Literature:

Muzamil Jan and Tasia Masood (2008) made a study on life satisfaction of women. The main purpose of the research was to evaluate life satisfaction among women and to analyze the influence of socio-personal characteristics of women with their life satisfaction. 120 samples were collected from women in jammu and Kashmir using questionnaire method. The data was analyzed by using percentage analysis, chi-square test, ANOVA, Karl Pearson's co-relation. The study reveals that, women have average level of life satisfaction irrespective of the age whereas the personal and family income increases the level of life satisfaction can also be increased.

Sampeet Mahanty et al.(2015) has investigated the relationship between self-esteem with life satisfaction of university students from Utkal university and Ravenshaw university. A total of 120 samples has been collected 60 males and 60 females. Coopersmith's self-esteem inventory and Diner's satisfaction with

International Journal of Multidisciplinary Research and Modern Education (IJMRME)
Impact Factor: 7.315, ISSN (Online): 2454 - 6119
(www.rdmodernresearch.org) Volume 9, Issue 2, 2023

ECONOMIC WELL-BEING OF NON RESIDENT INDIANS

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Cite This Article: P. Karthika & Dr. P. Bruntha, "Economic Well-Being of Non Resident Indians", International Journal of Multidisciplinary Research and Modern Education, Volume 9, Issue 2, July - December, Page Number 45-49, 2023.

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Abstract:

There are huge number of people residing out of India for earning more and lead a well-sophisticated life for their family, such people are called NRIs. In terms of finance the Non-Resident contribution was enormous in number and also they are being the main source of increasing Foreign Exchange reserve in India. But on the other hand, their life style was different and also met with many challenges to live in. In this study, has analyzed the NRIs' Economic well-being. The main purpose was to assess employment details, financial stability, earning capacity and spending behaviour of NRIs. A total of 105 samples have been collected from NRIs residing various countries through snowball random sampling method. The collected samples were analyzed by using simple percentage and chi-square. The results showed that, majority of NRIs are permanent Employees working in IT field of eight hours of work. They are recruited by means of interview method. They have permanent visa and have more than five years of experience in current position and organization. They are most satisfied with their salary and they visit home country whenever need arise. Their spending behaviour has significantly associated with Income and Cost of living in host country.

Key Words: Contribution, Perception, Economic Well-Being, Spending Behavior

Introduction:

There are 272 Million International migrants in the world and Indians make up 6.4% of the world's total immigrant or expat population, as per the United Nations Data. According to the Income Tax Act of 1961, an Indian citizen settled in a foreign country for employment who is not physically present in the country for more than 240 days in a financial year is regarded as a Non-Resident Indian (NRI).

NRI (Non-Resident Indians) contributes to the Indian economy significantly large in number. It aids the Indian economy at a large-scale specifically generating employment internally by strengthening national savings, capital accumulation, investment, and so on. On the small-scale, the remittance received by the family members is used to meet their basic needs, and open up opportunities for investing in education, health care, and so on. The huge Indian diaspora is responsible for a significant amount of money inflows to the country. Such money inflows are called remittances, which is the money sent by migrant workers back to their home country. Every dollar transferred to India adds to the country's foreign exchange pool. Remittances to India are also one of the significant contributors to the foreign exchange reserve and makeup nearly 25 percent of total foreign exchange reserves in the country. There was a 50 to 80 percent growth in remittance inflows from several nations including the United States, Canada, UK, and the Gulf countries.

Economic well-being refers to financial background of every individual's life encompassing their financial security, wealth, employment opportunities and overall living condition. It plays a predominant role in deciding overall well-being and quality of life and it directly influences an individual ability to meet basic needs, future opportunities and achieving their personal goals in life. The economic well-being of Non-Resident Indians (NRIs) stands as a significant and evolving area of study within the broader landscape of global migration and economic development. NRIs, individuals who have chosen to live and work in foreign countries, often experience unique economic dynamics influenced by their dual connection to both their host country and their country of origin.

In recent years, the advent of digital technology and easier cross-border financial transactions has further transformed the landscape of NRI economic interactions. The way NRIs manage their finances, invest, and contribute to the economies of both their host and home countries has evolved significantly. Exploring the economic well-being of NRIs provides insights into the broader impact of global migration on economic systems and sheds light on how individuals navigate the complexities of financial decisions in a transnational context. By delving into this subject, we can gain a deeper understanding of the factors that contribute to the financial stability and prosperity of NRIs, and in turn, identify strategies to enhance their economic well-being and facilitate meaningful economic engagement between countries.

Review of Literature:

Richard H Adams J (2008), made an attend to identify the Determinants of international remittances in developing countries: In this study addresses factors influencing for remittance by using new data on such

ISSN 2278 - 1641
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செப்டம்பர் சிறப்பிதழ்

புதுப்புனல்

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நிர்வாக ஆசிரியர்
சாந்தி ரவிச்சந்திரன்

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புதுப்புனல் வளர்ச்சிக்கான நன்கொடை மற்றும் சந்தா தொகையை PUDHU PUNAL என்ற பெயரில் இந்தியன் ஓவர்ஸிஸ் வங்கி திருவல்லிக்கேணி கிளையில் (C/A NO. 009802000007279) IFSC - IOBA0000098 பணமாக வங்கியிலும் செலுத்தலாம் மற்றும் Gpay : 99623 76282 எண்ணிலும் மேலும் பணவிடையாகவோ வரைவோலையாகவோ காசோலையாகவோ கீழ்காணும் முகவரிக்கு அனுப்புக.

புதுப்புனல்
117, திருவல்லிக்கேணி நெடுஞ்சாலை, (முதல் மாடி) திருவல்லிக்கேணி, சென்னை - 600 005. (ரத்னா கேப் எதிரில்)

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சங்ககாலக் கருவூர்ப் புலவர்களின் பாடல்கள் காட்டும் செய்திகள்

முனைவர் சு.செல்வக்குமார்
உதவிப்பேராசிரியர்
தமிழ் இலக்கியத்துறை
நல்லமுத்துக் கவுண்டர் மகாலிங்கம் கல்லூரி
பொள்ளாச்சி
கோயம்புத்தூர்

முன்னுரை

தமிழில் தோன்றிய சங்க இலக்கியங்கள் வழி அக்கால மக்களின் காதல், வீரம் ஆகியவற்றோடு அவர்களின் நம்பிக்கைகள். வழிபாடுகள், பழக்கவழக்கங்கள், வாழ்க்கை தொடர்பான மதிப்பீடுகள், வரலாறுகள், மனித இயல்புகள் போன்றன பற்றியும் அறிந்துகொள்ளமுடியும். சங்கஇலக்கியத் தொகுப்பில் பண்டைய தமிழகத்தின் பல்வேறு பகுதிகளில் வாழ்ந்த புலவர்களின் பாடல்கள் இடம்பெற்றுள்ளன. புலவர்களின் அறிவாற்றல், அனுபவத் தன்மைகளுக்கேற்ப பாடல்கள் அமைந்துள்ளன. அவை, காலந்தோறும் படிப்போர்க்குப் பல வகைகளில் பயனளிக்க வல்லனவாக உள்ளன. பண்டைய தமிழகப் பிரிவுகளில் ஒன்றாக இருந்தது கொங்குப்பகுதியாகும். கொங்குப் பகுதியில் அமைந்திருந்த கருவூர் என்னும் ஊரின் பெயரைத் தங்கள் பெயர்களுக்கு முன் கொண்டுள்ள புலவர்கள் எழுதிய பாடல்கள் சங்க இலக்கியத் தொகுப்பில் இடம்பெற்றுள்ளன. மயிலை.சீனி.வேங்கடசாமி இவர்களைக் கொங்குநாட்டுப் புலவர் பெருமக்கள் என வகைப்படுத்துவார். (மயிலை.சீனி.வேங்கடசாமி, ப.170) சங்க காலத்தைச்சார்ந்த, தமிழகத்தின் ஒரு குறிப்பிட்ட நிலவியலுக்குட்பட்ட புலவர்களின் பாடல்கள் வெளிப்படுத்தும் செய்திகளை ஆராயும் நோக்கில் இக்கட்டுரை அமைகிறது.

கருவூரின் சிறப்பு

கருவூர்க்குப் பல சிறப்புகள் உள்ளன. இது ஆன்பொருநை என்னும் அமராவதி ஆற்றங்கரையில் அமைந்துள்ளது. அதாவது, இப்போதுள்ள கரூர் பகுதி. கருவூர் என்பதே கரூர் என மருவியதாகக் கருதப்படுகிறது. இது சங்க காலத்தில் சேரர்களின் தலைநகராக இருந்துள்ளது. சேரர்கள் கொங்கு நாட்டைக் கைப்பற்றிய பிறகு சேரநாட்டின் தலைநகரமான கருவூரின் பெயரையே இதற்கு இட்டதாகச் சொல்லப்படுகிறது. இதற்கு வஞ்சி என்ற வேறுபெயரும் உண்டு. சேரர்கள் வழிவந்த இரும்பொறை அரசர்கள் இங்கிருந்து ஆட்சிசெய்துள்ளனர். சேரர்களிடமிருந்து இதைக் கைப்பற்ற சோழர்களும் பாண்டியர்களும் போர் செய்துள்ளனர். பிறகு, பாண்டியர்களின் ஆட்சிக்கும் அதன்பிறகு நாயக்கர் ஆட்சிக்கும் உட்பட்டு இருந்துள்ளது.

கருவூர்ப்புலவர்கள்

கருவூர் என்ற ஊரின் அடையொடு தங்கள் பெயர்களைக் கொண்ட புலவர்கள் பின்வருமாறு. கருவூர் ஓதமானியார், கருவூர்க் கண்ணம்பாளனார். கருவூர் கதப்பிள்ளை, கருவூர்க் கண்ணம்புல்லனார், கருவூர்க் கலிங்கத்தார், கருவூர்க்கிழார், கருவூர் சேரமான; சாத்தன், கருவூர் நன்மார்பனார், கருவூர் பவுத்திரனார், கருவூர் பூதஞ்சாத்தனார், கருவூர் பெருஞ்சதுக்கப் பூதனார் ஆகிய புலவர்கள் ஆவர்.

கருவூர்க் கண்ணம்பாளனார்

மகளிரின் சோலை விளையாடல், ஆறலைக்கள்வர் செயல்கள், வஞ்சி மாநகரை ஆளும் சேரனின் சிறப்பு, உடன்போக்கில் சென்றுவிட்ட மகளை நினைத்துவருந்தும் தாயின் நிலை, பொருள்தேடச் செல்லும் தலைவன் தன் தலைவிக்கு மென்மொழியால் ஆறுதல் கூறிச்செல்லும் பாங்கு ஆகியன இவருடைய பாடல்கள் (அகநானூறு-180,263), நற்றிணை(141) வெளிப்படுத்தும் செய்திகளாக இடம்பெற்றுள்ளன. சோலையில் விளையாடும் பெண்களுள் ஒருத்தியைக் கண்டு காதலுற்ற தலைவன் ஒருவன் தான் அவளை விரும்புவதை வெளிப்படுத்த அவளுக்குக் குவளைப்பூக்கள் கொண்டு கட்டிய மாலையை அவளின் தலையிலிருந்து முதுகுப்புறம் வரை தொங்கும்படி சூட்டிவிட்டுச்சென்றதை,

தன்கயத்து அமன்ற ஒண்பூங் குவளை
அரும்பு அலைத்து இயற்றிய சுரும்பு ஆர் கண்ணி
பின்னுப்புறம் தாழக் கொன்னே சூட்டி
நல்வரல் இளமுலை நோக்கி, நெடிது நினைந்து
நில்லாது பெயர்ந்தனன் ஒருவன் (இரா.செயபால்,2004)

என்ற பாடலடிகள் வாயிலாகக் கூறுகிறார். (அகம்.180) இதனால் குவளைப் பூக்களை அன்று மாலையாகக் கட்டும் வழக்கம் இருந்ததையும் ஆண்கள் தாங்கள் விரும்பும் பெண்ணுக்கு மாலை சூட்டித் தன் விருப்பத்தை வெளிப்படுத்தும் வழக்கம் இருந்ததையும் காணமுடிகிறது.

வில்லாற்றல் மிக்க ஆறலைக்கள்வர்கள் என்போர் பாலை நிலவழிச்செல்வோரை யாமரத்தின் உச்சியில் ஏறியிருந்து கிளைகளை தாங்கள் மறைவதற்கு இடமாகக்கொண்டு தாக்கும் இயல்புடையோர் என்பதை,

ஆறுசெல் வம்பலர் வருதிறம் காண்மார்
வில்வல் ஆடவர் மேல்ஆள் ஒற்றி
நீடுநிலை யாத்துக் கோடுகொள் அருஞ்சுரம்
(இரா.செயபால், 2014)

ISSN 2278 - 1641
UGC Care Listed Journal

புதுப்புனல்

கலை இலக்கிய மாத இதழ்

மலர் : 14 இதழ் : 10 ரூ. 150/- அக்டோபர் 2023

பின் நவீனத்துவ எழுத்துக்களை
தமிழுக்கு அறிமுகப்படுத்தி தமிழ் இலக்கியத்தை
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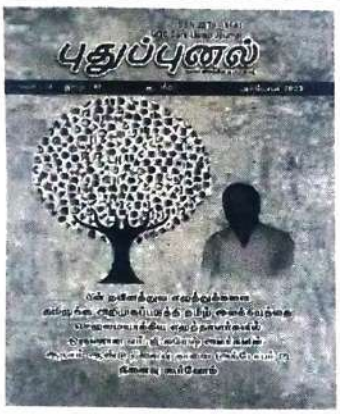

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புதுப்புனல் வளர்ச்சிக்கான நன்கொடை மற்றும் சந்தா தொகையை PUDHU PUNAL என்ற பெயரில் இந்தியன் ஓவர்ஸிஸ் வங்கி திருவல்லிக்கேணி கிளையில் (C/A NO. 009802000007279) IFSC - IOBA0000098 பணமாக வங்கியிலும் செலுத்தலாம் மற்றும் Gpay : 99623 76282 எண்ணிலும் மேலும் பணவிடையாகவோ வரைவோலையாகவோ காசோலையாகவோ கீழ்காணும் முகவரிக்கு அனுப்புக.

புதுப்புனல்
117, திருவல்லிக்கேணி தெடுஞ்சாலை, (முதல் மாடி) திருவல்லிக்கேணி, சென்னை - 600 005. (ரத்னா கேப் எதிரில்)

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சங்க இலக்கியத்தில் சூழலியல்

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வெ. பரிமளம்
உதவிப்பேராசிரியர்
தமிழ் இலக்கியத்துறை
நல்ல முத்து கவுண்டர் மகாலிங்கம் கல்லூரி
பொள்ளாச்சி

சூலியல் என்பது தாவரங்கள் விலங்குகள் உள்ளிட்ட அனைத்து உயிரினங்களையும் அவை ஒன்றோடு ஒன்று கொண்டுள்ள தொடர்பையும் குறிக்கும். மனித வாழ்வும் சூழலும் ஒன்றோடு ஒன்று பின்னிப்பிணைந்தவை. அதை உணர்ந்த சங்க தமிழர்கள் சூழலைத் தன்னில் இருந்து வேறாகக் கருதாமல் அதனோடு ஒன்றிணைந்து வாழ்ந்தனர் . சூழல் குறித்த விழிப்புணர்வு அதிகம் இருக்கும் இக்காலகட்டத்தில் சங்கத் தமிழர்களின் சூழலியல் அறிவைப் பற்றி அறிந்து கொள்வது தேவையாக இருக்கின்றது.

சூழலியல்

சூழலில் என்பது மனிதனுக்கும் இயற்கைக்கும் இடையிலான உறவை ஆராய்வதாகும். இதை தற்பொழுது Ecology என்பர். நிலம், நீர்,காடுகள்கள், கடல், கனிமங்கள் காலநிலை, நிலவியல் போன்ற அனைத்தையும் உள்ளடக்கியது. புவியின் இயற்கை நிலைகள் அனைத்தும் சுற்றுச்சூழல் என்பதில் அடங்குகிறது. உயிரினங்கள் வாழும் பகுதியில் உள்ள காற்று, நீர் போன்றவை அடங்கிய இயற்கை நிலையே சுற்றுச்சூழல் என்று (கிரியாவின் தற்காலத்தமிழ் அகராதி ப-462) கூறுகிறது. சூழல் மண்டலத்தில் உள்ள உயிரற்ற காற்று, நீர், வெப்பம்,ஒளி இன்னபிறவும் உயிருள்ள தாவரங்கள், உயிரினங்கள் போன்றவற்றையும் உள்ளடக்கியதே சுற்றுச்சூழலாகும். (சுற்றுச்சூழல் பாதுகாப்பு ப-401) என்றும் சுற்றுச்சூழல் என்பது மனிதனுக்கும் இயற்கைக்கும் உள்ள நுண்மையான சமன்படுத்தப்பட்ட மென்மையான உறவாகும். (மேலது ப-415) என்றும் கூறுகிறது. சூழலைச் சார்ந்தே மனிதன் இயங்குகின்றான். மனித வாழ்வு என்பது பிறரையும் பிற பொருளையும் சூழ்ந்த வாழ்வாகும்.

சங்க இலக்கியமும் சூழலியலும்

சங்கப் புலவர்கள் இயற்கையைப் பேணினர். இயற்கையால் அமைந்ததே உலகு என்னும் கொள்கையைக் கொண்டவர்கள். நிலம், நீர், தீ, வளி, விசும்பு ஆகிய ஐந்தும் சேர்ந்தது தான் இயற்கை என்கிறது தொல்காப்பியம். நிலம், நிலம், பறவை, செடி, கொடி, மரம், உயிரினங்கள் ஆகிய அனைத்தையும் உள்ளடக்கிய இயற்கையை முதற்பொருள், கருப்பொருள், உரிப்பொருள் என மூன்றாகப் பகுத்தனர். இது பண்டைத் தமிழரின் சூழலியல் பார்வையில் இன்றியமையாத கூறாகும். நிலம், நீர் அவற்றை ஆதாரமாகக் கொண்ட காலநிலை, அதன் இயக்கம் ஆகியவற்றை உள்ளடக்கிய நிலமும் காலமும் முதற்பொருள் ஆகும். உயிரினங்களை பற்றி கூறுவது கருப்பொருளாகும் இதை

முதலெனபடுவது நிலம் பொழுது இரண்டின்
இயல்பு என மொழிப
தொல்காப்பியம் அகத்திணையியல் நுற்பா -5

தெய்வம் உணாவே மா மரம் புள் பறை
செய்தி யாழின் பகுதியொடடு தொகை இ
அவ்வகைப் பிறவும் கருவென மொழிப
தொல்காப்பியம் அகத்திணையியல் நுற்பா -30

என்கிறது தொல்காப்பியம்.

நிலமும் சூழலும்

மனிதர்கள் உள்ளிட்ட உயிரினங்கள் வாழக்கூடிய இடம் நிலமாகும். தட்பவெப்பம், மழை போன்ற காரணங்களை அடிப்படையாகக் கொண்டும் புவியியல் வேறுபாட்டின் அடிப்படையிலும் அக்காலத்தில் நிலங்களை பகுத்திருந்தனர். மேலும் அந்தந்த நிலத்தில் உள்ள மரம், பூ ஆகியவற்றை அடிப்படையாகக் கொண்டே குறிஞ்சி, முல்லை, மருதம், நெய்தல், பாலை என நிலங்கள் பெயர் பெற்றிருக்க வேண்டும். ஒவ்வொரு திணையும் ஒவ்வொரு சூழல் தொகுதியாகும். காடுறை உலகம், மைவரை உலகம், பெருமணல் உலகம் என தொல்காப்பியர் நிலங்களால் ஆன சூழல் தொகுதியை குறிப்பிடுகிறார். இந்த அடிப்படையிலேயே சங்கஇலக்கியங்கள் பாடப்பட்டுள்ளன. அகத்திணை பாடல்கள் அனைத்தும் இயற்கையோடு இணைந்து எழுதப்பட்டவை ஆகும். அவை முழுவதும் சூழல் மண்டலத்தை விளக்கும் விதமாகவே அமைந்துள்ளன. நிலத்தை வைத்து உருவாக்கப்பட்ட சூழல் தொகுப்பில் வாழ்ந்த மக்கள் அந்நிலத்தில் கிடைத்த தாவரங்கள், விலங்குகள், பழங்கள் ஆகியவற்றையே உண்டு வாழ்ந்தனர். குறிஞ்சி நில மக்களுக்கு தினை, கிழங்கு, வேட்டையாடி கிடைத்த உணவுகள் போன்றவையும் கடலோர நெய்தல் நில மக்கள் உணவில் மீனும் மருதநிலத்தில் நெல் உணவும் தவிர்க்க முடியாத ஒன்றாகும். முல்லை நில மக்கள் கால்நடை வளர்ப்பு, விவசாயம் ஆகியவற்றால் தங்கள் உணவுத் தேவையை பூர்த்தி செய்தனர். அவர்களின் உணவு முறை நிலம் சார்ந்தே அமைந்து இருந்தது. அது மட்டுமன்றி குடியிருப்பு, உயிரினங்கள், தாவரங்கள்

Journal of the Maharaja Sayajirao University of Baroda
ISSN :0025-0422

ILLUMINATING BRAIN TUMOR IN MRI METAPHORS BY USING A HYBRID MODEL OF FASTER R-CNN AND CNN

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Abstract:
In this study the problem of fully computerized brain tumor classification and segmentation, in Magnetic resonance imaging (MRI) containing both Glioma and Meningioma types of brain tumors are considered. This paper proposes a Convolutional Neural Network (CNN), for classification problem and Faster Region based Convolutional Neural Network (Faster R-CNN) for segmentation problem with reduced number of computations with a higher accuracy level. This research has used 218 images as training set and the systems shows an accuracy of 100% in Meningioma and 87.5% in Glioma classifications and an average confidence level of 94.6% in segmentation of Meningioma tumors. The segmented tumor regions are validated through ground truth analysis and manual analysis by a Neurologist.

Keywords:
Convolutional Neural Networks, Brain Tumor, Magnetic resonance imaging, Segmentation, Classification, Computer Vision

INTRODUCTION

Brain tumor is the advancement of unusual tissues in the cerebrum and distinguishing something very similar at a beginning phase can be dealt with appropriately. By and large, brain tumor can be delegated in excess of hundred kinds in light of the area and development of growth. Specialists have named mind tumor in stages as Grade I, II, III and IV as per the development and side effects of cerebrum growth. The significant brain growths are harmless and Threatening where harmless have some consistency in shape and non-dynamic, yet dangerous doesn't have consistency in shape and dynamic. The image processing techniques used to identify the brain tumor are Magnetic Resonance Imaging (MRI), Positron Emission Tomography (PET) and Computed Tomography (CT). By comparing all these three imaging techniques, MRI is good quality medical imaging for detecting brain tumor. In this study, four types of brain tumor are used namely benign- slow growing tumor, malignant, which are most commonly seen in infants and children called PNE, glial-astrocytic tumor

Journal of the Maharaja Sayajirao University of Baroda
ISSN :0025-0422

ILLUMINATING BRAIN TUMOR IN MRI METAPHORS BY USING SVM CLASSIFIER

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Abstract:
The field of medical imaging is gaining importance with an increase in the demand for automated, reliable, fast and efficient diagnosis which can provide insight to the image better than human eyes. Brain tumor is the second leading cause for cancer-related deaths in men in age 20 to 39 and fifth leading cause cancer among women in same age group. Brain tumors are painful and may result in various diseases if not cured properly. Diagnosis of tumor is a very important part in its treatment. Identification plays an important part in the diagnosis of benign and malignant tumors. A prime reason behind an increase in the number of cancer patients worldwide is the ignorance towards treatment of a tumor in its early stages.

Key words: Benign, Malignant, SVM, Image Segmentation

INTRODUCTION:

This project discusses such an algorithm that can inform the user about details of tumor using basic image processing techniques. These methods include noise removal and sharpening of the image along with basic morphological functions, erosion and dilation, to obtain the background. Subtraction of background and its negative from different sets of images results in extracted tumor image. Plotting contour and c-label of the tumor and its boundary provides us with information related to the tumor that can help in a better visualization in diagnosing cases. This process helps in identifying the size, shape and position of the tumor. It helps the medical staff as well as the patient to understand the seriousness of the tumor with the help of different color-labeling for different levels of elevation. A GUI for the contour of tumor and its boundary can provide information to the medical staff on click of user choice buttons. The SVM classifier algorithm can be implemented in four major steps as shown in Fig1. First step is pre-processing & Image acquisition of given MRI image in MATLAB then second is filtering the image to reduce the noise and third is image resizing and finally fourth step is tumor extraction using SVM classifier.
The aim of the project is tumor identification in brain MRI images. The main reason for detection of brain tumors is to provide aid to clinical diagnosis. The aim is to provide an algorithm that guarantees the presence of a tumor by combining several procedures to provide a foolproof method of tumor detection in MRI brain images. The methods utilized are filtering, contrast adjustment, negation of an image, image subtraction, erosion, dilation, threshold, and outlining of the tumor. The focus of this project is MRI brain images' tumor extraction and its representation in simpler form such that it is understandable by everyone. Humans tend to understand colored images better than black and white images, thus, we are using colors to make the representation simpler enough to be understood by the patient along with the medical staff. The objective of this work is to bring some useful information in simpler form in front of the users, especially for the medical staff treating the patient. Aim of this project is to define an algorithm that will result in extracted image of the tumor from the MRI brain image. The resultant image will be able to provide information like size, dimension and position of the tumor, plotting contour and c-label of the tumor and its

Journal of the Maharaja Sayajirao University of Baroda
ISSN :0025-0422

ILLUMINATING BRAIN TUMOR IN MRI METAPHORS BY USING A HYBRID MODEL OF FASTER R-CNN AND SVM

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Abstract:
Brain tumors are considered as most lethal growths. To diminish the gamble of death, early distinguishing proof of the disorder is required. One of the top accessible techniques to assess mind growths is Attractive reverberation Illustration (MRI). Cerebrum growth discovery and division are solid as mind cancers might change in size, figure and area. That makes manual discovery of cerebrum growths by investigating the MRI a monotonous work for radiologists and specialists. So a mechanized mind growth finding and division is required. This work recommends a District based Convolution Neural Network (RCNN) approaches for robotized mind growth discovery and division utilizing MR image, which settles the troubles of cerebrum cancer distinguishing proof effectively and precisely.

Keywords:
Brain Tumor, MRI Preprocessing, Metaphors segmentation, BrainTumor localization, SVM & RCNN

INTRODUCTION

In the current investigation audit, the MRI portrayal isolated to perceive the advancement region and request these areas into being and dangerous. Significant learning is solid areas for an actually has been used comprehensively on portrayals request. Subsequently, Quick R-CNN is a superior significant slanting method and with a blend of the Assist Vector With machining model has been executed through the Open CV library in this learns. It shows that cross breed Faster R-CNN and SVM give in a precision of 98.8%. notwithstanding, the finding of past investigations that utilized various techniques got exactness (R-CNN-92%, CNN and RBF based SVM-92%, RELM-94.3%, KNN-96.6%, CNN-97.5%), In the interim, the proposed mixture model with thought of benefits of Fast R-CNN and SVM, shows huge turn of events.

LITERATURE REVIEW

The determination of a growth locale because of the complicated design of the cerebrum is an intense errand [1]. Attractive reverberation imaging MRI is one of the most usable strategy in clinical image, particular in cerebrum cancer it give excellent and one of a kind similitude to picture the delicate hankie with longitudinal and different goal [2]. In cerebrum growth identification the principal task is to name similitude through allegories division procedures [3]. As such to direct this condition, various allegories examination calculations, and AI strategies utilizing MRI representations by scientists have been carried out. Among various investigations on illustrations handling, content-based similitudes recovery (CBIR) strategies and edge based are exceptionally normal. For instance, ZarNawab et.al utilized CBIR and profound convolution brain organization (DCNN) procedure on MRI analogies to take advantage of the element and track down how much the correspondence among the elaborate representations to the documented illustration; the result shows 96.1% precision [4].
In another work, Point in Yang et.al used the area matched plan (LBP) to takeout the similarities surface information, and besides thickness Cerebrum Association (CNN) to gain the ground and split the restriction of PC vision, it uses two sorts of CNN models Exception and moreover Thick Net to stretch out the rightness to take out the huge highlights [5]. Makers Abdu Gumaei et.al, proposed a cross variety slanting machine of frontal cortex dangerous development request using Regularized

Journal of the Maharaja Sayajirao University of Baroda
ISSN :0025-0422

MAIZE LEAF DISEASE IDENTIFICATION AND CLASSIFICATION BASED ON MULTISCALE CONVOLUTION NETWORK, BACTERIAL FORAGING OPTIMIZATION AND PARTICLE SWARM OPTIMIZATION

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Abstract
The responsibility of plant is exceedingly important for both human life and environment to feed. Plants also suffer from various diseases like human beings and animals. So there calls for a method to make certain accurate and efficient outcome of plant diseases to minimize adverse effects in production of yield. This paper proposes a various neural network models in recognition of maize plant leaf disease diagnosis. Deep learning approaches gives incredible results compared to machine learning approach. In this, various deep learning approaches like Multiscale Convolution Neural Network (CNN), Bacterial Foraging Optimization (BFO) using Recurrent Neural Network (RNN) and Particle Swarm Optimization (PSO) using Convolution Neural network are discussed. A novel Multiscale CNN is used to learn features from training data along with Rectified Linear Units [ReLU] to produce output without loss of information. Next an improved BFO have been used for assigning optimal weights to RNN for increasing accuracy and speed of network. The searching and grouping of seed points have been done with region growing algorithmn.Next an improved PSO along with graph cut segmentation helps for searching and grouping of seed points to generate feature set. The network over fitting issues can be eliminated by Rectified ReLU activation function.

Index terms
Multiscale Convolution Neural Network, Bacterial Foraging Optimization, Particle Swarm Optimization, Identification, Classification.

1. Introduction

Maize is one of the most nourishing crops for humans and animals. However numerous diseases effect frequently on a large scale in Maize production, thereby causing mislay in economy.Therefore, early and effective detection of maize leaf diseases is crucial for assuring healthy development of maize production and has become research hotspot in the field of agricultural production.Traditionaly, an improved DMS-Robust Alex net [1] was proposed to identify maize leaf diseases with accuracy of 98.62%.The recent Deep Forest [2] model performs with high efficiency than traditional deep learning models. As shown in [3], Bacterial foraging optimization can be efficient and powerful tool to initialize weight to radial basis functional neural network for identifying affected regions on plant image leaf. One of the established machine learning approach Support Vector Machine helps to classify images based on linear, Non linear and Multiclass of Tomato images are shown[4].Along with grey level histogram, Otsu method performs a segmentation process based on texture feature analysis for Maize plant diseases image [5]. Apart from machine learning approach, deep learning helps for identification and classification based on Multiscale Convolution Neural Network [6] that produces good results in terms of Dice coefficient, sensitivity and specificity for Maize plant samples. In Quantum Particle Swarm Optimization [7] is applied to find the precise parameters and then to identify the threshold values. In the majority of cases leaf was not successfully segmented if the markers do not contribute

Big Data in Data Mining Techniques – A Survey

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Abstract

Big data processing presents itself as a novel and promising analytical field for extracting useful information from enormous databases. It is used to handle vast volumes of knowledge sets, usually large, sparse, incomplete, uncertain, complex, or dynamic information set from various and autonomous sources, in time-sensitive applications such as social site data processing and medical applications. In order for the user to easily obtain the main strategy and answers to their questions from the mined results, massive data processing also handles the storage structure of the mined results. Information slicing is done to break up the associations between columns while keeping the associations within each column. There are several types of information slicing: quasi-static, amorphous, simultaneous dynamic, quasi-static, and dynamic. Another fundamental duty in the huge information mining process is clustering, which is used to find patterns and identify information for use in large-scale processing applications. In addition to discussing the benefits and limitations of these strategies, this study examines huge data processing, information slicing, and clustering techniques. Information slicing and clumping approaches, mining platforms, and large data mining algorithms are discussed along with their quality and performance.

Keywords: *Big Data Mining, Cloud Computing Technique, Clustering Techniques, Collaborative filtering, Data Mining and Data Slicing.*

1. Introduction

Our capacity to collect data in several formats from a wide range of sensors, devices, and independent or linked applications has significantly increased in recent years. The volume of information has increased faster than our ability to handle, evaluate, store, and interpret these datasets. Important obstacles arise while attempting to make use of the vast amount of knowledge. In order to explore vast amounts of data, the mining process looks for consistent patterns or systematic correlations between the variables. The findings are then validated by applying the patterns found to the newly discovered data set. Because of the quality of the information and the increase in computing time, this is frequently an incredibly challenging assignment.

One emerging example that supports the development of connected information centre computer code and infrastructure growth is big information. Massive data could be a computation-focused approach that emphasizes the cloud system's storage capacity. By utilizing massive information processing and storage resources under strict administration, cloud computing technology aims to provide large-scale information applications with fine-grained computing capabilities. As a result, the rise of information also quickens the development of cloud computing, which offers comprehensive options for handling and storing large amounts of data.

Journal of Chemical Health Risks

www.jchr.org

JCHR (2023) 13(6), 1764-1772 | ISSN:2251-6727

Activities of Primordial Radionuclides in the tobacco cultivated fields of Dindigul and Erode districts (Tamil Nadu, India)

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(Received: 07 October 2023 Revised: 12 November Accepted: 06 December)

KEYWORDS

Primordial tobacco field Uranium Thorium Potassium

ABSTRACT:

Present study is a novel attempt to estimate the activities of primordial radionuclides such as ^{238}U (Uranium-238), ^{232}Th (Thorium-232) and ^{40}K (Potassium-40) in the soil samples collected from tobacco plantations in Dindigul and Erode Districts. Radioactivity concentrations of the collected soil samples were determined with the aid of a NaI gamma-ray detector, which ranged from BDL (2 Bq/kg) to 20.3 Bq/kg for ^{238}U, 5.1 to 156.5 Bq/kg for ^{232}Th and 87.1 to 712.5 Bq/kg for ^{40}K respectively with mean value of 6.41, 54.34 and 296.96 respectively. Frequency distribution of the radionuclides showed the leptokurtic, platykurtic and mesokurtic for ^{238}U, ^{232}Th and ^{40}K respectively. The average activity concentrations of primordial radionuclides in the tobacco field soils of Dindigul and Erode Districts were compared to the published global average values. The estimated primordial activity concentration from the current work is lesser than that of the average global values.

1. Background

Primordial radionuclides are released from the terrestrial radiation sources such as earth's crust, rocks, soil, air and water [1]. Radiations are the spontaneous emission of energy from unstable atoms [2]. Natural and anthropogenic radionuclides are a crucial requirement for the evaluation and control of public exposures [3]. Cosmogenic radionuclides arise as a result of the interaction of cosmogenic radiation with elemental substances in the atmosphere [4]. Anthropogenic activity can also be considered as a ubiquitous source of radioactivity which contributes to the background radiation level [5-6]. Natural gamma radiation that occurs in the environment is created by primordial radionuclides from the sky and on Earth [7]. Naturally occurring radionuclides in the soil significantly increase the population's background radiation exposure [8]. The primary external source of irradiation in humans is gamma radiation, which is emitted by naturally occurring radionuclides that are deposited on the ground.

Distribution of natural radiation level depends upon multiple factors such as the place, elevation, latitude as well as the higher abundance of radioactive minerals [9]. The primary sources of naturally occurring radioactivity in soil are the ^{238}U, ^{232}Th decay series and natural ^{40}K respectively [10-11]. The uranium and thorium series, which are respectively descended from the ^{238}U and ^{232}Th series [12] have average continental crust levels of 2.7ppm and 9.6ppm, respectively [13]. ^{238}U and ^{232}Th are fission products produce 12 and 11 daughter products and ^{40}K is non fission product [2]. The presence of Uranium and Thorium due to fertilizers enhances the natural radiations [14]. U, Th, and K are released into the soil by the progeny of U and Th as well as by the

Uttar Pradesh Journal of Zoology

Volume 44, Issue 22, Page 361-368, 2023; Article no.UPJOZ.3000
ISSN: 0256-971X (P)

Biosynthesis and Characterization of Silver Nanoparticles Using *Barleria cuspidata* Leaves Extract and Mechanism of Antimicrobial Action of Selected Human Pathogens

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Authors' contributions

This work was carried out in collaboration among all authors. All authors read and approved the final manuscript.

Article Information

DOI: 10.56557/UPJOZ/2023/v44i223753

Editor(s):
(1) Dr. Takashi Ikeno, National Cancer Center Hospital East, Japan.
Reviewers:
(1) Akhilesh Patel, Nims University, India.
(2) Rolan Rusli, University of Mulawarman, Indonesia.

Received: 04/09/2023
Accepted: 09/11/2023
Published: 14/11/2023

Original Research Article

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SOUTH INDIA JOURNAL OF SOCIAL SCIENCES
ISSN: 0972 – 8945

A COMPARATIVE STUDY OF VARIOUS DTH SERVICE PROVIDERS

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ABSTRACT

Direct-to-Home (DTH) defines as Transmission of digital video channel to the subscribers at their Home directly through dish. It was created a revolution in the Television Industry through Digitalisation.DTH directly compete to the cable operators and keep away them by providing the best picture quality by facilitating direct broadcast to consumer. Direct-to-Home (DTH) is one of the recent addition and has become an effective medium of an entertainment through attracting everyone.. DTH players concentrate more on value added services to get market advantage.

The Indian Media and Entertainment (M&E) industry is a sunrise sector for the economy and is making high growth strides. By proving its resilience to the world, the Indian M&E industry is on the cusp of an intense phase of growth, backed by rising consumer demand and improving advertising revenues. The industry is primarily driven by increasing digitization. The mass media in the present era have assumed vital importance in daily life. Television is one of the major mass media of India and is a huge industry and has thousands of programs in all the states of India

Keywords: Consumer demand, Digitization, subscription, Mass Media

INTRODUCTION

The Government of India has supported M&E industry's growth by taking several initiatives such as digitising the cable distribution sector to attract more significant institutional funding, increasing FDI limit from 74 per cent to 100 per cent in cable and DTH satellite platforms. Also, granting industry status to the film industry for easy access to institutional finance (www.ibef.org).So this study made an attempt to know the Comparative study of various DTH services in Coimbatore District.

REVIEW OF LITERATURE

Irinsudha and Jayanthi (2013) carried out a study on 'Comparative Study on the Various Direct-To-Homes Service Providers in Chennai'. The study attempted to compare the services offered by several DTH service providers. Hence, the data consisted of a sample of 300 respondents. Several statistical tools, such as Chi-square, ANOVA, were applied to the collected data. In summary, the study concluded that there is an association among the reasons for going for DTH and the factor that more channels, transparent payment, interactive service, and superior video quality add value to the service.

Tiwari (2014) in the study entitled "A Comparative Study of Sales Promotion Strategies of DTH Service Providers". The study aimed at identifying the sales promotion strategy, which was the critical factor in a customer choosing the service provider. The extent of spread and popularity of DTH was limited to several groups. Also, the impact of DTH services and adds on among several groups of subscribers and the role of technology in the selection of service provider was highly appreciable. The total numbers of questionnaires distributed to the respondents were 400. Out of which 230 had been chosen for the study. Furthermore, two-fold questionnaires were designed to collect data from Direct-To-Home service subscribers and potential subscribers. The satisfaction level of the users was measured on three and five-point Likert Scale. From the study, it was found that the interactive services, number of channels, and price of the DTH services were the factors considered by subscribers for the selection of the DTH service provider. Dish TV and Tata Sky were the top two DTH service providers which were preferred by the respondents. Overall, the

SOUTH INDIA JOURNAL OF SOCIAL SCIENCES
ISSN: 0972 – 8945

EVALUATING CUSTOMER SATISFACTION WITH DIGITAL BANKING SERVICES IN INDIA

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ABSTRACT

This study aims to evaluate the level of usage and awareness of digital banking services and facilities among customers in India and examine the impact of these services on customer satisfaction. This study used a well-structured questionnaire to collect data from Canara Bank, The Federal Bank Ltd., and HDFC Bank customers. The data collected from 200 respondents were analyzed to gain insights into their experiences with digital banking services. This study found that customers of different banks have varying levels of satisfaction with other factors, such as their account type and expertise with digital banking services. Several factors influence customer satisfaction, including prompt handling of calls, courteous and professional manner, and ease of use and navigation. This study provides valuable insights into customer satisfaction with digital banking services in India. It can help banks improve their services to meet their customers' needs and expectations.

Keywords: digital banking, customer satisfaction, facilities offered

1.1 Introduction

After India's independence, one of the government's central tasks was to focus on the country's economic development. In the 1990s, several developments led to significant changes in the structure of banking products. The digital economy is increasing, and all parts of the economy, including commerce, financing, and logistics, require next-generation solutions. The banking industry in India plays a significant role in the country's development. Banks in India are transitioning from conventional banking to digital banking. Digital banking involves high service levels through a digital platform, eliminating paperwork such as cheques, pay-in slips, and demand drafts. This means that all banking activities are available online. The Indian banking sector is moving towards digitalized banking. This research aims to evaluate customers' usage and awareness of digital banking services and facilities and examine the impact of these services on customer satisfaction.

1.2 Review of Literature

Several studies have been conducted on customer satisfaction with digital banking services.

Sathiskumar & Rajaraman (2021) surveyed 300 respondents in Coimbatore city and found that the majority were happy with the performance of ICICI bank's ATMs. Still, many were not satisfied with the bank's grievance settlement system.

Drigă & Isac (2014) surveyed 300 people and found that 65% were aware of e-banking services. The study, titled "E-banking services – features, challenges and Benefits," provides an overview of electronic banking services and highlights aspects of e-banking. The authors note that although e-banking offers many advantages to corporate and individual clients, it is not without certain challenges and issues regarding security and customer interest.

Tandon et al. (2016) studied the responses of 450 consumers in the Delhi/NCR regions using a 5-point Likert Scale. They found that e-banking is the preferred delivery channel for banks and is gaining widespread acceptance among consumers.

Dhanya (2021) conducted a study to identify the factors influencing consumers' adoption of Internet banking services in Chennai. The study also aimed to examine the relationship between the adoption of these services and the demographic characteristics of consumers. This research provides valuable insights into the factors that drive consumer adoption of Internet banking services and can help banks improve their services to meet their customers' needs and expectations. The study found

RABINDRA BHARATI UNIVERSITY JOURNAL OF ECONOMICS
ISSN : 0975-802X

EXPLORING THE RELATIONSHIP BETWEEN DIGITAL BANKING SERVICE QUALITY AND CUSTOMER SATISFACTION

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ABSTRACT

As a result of economic reforms, the banking industry underwent deregulation and increased competition. Indian banks have leveraged technology to introduce a range of digital banking products and services. This study examines consumers' usage of these digital banking products and services and analyses their awareness and satisfaction. Out of a sample of 200 customers, this study found that nearly 41% of bank customers use digital banking services for all their transactions, including funds transfer, paying bills, and checking their balance as needed. Additionally, this study found that overall satisfaction with digital banking services is the same for male and female customers and does not differ significantly. The availability of staff members and computerised counters in the bank was given the least importance by customers, as they primarily use digital banking services on their mobile devices or computers. These findings highlight the growing importance of digital banking in the modern financial landscape and the need for banks to continue investing in technology to meet customer needs.

***Keywords*:** digital banking, customer satisfaction, facilities offered

1.1 Introduction

The banking industry underwent deregulation and increased competition due to economic reforms. In the post-reform period, new products, delivery channels, and processes were introduced, along with increased sophistication due to the more discerning nature of banking service users. To succeed in this sector, players must understand their customers, fulfil their needs, and achieve high customer retention levels by leveraging technology, knowledge, and human resources to provide quality products and services while managing risk and returns. Indian banks have introduced a range of digital banking products and services by leveraging technology. This study examines consumers' usage of these digital banking products and services and analyses their awareness and satisfaction.

1.2 Review of Literature

Ashok and Selvakumar (2006) conducted a study titled "Customer Satisfaction in Banks" to understand the feasibility of physical facilities and elicit customer opinions on their satisfaction with selected branches. The findings showed that service delivery and customer delight are among the most debated issues in the banking industry in India.

Sandip et al. (2010) conducted a study titled "Impact of Service Quality on Customer Satisfaction, Loyalty, and Commitment in the Indian Banking Sector" to examine the association between service quality and customer satisfaction, loyalty, and commitment.

Amer (2010) studied individual consumers' perception of Pakistan's Islamic banking products and services. The study explored the perception of individuals responsible for financial affairs. It examined the usage of Islamic banking facilities and respondents' understanding of the Islamic banking system on various aspects of the selection criteria.

Vidyapriya and Mohanasundari (2012)studied customer responsiveness to banking technology products in rural South India. The study aimed to measure customer knowledge of banks' technology products in rural Tamil Nadu. The research would help bank branches understand the responsiveness level of rural customers towards technology products and take necessary steps to improve.

RABINDRA BHARATI UNIVERSITY JOURNAL OF ECONOMICS
ISSN : 0975-802X

A STUDY ON CUSTOMER ATTITUDE AND PREFERENCE ON DTH SERVICE PROVIDERS

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ABSTRACT
A recent development in marketing theory centers around the effects of technology on marketing products. Social networking is a relatively new form of communication, when people discuss a product via email, Face book pages, Twitter accounts and other electronic means, a product may "go viral," or start to sell more units with no direct advertising, public relations or promotions on the part of the company. This is why more companies are participating in social networking sites hoping consumers will then take their goods or services viral. And every human being holds thousands of attitudes, including those about family and friends, political figures, abortion rights, terrorism, preferences for music, and much more. Each of our attitudes has its own unique characteristics, and no two attitudes come to us or influence us in quite the same way. Research has found that some of our attitudes are inherited, at least in part, via genetic transmission from our parents (Olson, Vernon, Harris, & Jang, 2001). Hence this study tries to find out the Attitude and preference level of service facility of DTH.
Keywords: Technology, Attitude, Direct advertising, consumer preference.

INTRODUCTION
DTH (Direct- To- Home) service is the decoding of satellite, encoded with a small personal dish at very user's premises. DTH service is basically a satellite service that provides the subscribers to enjoy the infotainment services through satellite transmission anywhere. DTH provides strong signals with lesser service break downs. DTH provides high picture and sound quality. A customer's behavior is affect by the perception and beliefs that he holds of. This study has to understand the opinion and beliefs of the customers about the DTH services

REVIEW OF LITERATURE
Senthil and Nagarajan (2012) conducted a study on 'Subscriber Attitude towards DTH Service'. The study attempted to examine the subscriber level of satisfaction and the problems faced by the subscribers. In connection with this study, sample data was collected from 150 respondents. Furthermore, percentage, rank correlation, chi-square test were applied to the collected data. The study concluded that the satisfaction level of the subscribers leads to brand loyalty. Overall, most of the respondents were highly satisfied with the number of channels and picture quality. Also, the subscribers were also satisfied with the sound effect and rate.

Kumar (2013) carried out a study entitled 'Factors Motivating Customers towards DTH Service in Andhra Pradesh'. The study discussed the factors that customers put forward in buying a DTH. The data were obtained from 500 DTH users based on convenient random sampling technique descriptive. Also, the chi-square test was applied in this study. Consequently, it was found that the reason for preferring DTH Service were price, channels, picture clarity, uninterrupted services, and sound effect.

Muthukumar (2008) in his article "Consumer satisfaction towards DTH services in New Delhi", has revealed that the availability of Direct to Home (DTH) service has brought down cable subscription fees. DTH has made the market more competitive, compelling the Local Cable Operators

मध्य भारती
मानविकी एवं समाजविज्ञान की द्विभाषी शोध-पत्रिका

MADHYA BHARTI
(UGC CARE Group-1, Multi disciplinary)

CERTIFICATE OF PUBLICATION

This is to certify that the article entitled

FARMERS AWARENESS ON STATE BANK OF INDIA'S AGRICULTURAL CREDIT

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J. MADHUBALA
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Published in

Madhya Bharti -Humanities and Social Sciences
(मध्य भारती) मानविकी एवं समाज विज्ञान की द्विभाषी शोध-पत्रिका
: ISSN **0974-0066** with IF=6.28
Vol. 84, No. 9, July - December : 2023
UGC Care Approved, Group I, Peer Reviewed, Bilingual, Biannual,
Multi-disciplinary Referred Journal

ज्ञान-विज्ञान विमुक्तये
UGC
University Grants Commission

Chief Editor
प्रो. अम्बिकादत्त शर्मा

Humanities and Social Science Studies

ISSN : 2319-829X

CERTIFICATE OF PUBLICATION

This is to certify that the article entitled

FARMERS PREFERENCE ON STATE BANK OF INDIA'S AGRICULTURAL CREDIT IN COIMBATORE DISTRICT

Authored By

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Published in
Humanities and Social Science Studies journal
: ISSN 2319-829X with IF=7.28
Vol. 13, Issue 02, No.11, July - December : 2024
UGC Care Approved, Group I,
Peer Reviewed, Bilingual, Biannual, Multi-disciplinary Referred Journal

Abhishek Sharma
Editor In Chief, HSSS

RURAL ENTREPRENEURSHIP THROUGH MAKING OF PAKKUMATTAI BOX

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Abstract:

Pakkumattai plate making industry provides self-employment opportunities, reduces unemployment problems, generates income, alleviates poverty, improves the standard of living of the people, contributes industrial production, GDP and market share, earns more valuable foreign exchange, utilizes the available natural and human resources and thereby avoids wastages of resources. Pakkumattai plates have great demand in both domestic as well as overseas markets due to conversion of wastage of pakkumattai into value added products. Therefore, making of pakkumattai plate is most suitable to the people for undertaking industry activity and promoting rural entrepreneurship.

Keywords: *Investment, Employment, Production, Cost, Net Profit and ROI*

INTRODUCTION

Pakkumattai plate making industry is one of the micro industries in India. It plays a significant role in growth and development of our country's economy. Pakkumattai is used as wastage in the ancient period but now-a-days they are very valuable and useable for multipurpose and thereby they create more demand in both domestic as well as overseas markets. Further the uses and needs of the pakkumattai plates are increasing day-by-day because they are

ISSN: 2573-962X

Research Article

Journal of Pharmaceutical Research

Phytochemical Screening, GC-MS Analysis of Methanolic Extract of the Fern Adiantum Caudatum from Southern Western Ghats

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Submitted: 2023, Oct 09; **Accepted:** 2023, Nov 01; **Published:** 2023, Nov 10

Citation: Sowmiya, D. (2023). Phytochemical Screening, GC-MS Analysis of Methanolic Extract of the Fern Adiantum Caudatum from Southern Western Ghats. *J Pharmaceut Res, 8*(2), 322-326.

Abstract

The present study was to screen the presence of phytochemicals in the methanol extract of fern Adiantum caudatum species by composed with qualitative and quantitative screening methods. In qualitative analysis, the presence of pharmacologically active phytochemicals such as alkaloids, flavonoids, glycosides, steroids, tannins, terpenoids, saponins, phenols, volatile oils and resins were screened. GC-MS chromatogram analysis of the methanolic extract of Adiantum caudatum showed 12 peaks corresponding to 12 different compounds. The percentage of major bioactive compounds were 2-Hydroxymethyl-9-[Beta.-D-Ribofuranosyl] Hypoxanthine (17.995%), 2-Undecene,5-methyl- (33.497%), Pentadecane,2,6,10,14-Tetramethyl- (14.977%), Nonadecane (7.588%), Dodecane, 2,6,10-trimethyl- (1.421%), 3,7,11,15-Tetramethyl-2-Hexadecen-1-ol (2.825%), Nonadecane (7.855%). The identification of bioactive compounds is based on the retention time, peak area, molecular formula, and probability.

Keywords: Phytochemicals, Qualitative, Adiantum Caudatum, Methanol and GC-MS.

1. Introduction

It is impossible to imagine the survival of human race if the earth had no plants on it. The dependence of human beings on plants dates to the start of the human race. Medicinal plants are common sources of medicine. Solid evidences can be cited in favor of herbs being used for the treatment of diseases and for restoring and fortifying body systems in ancient systems of medicine such as Ayurvedic, Unani and Chinese traditional medicine. The innately desired purpose of the use of herbs was to obtain a positive interaction with body chemistry [01].

Traditional medicinal information is important not only for its potential contribution to the drug development as well as people's healthcare. According to the World Health Organization 80% of the world's population mostly individuals of developing countries depend on plant-derived medicines for their healthcare needs. Most of the aboriginal people are not well identified about the uses of Pteridophytes ever since it's not simply available like flowering plants. Pteridophytes are represented by 144 genera and about 1200 species distributed in India [02]. Pteridophytes are regarded as a facultative wetland plant and which can also adopt well in terrestrial habitat. They have a vital role in the earth's biodiversity [03].

Ferns have measurable indications that may reflect the effects of change in environmental factors. The ferns are not only taxonomic oddities but those are plants with dynamic relationship to their environment [04]. Pteridophytes are of immense economic importance and there is a great need for their exploitation towards the economic utility in daily life [05]. Since prehistoric times, plants have been used as a source of treatment. The use of traditional medicine is increasing day by day due to high cost of the allopathic medicines and their potential side effects [06]. Several plants or their parts have been exploited for this purpose. The value of these plants is attributed to the presence of some chemical substances, which produce a definite physiological action. These chemical constituents. These non-nutritive plant chemicals have protective or disease preventive properties. They are nonessential nutrients, meaning that they are not required by the human body for sustaining life. It is well-known that plant produces these chemicals to protect them, but recent research demonstrates that they can also protect humans against diseases [07].

Considering the rich diversity of Indian medicinal plants including pteridophytes, it is expected that, the screening of plant extract for antibacterial activity may be beneficial for humans and plants diseases. The synergistic interaction among crude extracts or the active compounds may be useful in the preparation of improved herbal or drug formulations. The extensive survey of antibiotic activity among the ferns conducted and reported about a hundred species having such property. Traditionally people

Indian Journal of Natural Sciences *www.tnsroindia.org.in ©IJONS*

Vol.15 / Issue 83 / Apr / 2024 *International Bimonthly (Print) – Open Access* *ISSN: 0976 – 0997*

RESEARCH ARTICLE

Qualitative and Quantitative Analysis of the Unexplored fern, *Thelypteris meeboldii* from Southern Western Ghats, Tamil Nadu

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Received: 06 Nov 2023 Revised: 09 Jan 2024 Accepted: 07 Mar 2024

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ABSTRACT

The present study was to screen the presence of phytochemicals in the petroleum ether, chloroform, ethyl acetate and methanol of fern *Thelypteris meeboldii* species by composed with qualitative and quantitative screening methods. In qualitative analysis, the presence of pharmacologically active phytochemicals such as alkaloids, flavonoids, glycosides, steroids, tannins, terpenoids, saponins, phenols, volatile oils and resins were screened. The methanol fern extract performed well to show positivity rather than other studied fern extracts. Methanol extract showed strong positivity for 6 phytochemicals out of 10 phytochemicals tested. In quantitative analysis the important secondary metabolites such as total phenols, total tannins, total alkaloids, total flavonoids, total saponins and total terpenoids content were quantified.

Keywords: phytochemicals, qualitative, quantitative, *Thelypteris meeboldii*, methanol.

Indian Journal of Natural Sciences *www.tnsroindia.org.in ©IJONS*

Vol.14 / Issue 78 / June / 2023 *International Bimonthly (Print) – Open Access* *ISSN: 0976 – 0997*

RESEARCH ARTICLE

Edible Coating from Nontoxic Biomaterials for Extending Shelf Life of Fruits and Vegetables

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Received: 20 Jan 2023 Revised: 23 Mar2023 Accepted: 29 Apr 2023

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ABSTRACT

The present work has been designed to create ecofriendly edible coating from the isolated biomaterials. The biomaterials were extracted from the selected plants such as *Kappaphycusalvarezii* (Doty) Doty ex Silva (Solieriaceae), *Pancratiumtriflorum*Roxb. (Amaryillidaceae), *Terminaliacatapa*L. (Combretaceae) and *Cyanodondactylon*(L.) Pers. (Poaceae). These plants were frequently available biomass and are edible. The extracted biomaterials were mixed together with different ratios to produce the edible coating solution A, B, C, D and E. The colour, odor, pH, bubble, heating resistance, water content and water resistance of the coating solutions were recorded. The coating solution of composition (E) gives the positive result. The produced edible coating solution is colourless and has good stability, quality and shelf life may better alternative to chemical and wax based edible coating solutions. The results of microbiological studies revealed that the edible coating solution has decreased the fungal as well as bacterial contamination and no toxicity. The successfully produced edible coating solutions were applied to selected fruits and vegetables. The following parameters such as shelf life, sensory evaluation, weight loss, pH, shrinkage percentage, shrivelling percentage and decay percentage were analysed at regular intervals and recorded.

Keywords: Biomaterials, biofilm, edible coating, shelf life.

HORIZON ePublishing Group Plant Science Today
PST ISSN: 2348-1900 DOI: 10.14719/pst CODEN: PSTLEH

Chemical profiling of fern Cheilosoria mysurensis (Wall. ex Hook.) Ching & Shing and its biological activity

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DOI: https://doi.org/10.14719/pst.1872

Keywords: Antioxidant, Cheilosoria mysurensis, cytotoxicity, GC/MS, medicinal fern

ABSTRACT

Cheilosoria mysurensis (Wall. ex Hook.) Ching & Shing, a medicinal fern traditionally used to treat burns, throat pain and bone fracture. There is no any scientific report regarding anticancer studies of this species. The aim of the study was to find out the chemical components through GC/MS analysis with their antioxidant and cytotoxic activity. GC-MS analysis shows primary ingredients viz, Cis-9, 10-epoxyoctadecan-1-ol and Oxiraneundecanoic acid, 3-pentyl-, methyl ester, trans were present. High free-radical scavenging activity has been discovered in 2, 2-diphenyl-1-picrylhydrazyl (DPPH) and showed the IC50 value of 52.13±0.33. Furthermore, C. mysurensis also showed good cytotoxic effects against DLA and EAC cell lines with values of 72.9% and 79.5% at 200 µg/ml dose respectively. Overall findings suggested that the identified chemical compounds proved to be rich in antioxidant property. Further, this fern can be a good resource for pharma industry to produce novel anti-cancer drugs.

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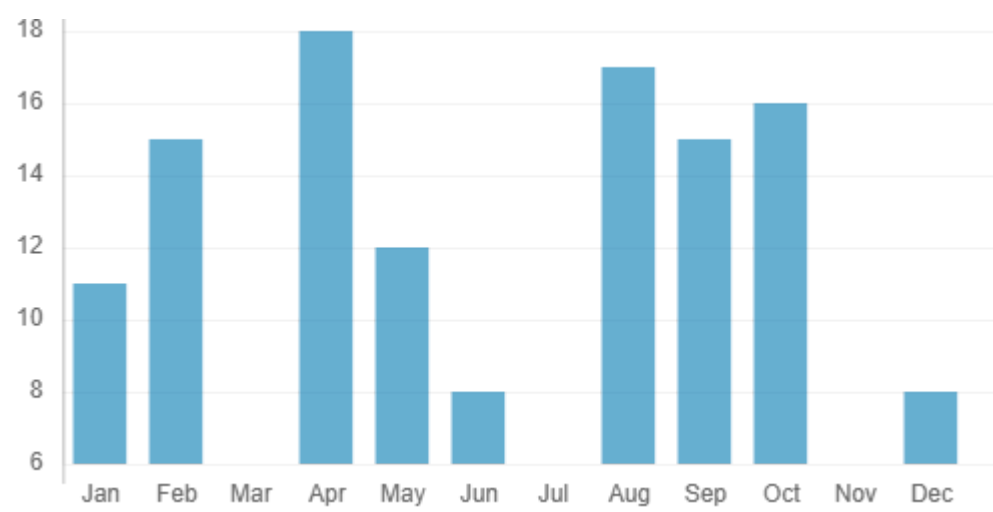

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Indian Journal of Natural Sciences *www.tnsroindia.org.in ©IJONS*

Vol.15 / Issue 83 / Apr / 2024 *International Bimonthly (Print) – Open Access* *ISSN: 0976 – 0997*

RESEARCH ARTICLE

GC/MS Analysis of Methanolic Extract of *Pancratium triflorum* Roxb. bulbs

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Received: 14 Nov 2023 Revised: 29 Jan 2024 Accepted: 16 Mar 2024

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ABSTRACT

This study presents the chemical composition of the methanolic extract obtained from *Pancratium triflorum* bulbs through gas chromatography and mass spectrometry analysis. Six distinct compounds were identified, namely 2,3-Anhydro-D-Galactosan, Triacontanoic Acid, Methyl Ester, 1-Hexadecyne, Eicosonoic Acid, Cis-9,10 Epoxyoctadecan-1-OL, and 2-Isopropyl-5-Methylcyclohexyl 3-(1-(4-Chlorophenyl)-3-Oxobutyl)-C. This comprehensive profiling provides insights into the molecular constituents of Pancratium triflorum, contributing to our understanding of its chemical composition and potential pharmacological applications. Further investigations into the biological activities of these identified compounds may unveil novel therapeutic possibilities associated with *Pancratium triflorum*.

Keywords: *Pancratium triflorum,* Bulb, GC-MS, Bioactive compounds, medicinal plant

INTRODUCTION

Pancratium triflorum. Roxb, a perennial herbaceous plant native to the Indian subcontinent, has a long-standing history of traditional use in various indigenous medicinal systems. Its cultural importance is underscored by its botanical nomenclature in which 'Pancratium' signifies 'all strength' and 'triflorum' refers to its characteristic three-flowered inflorescence [1]. In traditional practices, *Pancratium triflorum* is celebrated for its therapeutic attributes,

Research Article

The Impact Of Technology On Narrative Structure In Contemporary Fiction

Dr. T. SuryaPrabha
Assistant Professor of English
NGM College, Pollachi

Abstract:

This article explores the evolving landscape of narrative structure in contemporary fiction in response to advancements in technology. With the proliferation of digital platforms and interactive media, authors are experimenting with new narrative techniques and storytelling formats, blurring the boundaries between traditional and digital literature. Drawing on examples from diverse genres and mediums, this research examines how technology influences the construction of narrative in fiction, from nonlinear storytelling and hypertext narratives to augmented reality and interactive storytelling experiences. By analyzing the intersection of technology, narrative theory, and literary innovation, this study sheds light on the transformative effects of technology on the storytelling craft, challenging conventional notions of authorship, reader engagement, and the future of storytelling.

Keywords: Fiction, Augmented reality, Technology, Digital Literature.

Introduction:

The advent of technology has revolutionized every aspect of human life, including the way stories are told and consumed. In the realm of contemporary fiction, authors are harnessing the power of digital tools and platforms to experiment with narrative structure, pushing the boundaries of traditional storytelling conventions. This article explores the profound impact of technology on narrative form in contemporary fiction, examining how authors adapt to and embrace the possibilities afforded by digital innovation.

SOCIAL STRATIFICATION: ANALYZING THE POLITICAL PERSPECTIVES IN ARUNDHATI ROY'S THE GOD OF SMALL THINGS

Dr. T. Suriyaprabha,
Assistant Professor of English,
Nallamuthu Gounder Mahalingam College, Pollachi.

Abstract:

Arundhati Roy's novel *The God of Small Things* delves into the intricate layers of social stratification, offering a profound analysis through various political perspectives. Set in post-colonial India, the narrative unfolds against a backdrop of deep-rooted societal hierarchies, where caste and class distinctions play a pivotal role in shaping individual destinies. This article seeks to analyze the political perspective in Arundhati Roy's *The God of Small Things.*

Keyboard: Narrative, Stratification, Hierarchies, Political, Class.

Arundhati Roy's *The God of Small Things* explores a multitude of themes, blending personal and political narratives against the backdrop of post-colonial India. The novel critically examines the rigid caste system in Kerala and its impact on individuals' lives. It delves into how societal norms and expectations based on caste influence personal relationships, choices, and opportunities. The theme of forbidden love, particularly the love between Ammu and Velutha, challenges societal norms and faces severe consequences due to the social stigma associated with crossing caste boundaries. The narrative explores the tragic consequences of love deemed unacceptable by the rigid caste system.

The novel portrays complex family dynamics, emphasizing the dysfunction within the Ipe family. The family's tumultuous relationships and secrets contribute to the overall tragedy of the narrative. Memory plays a significant role in the novel as the narrative weaves between the past and the present. The characters grapple with traumatic events that continue to haunt them, highlighting the lasting impact of personal and societal wounds. The theme of the loss of innocence is reflected in the experiences of the twin protagonists, Estha and Rahel, as they navigate a world marked by societal expectations, discrimination, and tragic events that disrupt their childhood.

The novel is set against a backdrop of political changes in post-colonial India. It explores the impact of political upheavals, including the Naxalite movement, on the lives of the characters

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Synergistic impact of cationic surfactants on the performance of ZTO for supercapacitor applications

Davidthomas Victorjayakumar Ezhilarasi Gnanakumari [a], Thirumalaisamy Esvaramoorthy Manjulavalli [a], Kajamohideen Habeeba [a], Annapoornam Ganesan Kannan [a], Sakunthala Ayyasamy [b], Gokul Gopinath [b]

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Abstract

Zinc stannate (ZTO) nanopowders are synthesized using different cationic surfactants (CTAB, EDA, TEA) via hydrothermal technique. The as prepared samples were then characterized for their structure and optical properties through XRD, FESEM with EDAX, UV-DRS and FTIR techniques. It has been observed, that the surfactant played a crucial role in modifying the morphology of the samples. The reduction in the crystallite size was found when TEA was used as a surfactant. The specific capacitances of the prepared electrode materials using the synthesized samples were evaluated through three electrode system and that the capacitance value increased from 32 to 41F/g at the scan rate of 5mV/s for TEA assisted ZTO nanopowder.

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In Press, Corrected Proof What's this?

Exploration and study on the influence of Zinc substituted Barium Stannate ($BaSnO_3$) nano powders for ammonia sensing applications

K. Habeeba [a], T.E. Manjulavalli [a], D.V. Ezhilarasi Gnanakumari [a], A.G. Kannan [a], R.T Rajendrakumar [b], K. Muthumalai [b]

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Abstract

In the present work, we report the results of the gas sensing performance of ternary Barium Stannate (BaSnO3) semiconducting oxide material doped with zinc at the Barium site (Ba1-xZnxSnO3, where x = 0.0; 0.2; 0.4; 0.6; 0.8 & 1.0). The samples are synthesized using a facile hydrothermal technique. The X-Ray Diffraction technique revealed that the synthesized samples are cubic structures with a preferential orientation along the (110) plane. In the exploration of the Field Emission Scanning Electron Microscope (FESEM), a structural deformation is observed for the doped samples and the material compositional information is witnessed through the EDAX spectrum for all the samples. The optical absorption spectra are carried out using UV-DRS and the calculated bandgap values are decreased for the Zn doped samples approximately to 0.7 eV compared to pristine BSO. Among various test gases,

all the interdigitated electrode materials exhibited a fast response to NH3 except 2B1-xZnxSnO3. Amidst these electrode materials (BZSO (0–10wt%)), the 8BZSO exhibited good sensitivity to NH3 at 5ppm at room temperature. The similar response, recovery time (the 40s), and good cyclic repeatability of the 8BZSO electrode material clarify that this would be the most favourable electrode material for NH3 gas sensing.

Introduction

A perfect gas sensor must be portable, cheap, rapid in detecting anticipated gases, smaller in size, ease of action, long life cycle most importantly it should be an impeccable factor in understanding the environment that would be set to measure the concentration of gases higher than the normal level. Monitoring and detection of lethal gases are so crucial because the presence of noxious gases directly affects the safety of lives. There are various types of toxic gases (CO, CO_2, CH_4, C_2H_5OH, CH_3SH, NH_3, H_2S, SO_2, NO_2, NO_3, N_2O_5 etc.,) present in the atmosphere which can cause different impact on lives and can also explode if its range exceeds a certain limit. To detect the presence of these gases in the atmosphere, scientists are in search of gas sensors which are durable, cost effective and quicker in response. For the past three decades, the advancement of diminutive size of electronic gas sensors to detect low concentrations of harmful gases in indoor and outdoor environment have made a massive impact on the research province.

The instantaneous forewarnings of semiconducting metal oxides help us to detect the insignificant changes in the nearby harmful gaseous environment. In this present work, highly sensitive ammonia (NH_3) gas sensors made from materials belonging to the family of perovskite semiconducting metals are explored [1]. The metal oxide sensors provide greater response to target gases, highly flexible to fabricate and consistent in detecting the presence of innumerable gases thus retaining the crucial structure and electronic properties of the sensing material [2]. Of the two types of semiconducting materials the n-type metal oxides exhibits superior gas sensing response characteristic than that of the p-type material [3], [4], [5], [6], [7].

Among various metal oxide semiconducting materials ($SrTiO_3$, Al_2O_3, $CaTiO_3$, $ZnSnO_3$, $CrSnO_3$, In_2O_3), $BaSnO_3$ (BSO) has been chosen, as it is a promising material to sense NH_3 gas owing to its greater specific surface area, low oxidation reduction potential, high electrical conductivity and mechanical strength[8], [9], [10], [11], [12]. It is a wide bandgap, pure n-type semiconducting material, which can withstand temperature more than 1500°C, chemically stable and has an ideal crystal structure, large dielectric constant, easily tuneable, high electron mobility, doping controllability and structural tractability [13], [14],

[15], [16]. We have synthesized pristine BSO powder hydrothermally in our previous work, confirmed the semiconducting nature by its bandgap value [17]. As the gas sensing technique at an ambient temperature is one of the significant features in material science [18], an attempt has been made in the present work to test NH_3 at the room temperature. In this context, Zinc (Zn) a transition metal with a wide bandgap of 3.37 eV has been substituted at the barium site to perform exceptionally as a sensor material, and would operate within a wide range of selectivity to trace NH_3 gas. Since Zinc is a post transition metal cation, the substitution of a cation (Zn) in an oxide structure (BSO) might modify the structural properties and can well be used to optimise the surface reactivity and thus can be employed for the realization of gas sensors [19].

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Materials

All the LR graded chemicals [Barium Acetate $(CH_3.COO)2$ Ba], [Sodium Stannate $(Na_2SnO_3{\cdot}3H_2O)$], [Zinc acetate $(ZnC_4H_6O_4)$] with purity of 95% were purchased from NICE chemicals private limited and they have been utilized without additional purification. …

Sample preparation

Various methods have been adopted to synthesize the nanoparticles such as sol–gel method [20], [21], peroxide method [22], mixed oxide method [23], thermal decomposition method [24], modified Pechini method [25], [26], hydrothermal method [27], [28] …

Structural properties

To study the crystallinity and phase purity of the synthesized samples, the X-Ray Diffraction technique is adopted. The XRD patterns of the hydrothermally synthesized BZSO (0–10 wt%) powders are shown in Fig. 1. From the room temperature XRD spectrum, the sharp intense peak at 2θ values 30.75°, 44.04°, 54.67°, 64.05°, and 72.72° corresponds to (1 1 0), (2 0 0),

(211), (220), and (013) planes, with major orientation along (110) plane thus confirming the cubic structure of the material, and it is in …

Conclusion

The BZSO (0–10wt%) are synthesized in an elegant hydrothermal technique, their structural, morphological, and optical characteristics revealed that they are highly crystalline and are nanosized particles. As of those analysis results, it has been unveiled that 8BZSO contributed its best outcome. Besides, their direct band gap value decreased while incorporating the Zn dopant. The FESEM image clearly shows that all the samples are porous in nature. The gas sensing performance of all the BZSO …

Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper. …

Acknowledgements

The author is grateful to the Department of Nanoscience and Technology, Bharathiar University, Coimbatore, Tamilnadu for their experimental support. …

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Emerging mixed electronic-ionic conductivity in double perovskite (La<inf>2/3</inf>Sr<inf>1/3</inf>)<inf>2</inf>(Sn<inf>1/3</inf>Fe<inf>1/3</inf>Cu<inf>1/3</inf>)<inf>2</inf>O<inf>6-δ</inf>: Phase transitions, structural, optical and dielectric study

2025, Journal of Alloys and Compounds

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Zinc-modified barium stannate micro-rods: Investigating structural, morphological, and optical features

2024, Chemical Physics Impact

> *Citation Excerpt :*
>
> …Upon the incorporation of Zn2+, a red shift in the band gap is observed, with measured values of 3.12, 3.11, 3.06, and 3.04 eV for ZBS2, ZBS3, ZBS4, and ZBS5 respectively (see Fig. 6c–f). This kind of trend was also observed in the previous study conducted by Habeeba et al. [18]. There are various factors that could influence the electronic structure of the material.…

Show abstract

Performance improvement of perovskite/CIGS tandem solar cell using barium stannate charge transport layer and achieving PCE of 39 % numerically

2024, Solar Energy

> *Citation Excerpt :*
>
> …In this context, a comprehensive investigation for cheap ETL with excellent mobility and transparency is highly recommended. The BaSnO3 is an earth abundant material which recently has gain huge attention due to ultimate room temperature mobility of ~320 cm2V−1s−1 at high n-type doping [39], high thermal stability (can withstand ~1500 °C) [40], tuneable band gap (2.95 to 4.05 eV) [39,41,42], transparent [43], low charge carrier effective mass [44] and ability to be n-type doped easily [39,44]. The BaSnO3 has been used in gas sensor [40,41] and dye sensitized solar cells [42,44] and is never used as charge transport layer in PSC.…

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Unveiling the capability of novel cobalt/barium stannate nanoparticles embedded functionalized MWCNTs nanocomposite for electrochemical investigation of antibiotic drug nifuroxazide

2024, Materials Today Chemistry

> *Citation Excerpt :*
>
> …In the XRD pattern of CBS, the Bragg's patterns located at 2θ values of 17.9°, 26.8°, 29.4°, 34.0°, 34.5°, 36.2°, 38.0°, 41.8°, 46.1°, 55.2°, 60.6°, 63.5°, 72.6°, and 78.9° related to CoSnO3 (JCPDS No. 00-028-1236) [32]. The high-intensity XRD patterns at 2θ (hkl) values of 30.8°(110), 37.8°(111), 44.0°(200), 54.5°(211), 64.0°(220), 72.7°(013) corresponding to cubic phase BaSnO3 (JCPDS No. 01–074-1300) with space group of P23 [52]. In addition, the diffraction peaks at 54.7° and 65.8° show a small amount of tetragonal phase of SnO2.…

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Kanpur Philosophers
ISSN 2348-8301
International Journal of humanities, Law and Social Sciences
Published biannually by New Archaeological & Genological Society
Kanpur India
Vol. X, Issue I(G) : 2023

A STUDY ON MENTAL HEALTH AND INTERNET ADDICTION AMONG COLLEGE STUDENTS

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Ms.T.Sivaranjane, Assistant Professor, Department of Social Work, Nallamuthu Gounder Mahalingam College, Pollachi.
Ms.B.V.NithiVarshini Devi, Research Scholar, Department of Social Work, Nallamuthu, Gounder Mahalingam College, Pollachi.

Abstract
In the past few years, Internet addiction among university students has gained more popularity than leading to various mental health issues among them. Low self-esteem, poor sleep quality, suicide, and mood disorder are the common health problems faced among university students due to excessive use of the Internet. Internet addiction (IA) is considered a major concern among the students of Indian universities. The mental health of the students is associated with the addition of the Internet. Internet addiction is defined as the poorly controlled behaviors of university students regarding the use of computers and the use of the Internet that lead to distress and impairment. Internet addiction among university students is on the lines of substance abuse. Internet addiction among university students leads to depression, stress, and anxiety. The Internet has been considered as one of the good sources for getting knowledge; however, the addition of the Internet among university students makes them lazier and diverts them from their purpose.

Key words: Internet Addiction, Mental Health, Students, Depression, and Stress.

Introduction
The capacity of the Internet for socialization is a primary reason for the excessive amount of time people spend having real-time interactions using e-mail, discussion forums, chat rooms, and online games **(Grohol, 2005).**Internet addiction among university students is defined as an impulse control disorder that doesn't involve an intoxicant **(Gupta et al. 2018).**The Internet has made life a lot easier by making information more accessible to all and creating connections with different people around the world. However, it has also led a lot of people to spend too much time in front of the computer, so much so that it becomes the center of their lives. **Kendal (1998)** characterized Internet Addiction as a sort of psychological Addiction addressing should be dynamic on the Internet. Web based gaming, urgent utilization of informal communication and long distance race internet riding meetings are completely remembered for this incredible addiction. r. According to **Anand et al. (2018**), psychological difficulties

CHALLENGES FACED BY FEMALE TRIBAL STUDENTS IN PURSUING HIGHER EDUCATION

B.V.Nithi Varshini Devi, Assistant professor,Department of Social Work, Nallamuthu Gounder Mahalingam College, Pollachi

Abstract:

This research examines initiatives aimed at empowering girls' education within tribal communities in Coimbatore district, Tamil Nadu, India. Despite facing multifaceted challenges such as poverty, cultural norms, and limited infrastructure, efforts have been made to promote girls' education through interventions including community mobilization, infrastructure development, girls' empowerment programs, and parental and community engagement. A mixed-methods approach combining qualitative interviews, focus group discussions, and quantitative surveys was employed to assess the impact of these interventions. Preliminary findings indicate positive outcomes including increased enrollment, reduced dropout rates, and improved academic performance among girls. However, persistent challenges such as poverty and discrimination necessitate comprehensive strategies for sustained progress. The study underscores the importance of targeted interventions and community involvement in promoting girls' education and achieving educational equity within rural areas.

Keywords: Girls' education, tribal communities, Coimbatore district, Tamil Nadu, India

Introduction:

In many tribal communities worldwide, including those in Coimbatore district, Tamil Nadu, India, girls' education faces numerous challenges. These challenges are deeply rooted in cultural norms, economic constraints, and systemic inequalities, resulting in limited access to quality education for girls. Within tribal communities, where traditional gender roles and patriarchal structures prevail, girls often encounter barriers such as early marriage, household responsibilities, and societal expectations that prioritize boys' education. These factors contribute to disproportionately low enrollment, high dropout rates, and limited educational attainment among girls, perpetuating cycles of poverty and marginalization.

Understanding the impact of interventions aimed at empowering girls' education within tribal communities is crucial for addressing these disparities and fostering sustainable development. By examining the effectiveness of strategies designed to overcome barriers and promote girls' access to education, insights can be gained into how best to support and empower girls within these contexts. This research seeks to explore the multifaceted impact of interventions on girls' education within tribal communities in Coimbatore district, Tamil Nadu, shedding light on both the challenges faced and the progress achieved in advancing educational equity and gender equality.

Review of literature:

Tripura, T. (2020) This paper investigates challenges for tribal students in Tripura across education levels, examining socio-economic backgrounds, language of instruction, and attitudes of stakeholders. It analyzes literacy rates, enrollment ratios, and gender parity, relying on interviews and secondary data. Ahmad, S., Afzal, F., Jamshaid, S., & Rahman, Z. U. (2022, July 1) women encounter educational barriers due to patriarchal norms. A study of 400 women in government colleges showed they face challenges like distance and lack of awareness, urging government action for education, safety, and employment opportunities. Kumari Vibhuti Nayak, Randhir Kumar, (2022) This study explores barriers and facilitators of education for rural Indian tribal girls, focusing on the Oraon tribe. It identifies economic hardships, early marriages, and absence of role models as obstacles, while highlighting the importance of competent teachers, local language instruction, relevant curriculum, stable income, and parental support in promoting girls' education. Kartika, N. Y., Darwin, M., & Sukamdi, M. (2017) The study investigated influences on students' educational and career aspirations, tracking a national sample of 10th-grade student's post-high school. It revealed significant impacts of

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ஆசிரியர்: ஈரோடு தமிழன்பன்

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எஸ். அர்ஷியாவின் புதினங்களில் புலனாகும் நடப்பியல் அரசியல்

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(பகுதி நேரம்)

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நல்லமுத்துக் கௌண்டர் மகாலிங்கம் கல்லூரி,
பொள்ளாச்சி.

முன்னுரை

உலக வரலாற்றில் வள்ளுவர், பிளேட்டோ, அரிஸ்டாட்டில், கௌடில்யர் போன்ற மேதைகள் அன்று ஆட்சி முறையில் ஏற்றுக் கொள்ளப்பட வேண்டிய பல கொள்கைகளையும் தத்துவங்களையும் சொல்லி வைத்தார்கள். "அரசாங்கம் தோன்றுவதற்குக் காரணங்கள் எவையாக இருந்தாலும், தொடக்கத்தில் மன்னராட்சியும் அந்த மன்னர்கள் பலவீனம் அடைந்த போது பிரபுக்கள் ஆட்சியும் பிரபுக்களின் பிடிப்பு வலுவடைந்த போது, அதிலிருந்து விடுதலையாக வேண்டும் என்ற விருப்பத்தின் விளைவாக இன்றைய ஜனநாயக ஆட்சியும் ஏற்பட்டது என்பது உண்மை" என்று கூறும் இலக்குமணப் பெருமாள். "இது ஜனநாயகயுகம், அதனால் மக்களுக்குக் குறைந்த அளவு கட்டுப்பாடுகளோடு நிறைந்த அளவு உரிமைகள் வழங்கப்பட்டுள்ளன." (இராசம்பத். புதுக்கவிதையில் இலக்கிய இயக்கம்.ப.77) என்றும் கூறுகின்றார். முடியாட்சி முறைகள் ஒழிக்கப்பட்டு மக்களுக்காக மக்களே ஆளுகின்ற முறையே மக்களாட்சி எனப்படுகின்றது. மக்களால் தேர்ந்தெடுக்கப்பட்டு ஆட்சியாளர்கள் தேர்ந்தெடுக்கப்படும் இம்முறையின் நன்மையை கவிஞர் தமிழன்பன்,

> **முடியரச ஆட்சிக்கு முத்தாய்ப்பு வைத்து**
> **முகிழ்த்து வந்த நல்லாட்சி முன்னேற்றம் காண**
> **விடிவரச தோன்றியிலன் விளைத்து வந்த நன்மை**
> **விரிவாக்கும் எண்ணிக்கையில் விளங்கிவிடப் போமோ**

என்ற கவிதை வரிகளில் (நீவுகள் கரையேறுகின்றன, தமிழன்பன் ப.58) குடியாட்சி பற்றிக் கூறுவதோடு "அரசியல் முறைமை தன்னில் அணிந்திட வேண்டும் தூய்மை" (நீவுகள் கரையேறுகின்றன, தமிழன்பன் ப.22) என்ற வரிகளின் மூலமும் வெளிப் படுத்துகின்றார். மேற்கண்டவாறு வரையறை கொடுக்கப்பட்ட அரசியல்

ISSN 2320-4842

தன இலக்கண முறைப்படி இல்லை என்பதை படைப்பாளர் எஸ். அர்ஷியா தனது படைப்பில் பல இடங்களில் பதிவு செய்துள்ளார். அவ்வாறு எடுத்துரைக்குமிடத்தில் நடப்பு அரசியல் நிகழ்வுகளை பலவாறு சாடியுள்ளார். இதை நாம் மீமெய்ம்மைக் கண்ணோட்டம் எனலாம். இத்தகு நிகழ்வுகளைக் குறித்து ஆய்வதாக இந்த ஆய்வுக் கட்டுரை அமைகிறது.

கட்சிப் பரப்புரை

தலைவர்கள் மீது உண்மையான அன்பு கொண்ட தொண்டர்களது செயல்களின் அடிப்படையில் தான் கட்சியின் வளர்ச்சி அமையும். தொண்டர்களே தலைவர்களின் சிறப்பினை உலகறியச் செய்யும் பணியைச் செய்கின்றனர். தொண்டர்கள் தலைவர்களின் மீது கொண்டுள்ள அளவில்லாத பற்று அவர்களது பெயர்களைப் பச்சை குத்திக்கொள்வது, தம் குழந்தைகளுக்குத் தலைவர்களின் பெயர்களைச் சூட்டுவது என்று தொடங்கி கூட்டந்தோறும் கொள்கைப் பரப்புச் செயலாளராகச் செயல்படுவது என்று அவர்களது பணி விரிந்தது. தலைவர்களுக்காகத் தொண்டர்கள் தன் வீடு, குடும்பம், வேலை என அனைத்தையும் மறந்து பரப்புரை செய்கின்றனர். இப்படியான உண்மை பரப்புரையாளர்களின் செயலினை எஸ். அர்ஷியா தனது சொட்டாங்கல் எனும் புதினத்தில் சுட்டிக்காட்டியுள்ளார்.

> *'வெளியே தர்ஹாவிலிருந்து நேரே சென்று வடக்கேயும் தெற்கேயுமாய் பிரியும் சாலையைப் பார்த்தபடி எதிர்க் கட்சியின் பிரச்சாரக் கூட்ட மேடை அமைக்கப்பட்டு, பாடல்கள் ஒலித்துக் கொண்டிருந்தன. அக்கட்சித் தலைவரின் வாழ்க்கை வரலாறு, பிரிக்கப் பட்ட பல கட்டங்களாய் கனத்த, கரகரத்த குரலில் இலக்கியமாய் இளகி வழிந்தது. மரித்த பின்பும் நினைவில் நிற்கும் குரலாய் அது இருந்தது. மினாராக்களில் அடைந்திருந்த புறாக்கள் அக்குரலில் கவனம் பெற்று வெளியே வந்து சிறகடித்தன. பரிதவித்துத் திரிந்தன. பிறகு அக்கட்சியின் தலைவர், தனது தலைவரின் இறப்பில், 'இரவலாய் இதயத்தைக் கேட்டு, தான் வரும்போது, அதைத் திருப்பித் தந்து விடுவதாய்' 'பிராமிசி நோட்' வாசித்த கடன் கவிதை இரைச்சலுடன் ஓடியது. நாற்பது ஆண்டுகளுக்கும் மேலாக தேயத்தேய ஓட்டப்பட்ட சுழல் தட்டிலிருந்து குறுவட்டாகி,இப்போது பென்டிரைவிலும் அதே குரல்'* (சொட்டாங்கல் ப. 28)

எனும் வரிகள் மூலம் எஸ். அர்ஷியா அரசியல் கட்சிப் பரப்புரைகளில் ஈடுபடும் தொண்டர்களை அடையாளங் காட்டியுள்ளார்.

தொண்டர்கள் தங்கள் தலைவர்கள் மீது கொண்ட அதீதப் பற்று காரணமாக மேடையில் பேசும் பொழுது எதிர் கட்சியினரின் கொள்கைகளைத் தாழ்த்திப் பேசுகின்றனர். தங்களது பேச்சால் தன் கட்சி சார்ந்த சிறப்புகளையும் எதிர் கட்சி சார்ந்த குறைகளையும் சுட்டிக் காட்டும் தன்மை காணப்படுகிறது. ஒரு சில பேச்சாளர்கள் தங்களது சிறப்பு களை எடுத்துரைப்பதைக் காட்டிலும் எதிராளியைக் குறைபாடுவதை மட்டுமே குறிக்கோளாகக் கொண்டு செயல் படலாயினர். காலம் செல்லச்செல்ல மேடை நாகரிகம் என்பதை அரசியல் பேச்சாளர்கள் கைவிட்டனர் எனலாம். கண்ணியமாக மேடைக்கு வருதல் என்ற நாகரிகமும் மாறிப்போயிற்று என்ற தனது ஆதங்கத்தை எஸ். அர்ஷியா தனது சொட்டாங்கல் புதினத்தில் பல

Arimaa Nokku

18 : 1 ஏப்ரல் 2024

அரிமா நோக்கு

ISSN 2320-4842

ஆசிரியர்: ஈரோடு தமிழன்பன்

மொழி, இலக்கியம், கலை, பண்பாடு, வரலாறு, மெய்யியல், அறிவியல்சார் பன்னாட்டுக் காலாண்டிதழ்

INTERNATIONAL QUARTERLY ON LANGUAGE, LITERATURE, ART, CULTURE, HISTORY, PHILOSOPHY AND SCIENCE

பல்கலைக்கழக நல்கை ஆணையத்தின் ஏற்பினைப் பெற்ற ஆய்விதழ்

UGC - CARE LISTED AND PEER REVIEWED JOURNAL

ISSN 2320-4842

வான் மழையின் மகிமை

முனைவர் ந. ஜெயசுதா
தமிழ் உதவிப்பேராசிரியர்,
என்.ஜி.எம்.கல்லூரி,
பொள்ளாச்சி.

வானம் பார்த்த நம் பூமியில் காடாகிய இடங்களை அழித்து நாடாக்கி, குளங்களைத் தோண்டி வளம் பெருக்க மழை அவசியமாகிறது. மழை மூலமாகவே நீர் உலகத்தவருக்கு கிடைப்பதால் நீரின் மதிப்பை, மழையின் மதிப்பாகவே எடுத்துக்காட்டுகிறார் திருவள்ளுவர். முந்நீருள் ஆற்றநீருக்கும் ஊற்றநீருக்கும் முதலாக அமைந்திருப்பது மழைநீர் ஆகும். மேகம் மலையால் தடுக்கப்பட்டு மழையாகப் பொழிந்து ஆற்றைத் தோற்றுவிக்கிறது. மண்ணை ஈரமாக்கி ஊற்றையும் உருவாக்குகிறது. ஆக, முந்நீருள் மழைநீரே மற்ற நீருக்கு ஆதாரமாகவும் அடிப்படையாகவும் விளங்குகிறது. இந்தியாவின் உழவர்கள் பெரும்பாலோர் வானத்தை நோக்கி வாழும் குடிமக்கள் இக்குடிமக்களுக்கு வானம் வழங்கிய மழையின் மகிமையை வள்ளுவர் வழி நின்று ஆய்வதாக அமைகின்றது.

அமிழ்தம்

உலகத்தில் ஓர் அறிவு முதல் ஆறறிவு வரையுள்ள உயிர்கள் தழைத்து உயிருடன் வாழ வேண்டுமானால் நீர் அவசியமாகிறது. 'நீரின்றி அமையாது உலகு' என்கிறார் வள்ளுவர். நீரின்றி இவ்வுலகமே இல்லை என்ற போது உலக உயிர்கள் எவ்வாறு வாழ முடியும். முடியாது. ஆக உலக உயிர்கள் வாழ்வதற்கு தகுந்த நீரை வானம் மழையாகப் பொழிகிறது. அதனால் நீர் உயிர்தரு மருந்தாக அமிழ்தமாக இருக்கின்றது. அமிழ்தம் என்பதை அமிர்தம் எனவும் வழங்குவர். இதன் பொருளாக "உயிர்தருமருந்து, இனிப்பு" (ப.17.கழகத்தமிழக் கையகராதி) என்று விளக்கம் தருகிறது.

'உயிர் தரு மருந்து' என்பதில் போன உயிர்க்கு புத்துயிர் வழங்கும் மருந்து எனலாம். நம் உடல் நலிவுற்று சோர்ந்து கிடக்கும் நிலையில் தமக்கு இனிப்பான குளுக்கோஸ் பொடியைத் தருகின்றனர். அதனால் சிறிது தெளிவுடன் உயிர்ப்பிக்கும் ஆற்றல் நமக்குக் கிடைக்கிறது அல்லவா? ஆக, நாக்குக்கு இனிப்பு சுவையான பொருள் சென்றாள் உடம்பிற்கு புத்துணர்ச்சி ஏற்படுகிறது. அதனால் இதை உயிர்க்கு மருந்து என அமிழ்தத்தை எண்ணுவோம். இந்த அடிப்படையில் தான் வள்ளுவப் பெருந்தகையும் அமிழ்தத்தை விளக்குகிறார். அதனால் வள்ளுவர்,

"வான்நின்று உலகம் வழங்கி வருதலால்
தான் அமிழ்தம் என்றுணரற் பாற்று" (திருக்குறள் 11)

என்ற குறளில் வள்ளுவர் வானத்திலிருந்து பெய்கின்ற மழைநீரால் தான் இந்த உலகம் உயிர்ப்பு பெற்று, உலகில் உள்ள மக்கள் வாழ்ந்து வருவதற்கு மழைநீரே

Arimaa Nokku

18 : 1 ஏப்ரல் 2024

அரிமா நோக்கு

ISSN 2320-4842

ஆசிரியர்: ஈரோடு தமிழன்பன்

மொழி, இலக்கியம், கலை, பண்பாடு, வரலாறு, மெய்யியல், அறிவியல்சார் பன்னாட்டுக் காலாண்டிதழ்

INTERNATIONAL QUARTERLY ON LANGUAGE, LITERATURE, ART, CULTURE, HISTORY, PHILOSOPHY AND SCIENCE

பல்கலைக்கழக நல்கை ஆணையத்தின் ஏற்பினைப் பெற்ற ஆய்விதழ்

UGC - CARE LISTED AND PEER REVIEWED JOURNAL

ISSN: 2320-4842
Vol-18 No. 02 April-June 2024

ஐம்பூதங்களும் மனிதஉடல் அமைப்பும்

முனைவர் ந.ஜெயசுதா,
தமிழ் உதவிப்பேராசிரியர்,
என்.ஜி.எம் கல்லூரி, பொள்ளாச்சி.

இவ்வுலகம் நிலம் நீர் காற்று ஆகாயம் நெருப்பு என்ற ஐம்பூதங்களால் உருவானவை. இறைவன் நமக்குக்கொடுத்த மிகப் பெரிய பொக்கிசம் இப்பூதங்களாகும். ஐம்பூதங்களால் தான் இவ்வுலகம் இயற்கை வளங்களைக் கொண்டுள்ளது. மனிதன் இந்த இயற்கையைச் சூழ்ந்தே படைக்கப்பட்டுள்ளான் என்பதை அனைவரும் உணர வேண்டும். ஒவ்வொரு மனித உடலமைப்பும் பஞ்சபூதத்தை அடிப்படையாகக் கொண்டே உருவாகியுள்ளது. ஐந்தில் ஒன்று இல்லையென்றாலும் இவ்வுலகமும் இல்லை, இவ்வுடலுமில்லை. இந்த உண்மையை உலகநாடுகளில் உள்ள அனைவருக்கும் உணர்த்த வேண்டிய கட்டாயத்தில் இன்று உள்ளோம். 'கொரோனா' என்ற வைரஸ் உலகத்தையே உலுக்கியது. இது போன்று எத்தனையோ வைரஸ்கள் இன்னும் நம்மிடையே உலாவிக்கொண்டே தான் இருக்கின்றது. அதற்கு காரணம் ஐம்பூதத்தை நாம் உணராமல் அதனை மாசுபடுத்தி அதன் அழிவில் நாம் நம் அழிவை நாமே ஏற்படுத்திக்கொண்டிருக்கிறோம். ஐம்பூதத்தோடு பற்றுதலும் புரிதலும் இல்லாதவரே பெரும்பாலும் உடல் உபாதைகளுக்கு உட்படுகின்றனர் எனலாம்.

ஐம்பூதங்கள் என்பது உலகளாவிய நிலையில் எல்லோராலும் ஏற்றுக்கொள்ளக் கூடியவை. இவையால் வரும் நன்மை தீமை குறித்த பதிவுகளும் ஏற்புடையவையே. ஐம்பூதத்தோடு உருக்கொண்ட இவ்வுலகில் மனித உடல் அமைப்பு ஐம்பூதத்தோடு ஒன்றிய தன்மையை சித்தர்கள் வழிக் கொண்டு இக்கட்டுரை ஆய்வுநோக்குடன் அமையவுள்ளது.

பஞ்சபூதங்களால் இவ்வுலகம்:

நாம் வாழும் இவ்வுலகம் நிலம், நீர், காற்றுஇ வான்இ தீ ஆகிய ஐம்பூதங்களால் ஆனது. இவையில்லாது இவ்வுலகில் எந்த உயிரனமும் வாழ முடியாது என்பதை அனைவரும் அறிவோம். இவ்வுலகம் ஐம்பூதங்களால் உருவானது என்பதற்கு தொண்மை நூலான தொல்காப்பியம் சான்றுபகர்கிறது.

" நிலம் தீ நீர் வளி விசும்பொடு ஐந்தும்
கலந்த மயக்கம் உலகம்" (தொல்காப்பியம்.பொருளதிகாரம் மரபியல்.635) இதற்கு இலக்கணத்தோடு பல இலக்கியச்சான்றுகளும் உண்டு.

ISSN: 2394-7535

நியூ செஞ்சுரியின் உங்கள் நூலகம்
பல்கலைக்கழக மானியக்குழு (UGC) அங்கீகாரம்பெற்ற மாதஇதழ்

பன்னாட்டுக் கருத்தரங்கம் - 2022
முதுகலைத் தமிழ்த்துறை
சிறப்பிதழ்: ஜெயராஜ் அன்னபாக்கியம் மகளிர் தன்னாட்சிக் கல்லூரி
பெரியகுளம் - 625 601, தேனி மாவட்டம்.

இலக்கியங்களில் இயற்கை

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நல்லமுத்துக்கவுண்டர் மகாவிங்கம் கல்லூரி
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நல்லமுத்துக்கவுண்டர் மகாவிங்கம் கல்லூரி
பொள்ளாச்சி

ஆய்வுச்சுருக்கம்

முன்னைப் பழமைக்கும் பழமையாய் பின்னைப் புதுமைக்கும் புதுமையாய் பேர்த்தும் அப்பெற்றியதான மொழி தமிழாகும். இம்மொழியில் எழுந்துள்ள இலக்கியங்கள் தொன்மையும், சிறப்பும் கொண்டு விளங்குகின்றன. பழந்தமிழ் இலக்கியங்கள் தொடங்கி, இற்றை நாள் எழும் இலக்கியங்கள் வரை இயற்கையை போற்றாத இலக்கியங்கள் இல்லை எனலாம். சங்கத் தமிழகத்தை நாவீறு பெற்றுத் திகழ்ந்த நக்கீரர் முதல் இன்று வரை அண்மைக்காலம் வரை நம்மிடையே வாழ்ந்த தமிழ்க் கவிஞர்கள் தங்கள் படைப்புக்களில் இயற்கை வர்ணனைக்கென்று இடம் ஒதுக்கியிருக்கின்றனர். இயற்கை மக்களுக்கு அளித்த கொடைகள் பலவென்றாலும் அவற்றுள் கதிரவன் முதன்மையான இடம்பெறுகின்றது. திருமுருகாற்றுப்படையில் (1-2) "உலகம் உவப்ப வலனேர்பு திரிதரு பலர்புகழ் ஞாயிறு கடற்கண்டாஅங்கு" - என்று குறிப்பிடப்பட்டுள்ளது.

சங்க இலக்கியத்தில் மக்கள் இயற்கையோடு இயற்கையாக வாழ்ந்தனர். மரங்கள், நீர், நிலம், காற்று போன்ற இயற்கை சார்ந்த சூழல்களில் வாழ்க்கையை நடத்தியுள்ளமை போற்றற்குரியதாகும். எல்லா உயிர்களையும் தம் உயிர் போல் எண்ணி வாழ்ந்தமையையும் அறியமுடிகிறது. சங்க இலக்கியப் பனுவல்கள் இயற்கை பண்பாடு ஆகியவற்றைத் தன்னகத்தே கொண்டு விளங்குகின்றன. மக்களின் வாழ்வியல், சுற்றுச்சூழல் ஆகியவை சார்ந்த செய்திகள் பதிவாகியுள்ளன. மனிதச் சமூகத்திற்கும் இயற்கைக்கும் இடையிலான உறவை சூழல் விளக்குகிறது. மனிதச் சமூகமும், பண்பாடும் தகவமைத்தலின் உற்பத்தி பொருட்களாக அல்லது விளைவுகளாக ஒரு குறிப்பிட்ட இயற்கைச் சூழலில் வெளிப்படுகின்றன என்பதே அடிப்படை நோக்கமாகும். மனிதன் தான் வாழும் நிலவியல் எல்லையில் அமைந்திருக்கும் சுற்றுச் சூழலைத் தன்னுடைய சமூக வாழ்க்கையோடு இணைத்துக் கொள்வது மரபு. வாழ்வியல் ஆதாரம், பாதுகாப்பு போன்றவை இயற்கைச் சூழலை மையமாகக் கொண்டு அமைகிறது. இதன் அடிப்படையில் சோ.தர்மன் நாவல்களில் பதிவாகியுள்ள இயற்கைச் சூழலியல் குறித்த சிந்தனைகளைப் பதிவு செய்கிறது இக்கட்டுரை.

சூழல் என்பது மனிதனுக்கும் இயற்கைக்கும் இடையிலான உறவை ஆராய்கிறது. வயல்களும், மரங்களும் செழித்து இயற்கை வேளாண்மை பாதுகாக்கப்பட்டு சூழல் மாசு அடையாமல் பார்க்கவேண்டும் என்ற சிந்தனை மக்களிடையே பரவ வேண்டும். பூமி வெப்பமடைந்து மனித இனம் துன்பம் அடைந்து வருகிறது. இயற்கையின் ஒரு கூறான மனித இனம் தொடர்ந்து இயற்கையின் மீது செலுத்தி வரும் ஆதிக்கத்தின் விளைவாக எதிர் விளைவுகளைச் சந்திக்கத் தொடங்கியுள்ளது. காலநிலை மாற்றங்களால் பெரும் ஆபத்தைச் சந்தித்து வரும் சமூகம் தற்போது தான் இயற்கையின் மீதான கவனிப்பை வெளிப்படுத்தத் தொடங்கியிருக்கிறது. இயற்கையைப் புரிந்து கொள்வதன் மூலம் அதனைச் சார்ந்து வாழும் மனித இனம் தன் இருப்பை நிலைநிறுத்திக் கொள்கிறது என்பதை நாவல் பதிவு செய்கிறது.

முன்னுரை

இந்தப் பூமி அழகாக காட்சி தருவதற்கு காரணம் பசுமை நிறைந்த சோலைகளாய் உள்ள இயற்கையே ஆகும். ஆதி கால மனிதன் இயற்கையின் ஆடைகளை அணிந்து வாழ்ந்தனர். கால மாற்றத்தின் காரணமாகவும், மனிதனின் அறிவு வளர்ச்சியின் அந்தமாகப் பல பரிமாணங்களைக் கடந்து வந்தான். மரம், செடி, கொடியோடு ஊர்வன, பறப்பன, மேய்வன, அசைவனவும், இந்தப் பூமிக்கு புத்துயிர் ஊட்டின. இவற்றைச் சார்ந்தும் சேர்ந்தும் மனித வாழ்க்கைப் பயணம் பயணமாகின்றது. இயற்கை இல்லா வாழ்வை மனித உயிர்கள் வாழ வழியில்லை என்றே ஆணித் தரமாகக் கூற முடியும். மனிதன் இயற்கையோடு இயைந்து வாழ்ந்த, வாழ்ந்து கொண்டிருக்கிற இக்காலங்கள் வரை, இயற்கை உற்ற தோழனாக, இருப்பது என்பது அனைவரும் அறிந்த ஒன்றே ஆகும். இயற்கை

ISSN: 2394-7535

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97. முல்லை நிலத்தாரின் வாழ்வியல்

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முனைவர் பட்ட ஆய்வாளர், தமிழ்த்துறை,
என்.ஜி.எம். கல்லூரி,
பொள்ளாச்சி, தமிழ்நாடு, இந்தியா

ஆய்வுச் சுருக்கம்

கற்புக்கு உரிய நிலமாக திகழக்கூடிய முல்லை நிலத்தாரின் நிலம் பற்றிய செய்திகளையும், செம்மண் தோற்றத்திற்கான காரணத்தையும், முல்லை நில மக்களின் பெயர்களையும், இயற்கை வேளாண்மை குறித்தும், இயற்கையோடு ஒன்றிய வழிபாடுகளையும், முல்லைத் திணைப் பாடல்களில் புலவர்கள் கையாண்டுள்ள இயற்கைச் சார்ந்த உவமைகளையும், இவ்வாறாக முல்லை நிலத்தாரின் வாழ்வியலுக்கு பின்புலமாக அமைந்த இயற்கையின் இன்றியமையா நுட்பக்கூறுகளை ஆராய்வதாக இவ்வாய்வு அமைகிறது.

முன்னுரை

மனித வரலாற்றில் ஆரம்ப கால கட்டங்களில் மலைகளிலும், குகைகளிலும் வாழ்ந்த மனிதர்கள் மக்கள் தொகை பெருக்கத்தால் காட்டுப்பகுதியான முல்லை நிலத்தை நாடிச் சென்றார்கள். அவ்வாறு நாடிய நிலையில் அஃறிணை உயிர்களான விலங்குகளை பழக்கி வளர்க்கக் கற்றுக் கொண்டான். மனித இனத்தின் நாகரிக வளர்ச்சி முல்லை நிலத்தில் தோன்றியது எனலாம். அவ்வாறு முல்லை நிலத்தாரின் வாழ்வியலை பின்வருமாறு காண்போம்.

நிலம்

தொல்காப்பியர் நிலத்தைப் பற்றிக் கூறும்போது கற்புக்கு உரிய நிலமாக கருதப்படும் முல்லை நிலத்தை முதன்மைப்படுத்தி,

"மாயோன் மேய காடுறை உலகமும்" (தொல்காப்பியம், பொருளாதிகாரம், நூ.05:01)

முதலில் முல்லை நிலத்தைக் கூறிய பின் மற்றைய நிலத்தை கூறுகிறார். இந்நிலத்திற்கு பெயர்க்காரணம் முல்லை மலரை அடிப்படையாகக் கொண்டு அமைந்துள்ளதை காண முடிகிறது. மேலும் இந்நிலத்தில் செம்மண் பரந்திருந்ததை,

"செம்மணற் சிறுநெறி கம்மென வரிப்ப" (அகநானூறு,பா..345:17)

"செந்நிறப் புறவின் புன்மயிர்ப் புரவை" (நற்றிணை,பா..321:01)

மேற்கண்ட அடிகளின் வாயிலாக செம்மண் முல்லை நிலத்திற்கு உரியன என்பதனை அறிய முடிகிறது "செம்மண் பரந்திருத்தலின் இந்நிலத்தைச் செம்புலம் என்பர்" (பண்டைத் தமிழர் தொழில்கள், பக்.21) என்கிறார் வி.சி. சசி வல்லி. மேலும் முல்லை நிலத்தின் மரபுப் பெயர்களை பற்றி இல.செ. கந்தசாமி கூறுகையில் "முல்லை நிலத்தைப் புறவு என்றும், கொல்லை என்றும், கானம் என்றும் வழங்குவர்"(தமிழர் வேளாண்மை மரபுகள், பக்.66)

"செம்மண் வகைகள் அமிலத்தன்மையுடைய கருங்கல் பாறைகள், பழங்கால பாறைகள் உருமாறிய பாறைகள் போன்றவை காலப்போக்கில் சிதறுண்டு நொறுங்கியதால் உண்டானவை ஆகும். மலைச்சரிவுகளின் இருந்து மழை நீரினாலும், புவி ஈர்ப்பு விசையினாலும் இவை கீழே கொண்டு வரப்பட்டு மலை அடிவாரங்களில் பரவிக் கிடக்கின்றன. இவற்றில் இரும்பு ஆக்ஸைடு அதிக அளவில் உள்ளதால் இம்மண் சிவப்பு நிறத்துடன் இவை பொதுவாக இளகிய இயல்புடையது ஆகும்"(Wikipedia) மேலும் முல்லை நிலத்தை வன்புலம் என அழைக்கப்பட்டதை,

"வன் புலக் காட்டு நாட்டதுவே" (அகநானூறு,.பா.94:12)

மேற்கண்ட அடிகளால் அறியலாம்.

பொழுது

பண்டையத் தமிழர்கள் பொழுதை இருவகையாகப் பிரித்துள்ளனர்.அவை சிறுபொழுது பெரும் பொழுது என்பர். அவ்வகையில் முல்லை நிலத்திற்குரிய பொழுதை பற்றி தொல்காப்பியர் கூறுகையில்,

"காரும் மாலையும் முல்லை" (தொல்காப்பியம், பொருளாதிகாரம், நூ. 06)

UGC CARE Listed Journal

E-ISSN: 2581-7140

தமிழ்மொழி மற்றும் இலக்கிய பன்னாட்டு ஆய்விதழ்

INTERNATIONAL JOURNAL OF TAMIL LANGUAGE AND LITERARY STUDIES (Ijtlls)

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VOLUME 6, SPECIAL ISSUE 1, OCTOBER 2023

தமிழ்மொழி மற்றும் இலக்கிய பன்னாட்டு ஆய்விதழ்

International Journal of Tamil Language and Literary Studies

E-ISSN: 2581-7140
Volume - 6, Special Issue - 1, October 2023

UGC CARE Listed Journal
Available at: www.ijtlls.com

நாலடியாரில் அறம்சார் இயற்கைச் சூழலியல்

Ethical Natural Ecology in *Naladiyar*

பா. தினேஷ்குமார், தமிழ் முனைவர்பட்ட ஆய்வாளர், பதிவு எண்: CRL/TAM22PNOV580/2022, நல்லமுத்துக் கவுண்டர் மகாலிங்கம் கல்லூரி, பொள்ளாச்சி, பாரதியார் பல்கலைக்கழகம், கோவை, தமிழ்நாடு, இந்தியா.

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DOI: 10.5281/zenodo.10122351

Abstract

"Naladiyar" is one of the eighteen books (Pathinenkeelkanaku) that is considered didactic literature in Tamil Literature. The Jain monks composed it in the seventh century. In addition, it advises people to lead a moral life. "Naladiyar" is full of virtues and they also convey various messages related to the natural environment of the people around them, such as plants, animals, birds, and natural systems, along with the lifestyle, culture, customs, materials used, by the people of that time. The Jain sages who composed "Naladiyar" mentioned various types of morals in their books, but they did not fail to explain the living conditions of the people of that time as parables and references, such as about the flora and fauna such as animals, birds, and humans and grass, plants, vines, trees, and parts of the geography of the Tamil five lands, There are also many messages in "Naladiyar" about mountains, seas, rains and celestial bodies such as the moon, the sun, and related environments. This article presents various types of natural environments found in the forest as depicted in "Naladiyar".

Keywords: *Naladiyar*, Ethics, Nature, Ecology.

ஆய்வுச்சுருக்கம்

பதினெண்கீழ்க்கணக்கு நூல்களுள் ஒன்றாகத் திகழ்கின்ற நாலடியார், கி.பி ஏழாம் நூற்றாண்டில் சமண முனிவர்களால் இயற்றப்பட்டதாகும். முழுவதும் அறக்கருத்துக்கள் நிரம்பியுள்ள நாலடியாரில், மக்களுக்கு அறிவுரை கூறுவதுடன், கூடவே அக்கால மக்களின் வாழ்வியல், பண்பாடு, பழக்கவழக்கங்கள், பயன்படுத்திய பொருட்கள், ஆகியவற்றுடன் மக்களைச் சுற்றியுள்ள தாவரங்கள், விலங்குகள், பறவைகள், இயற்கை அமைப்புகள், ஆகிய சுற்றுச்சூழல் சார்ந்த பல்வேறு செய்திகளை தங்களது செய்யுட்களில் கூறியுள்ளனர். இவ்வாறு கூறப்பட்டுள்ளனவற்றுள், உழவு, வனம், விலங்கு, மரம், புல், மழை, நதி, கடல், நிலா, சூரியன்,

ISSN 2278 - 1641
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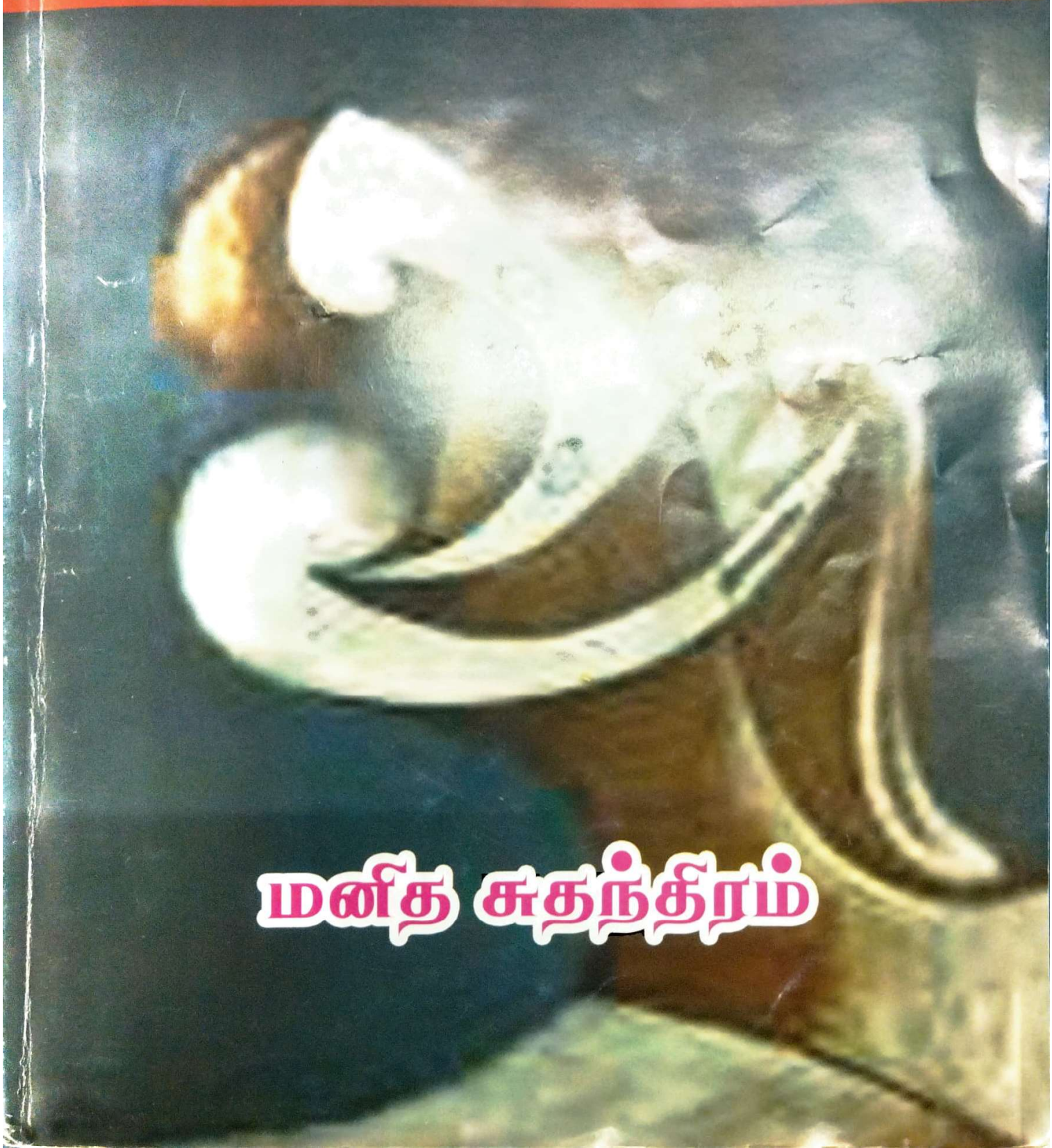

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நல்லமுத்துக் கவுண்டர் மகாலிங்கம் கல்லூரி,
பொள்ளாச்சி.

பண்டைய மக்களின் வாழ்வை வெளிப்படையாக காட்டுவதுக் இலக்கியம். இலக்கியம் என்ற சொல் இலக்கு + இயல் என்று அழைக்கப்படுகிறது. மனிதனிடம் இலக்கியத்தை இயம்புவதும், விளக்குவதும் இலக்கியம் என்று கொள்ளலாம். ஐங்குறுநூறு ஓர் அகநூல். இதில் குறிஞ்சி, முல்லை, மருதம், நெய்தல், பாலை என ஐந்து திணைகளும், ஒவ்வொரு திணைக்கும் நூறு பாடல்கள் வீதம் 500 பாடல்கள் உள்ளன. ஐங்குறுநூற்று பாடல்கள் குறுகிய அடி எல்லைகளை உடையனவாய் இருந்தாலும் இவை நிறைவான சிந்தனைகளையுடையன. கூற்றுப்பாடல்கள் ஐங்குறுநூற்றில் உள்ளன. அவ்வாறாக தலைவிக் கூற்றுப் பாடல்களை மட்டும் ஆராய்வதாக இக்கட்டுரை அமைகிறது.

கூற்று விளக்கம்

கூற்று என்பது "பேச்சுக் கூற்று" என்று பொருள்படும். அகத்திணைப் பாடல்களுக்குரிய சிறப்புக்கூற்றும் உண்டு. அகப்பாடல்கள் முழுவதும் மாந்தர் கூற்றுமுறையிலேயே அமைந்திருப்பது மரபாகும்.

அகப்பொருள் இலக்கியங்களிலேயே கூற்று நிகழ்த்துவோரும் முதன்மையாகத் திகழ்பவர் தலைவனும், தலைவியுமே.

ஐங்குறுநூற்றில் கீழ்க்கண்டவாறு கூற்றுகள் அமைந்துள்ளன.

1. தலைவன் கூற்று
2. தலைவி கூற்று
3. தோழி கூற்று
4. செவிலித்தாய் கூற்று
5. நற்றாய் கூற்று
6. பரத்தை கூற்று
7. காதற்பரத்தை கூற்று
8. பரத்தையின் தோழி கூற்று
9. கண்டோர் கூற்று
10. வாயில்கள் கூற்று
11. பாங்கன் கூற்று
12. அந்தணர் கூற்று
13. அயலோர் கூற்று
14. காதல் உணர்ந்தோர் கூற்று
15. பாணன் கூற்று

தலைவி கூற்றுகள்

தலைவி கூற்றுப் பாடல்கள் மொத்தம் 200 ஐங்குறுநூற்றில் அமைந்துள்ளன. இப்பாடல்களில் வெளிப்படும் கருத்துகள் பின்வருமாறு :-

- பிரிவினால் வரும் வருத்தம்
- தலைவியின் இல்லறச் செம்மை
- தலைவியின் ஆழமான அன்பு
- தலைவி வாயில் மறுத்தல்

பிரிவினால் வரும் வருத்தம்

இந்த உலகத்தில் உள்ள உயிர்களின் தோற்றத்திற்கு அகவொழுக்கமே காரணமாக இருப்பதனால், எல்லாப் பொருளினும் இவ்வகப் பொருளே சிறந்ததாகத் திகழ்கின்றது.

தலைவி களவு ஒழுக்க காலத்தில், தலைவனது வருகைக்காக காத்திருக்கும் பொழுதும், ஊர் அலர் தூற்றுவதைக் கண்டு அஞ்சும் பொழுதும், தலைவனின் பிரிவின் பொழுதும், அவளுக்குப் பலவிதமான போராட்டங்களும், உடல் பாதிப்புகளும் ஏற்படுவது அனைத்தும் தலைவிக்கே உரியதாக அமைகின்றன.

அவள் வெளிப்படுத்தும் அவளது உணர்வுகளும், கூற்றுகளும் அவளது உண்மையான இயல்புகளை வெளிப்படுத்திக் காட்டுவனவாக இருக்கின்றன என்பதையே,

நறுவடி மா அத்து மூக்கிறு புதிர்ந்த
ஈர்ந்தண் பெருவடுப் பாலையிற் குறவர்
உறைவீழி ஆலியிற் றொகுக்குக் சாரல்
மீமிசை நன்னாட்டவர்ரின்
யானுயிர் வாழ்தல் கூடும் அன்னாய்! (ஐங் 213, 1-5)

என்ற பாடலின் மூலம் தலைவி தலைவனைப் பிரிந்து மணம் மிகவும் வருந்துகிறாள் என்பதும், தலைவன் இல்லையேல் நான் உயிர் வாழ்வது அரிது என்பதையும் வெளிப்படுத்துகிறாள். தலைவியின் இந்த கூற்று அவளது உள்ள இயல்பை எடுத்துக்காட்டுகிறது.

நனவு என ஒன்று இல்லை ஆயின் கனவினால்
காதலர் நீங்கலர் மன் (குற-1216)

என்ற வள்ளுவரின் அடிகள் மூலம் தலைவி தன்னைப் பிரிந்த தலைவனைத் கனவில் கண்டு மகிழ முடிகிறது. ஏன் என்றால், அவன் அவளைவிட்டுப் பிரிந்து வெகுதூரத்தில் இருக்கிறான். எனவே நனவு என்ற ஒன்று இல்லாவிட்டால், என்னை விட்டுப் பிரிந்து சென்று தலைவனை கனவிலாவது கண்டு மகிழ்வேன் என்று தலைவி கூறுவதை குறள் வாயிலாக அறிய முடிகிறது.

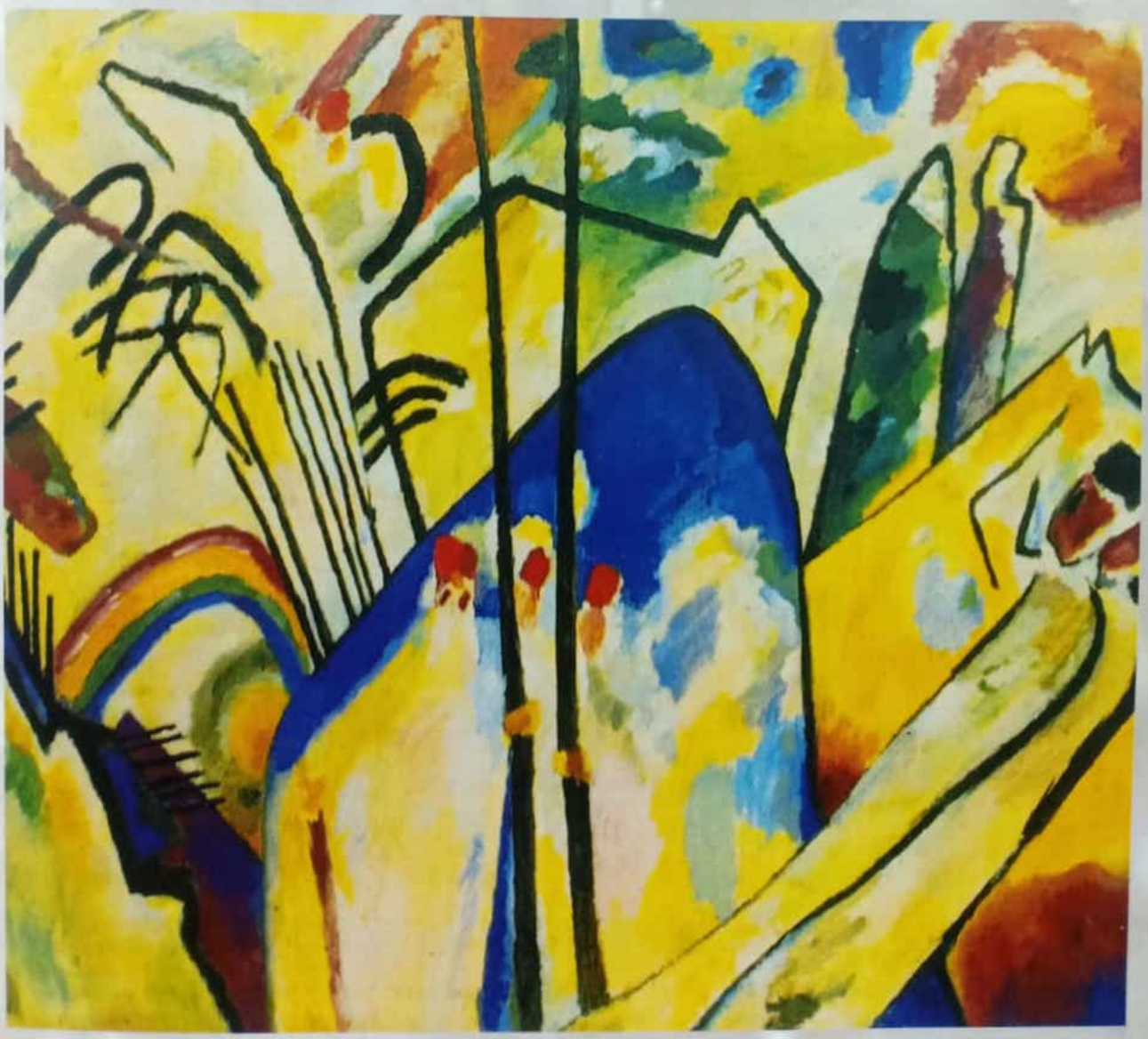
ISSN 2278 - 1641
UGC Care Listed Journal

புதுப்புனல்

கலை இலக்கிய மாத இதழ்

மலர் : 14 இதழ் : 8+ ரூ. 150/- ஆகஸ்ட் சிறப்பிதழ் 2023

ஆகஸ்ட் சிறப்பிதழ்



உதயசங்கரின் படைப்புகளும் உளவியலும்

ஆய்வாளர்
கா. விஜயலட்சுமி
முனைவர் பட்ட ஆய்வாளர்
தமிழ்த்துறை
நல்லமுத்து கவுண்டர் மகாலிங்கம் கல்லூரி,
பொள்ளாச்சி
பாரதியார் பல்கலைக்கழகம்

நெறியாளர்
முனைவர் **க.தனலட்சுமி**
உதவிப்பேராசிரியர்
தமிழ்த்துறை
நல்லமுத்து கவுண்டர் மகாலிங்கம் கல்லூரி,
பொள்ளாச்சி

மனித மனத்தின் எண்ணங்கள் செயல்பாடுகள் நடத்தைகள் போன்றவற்றைப் பற்றி ஆய்வு செய்வதே உளவியல் ஆகும். படைப்பாளன் தான் வாழ்கின்ற சமூகத்தில் தன்னைப் பாதித்த நிகழ்வுகளை மனதில் கொண்டு ஒரு படைப்பைப் படைக்கின்றான். அப்படைப்பில் இடம்பெறும் பாத்திரங்கள் வாயிலாகப் படைப்பாளரின் மனம் வெளிப்படுகிறது. அப்படைப்பைப் படிக்கும் பொழுது பாத்திரங்களின் மனம் வாசகர்களுக்கு வெளிப்படுகிறது. இவ்வாறு நடைபெறக் கூடிய படிநிலைகளை உதயசங்கரின் சிறுகதைகளின் வழி ஆய்வதாக இக்கட்டுரை அமைகின்றது.

உளவியல்

உளவியல் என்பது உயிரினங்களின் நடத்தையைப் பற்றி அறியும் மைய முயற்சியாகும். குறிப்பாக நம்மை நாமே அறியும் தனிப்பட்ட தேடுதலாகும். நமது உணர்வு எண்ணங்கள் நாம் செய்யும் செயல்கள் போன்றவற்றோடு தொடர்புடையது உளவியல். இதனை உள்ளத்தை பற்றிய அறிவியல் அல்லது உளவியல் என்கிறார். "சிக்மண்ட ஃபிராய்ட்".

இலக்கியமும் உளவியலும் ஒன்றோடு ஒன்று தொடர்புடையது. இலக்கியத்திறனாய்வாளரும் ஒப்பிலக்கிய அறிஞருமான ரெனேவெல்லக் இலக்கியத்திற்கும் உளவியலுக்கும் உள்ள தொடர்பை நான்கு நிலைகளில் எடுத்துரைக்கின்றார்.அவை

1. படைப்பாளர் உளவியல்
2. படைப்பாக்க உளவியல்
3. படைப்பில் உள்ள பாத்திரங்களில் உளவியல்
4. வாசகர் உளவியல் என்பனவாகும்.

பாத்திர உளவியல்

உதயசங்கர் தனது சிறுகதைத்தொகுப்பில் இடம்பெறும் பாத்திரங்களின் உளவியலைக் கதை கூறும் போக்கில் மிக அழகாக ஆசிரியர் பதிவு செய்துள்ளார்.

மனித மனம்உளச்சோர்வுக்கு ஆட்படும் போது மனச்சிதைவு ஏற்படுகின்றது. மனச்சிதைவின் காரணமாகத் தன்னுடைய அன்றாட பணியில் கவனம் செலுத்த இயலாமல் போகின்றது. அதனால் அச்சம் ஏற்படுகின்றது. அதன் மூலம் கனவு தோன்றுகின்றது. அதன் மூலம் துன்பநிலையை மனம் அடைகின்றது. இதனால் மனதில் எதிர்மறையான எண்ணங்கள் தோன்றி தற்கொலை போன்ற செயலில் ஈடுபடுகின்றது.

படைப்பாளர் தான் சொல்லவரும் கருத்தை வாசகர்களுக்குத் தெளிவாக வெளிப்படுத்த கதையில் பல்வேறு பாத்திரங்களைப் படைக்கின்றார். படைப்பாளர் படைக்கக் கூடிய பாத்திரங்களைக் கதையின் வளர்ச்சிக்கும் சிக்கலுக்கும் பயன்படுத்தி பின்பு கதைச்சிக்கலை அவிழ்ப்பதற்கும் பயன்படுத்துகின்றார்.

மனச்சிதைவு

தன்னைப் பாதிக்கக் கூடிய நிகழ்வுகள் அடுத்தடுத்து நிகழும் போதும் மனம் மிகவும் துன்பத்தில் ஆழ்ந்து மனச்சிதைவை அடைகின்றான். அதனால் அவன் தன்னுடைய அன்றாட வாழ்க்கை நிகழ்வுகளில் ஈடுபட முடியாமல் துன்புறுகின்றான். நடத்தையில் மாற்றம் எதிர்மறைஎண்ணங்கள் போன்றவை காணப்படுகின்றன.

நம்பி இருந்தவர்களால் வஞ்சிக்கப்படுதல் எதிர்பாராத அதிர்ச்சித்தகவல்களால் பாதிக்கப்படுதல்கோபத்தையும் தாபத்தையும் தணித்துக்கொள்ளும் வழி அறியாது இருத்தல் காரணம் அற்ற அச்சம் இந்த உலகையே தன் உள்ளங்கைக்குள் அடக்கிவிடும் அபார ஆற்றல் தனக்கே உண்டு என்ற உயர்வு மனப்பான்மை உள்ளிட்ட பல்வேறு உணர்ச்சிக் கொந்தளிப்பின் பிம்பங்களாக நாள்தோறும் நூற்றுக்கானோர் மனச்சிதைவு அடைகின்றனர். நம்முள் ஏற்படும் அதிகப்படியான மனச்சோர்வு வேதனை மனஅழுத்தமஇழப்புஇயலாமை போன்ற உணர்வுகள் நமது மூளையின் பழக்கவழக்கங்களை மறப்பதற்கும் காரணமாக அமைந்து விடுகின்றன.

உதயசங்கர் அவர்களின் உடைந்த கண்ணாடி எனும் குறுங்கதையில் இடம்பெறும் பாத்திரம் நரேன். அவனது வீட்டில் தினந்தோறும் முகம்பார்க்கும் கண்ணாடி உடைந்துவிடுகின்றது. காரணம் புரியவில்லை. மனைவியிடம் கேட்டதற்கு எனக்கெப்படி தெரியும் என்று குனிந்து கொண்டே பதில் சொன்னாள். ஒருநாள் இரவு நரேன் துர்சொப்பனம் கண்டு விழித்தான்.அன்று தான் தன் மனைவி மனச்சிதைவு அடைந்திருக்கிறாள் என்பதையும் கண்ணாடி உடைவதற்குப்பின் காரணியாக அவள் தானிருக்கிறாள் என்பதைத் தெரிந்துகொண்டான். நரேனுக்குத் துர்ச்சொப்பனம் வந்தது.விழித்துப் பார்த்தான். அருகில் மனைவி இல்லை. எழுந்து அடுக்களைக்குப் போய் தண்ணீர் குடித்தான். அப்பேது பாத்ரூமிலிருந்து கண்ணாடி உடையும் சத்தம் கேட்டது. மெல்ல குளியலறை பக்கமாகப் போனான். சாத்தியிருந்த கதவின் இடுக்கின் வழியே பார்த்தபோது உடைந்த கண்ணாடித்துண்டுகள் ஒவ்வொன்றாய் எடுத்து தன்னுடைய கண்களுக்க நேராக மூக்குக்கு நேராக உதடுகளுக்கு எதிராக கழுத்துக்கு நேராகமார்புக்கு நேராக வயிற்றுக்கு நேராக மாறி மாறி வைத்துப் பார்த்துக் கொண்டிருந்தாள் அவனது மனைவி.

நரேனுக்கு அதிர்ச்சியில் மூச்சு உடைந்தது.

அவன் ஒரு நாள் முயங்கும் போது மனைவியிடம் ருத்வி! தனித்தனியா பார்க்கும்போது உன் கண்ணுமூக்கு வாய் முலை மற்றது எல்லாம் அழகா இருக்கு.ஆனா மொத்தமா பார்த்தா ஏதோ ஒண்ணு மிஸ்ஸிங் என்று சொல்லிக்கொண்டே இயங்கியது மங்கலாக நினைவுக்கு வந்தது(அ.மி.நி. ப. 45) என்று அன்பாக நடக்க வேண்டிய கணவனே தன்னை வஞ்சிக்கும்படி பேசியது ருத்விக்கு மனச்சிதைவு ஏற்படக் காரணமாக அமைந்தது என்று மனச்சிதைவு அடைந்த பெண்ணின் மனநிலையை ஆசிரியர் விளக்கியுள்ளார்.

அச்சம்

மனவெழுச்சிகள் மனிதனது வாழ்க்கையில் முக்கியப்பங்கு வகிக்கிறது. நமது செயல்களில்ஒரு சிறிய பங்கு தான் நமது சிந்தனையின் அடிப்படையில் எழுகிறது. பெரும்பங்கு நமது மனவெழுச்சிகளால் உந்தப்படுகிறது.

மனவெழுச்சி என்பது தூண்டிவிடப்பட்ட மனநிலை அல்லது சூழ்நிலை என்றும் செயல்பட முனைதல் என்றும் மன உணர்ச்சி ஒட்டு மொத்தமாகமேலோங்கி நிற்கும் நிலை என்றும் மனஎழுச்சியை உளவியிலார் பலவாறு விளக்குகின்றனர்.

103. பிள்ளைத்தமிழில் இயற்கைவாழ்வியல்

திருமதி ந.தமிழரசி
முழுநேர முனைவர்பட்ட ஆய்வாளர், தமிழ்த்துறை
நல்லமுத்துகவுண்டர் மகாலிங்கம் கல்லூரி,
பொள்ளாச்சி, தமிழ்நாடு, இந்தியா

முனைவர் ஆ.மகாலட்சுமி
நெறியாளர் உதவிப்பேராசிரியர், தமிழ்த்துறை
நல்லமுத்துகவுண்டர் மகாலிங்கம் கல்லூரி,
பொள்ளாச்சி, தமிழ்நாடு, இந்தியா

ஆய்வுச்சுருக்கம்

இறைவன் உயிர்களுக்குத் தந்தபரிசே இயற்கை. மனிதர்கள் தோன்றுவதற்கு முன்பே இயற்கை தோன்றிவிட்டது. இந்த இயற்கையை மனித வாழ்வில் இருந்து தனியாகப் பிரித்துப் பார்க்க இயலாது. மனிதர்கள் இயற்கையைப் போற்றி நன்றாக வாழவேண்டும் என்ற வகையிலேயே மனிதனுக்காக இயற்கை படைக்கப்பட்டது. நாகரீகம் வளரத் தொடங்கிய பின் இயற்கையைப் பாதுகாக்க வேண்டிய மனிதனே அவற்றை அழிக்கத் தொடங்கினான். இதனால் இயற்கையும் தனது கோபத்தை கடல் கோள்களாக,எரிமலைச் சீற்றங்களாக, குறாவளியாக, பேரிடர்களாக வெளிப்படுத்தியது. மனிதன் இயற்கைக்கு எதிராக செயல்படும் போது தனது வாழ்வையும் அதுபாதிக்கும் என்பதை உணரவேண்டும். பழங்காலமக்கள் இயற்கையைப் பாதுகாத்துப் போற்றினர். தனக்கு மீறிய ஒருசக்தி உண்டு என்றும், அது இயற்கையே என்பதையும் உணர்ந்து அவற்றை வணங்கினர். இதற்கான சான்றுகள் சங்க இலக்கியங்களிலும் காணக்கிடக்கின்றன. கொங்கு நாட்டைச் சார்ந்த சிற்றிலக்கியங்களில் ஒன்றான அருள் தருமுயங்கு பூண்முலை வல்லியம்மை பிள்ளைத்தமிழ் என்ற நூலில் இடம்பெற்றுள்ள இயற்கையின் கூறுகளை எடுத்துரைப்பதே இவ்வாய்வின் நோக்கமாக அமைகிறது.

முன்னுரை

இயற்கை என்பது இயல்பானது. மனித சக்தியின் துணையின்றி தானே தோன்றிய பொருள்கள் அனைத்தும் இயற்கை எனப்படும். மனிதர்களும் இயற்கையின் ஒருபகுதியே ஆவர். மற்ற இயற்கை நிகழ்வுகளில் இருந்து மனிதனின் நடத்தைகள் முற்றிலும் வேறுபட்ட தனியான ஒரு பிரிவென்று பெரும்பாலும் கருதப்படுகிறது. இயற்கை என்பது நம்மைச் சுற்றியுள்ள அனைத்து உயிருள்ள மற்றும் உயிரற்றனவாகிய பொருள்கள் ஆகும். மனிதனால் செயற்கையாக உருவாக்கபடாதவையே இயற்கையாகும். இயற்கையானது மனிதர்களுக்கு மட்டுமின்றி ஓரறிவு முதல் ஆறறிவு உள்ள அனைத்து ஜீவராசிகளுக்கும் பொதுவானது என்பதை உணர்ந்து அக்கால மக்கள் வாழ்ந்து வந்தனர். அதனால் அனைத்து உயிரினங்களின் செயல்பாடுகளும் ஒன்றை ஒன்று பாதிக்காத வகையில் நடைபெற்றுக் கொண்டு வந்தன. மனிதர்கள் அறிவியல் வளர்ச்சியால் இயற்கையை ஆராயத் தொடங்கி, அதற்கு எதிராகச் செயல்படத் தொடங்கியபோது இயற்கையானது அழிவை நோக்கிச் சென்று மக்களையும் அழிக்கத் தொடங்கியது. மனிதர்கள் பூமியில் வாழ்வதற்காக படைக்கப்பட்ட இயற்கையை பாதுகாக்க வேண்டும் என்ற சிந்தனையை ஒவ்வொருவர் மனதிலும் உருவாக்கி, இயற்கையைப் பேணிப் பாதுகாக்க வேண்டும். தமிழில் தோன்றிய இலக்கியங்கள் பெரும்பாலும் இயற்கையோடு இணைந்த வாழ்வியலைக் கூறும் பொருண்மையிலேயே அமைந்துள்ளது. அவ்வகையில் கொங்கு நாட்டில் அமைந்துள்ள திருமுருகன் பூண்டி திருமுருகநாதப் பெருமான் உடனமர் இறைவிமீது அருள் தருமுயங்கு பூண்முலைவல்லியம்மை என்ற நூல் பாடப்பட்டுள்ளது. இந்நூலில் மக்கள் இயற்கையோடு இணைந்து வாழ்ந்த முறைகளையும், இயற்கையைப் போற்றிக் காத்த நிகழ்வுகளையும் ஆராயும் பொருண்மையில் இக்கட்டுரையானது அமைந்துள்ளது.

பூமியின் தோற்றம்

பிரபஞ்சத்தில் எண்ணற்ற கிரகங்கள் இருந்தாலும் மனிதனும் மற்ற உயிரினங்களும் வாழ்வதற்குத் தேவையான இயற்கைவளங்கள் நிறைந்தது பூமி மட்டுமேயாகும். பூமியின் தோற்றம் குறித்து டாக்டர் புரட்சிதாசன் "பூமியில் உயிர்கள் இல்லாதகாலம் அசோயிக் எனப்படும். அளவிடமுடியாத வெப்பம் நீராவியாக உருகி, சுழன்ற பூமியின் உட்பகுதியிலிருந்து திரள் மிகுந்தனவாகவும், திரள் குறைந்தனவாகவுமுள்ள பொருள்கள் பூமியின் மேற்பரப்பிற்கு வந்தன. அடர்த்தி மிகுந்த யுரேனியமும், அவை குறைந்த அலுமினியமும் கலந்து கரைந்த கூட்டுப் பொருள் பூமியின் புறப்பகுதியில் வடிந்தது. அவை நிலப்பரப்பாகியது. அவற்றை கிழித்து வெளியிடப்பட்ட எரிமலையும் குளிர்ந்து பாறைகளாக ஆயின. பின்னர் அவைகளே பூமியின் உயர்ந்த நிலப்பரப்பாயின"(டாக்டர் புரட்சிதாசன் கொடுங்கடல் கொண்ட குமரிக் கண்டம், பக்கஎண். 14) என பூமியின் தோற்றம் குறித்துக் கூறுகின்றார். நிலம், நீர், தீ, காற்று, ஆகாயம் என்ற ஐம்பூதங்களால் ஆன இயற்கையே உலகமாகும் என்பதை,

98. பாரதியார் கவிதைகளில் இயற்கை

செ.பவித்ரா,
முதுநிலை முனைவர் பட்ட ஆய்வாளர்
தமிழ்த்துறை,
நல்லமுத்துக் கவுண்டர் மகாவிங்கம் கல்லூரி,
பொள்ளாச்சி, தமிழ்நாடு இந்தியா

முனைவர் ஆ. மகாலட்சுமி,
தமிழ்த்துறை உதவிப்பேராசிரியர்
நல்லமுத்துக் கவுண்டர் மகாவிங்கம் கல்லூரி,
பொள்ளாச்சி, தமிழ்நாடு இந்தியா

ஆய்வுச் சுருக்கம்

பாரதியார் தமது கவிதைகளில் வீரம் சுதந்திரம் பக்தி என அனைத்தைப் பற்றியும் கூறியிருக்கிறார், தமது கவிதை நூலில் சொல்லாதவை ஒன்றுமே இல்லை என்பது நாம் அறிந்தவையே. சங்ககால மக்கள் இயற்கையோடு ஒன்றி வாழ்ந்ததை நாம் சங்க இலக்கிய கவிதைகளின் வழி காணலாம். சங்ககாலம் முதல் இன்றுவரை இயற்கையை வழிபடும் முறை நம் மக்களிடையே காணப்படுவதை பல இடங்களில் நம்மால் பார்க்கமுடிகிறது. இன்றைய கால சூழல் சற்று மாறி வந்தாலும் மக்கள் இயற்கையான உணவை உட்கொண்டு வாழவே விரும்புகின்றனர்.; நகரத்தில் வசிக்கும் மக்கள் திருவிழாகாலங்களில் அவர்கள் தங்கள் சொந்த ஊர்களுக்கும்; கிராமங்களுக்கும் வந்து இயற்கையை ரசித்து தனது குடும்பங்களுடன் மகிழ்ச்சியாகப் பொழுதைக் கழித்துவிட்டுச் செல்கின்றனர்.; இன்றைய மக்கள் மாறுபட்டாலும் காலச் சூழ்நிலைகள் மாறுவதில்லை. இவ்வாறு மாறாத இயற்கையைப் பற்றிப் பாரதியார் தமதுகவிதை நூலில் வர்ணிப்பதையும் போற்றிப் புகழ்வதையும் பற்றிக் கட்டுரையின் வாயிலாகக் காண்போம்.

முன்னுரை

இயற்கை என்பது மரம், செடி, கொடி, மழை, இடி, மின்னல், புயல், சூரியன், சந்திரன் என அண்டத்தில் உள்ள பலவற்றையும் உள்ளடக்கிய ஒரு மாபெரும் சக்தியாகும். இந்த இயற்கையால் நாம் பல இன்பத்தையும்; மன அமைதியையும் அடையலாம்; அதேவேளையில் மனிதனால் உண்டாகும் தவறுகளால் இயற்கைச் சீற்றங்களை நம்மால் ஒன்றும் செய்ய இயழுவதில்லைமனிதர்களின் உடல் அமைப்பு இயற்கையால் படைக்கப்பட்டதாக இருப்பினும் மனிதர்கள் இயற்கையில் இருந்து மாறுபட்டே வாழ்கின்றனர். இயற்கை என்றாலே அழகின் உருவம் எனலாம். பச்சைப் பட்டாடை உடுத்திய பூமியையும், நீல மேகங்கள் சூழ்ந்த வானத்தையும் மனதில் எண்ணிப் பார்த்தாலே மனம் உற்சாகம் அடையும் இப்படிப்பட்டஉற்சாகத்தைத் தரக்கூடிய இயற்கையின் அழகைப் பாரதியார் கவிதைகளில் எவ்வாறு புகழ்ந்துள்ளார் என்பதைப் பற்றி இக்கட்டுரையின் வாயிலாகக் காண்போம்.

பாரதியார் கவிதைகளில் இயற்கை

பாரதியார் தமது கவிதைகளில் ஞாயிறு, மழை, காற்று, கடல், மின்னல் போன்ற அனைத்தையும் போற்றிப் படைத்திருப்பதே நாம் அவரது கவிதைகளின் வழி காணலாம்

ஞாயிறு

ஞாயிறு என்பது சூரியனைக் குறிக்கிறது. சூரியனைஒரு இயற்கைக் கடவுளாகவே நம் மக்கள் வணங்குகின்றனர்; முன்பு தோன்றி இன்று வரை பொங்கல் திருநாளில் நம் மக்கள் முதலில் சூரிய கடவுளையே வணங்குவதை நாம் இலக்கியங்களின் வழி அறியமுடிகிறது. அதே போல் இந்த ஞாயிற்றைப் பாரதியார் அவரதுவசனகவிதையில்.

"நீ ஒளி, நீகடர், நீ விளக்கம், நீகாட்சி

மின்னல் ரத்தினம் கனல் தீகொழுந்து இவை எல்லாம் நினதுநிகழ்ச்சி

கண் நினதுவீடு
புகழ் வீரம் இவைநினதுலீலை
அறிவுநின் குறிஅறிவின் குறிநீ
நீசுடுகின்றாய் வாழ்கநீகாட்டுகின்றாய் வாழ்க
உயிர் தருகின்றாய் உடல் தருகின்றாய்" (வசனகவிதை.புகழ் ஞாயிறு - (2)

தமிழ்மொழி மற்றும் இலக்கிய பன்னாட்டு ஆய்விதழ்
அறிஞர்களால் மதிப்பீடு செய்யப்படும் அரையாண்டு பன்னாட்டு ஆய்விதழ்

International Journal of Tamil Language and Literary Studies
A Bi-Yearly Peer-Reviewed International Journal

E-ISSN: 2581-7140 UGC CARE Listed Journal
Volume - 5, Special Issue - 2, June 2023 Available at: www.ijtlls.com

பாரதியார் பாடல்களில் பிள்ளைத்தமிழின் கூறுகள்

Elements of PillaittamiI in Bharatiyar Songs

திருமதி ந. தமிழரசி, தமிழ் முனைவர்பட்ட ஆய்வாளர், பதிவு எண்: 2021R1150,
நல்லமுத்துக் கவுண்டர் மகாலிங்கம் கல்லூரி, பொள்ளாச்சி,
பாரதியார் பல்கலைக்கழகத்துடன் இணைக்கப்பட்டுள்ளது, தமிழ்நாடு, இந்தியா.
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நல்லமுத்துக் கவுண்டர் மகாலிங்கம் கல்லூரி, பொள்ளாச்சி,
பாரதியார் பல்கலைக்கழகத்துடன் இணைக்கப்பட்டுள்ளது, தமிழ்நாடு, இந்தியா.
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DOI: 10.5281/zenodo.8081733

Abstract

Bharatiyar is an unparalleled poet of the twentieth century. He also occupies an important place in the advent of modern literature. It was through him that Tamil literature acquired new modes of feeling, sensibility and aesthetic sense. Knowing many languages, he has established the fact that Tamil is the sweetest among these languages through his works. He has created many new books like "Kannan Patu", "Quil Patu" and "Panjali Sapadham" which are mentioned as his three major works. These differ from Perungapiyam (Classical Epics) and are arranged in such a way that laymen can read and understand them. There are many literary elements in his songs. This paper compares and does an analysis of Bharti's songs with the traditional cantos of Pillaithamil. Being a bridge between the old and the new, he has taken many small literary genres such as Mala, Pallu, Dudu, Agaval, Venpa, Thirusa Sangam, Tirupalli Eruchi, Navaratna Mala, Duvajam, Uvadham, Tirupukazh, Nenjodu Kelthal, Anga Varunanai. These genres exemplify his eruditeness in Tamil tradition and literary creativity. He has spoken about the sweetness of Konchum Mazalai in many parts and has specially mentioned the activities of Kannan and Kannamma as his children. Children are the future leaders of the country. For a child to develop well, the family structure must be perfect. Every parent must monitor the activities and developmental stages of such a child right from its birth and nurture it into the best child it can be. The child should live healthily without any harm and should live in harmony with society. One of the short pieces of literature, Pillaythamizh, best describes the developmental stages of the child and will be a noble model for the present generation. This paper describes the development of a child from birth to the twelfth month and aims to highlight the merits of Bharatiyar's songs along with the ten cantos in Pillaithamil.

Keywords: Bharathiyar, Canto, Elements, Tamil Children Literature.

தமிழ்மொழி மற்றும் இலக்கிய பன்னாட்டு ஆய்விதழ்
அறிஞர்களால் மதிப்பீடு செய்யப்படும் அரையாண்டு பன்னாட்டு ஆய்விதழ்

International Journal of Tamil Language and Literary Studies
A Bi-Yearly Peer-Reviewed International Journal

E-ISSN: 2581-7140 UGC CARE Listed Journal
Volume - 5, Spl. Issue - 2, June 2023 Available at: www.ijtlls.com

பாரதியார் கவிதைகளில் பெண்ணியம்

Feminism in the Poems of Bharathiar

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DOI: 10.5281/zenodo.8081909

Abstract

Women are in an indispensable position in Tamil society. Woman occupies an indispensable place in this world. Without women, there would be nothing on earth. Our people worship the earth as their mother. Through Shakti worships, one can know that our society has given importance to women since many centuries ago. Indeed, many of the tamil literary texts have given importance to women. Evidence can be found in literature like "Silapathikaram" and "Manimekalai". One can learn about the status of early women and their bravery through Sangam literature. Tamil people worship women as Gods. The condition of enslaving women who are seen as Gods has changed a lot in modern times. The condition that women should get proper education has gained a lot of acceptance among our people today. Little by little they are recovering from the effects of treating women like slaves and from dowry abuse. However, in few places, this situation is still observed today. Many radical men and women have fought for the development of women and have seen success. In this article, the researcher will see the progress of women from the poems of Bharathiar who plays an important role in the development of women.

Keywords: Feminism, Poems, Bharathiar, Tamil Literature.

.ஆய்வுச்சுருக்கம்

பெண் என்பவள் தமிழ் சமூகத்தில் இன்றியமையாத ஒரு நிலையில் இருக்கிறாள். பெண் என்பவள் இவ்வுலகில் இன்றியமையாத ஒரு இடத்தைப் பெறுகிறாள். பெண்கள் இல்லை எனில் இப்புவியில் ஒன்றுமே இருக்காது. புவியையே நம் மக்கள் தாயாக எண்ணி வழிபடுகின்றனர். நம் சமூகம் பல நூற்றாண்டுகளுக்கு முன்பிருந்தே பெண்களுக்கு முக்கியத்துவம் அளித்தனர் என்பதை சக்தி வழிபாடுகள் போன்ற இவற்றின் மூலம் அறியலாம். அத்துடன் நமது இலக்கிய நூல்கள் பலவும் பெண்களுக்கு முக்கியத்துவம் அளித்துள்ளனர்.

தமிழ் மொழி மற்றும் இலக்கிய பன்னாட்டு ஆய்விதழ்
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International Journal of Tamil Language and Literary Studies
A Bi-Yearly Peer-Reviewed International Journal

E-ISSN: 2581-7140
Volume - 6, Issue - 1, July 2023
UGC CARE Listed Journal
Available at: www.ijtlls.com

பெருங்கருணையம்மை பிள்ளைத்தமிழ் கூறும் அவிநாசித் திருத்தலத்தின் சிறப்புக்களும் வழிபாட்டு முறைகளும்

Special Features and Worship Traditions of Avinasi Temple as Evinced in *Perunkarunaiammai Pillaithamil*

திருமதி ந. தமிழரசி, தமிழ் முனைவர்பட்ட ஆய்வாளர், பதிவு எண்: 2021R1150,
நல்லமுத்துக் கவுண்டர் மகாலிங்கம் கல்லூரி, பொள்ளாச்சி,
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DOI: 10.5281/zenodo.8199301

Abstract

Worship was essential for man to know himself and to live in harmony with society when he sought to live a morally depraved life. When the virtues and social morals in human life are well respected and followed, people's lives become pure and happy. Religions were formed to teach people virtue and morality when they lost their morals. Later on, they brought in idolatry as well. Then temples started to be formed. These later became community centres. They also served as food halls for the poor and the disabled. But it must be said that the ancient cults were completely different from this. They were very afraid of natural disasters such as hurricanes, storms, volcanic eruptions, and ocean waves. They fully believed that there was a power in the universe beyond themselves. Because of that, they worshipped nature itself as God. Because of that worship, nature also protected itself. As human civilization grew, the temples also became more and more. The nature of each clan as one God changed and they built and worshipped their temples according to their religion and clan. The state of worshipping the Lord by dividing the God based on caste and building their temples has developed. Religious sages lived without selfishness and devoted their lives to the people and their needs. When any evil befell the people or the kings, they protected them from evil. In this way, Avinashi is a special place that was praised by religious gurus like Arunagirinathar, Appar, Sundarar, and Manikkavasakar. The thalapurana mentions that Avinasiyappar is the one who existed from the root of Vishwanatha in Kashi. Thus, this article is based on the merits of the divine Avinasi temple and the methods of worship.

Keywords: Special Features, Worship Traditions, Avinasi Temple, *Pillaithamil.*

E-ISSN: 2581-7140 UGC CARE Listed Journal
Volume - 6, Issue - 1, July 2023 Available at: www.ijtlls.com

ஆய்வுச்சுருக்கம்

மனிதன் அறநிலை தவறி வாழ முற்படும்போது தன்னைத் தானே அறிந்து கொள்ளவும், சமூகத்தோடு ஒத்து வாழவும் வழிபாடானது இன்றியமையாததாக இருந்தது.மனித வாழ்வில் அறங்களும், சமுதாய ஒழுக்கங்களும் சிறப்பாகப் போற்றப்பட்டு கடைப்பிடிக்கப்பட்ட போது மக்களின் வாழ்வும் தூய்மையானதாகவும் மகிழ்ச்சியானதாகவும் அமைந்தது. மக்கள் அறவழி தவறிய போது அவர்களுக்கு அறத்தையும் ஒழுக்கத்தையும் போதிக்க சமயங்கள் உருவாகின. பின்னர் சமயங்களில் உருவ வழிபாட்டினையும் கொண்டு வந்தனர். தங்களது சமயக் கடவுளுக்கென ஒரு உருவத்தை வைத்துப் போற்றி வழிபட்டு வந்தனர். வறியோருக்கும் இயலாதோருக்கும் உணவு அளிக்கும் கூடங்களாகவும் திகழ்ந்து வந்தன. ஆனால் பண்டைய வழிபாட்டு முறைகளானது இதிலிருந்து முற்றிலும் வேறுபட்டது என்றே கூற வேண்டும் சூறாவளி, புயல், எரிமலைசீற்றம், கடல்கோள் போன்ற இயற்கை சீற்றங்களை கண்டு மிகவும் அஞ்சினர். தனக்கும் மீறிய ஒரு சக்தி பிரபஞ்சத்தில் உண்டு என்பதை முழுமையாக நம்பி இயற்கையையே கடவுளாக வழிபட்டு வந்தனர். அந்த வழிபாட்டின் காரணமாக இயற்கையும் தன்னை பாதுகாத்துக் கொண்டது. மனித நாகரீகம் வளர வளர ஆலயங்களும் பல்கிப் பெருகின. ஒன்றே குலம் ஒருவனே தேவன் என்ற தன்மை மாறி அவரவர் சமயத்திற்கேற்பவும் குலத்திற்கேற்பவும் ஆலயங்களை தாங்களே கட்டி வழிபட்டு வருகின்றனர். சாதி அடிப்படையில் பிரித்துத் தங்களுக்கென ஆலயங்களை அமைத்து இறைவனை வணங்கி வரும் நிலை உருவாகிவிட்டது. ஆனால் சமயச் சான்றோர்கள் தனக்கென சுயநலம் இன்றி மக்களுக்காகவும் அவர்களின் தேவைகளுக்காகவும் தங்கள் வாழ்வை அர்ப்பணித்துக் கொண்டு வாழ்ந்தனர். மக்களுக்கோ அல்லது மன்னர்களுக்கோ ஏதேனும் தீமை நேரும்போது அத்தீமையிலிருந்து அவர்களைக் காத்து வந்தனர்.அவ்வகையில் அருணகிரிநாதர், அப்பர், சுந்தரர், மாணிக்கவாசகர் போன்ற சமயக் குரவர்கள் போற்றிய சிறப்பு வாய்ந்த தலமாக அவிநாசி விளங்குகின்றது. இத்தலத்தில் உள்ள இறைவன் சுயம்புவாகவே காட்சி தருகின்றார்.காசியில் உள்ள விஸ்வநாதரின் வேரில் கிளைத்தவரே அவிநாசியப்பர் என்று தலபுராணம் குறிப்பிடுகிறது. அவ்வகையில் அவிநாசித் திருத்தலத்தின் சிறப்புகள் பற்றியும், வழிபாட்டு முறைகள் பற்றியும் கூறும் பொருண்மையில் இக்கட்டுரையானது அமைந்துள்ளது.

திறவுச்சொற்கள்: *பிள்ளைத்தமிழ்*, அவிநாசித் திருத்தலம், சிறப்பு, வழிபாட்டு முறைகள்.

முன்னுரை

மனித வாழ்வில் கடவுள் வழிபாடானது தவிர்க்க இயலாத ஒரு கூறாக அமைந்துள்ளது. மனிதன் தனது குறிக்கோளை அடையவும், துன்பம் நேரும்போது நேர்மறை ஆற்றலைப்

KALANJIYAM
An International Journal of Tamil Stidies

Vol: 02 Issue:02 Aug.2023

களஞ்சியம்

சர்வதேச தமிழ் ஆய்விதழ்

eISSN: 2456-5148
https://ngmtamil.in/

மகாகவி பாரதியின் பெண்விடுதலை

முனைவர்ப.மகேஸ்வரி
உதவிப் பேராசிரியர்
தமிழ்த்துறை
(அரசுஉதவி)
என்.ஜி.எம் கல்லூரி,
பொள்ளாச்சி.

முன்னுரை

அன்போடும் பணிவோடும் பகுக்கப்பட்ட பட்டறிவோடும் திகழும் பெண்ணியம் போற்றும் பாரதமும் இமயம் வரை புகழ்தொட்ட பாரதமும் இதமாகும். இத்தகைய பண்பினையும் அன்பினையும் பகுத்தறிவையும் வளரச்செய்து ‘‘பாட்டுத் திறத்தாலே இவ்வுலகத்தைப் பாவித்திட வேண்டும்’’ என்று உறுதியுடன் பாடிய பாரதி நெருப்பெனச்சுட்டு, தென்றல்என வருடி, நாமெனக்காத்து, தரணியெனத்தாங்கும் இனிய வரிகள் கொண்ட மகாகவி என்றும் தேசியக்கவி என்றும் புகழ்பெற்ற சுப்பிரமணிய பாரதியின் சுடர்மிகு வரிகள் பற்றி இக்கட்டுரையில் காண்போம்.

பெண்களின் நிலை

ஆணும் பெண்ணும் சமூகத்தின் இரு பக்கங்களாக இருந்தபோதும் ஆரம்பம் முதலே பெண்களின் நிலை ஆண்களின் நிலைக்குக் கீழாகவே இருந்தன. சங்க காலத்திற்குப்பின் சமூகசீர்திருத்தத்தின் விளைவாக விவேகானந்தர், ராஜாராம் மோகன்ராய், தயானந்த சரஸ்வதி, ராமகிஷ்ணர், இராமலிங்க அடிகள் போன்றோர் பெண்கள் விடுதலைக்கு முற்பட்டனர். இவர்களைத்தொடர்ந்து, பாரதி வாழ்ந்த காலத்தில்தான் பெண்விடுதலைக் கருத்துக்கள் உலகமெங்கும் துளிர்க்கத் தொடங்கின. பாரதி தன் எழுத்துக்கள்மூலம் மக்களிடையே தேசிய, சமூக சீர்திருத்த இயக்கத்தையும் பெண் முன்னேற்றத்தையும் தன் கொள்கையாக வலியுறுத்தியது. பாரதியின் பெண்விடுதலை பற்றிய சிந்தனையை நோக்கத்தக்கது.

KALANJIYAM
An International Journal of Tamil Stidies

Vol: 02 Issue:02 Aug.2023

களஞ்சியம்

சர்வதேச தமிழ் ஆய்விதழ்

eISSN: 2456-5148
https://ngmtamil.in/

/ 8Sr 2456 - 5148

பழமொழி நானூற்றில் அறம்

ப.மகேஸ்வரி
உதவிப் பேராசிரியர்
தமிழ்த்துறை
(அரசுஉதவி)
என்.ஜி.எம் கல்லூரி,
பொள்ளாச்சி.

முன்னுரை

மனித வாழ்க்கையை நல்லமுறையில் வாழ அறக்கருத்துக்கள் மிகவும் தேவை. இந்த அறக்கருத்துக்கள் வயல் வரப்புபோல தீங்கிலிருந்து தடுத்து வாழ்க்கையை வளமாக்க முக்கியப் பங்கு வகிக்கின்றன. அறக்கருத்துக்கள் மனிதனின் வாழ்வைச் செப்பனிடும் ஒரு கருவியாக விளங்குகின்றன. ஒரு சமூகம் செம்மையானதாக விளங்க அறக்கருத்துக்கள் உள்ளும், புறமும் நின்று சீராக்கி சமூகத்தைச் சிறக்கச் செய்கின்றன. 'செத்தஎலி இறப்பிலே இருந்தாலும், கீழே இடுக்கிலே இருந்தாலும் வீடே நாறும்'. இதுபோல ஒழுக்கம் கெட்டவர்கள் உயர்மட்டத்தில் இருந்தாலும் அடிமட்டத்தில் இருந்தாலும் சமுதாயத்திற்குரிய மரியாதை கிடைக்காது. தமக்குத்தாமே ஏற்படுத்திற்கொண்ட ஒழுக்கக் கட்டுப்பாடுடன் வாழாத மனித சமுதாயம் என்றும் உயர்வு பெறாது. மனித வாழ்க்கை சிறக்க அறக்கருத்துக்கள் தேவை.

அவ்வகையில் தமிழினத்தின் செம்மையான நல்வாழ்விற்கு உதவும் அறிவொளி விளக்கங்களாகப் பழமொழிகள் விளங்குகின்றன. சுருங்கக் கூறின் விளக்க வைக்கும் தெளிவுரைகளாகவும் அவை விளங்குகின்றன. பழமொழிக்கு முதுமொழி என்ற பெயரும் உண்டு. முதுமொழியின் இலக்கணத்தைத் தொல்காப்பியனார் அக்காலத்திலேயே வரையறுத்துக் கூறியுள்ளார். ஒவ்வொரு பழமொழியையும் கூறி அதற்கு ஒரு நீதியை விளக்கும் செய்யுளாக மொத்தம் நானூறு செய்யுள்களால் அமைந்துள்ளது பழமொழி நானூறு. இப்படியாக ஒரு நூலை உருவாக்கி மக்களின் வாழ்வியல் மதிப்புகளைச் சீர்படுத்தவும்,

SOUTH INDIA JOURNAL OF SOCIAL SCIENCES
ISSN: 0972 – 8945

DETERMINANTS OF CUSTOMERS LEVEL OF AWARENESS ABOUT ONLINE FOOD ORDERING AND DELIVERY SERVICES – WITH SPECIAL REFERENCE TO COIMBATORE DISTRICT, TAMILNADU.

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Abstract
This paper aims to identify the customer's level of awareness about online food ordering & delivery services in Coimbatore district. The study is based on the primary data which are collected for the period of one month from 1st June 2023 to 30th June 2023 through questionnaire method. The collected data have been used for analysis with the help of statistical tools namely, percentage analysis and ANOVA. The primary data for the study have been collected from a sample of 75 customers based on convenient sampling method. Finally, the study concludes that the variable gender has a significant relationship with the awareness index.

Keywords:
Online food delivery, Awareness level, social media advertisement

Introduction

Now a days, dining habits of food among customers have changed tremendously. Because of fast growth in technology development and high usage of smartphone. Online food delivery platforms recast the way people access enjoy food, better convenience, broad range of outlet options, effective doorstep delivery. The concept of food delivery in India has a durable history, with traditional home-made meals and local restaurants gives limited distribution services. Yet, the incoming of the internet and the uptrend of mobile apps has revised this skull practice, introducing an excellent and adequate system that caters to the fast-paced lifestyles of dwellers.

The first Online Food delivery app Foodie Bay established in July 2008 by Deepinder Goyal and Pankaj Chaddah. The website started as a restaurant-listing-and-recommendation portal. They renamed the company's name Zomato in 2010. After, this they expanded their services within and outside India. In August 2014 Swiggy online food ordering and delivery service company launched by Sriharsha Majety, Nandhan Reddy, and Rahul Jaimini headquarters located in Bangalore, India. ZOMATO and SWIGGY play major role in Online Food Delivery industry in India. Many Online Food Delivery Apps are still running in big cities like Chennai, Mumbai, Delhi, Kolkata, Pune, Ahmadabad etc., in the name of Food Panda, Uber Eats, Domino's, Faasos, Deliveroo, Grubhub, Dunzo, etc., Not only big cities have these types of services regional based food delivery services running in small towns.

In this paper an attempt has been made to study about the customers level of awareness about Online Food ordering & Delivery Services in Coimbatore district.

REVIEW OF LITERATURE

Munavver Azeem Mullapally Kayam Kulath (2019)[1], has conducted a study entitled ***"CUSTOMER PERCEPTION TOWARDS ONLINE FOOD DELIVERY SERVICES WITH SPECIAL REFERENCE TO CALICUT DISTRICT"*** with the objective to understand the customers' awareness about online food delivery services. Data have been collected from 100 respondents through questionnaire. Convenience sampling technique is used in this study. The author finds that respondents are highly aware of the benefits of online food delivery services and offers and discounts available in

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Determinants of MSMES entrepreneurs sustainability

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Abstract. Micro, Small, and Medium Enterprises (MSMEs) play a vital role in the global economy, contributing to job creation, innovation, and economic growth. However, the sustainability of MSMEs remains a significant concern, as many of them struggle to survive beyond the initial stages of their operation. This review aims to identify and analyze the determinants that influence the sustainability of MSMEs, with a specific focus on the entrepreneurial perspective. The result of the study disclose that innovation and risk taking, tolerance self-efficacy, financial control, managerial self-efficacy, opportunity identification self-efficacy, functional skills, relationship self-efficacy and technical skills are the factors that assists MSME entrepreneurs sustainability.

1 Introduction

Micro Small Medium Enterprises (MSMEs) entrepreneurs actively seek out to grasp business opportunities, effective utilization of capital and labour, manufacturer distinctive goods and services and build markets for economic growth. They also help to raise a country's per capital income and gross domestic product. MSMEs play a crucial role on improving the standard of living of the population by using the most cutting-edge innovations in the manufacture and offering goods and services at a lower cost. MSMEs are also in favour of exports, which are essential for a country's economic development. In order to export and to eliminate import of goods to a maximum extent, they produce goods and services in enormous quantities. Operations in the commercial and industrial sectors are logical outcomes of economic strength. Monopolies are more likely to form as a result of industrial progress, which frequently results in the concentration of economic power in the hands of a small number of individuals. The establishment of several businesses will aid in the distribution of the population's economic power and help to solve this issue. The aforementioned fact illustrates how entrepreneurs contribute positively to the development

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DEMOGRAPHIC FACTORS AND THEIR IMPACT ON STOCK MARKET PREDICTIONS: A STUDY ON RETAIL INDIVIDUAL EQUITY INVESTORS

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ABSTRACT

This article explores the art of investment, focusing on the stock market as a volatile but potentially rewarding avenue. It emphasises the importance of diversification and risk analysis in pursuing financial growth. The study investigates the demographics of 117 investors and their influence on stock market predictions. Statistical tools such as simple percentages,

t-tests, and ANOVA were employed to analyse the data. The results indicate that gender, occupation, residential area, and annual income do not significantly impact investors' predictions or future investment plans. Interestingly, age was found to be the sole determinant influencing future investment plans, although it did not affect stock market predictions. This research provides valuable insights into the dynamics of investment behaviour and the role of demographics in financial decision-making.

***Keywords*:** Stock market, demographics, prediction, plan.

1.1 Introduction

Investment involves allocating surplus funds into assets that yield income over time. Various forms of financial investments exist, including fixed deposits, post office deposits, precious metals like gold and silver, real estate, insurance, equities, and mutual funds.

These investments can be broadly categorised into low-risk or no-risk investments and high-risk investments. Individuals who prefer less risk tend to opt for fixed deposits, post office savings, insurance, and similar options. Conversely, those willing to take on more risk may choose more volatile assets like equities. The selection of investment avenues depends mainly on the expected rate of return and the investor's risk tolerance. It is understood that higher risks are associated with higher potential rewards. The stock market is one such high-risk, high-reward investment avenue.

Since its establishment, the SENSEX indicated the stock market has grown 560 times. The primary goal for most people who invest their money is wealth accumulation. However, investment decisions are influenced by a multitude of factors. Investors must ensure that their investment choices align with their age, income, and other demographic factors. Therefore, demographic variables significantly influence investment decisions, particularly among Indian investors. Geetha and Ramesh (2012), in the study "A study on the relevance of demographic factors on investment decision", determine whether these demographic variables influence investors' market predictions and future investment plans.

1.2 Review of Literature

Rawal and Chowdhury (2018) conducted a study to understand the association between psych demographics and the trading patterns of retail investors. The data of 300 respondents were analysed using the chi-square technique. The study found an association between demographic profiles, such as age, gender, and annual income, and the trading behaviour of retail investors.

Patel & Modi (2017) undertook a study to identify the factors influencing investment decisions, to examine the association between various demographics and investment objectives, and to determine the most preferred investment avenue among the investor community. Data were collected from 100 respondents. Independent sample t-tests and ANOVA were used to analyse the data. The findings revealed that demographic variables like age, gender, and income significantly impact investors' decision-making.

International Journal of Scientific Research and Modern Education (IJSRME)
Impact Factor: 7.137, ISSN (Online): 2455 – 5630
(www.rdmodernresearch.com) Volume 8, Issue 1, 2023

CUSTOMER DELIGHT IN BANKING

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Cite This Article: Dr. P. V. Nandhini, "Customer Delight in Banking", International Journal of Scientific Research and Modern Education, Volume 8, Issue 1, Page Number 72-74, 2023.

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Abstract:

The Banking Sector is the lifeline of any modern economy. It is one of the important financial pillars of the financial sector, which plays a vital role in the functioning of an Economy. It is very important for economic development of a country that is financing requirements of trade; industry and agriculture are met with higher degree of commitment and responsibility. Thus the development of a country is integrally linked with the development of banking. They play an important role in the mobilization of deposits and disbursement of credit to various sector of the economy. The banking system reflects the economic health of the country. The strength of an economy depends on the strength and efficiency of the financial system, which in turn depends on a sound and solvent banking system. A sound banking system efficiently mobilized savings in productive sector and a solvent banking system ensures that the bank is capable of meeting its obligation to the depositors.

Key Words: Bank, Deposit, Economic Development, Deposit

Introduction:

Delight associated with customer, which we call as "Customer Delight" can be defined as pleasing the customer to the extent of surprising him with the product or service. Customer satisfaction, like explained above has got left behind in the present times on front of the endeavour to create a "delighted "customer. The key here for the businesses is to strive towards offering the right experience to the customer at the right time for the right return, as well. Customer Delight creates a very sound foundation for Customer Relationship Management (CRM) and a far better measure for it CRM we know is not a choice, but a prerequisite for survival of companies in the present times. Customer Delight would not just help in the retention of the customer but trigger a chain of positive reactions and bring down the cost of the company is luring new customers and brand promotion expense. This is so, because a delighted customer would be happy to bring in new and more customers without any extra effort. Bank plays an important role in the economy of any country. A sound and healthy banking system is a must for sustainable economic acceleration. Banks occupy a firm strategic position in the monetary and fiscal system of a country. The foundation of the banking sector is its customers. Customer delight refers to foreseeing customer needs, providing solution ahead of time and presenting the unexpected customer are satisfied when they are provided with products and service that are according to their expectations.

Review of Literature:

Dr. Gayatri Chopra all conducted a study of customer delight with special reference to HDFC bank in delhi and ncr region. The objective of the study was determine the factors that motive customer to remain with the bank or made them delighted, the association of demographic variables on factors affecting customer delight; analyze the relationship of tangibles, reliability, responsiveness, assurance on customer delight in HDFC bank. The primary data was collected by issue of questionnaire from a sample of 100 respondents through convenience sampling technique. The collected data were analysed by descriptive statistics, correlation, and regression. The result of the study was customer delight involves going beyond satisfaction to delivering what can be best described as a pleasurable experience for the client. The customers are delight by the tangibles and assurance provided by the bank.

Anjna Rani all conducted a study on customer delight among the public and private sector banks of India. The objective of the study was to compare the delightness of customer among the selected public and private banks. The primary and secondary data is used for the study. The primary data was collected by issue of questionnaire from the sample of 200 respondents through convenience sampling technique. The collected data were analysed by descriptive method. The result of the study was the service of private bank is better than public bank. The customers of private bank are delight rather than public sector bank. The public sector banks should associate more with the technology and good infrastructure facilities to private timely and efficient services to the customers.

Amruth Raj Nippatlapalli all conducted study of customer satisfaction of commercial banks. The objective of the study was satisfaction of customer toward the SBI, Identify the factor that influences the customer behaviour of SBI, and Give the appropriate suggestions for the improvement of SBI. The primary was collected by issue of questionnaire etc, from a sample of 120 respondents through random sampling techniques. The collected data were analysed by percentage method. The result of the study was shed on some negative factors also like creating an awareness on online transactions, interest rates on loans, A.T.M facilities etc..

Indo American Journal of Multidisciplinary Research and Review (IAJMRR)
ISSN: 2581 - 6292 / Impact Factor: 6.885 / Website: www.iajmrr.com

PREFERENCE OF CUSTOMERS TOWARDS VARIOUS BRANDS OF TELEVISION

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Cite This Article: Dr. P. V. Nandhini, "Preference of Customers Towards Various Brands of Television", Indo American Journal of Multidisciplinary Research and Review, Volume 7, Issue 2, July - December, Page Number 48-52, 2023.

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Abstract:

People nowadays depend more on television to spend their leisure time to watch different shows, news, or movies, matches likewise. The people feel tiresome to get ready, put mobile in silent, even to applaud as an encouragement for the participants in the program in a public show, dramas, and theatres and prefer mostly to be in home stiff and stun to sit in before television and watch whatever is telecasted. This lead to availability of different brands of television in the market. Here, in the present day we have undertaken to know the preference and satisfaction of customers towards different brands available in the market. The invention of the television was the work of many individuals in the late 19th century and early 20th century. Individuals and corporations competed in various parts of the world to deliver a device that superseded previous technology.

Key Words: Television, Customers, Brand Preference, Satisfaction

Introduction:

Television came to India on September 15, 1959 with experimental transmission from Delhi. It was a modest beginning with a make shift Studio, a low power transmitter and only 21 community television sets. All India Radio provided the engineering and programme professionals. A daily one-hour service with a news bulletin was started in 1965. In 1972 television services were extended to a second city-Mumbai. By 1975 television stations came up in Calcutta, Chennai, Srinagar, Amritsar and Lucknow. In 1975-76 the Satellite Instructional Television Experiment brought television programmes for people in 2400 villages in the most inaccessible of the least developed areas through a satellite lent to India for one year.

Doordharsan is a public broad cast terrestrial television channel run by prasar bharati, a board formed by the government of India. Television programs were first transmitted in black-and-white. Scottish inventor John Logie Baird demonstrated the world's first colour television transmission on July 3, 1928 using a mechanical process. In present day, the market situation and its outcome are becoming increasingly uncertain. In the light of this scenario, the organizations are becoming more and more desperate to hold the customers, to retain the market share and to survive. The scenario in the home appliances industry is equally challenging. The leading companies like Samsung, Videocon, Sony, LG and others by introducing brands at various price points have effectively segmented the market which has resulted in faster market expansion and penetration. Product differentiation and innovative marketing efforts have resulted in attracting more and more customers to their brands.

Review of Literature:

- Nidhi Rani, Vikas Sharan (2016) is their study entitled "Impact on Television Commercial on Purchasing Behavior of Masses." Both the primary and secondary data was collected from the study. The sampling data was collected from 250 respondents by using structured method. The tools that have used in the study is simple percentage method. The finding of the study is reversed that adults have strong belief that Television commercial has considerably influenced their buying behavior.
- P. Jayasubramanian, P. Kanagaraj, K. Mahendran (2015) in their study entitled "A Study of Consumer Satisfaction towards LED Technology With Reference To LED TV Coimbatore of Tamilnadu". The secondary data was collected from related websites and books. The survey was conducted from 50 respondents by using questionnaire method. The selection of sample is convenient sampling method. The finding from then study reveals that LED Technology has made a great change in the world of Television.
- A. Dharmaraj (2014) in his study entitled "A Study on Customer Satisfaction Selective LG Product with Special Reference to Gobichettipalayam". Both the primary and secondary data was collected from the study. The sampling data was collected from 100 respondents by using questionnaire method. The analytical tools applied for this study is simple percentage analysis and chi-square test. The finding from the study is that customer satisfaction on LG product is based on sales promotion and advertisement.
- H. S. Adithya (2013) in his study entitled "Customer Satisfaction towards and Preference of Color TV Brands with Special Reference to Bangalore City". Primary data was collected personally and individually. The data was collected from 100 respondents by using questionnaire method. The

International Journal of Interdisciplinary Research in Arts and Humanities (IJIRAH)
Impact Factor: 5.225, ISSN (Online): 2456 - 3145
(www.dvpublication.com) Volume 8, Issue 2, 2023

EMOTIONAL WELL-BEING OF NON RESIDENT INDIANS: ROLE OF SELF- ESTEEM AND LIFE SATISFACTION

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Cite This Article: P. Karthika & Dr. P. Bruntha, "Emotional Well-Being of Non Resident Indians: Role of Self- Esteem and Life Satisfaction", International Journal of Interdisciplinary Research in Arts and Humanities, Volume 8, Issue 2, July - December, Page Number 14-18, 2023.

Abstract:

A person with good emotional well- being is more likely to have a positive self-esteem and greater sense of life satisfaction .This ability leads to practicing self-awareness, adopting positive coping strategies, nurturing healthy relationship with society, setting goals and engaging in activities that ring more joy and fulfilment in life. This study has demonstrated the emotion well-being of Non-Resident Indians. The objective was to assess the factors influencing to be an NRI status and challenges faced by them and also the relationship between self-esteem and life satisfaction of NRIs. A sample of 105 Non-Resident Indians were included for this study to collecting quantitative data. The collecting data was analysed by weighted average rank analysis, Friedman rank test and chi-square test. The finding reveals that, the main reason for going abroad was for enlarging knowledge and updating skills and the racism will be most challenging element for their survival. The NRI have average level Self-Esteem and Level satisfaction. It was also found that, NRI self-Esteem has a positive impact on Life satisfaction.

Key Words: Emotional Well-Being, Fulfilment in Life, Self-Esteem, Life Satisfaction.

Introduction:

Emotional well-being refers to the overall emotional state of a person's health and happiness. It encompasses the ability to effectively manage and navigate one's emotions, cope with stress and challenges, and experience a sense of contentment, fulfillment, and positive mental state. Emotional well-being encompasses various dimensions of an individual's emotional life and is closely linked to psychological and mental health. The emotional well-being of Non-Resident Indians (NRIs) is a complex and multifaceted aspect of their lives, shaped by a delicate interplay of cultural identity, social dynamics, and the challenges inherent to living in a foreign land. As individuals who have ventured beyond their home country in pursuit of various opportunities, NRIs face a unique set of emotional experiences that deserve exploration and understanding. The emotional well-being of Non-Resident Indians (NRIs) can be influenced by a variety of factors, including their cultural background, social support networks, and the challenges they face while living abroad. Leaving behind familiar surroundings, family ties, and cultural norms, NRIs embark on a journey that often entails not only geographical distance but also emotional and psychological shifts. This process of adaptation and adjustment can evoke a range of emotions, from excitement and anticipation to nostalgia, homesickness, and even feelings of isolation. The delicate balance between maintaining connections to one's roots while assimilating into a new culture adds another layer to the emotional landscape.

On the other hand, the NRI experience also offers opportunities for personal growth, self-discovery, and the forging of new relationships across cultural boundaries. The ability to adapt to diverse environments, embrace novel perspectives, and build a global network can contribute positively to one's emotional well-being. Understanding and addressing the emotional well-being of NRIs requires a nuanced approach. It involves acknowledging the complex interplay of emotions, fostering a sense of belonging in both the host and home countries, and providing avenues for social support and mental health resources. By recognizing the unique challenges and strengths of the NRI experience, we can work towards nurturing emotional well-being and enabling NRIs to thrive as they navigate the intricate tapestry of their lives between cultures.

Review of Literature:

Muzamil Jan and Tasia Masood (2008) made a study on life satisfaction of women. The main purpose of the research was to evaluate life satisfaction among women and to analyze the influence of socio-personal characteristics of women with their life satisfaction. 120 samples were collected from women in jammu and Kashmir using questionnaire method. The data was analyzed by using percentage analysis, chi-square test, ANOVA, Karl Pearson's co-relation. The study reveals that, women have average level of life satisfaction irrespective of the age whereas the personal and family income increases the level of life satisfaction can also be increased.

Sampeet Mahanty et al.(2015) has investigated the relationship between self-esteem with life satisfaction of university students from Utkal university and Ravenshaw university. A total of 120 samples has been collected 60 males and 60 females. Coopersmith's self-esteem inventory and Diner's satisfaction with

EMOTIONAL INTELLIGENCE OF WOMEN POLICE PERSONNEL'S IN KERALA

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AbstractThe concept that Women police personnel's are tough, and that trauma and violence have minimal impact on their emotional health is a myth. Showing emotions is no longer measured a weakness, and as a result, law enforcement departments are engaging great value on Personnel's who exhibit emotional intelligence. So this study aim to know the Socio-economic profile of the Women Police personnel's and to find the level of Emotional Intelligence of Women Police personnel's. This study is based on primary data which was collected with the help of well structured questionnaire. The questions relating to the personal profile and level of emotional intelligence among Police personnel's are framed and the secondary was used through various magazines and journals. To indicate the Emotional Intelligence scale here Daniel Goleman's Emotional Intelligence scale was used to measure emotional intelligence among Women Police Personnel's in Kerala. The study focuses on the Women Police Personnel's in Palakkad, Kerala. A sample of 70 Women Police Personnel's are been selected by adopting Snowball sampling technique. The statistical tools like Simple percentage and Chi-Square is used to analyse the gathered data. Daniel Goleman's Emotional Intelligence includes Self – awareness, Self- regulation, Motivation, Empathy and Social skills which were taken into an index .Out of 26 variables selected, only 10 variables are found to be associated namely Age, Job nature of spouse, No. of children in the family , Gross monthly income, Gross family income, Work experience and Expectation of honesty in police. So it is clear that emotions play an important role in fulfillment of individual's personal and professional lives.

Key Words: Emotional Intelligence, Women Police

1.Introduction

Policing is the science of upholding peace and order in an ever-changing society. Being a Women police officer, it is a challenging task on the front line, dealing with violent situations, dangerous criminal activities and life or death scenarios. Most of their work comprises of dealing with strong emotions and stressful situations. Women's contribution to wars are pivotal. They played a vital role in the world wars during the Independence of India. In fact, recently in India women were at the lead of the huge honest protests for various issues. But society's expectation from females to fulfill their "Feminine" responsibilities never got stopped. Females are expected to balance all their roles and execute them to perfection, that is along with working in a male-dominated area, they cannot be led astray from their traditional feminine duties, such as cooking, taking care of the children, and striking a balance between all family members. Research shows that suppressing human emotions can lead to serious consequences, especially among law enforcement officers who deal with emotionally charged conditions on a daily basis. The understanding of the concept of Emotional Intelligence , here become very important , since Emotional Intelligence is highly significant in the success growth and development of an individual .

Emotional Intelligence

Emotional intelligence helps the police personnel's effectively and efficiently to meet the demands they face on the streets. It also helps them balance their personal and work lives without one slopping into the other. Police officers meet so many people day in and day out that they forget that these are humans with real disputes. Emotional Intelligence is the ability to acknowledge ones and other's emotions, then leverage emotional information to adapt thinking and behavior to the environment and to achieve one's goal. Daniel Goleman , a science journalist, popularized it in 1995, with his book

International Journal of Multidisciplinary Research and Modern Education (IJMRME)
Impact Factor: 7.315, ISSN (Online): 2454 - 6119
(www.rdmodernresearch.org) Volume 9, Issue 2, 2023

ECONOMIC WELL-BEING OF NON RESIDENT INDIANS

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Cite This Article: P. Karthika & Dr. P. Bruntha, "Economic Well-Being of Non Resident Indians", International Journal of Multidisciplinary Research and Modern Education, Volume 9, Issue 2, July - December, Page Number 45-49, 2023.

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Abstract:

There are huge number of people residing out of India for earning more and lead a well-sophisticated life for their family, such people are called NRIs. In terms of finance the Non-Resident contribution was enormous in number and also they are being the main source of increasing Foreign Exchange reserve in India. But on the other hand, their life style was different and also met with many challenges to live in. In this study, has analyzed the NRIs' Economic well-being. The main purpose was to assess employment details, financial stability, earning capacity and spending behaviour of NRIs. A total of 105 samples have been collected from NRIs residing various countries through snowball random sampling method. The collected samples were analyzed by using simple percentage and chi-square. The results showed that, majority of NRIs are permanent Employees working in IT field of eight hours of work. They are recruited by means of interview method. They have permanent visa and have more than five years of experience in current position and organization. They are most satisfied with their salary and they visit home country whenever need arise. Their spending behaviour has significantly associated with Income and Cost of living in host country.

Key Words: Contribution, Perception, Economic Well-Being, Spending Behavior

Introduction:

There are 272 Million International migrants in the world and Indians make up 6.4% of the world's total immigrant or expat population, as per the United Nations Data. According to the Income Tax Act of 1961, an Indian citizen settled in a foreign country for employment who is not physically present in the country for more than 240 days in a financial year is regarded as a Non-Resident Indian (NRI).

NRI (Non-Resident Indians) contributes to the Indian economy significantly large in number. It aids the Indian economy at a large-scale specifically generating employment internally by strengthening national savings, capital accumulation, investment, and so on. On the small-scale, the remittance received by the family members is used to meet their basic needs, and open up opportunities for investing in education, health care, and so on. The huge Indian diaspora is responsible for a significant amount of money inflows to the country. Such money inflows are called remittances, which is the money sent by migrant workers back to their home country. Every dollar transferred to India adds to the country's foreign exchange pool. Remittances to India are also one of the significant contributors to the foreign exchange reserve and makeup nearly 25 percent of total foreign exchange reserves in the country. There was a 50 to 80 percent growth in remittance inflows from several nations including the United States, Canada, UK, and the Gulf countries.

Economic well-being refers to financial background of every individual's life encompassing their financial security, wealth, employment opportunities and overall living condition. It plays a predominant role in deciding overall well-being and quality of life and it directly influences an individual ability to meet basic needs, future opportunities and achieving their personal goals in life. The economic well-being of Non-Resident Indians (NRIs) stands as a significant and evolving area of study within the broader landscape of global migration and economic development. NRIs, individuals who have chosen to live and work in foreign countries, often experience unique economic dynamics influenced by their dual connection to both their host country and their country of origin.

In recent years, the advent of digital technology and easier cross-border financial transactions has further transformed the landscape of NRI economic interactions. The way NRIs manage their finances, invest, and contribute to the economies of both their host and home countries has evolved significantly. Exploring the economic well-being of NRIs provides insights into the broader impact of global migration on economic systems and sheds light on how individuals navigate the complexities of financial decisions in a transnational context. By delving into this subject, we can gain a deeper understanding of the factors that contribute to the financial stability and prosperity of NRIs, and in turn, identify strategies to enhance their economic well-being and facilitate meaningful economic engagement between countries.

Review of Literature:

Richard H Adams J (2008), made an attend to identify the Determinants of international remittances in developing countries: In this study addresses factors influencing for remittance by using new data on such

சங்ககாலக் கருவூர்ப் புலவர்களின் பாடல்கள் காட்டும் செய்திகள்

முனைவர் **சு.செல்வக்குமார்**
உதவிப்பேராசிரியர்
தமிழ் இலக்கியத்துறை
நல்லமுத்துக் கவுண்டர் மகாலிங்கம் கல்லூரி
பொள்ளாச்சி
கோயம்புத்தூர்

முன்னுரை

தமிழில் தோன்றிய சங்க இலக்கியங்கள் வழி அக்கால மக்களின் காதல், வீரம் ஆகியவற்றோடு அவர்களின் நம்பிக்கைகள். வழிபாடுகள், பழக்கவழக்கங்கள், வாழ்க்கை தொடர்பான மதிப்பீடுகள், வரலாறுகள், மனித இயல்புகள் போன்றன பற்றியும் அறிந்துகொள்ளமுடியும். சங்கஇலக்கியத் தொகுப்பில் பண்டைய தமிழகத்தின் பல்வேறு பகுதிகளில் வாழ்ந்த புலவர்களின் பாடல்கள் இடம்பெற்றுள்ளன. புலவர்களின் அறிவாற்றல், அனுபவத் தன்மைகளுக்கேற்ப பாடல்கள் அமைந்துள்ளன. அவை, காலந்தோறும் படிப்போர்க்குப் பல வகைகளில் பயனளிக்க வல்லனவாக உள்ளன. பண்டைய தமிழகப் பிரிவுகளில் ஒன்றாக இருந்தது கொங்குப்பகுதியாகும். கொங்குப் பகுதியில் அமைந்திருந்த கருவூர் என்னும் ஊரின் பெயரைத் தங்கள் பெயர்களுக்கு முன் கொண்டுள்ள புலவர்கள் எழுதிய பாடல்கள் சங்க இலக்கியத் தொகுப்பில் இடம்பெற்றுள்ளன. மயிலை.சீனி.வேங்கடசாமி இவர்களைக் கொங்குநாட்டுப் புலவர் பெருமக்கள் என வகைப்படுத்துவார். (மயிலை.சீனி.வேங்கடசாமி, ப.170) சங்க காலத்தைச்சார்ந்த, தமிழகத்தின் ஒரு குறிப்பிட்ட நிலவியலுக்குட்பட்ட புலவர்களின் பாடல்கள் வெளிப்படுத்தும் செய்திகளை ஆராயும் நோக்கில் இக்கட்டுரை அமைகிறது.

கருவூரின் சிறப்பு

கருவூர்க்குப் பல சிறப்புகள் உள்ளன. இது ஆன்பொருநை என்னும் அமராவதி ஆற்றங்கரையில் அமைந்துள்ளது. அதாவது, இப்போதுள்ள கரூர் பகுதி. கருவூர் என்பதே கரூர் என மருவியதாகக் கருதப்படுகிறது. இது சங்க காலத்தில் சேரர்களின் தலைநகராக இருந்துள்ளது. சேரர்கள் கொங்கு நாட்டைக் கைப்பற்றிய பிறகு சேரநாட்டின் தலைநகரமான கருவூரின் பெயரையே இதற்கு இட்டதாகச் சொல்லப்படுகிறது. இதற்கு வஞ்சி என்ற வேறுபெயரும் உண்டு. சேரர்கள் வழிவந்த இரும்பொறை அரசர்கள் இங்கிருந்து ஆட்சிசெய்துள்ளனர். சேரர்களிடமிருந்து இதைக் கைப்பற்ற சோழர்களும் பாண்டியர்களும் போர் செய்துள்ளனர். பிறகு, பாண்டியர்களின் ஆட்சிக்கும் அதன்பிறகு நாயக்கர் ஆட்சிக்கும் உட்பட்டு இருந்துள்ளது.

கருவூர்ப்புலவர்கள்

கருவூர் என்ற ஊரின் அடையொடு தங்கள் பெயர்களைக் கொண்ட புலவர்கள் பின்வருமாறு. கருவூர் ஓதமானியார், கருவூர்க் கண்ணம்பாளனார். கருவூர் கதப்பிள்ளை, கருவூர்க் கண்ணம்புல்லனார், கருவூர்க் கலிங்கத்தார், கருவூர்க்கிழார், கருவூர் சேரமான; சாத்தன், கருவூர் நன்மார்பனார், கருவூர் பவுத்திரனார், கருவூர் பூதஞ்சாத்தனார், கருவூர் பெருஞ்சதுக்கப் பூதனார் ஆகிய புலவர்கள் ஆவர்.

கருவூர்க் கண்ணம்பாளனார்

மகளிரின் சோலை விளையாடல், ஆறலைக்கள்வர் செயல்கள், வஞ்சி மாநகரை ஆளும் சேரனின் சிறப்பு, உடன்போக்கில் சென்றுவிட்ட மகளை நினைத்துவருந்தும் தாயின் நிலை, பொருள்தேடச் செல்லும் தலைவன் தன் தலைவிக்கு மென்மொழியால் ஆறுதல் கூறிச்செல்லும் பாங்கு ஆகியன இவருடைய பாடல்கள் (அகநானூறு-180,263), நற்றிணை(141) வெளிப்படுத்தும் செய்திகளாக இடம்பெற்றுள்ளன. சோலையில் விளையாடும் பெண்களுள் ஒருத்தியைக் கண்டு காதலுற்ற தலைவன் ஒருவன் தான் அவளை விரும்புவதை வெளிப்படுத்த அவளுக்குப் குவளைப்பூக்கள் கொண்டு கட்டிய மாலையை அவளின் தலையிலிருந்து முதுகுப்புறம் வரை தொங்கும்படி சூட்டிவிட்டுச்சென்றதை,

தன்கயத்து அமன்ற ஒண்பூங் குவளை
அரும்பு அலைத்து இயற்றிய சுரும்பு ஆர் கண்ணி
பின்னுப்புறம் தாழக் கொன்னே சூட்டி
நல்வரல் இளமுலை நோக்கி, நெடிது நினைந்து
நில்லாது பெயர்ந்தனன் ஒருவன் (இரா.செயபால்,2004)

என்ற பாடலடிகள் வாயிலாகக் கூறுகிறார். (அகம்.180) இதனால் குவளைப் பூக்களை அன்று மாலையாகக் கட்டும் வழக்கம் இருந்ததையும் ஆண்கள் தாங்கள் விரும்பும் பெண்ணுக்கு மாலை சூட்டித் தன் விருப்பத்தை வெளிப்படுத்தும் வழக்கம் இருந்ததையும் காணமுடிகிறது.

வில்லாற்றல் மிக்க ஆறலைக்கள்வர்கள் என்போர் பாலை நிலவழிச்செல்வோரை யாமரத்தின் உச்சியில் ஏறியிருந்து கிளைகளை தாங்கள் மறைவதற்கு இடமாகக்கொண்டு தாக்கும் இயல்புடையோர் என்பதை,

ஆறுசெல் வம்பலர் வருதிறம் காண்மார்
வில்வல் ஆடவர் மேல்ஆள் ஒற்றி
நீடுநிலை யாத்துக் கோடுகொள் அருஞ்சுரம்
(இரா.செயபால், 2014)

சங்க இலக்கியத்தில் சூழலியல்

Seedmoney க்காக பெறப்பட்ட நிதி நல்கையில் எழுதப்படும் கட்டுரை

ஆய்வாளர்
வெ. பரிமளம்
உதவிப்பேராசிரியர்
தமிழ் இலக்கியத்துறை
நல்ல முத்து கவுண்டர் மகாலிங்கம் கல்லூரி
பொள்ளாச்சி

சூலியல் என்பது தாவரங்கள் விலங்குகள் உள்ளிட்ட அனைத்து உயிரினங்களையும் அவை ஒன்றோடு ஒன்று கொண்டுள்ள தொடர்பையும் குறிக்கும். மனித வாழ்வும் சூழலும் ஒன்றோடு ஒன்று பின்னிப்பிணைந்தவை. அதை உணர்ந்த சங்க தமிழர்கள் சூழலைத் தன்னில் இருந்து வேறாகக் கருதாமல் அதனோடு ஒன்றிணைந்து வாழ்ந்தனர் . சூழல் குறித்த விழிப்புணர்வு அதிகம் இருக்கும் இக்காலகட்டத்தில் சங்கத் தமிழர்களின் சூழலியல் அறிவைப் பற்றி அறிந்து கொள்வது தேவையாக இருக்கின்றது.

சூழலியல்

சூழலில் என்பது மனிதனுக்கும் இயற்கைக்கும் இடையிலான உறவை ஆராய்வதாகும். இதை தற்பொழுது Ecology என்பர். நிலம், நீர்,காடுகள்கள், கடல், கனிமங்கள் காலநிலை, நிலவியல் போன்ற அனைத்தையும் உள்ளடக்கியது. புவியின் இயற்கை நிலைகள் அனைத்தும் சுற்றுச்சூழல் என்பதில் அடங்குகிறது. உயிரினங்கள் வாழும் பகுதியில் உள்ள காற்று, நீர் போன்றவை அடங்கிய இயற்கை நிலையே சுற்றுச்சூழல் என்று (கிரியாவின் தற்காலத்தமிழ் அகராதி ப-462) கூறுகிறது. சூழல் மண்டலத்தில் உள்ள உயிரற்ற காற்று, நீர், வெப்பம்,ஒளி இன்னபிறவும் உயிருள்ள தாவரங்கள், உயிரினங்கள் போன்றவற்றையும் உள்ளடக்கியதே சுற்றுச்சூழலாகும். (சுற்றுச்சூழல் பாதுகாப்பு ப-401) என்றும் சுற்றுச்சூழல் என்பது மனிதனுக்கும் இயற்கைக்கும் உள்ள நுண்மையான சமன்படுத்தப்பட்ட மென்மையான உறவாகும். (மேலது ப-415) என்றும் கூறுகிறது. சூழலைச் சார்ந்தே மனிதன் இயங்குகின்றான். மனித வாழ்வு என்பது பிறரையும் பிற பொருளையும் சூழ்ந்த வாழ்வாகும்.

சங்க இலக்கியமும் சூழலியலும்

சங்கப் புலவர்கள் இயற்கையைப் பேணினர். இயற்கையால் அமைந்ததே உலகு என்னும் கொள்கையைக் கொண்டவர்கள். நிலம், நீர், தீ, வளி, விசும்பு ஆகிய ஐந்தும் சேர்ந்தது தான் இயற்கை என்கிறது தொல்காப்பியம். நிலம், நிலம், பறவை, செடி, கொடி, மரம், உயிரினங்கள் ஆகிய அனைத்தையும் உள்ளடக்கிய இயற்கையை முதற்பொருள், கருப்பொருள், உரிப்பொருள் என மூன்றாகப் பகுத்தனர். இது பண்டைத் தமிழரின் சூழலியல் பார்வையில் இன்றியமையாத கூறாகும். நிலம், நீர் அவற்றை ஆதாரமாகக் கொண்ட காலநிலை, அதன் இயக்கம் ஆகியவற்றை உள்ளடக்கிய நிலமும் காலமும் முதற்பொருள் ஆகும். உயிரினங்களை பற்றி கூறுவது கருப்பொருளாகும் இதை

முதலெனபடுவது நிலம் பொழுது இரண்டின்
இயல்பு என மொழிப
தொல்காப்பியம் அகத்திணையியல் நுற்பா -5

தெய்வம் உணாவே மா மரம் புள் பறை
செய்தி யாழின் பகுதியொடடு தொகை இ
அவ்வகைப் பிறவும் கருவென மொழிப
தொல்காப்பியம் அகத்திணையியல் நுற்பா -30

என்கிறது தொல்காப்பியம்.

நிலமும் சூழலும்

மனிதர்கள் உள்ளிட்ட உயிரினங்கள் வாழக்கூடிய இடம் நிலமாகும். தட்பவெப்பம், மழை போன்ற காரணங்களை அடிப்படையாகக் கொண்டும் புவியியல் வேறுபாட்டின் அடிப்படையிலும் அக்காலத்தில் நிலங்களை பகுத்திருந்தனர். மேலும் அந்தந்த நிலத்தில் உள்ள மரம், பூ ஆகியவற்றை அடிப்படையாகக் கொண்டே குறிஞ்சி, முல்லை, மருதம், நெய்தல், பாலை என நிலங்கள் பெயர் பெற்றிருக்க வேண்டும். ஒவ்வொரு திணையும் ஒவ்வொரு சூழல் தொகுதியாகும். காடுறை உலகம், மைவரை உலகம், பெருமணல் உலகம் என தொல்காப்பியர் நிலங்களால் ஆன சூழல் தொகுதியை குறிப்பிடுகிறார். இந்த அடிப்படையிலேயே சங்கஇலக்கியங்கள் பாடப்பட்டுள்ளன. அகத்திணை பாடல்கள் அனைத்தும் இயற்கையோடு இணைந்து எழுதப்பட்டவை ஆகும். அவை முழுவதும் சூழல் மண்டலத்தை விளக்கும் விதமாகவே அமைந்துள்ளன. நிலத்தை வைத்து உருவாக்கப்பட்ட சூழல் தொகுப்பில் வாழ்ந்த மக்கள் அந்நிலத்தில் கிடைத்த தாவரங்கள், விலங்குகள், பழங்கள் ஆகியவற்றையே உண்டு வாழ்ந்தனர். குறிஞ்சி நில மக்களுக்கு தினை, கிழங்கு, வேட்டையாடி கிடைத்த உணவுகள் போன்றவையும் கடலோர நெய்தல் நில மக்கள் உணவில் மீனும் மருதநிலத்தில் நெல் உணவும் தவிர்க்க முடியாத ஒன்றாகும். முல்லை நில மக்கள் கால்நடை வளர்ப்பு, விவசாயம் ஆகியவற்றால் தங்கள் உணவுத் தேவையை பூர்த்தி செய்தனர். அவர்களின் உணவு முறை நிலம் சார்ந்தே அமைந்து இருந்தது. அது மட்டுமன்றி குடியிருப்பு, உயிரினங்கள், தாவரங்கள்

Journal of the Maharaja Sayajirao University of Baroda
ISSN :0025-0422

ILLUMINATING BRAIN TUMOR IN MRI METAPHORS BY USING A HYBRID MODEL OF FASTER R-CNN AND SVM

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Abstract:
Brain tumors are considered as most lethal growths. To diminish the gamble of death, early distinguishing proof of the disorder is required. One of the top accessible techniques to assess mind growths is Attractive reverberation Illustration (MRI). Cerebrum growth discovery and division are solid as mind cancers might change in size, figure and area. That makes manual discovery of cerebrum growths by investigating the MRI a monotonous work for radiologists and specialists. So a mechanized mind growth finding and division is required. This work recommends a District based Convolution Neural Network (RCNN) approaches for robotized mind growth discovery and division utilizing MR image, which settles the troubles of cerebrum cancer distinguishing proof effectively and precisely.

Keywords:
Brain Tumor, MRI Preprocessing, Metaphors segmentation, BrainTumor localization, SVM & RCNN

INTRODUCTION

In the current investigation audit, the MRI portrayal isolated to perceive the advancement region and request these areas into being and dangerous. Significant learning is solid areas for an actually has been used comprehensively on portrayals request. Subsequently, Quick R-CNN is a superior significant slanting method and with a blend of the Assist Vector With machining model has been executed through the Open CV library in this learns. It shows that cross breed Faster R-CNN and SVM give in a precision of 98.8%. notwithstanding, the finding of past investigations that utilized various techniques got exactness (R-CNN-92%, CNN and RBF based SVM-92%, RELM-94.3%, KNN-96.6%, CNN-97.5%), In the interim, the proposed mixture model with thought of benefits of Fast R-CNN and SVM, shows huge turn of events.

LITERATURE REVIEW

The determination of a growth locale because of the complicated design of the cerebrum is an intense errand [1]. Attractive reverberation imaging MRI is one of the most usable strategy in clinical image, particular in cerebrum cancer it give excellent and one of a kind similitude to picture the delicate hankie with longitudinal and different goal [2]. In cerebrum growth identification the principal task is to name similitude through allegories division procedures [3]. As such to direct this condition, various allegories examination calculations, and AI strategies utilizing MRI representations by scientists have been carried out. Among various investigations on illustrations handling, content-based similitudes recovery (CBIR) strategies and edge based are exceptionally normal. For instance, ZarNawab et.al utilized CBIR and profound convolution brain organization (DCNN) procedure on MRI analogies to take advantage of the element and track down how much the correspondence among the elaborate representations to the documented illustration; the result shows 96.1% precision [4].

In another work, Point in Yang et.al used the area matched plan (LBP) to takeout the similarities surface information, and besides thickness Cerebrum Association (CNN) to gain the ground and split the restriction of PC vision, it uses two sorts of CNN models Exception and moreover Thick Net to stretch out the rightness to take out the huge highlights [5]. Makers Abdu Gumaei et.al, proposed a cross variety slanting machine of frontal cortex dangerous development request using Regularized

Journal of the Maharaja Sayajirao University of Baroda
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ILLUMINATING BRAIN TUMOR IN MRI METAPHORS BY USING SVM CLASSIFIER

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Abstract:
The field of medical imaging is gaining importance with an increase in the demand for automated, reliable, fast and efficient diagnosis which can provide insight to the image better than human eyes. Brain tumor is the second leading cause for cancer-related deaths in men in age 20 to 39 and fifth leading cause cancer among women in same age group. Brain tumors are painful and may result in various diseases if not cured properly. Diagnosis of tumor is a very important part in its treatment. Identification plays an important part in the diagnosis of benign and malignant tumors. A prime reason behind an increase in the number of cancer patients worldwide is the ignorance towards treatment of a tumor in its early stages.

Key words: Benign, Malignant, SVM, Image Segmentation

INTRODUCTION:

This project discusses such an algorithm that can inform the user about details of tumor using basic image processing techniques. These methods include noise removal and sharpening of the image along with basic morphological functions, erosion and dilation, to obtain the background. Subtraction of background and its negative from different sets of images results in extracted tumor image. Plotting contour and c-label of the tumor and its boundary provides us with information related to the tumor that can help in a better visualization in diagnosing cases. This process helps in identifying the size, shape and position of the tumor. It helps the medical staff as well as the patient to understand the seriousness of the tumor with the help of different color-labeling for different levels of elevation. A GUI for the contour of tumor and its boundary can provide information to the medical staff on click of user choice buttons. The SVM classifier algorithm can be implemented in four major steps as shown in Fig1. First step is pre-processing & Image acquisition of given MRI image in MATLAB then second is filtering the image to reduce the noise and third is image resizing and finally fourth step is tumor extraction using SVM classifier.
The aim of the project is tumor identification in brain MRI images. The main reason for detection of brain tumors is to provide aid to clinical diagnosis. The aim is to provide an algorithm that guarantees the presence of a tumor by combining several procedures to provide a foolproof method of tumor detection in MRI brain images. The methods utilized are filtering, contrast adjustment, negation of an image, image subtraction, erosion, dilation, threshold, and outlining of the tumor. The focus of this project is MRI brain images' tumor extraction and its representation in simpler form such that it is understandable by everyone. Humans tend to understand colored images better than black and white images, thus, we are using colors to make the representation simpler enough to be understood by the patient along with the medical staff. The objective of this work is to bring some useful information in simpler form in front of the users, especially for the medical staff treating the patient. Aim of this project is to define an algorithm that will result in extracted image of the tumor from the MRI brain image. The resultant image will be able to provide information like size, dimension and position of the tumor, plotting contour and c-label of the tumor and its

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ILLUMINATING BRAIN TUMOR IN MRI METAPHORS BY USING A HYBRID MODEL OF FASTER R-CNN AND SVM

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LITERATURE REVIEW

The determination of a growth locale because of the complicated design of the cerebrum is an intense errand [1]. Attractive reverberation imaging MRI is one of the most usable strategy in clinical image, particular in cerebrum cancer it give excellent and one of a kind similitude to picture the delicate hankie with longitudinal and different goal [2]. In cerebrum growth identification the principal task is to name similitude through allegories division procedures [3]. As such to direct this condition, various allegories examination calculations, and AI strategies utilizing MRI representations by scientists have been carried out. Among various investigations on illustrations handling, content-based similitudes recovery (CBIR) strategies and edge based are exceptionally normal. For instance, ZarNawab et.al utilized CBIR and profound convolution brain organization (DCNN) procedure on MRI analogies to take advantage of the element and track down how much the correspondence among the elaborate representations to the documented illustration; the result shows 96.1% precision [4].

In another work, Point in Yang et.al used the area matched plan (LBP) to takeout the similarities surface information, and besides thickness Cerebrum Association (CNN) to gain the ground and split the restriction of PC vision, it uses two sorts of CNN models Exception and moreover Thick Net to stretch out the rightness to take out the huge highlights [5]. Makers Abdu Gumaei et.al, proposed a cross variety slanting machine of frontal cortex dangerous development request using Regularized

Journal of the Maharaja Sayajirao University of Baroda
ISSN :0025-0422

MAIZE LEAF DISEASE IDENTIFICATION AND CLASSIFICATION BASED ON MULTISCALE CONVOLUTION NETWORK, BACTERIAL FORAGING OPTIMIZATION AND PARTICLE SWARM OPTIMIZATION

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Abstract
The responsibility of plant is exceedingly important for both human life and environment to feed. Plants also suffer from various diseases like human beings and animals. So there calls for a method to make certain accurate and efficient outcome of plant diseases to minimize adverse effects in production of yield. This paper proposes a various neural network models in recognition of maize plant leaf disease diagnosis. Deep learning approaches gives incredible results compared to machine learning approach. In this, various deep learning approaches like Multiscale Convolution Neural Network (CNN), Bacterial Foraging Optimization (BFO) using Recurrent Neural Network (RNN) and Particle Swarm Optimization (PSO) using Convolution Neural network are discussed. A novel Multiscale CNN is used to learn features from training data along with Rectified Linear Units [ReLU] to produce output without loss of information. Next an improved BFO have been used for assigning optimal weights to RNN for increasing accuracy and speed of network. The searching and grouping of seed points have been done with region growing algorithmn.Next an improved PSO along with graph cut segmentation helps for searching and grouping of seed points to generate feature set. The network over fitting issues can be eliminated by Rectified ReLU activation function.

Index terms
Multiscale Convolution Neural Network, Bacterial Foraging Optimization, Particle Swarm Optimization, Identification, Classification.

1. Introduction

Maize is one of the most nourishing crops for humans and animals. However numerous diseases effect frequently on a large scale in Maize production, thereby causing mislay in economy.Therefore, early and effective detection of maize leaf diseases is crucial for assuring healthy development of maize production and has become research hotspot in the field of agricultural production.Traditionaly, an improved DMS-Robust Alex net [1] was proposed to identify maize leaf diseases with accuracy of 98.62%.The recent Deep Forest [2] model performs with high efficiency than traditional deep learning models. As shown in [3], Bacterial foraging optimization can be efficient and powerful tool to initialize weight to radial basis functional neural network for identifying affected regions on plant image leaf. One of the established machine learning approach Support Vector Machine helps to classify images based on linear, Non linear and Multiclass of Tomato images are shown[4].Along with grey level histogram, Otsu method performs a segmentation process based on texture feature analysis for Maize plant diseases image [5]. Apart from machine learning approach, deep learning helps for identification and classification based on Multiscale Convolution Neural Network [6] that produces good results in terms of Dice coefficient, sensitivity and specificity for Maize plant samples. In Quantum Particle Swarm Optimization [7] is applied to find the precise parameters and then to identify the threshold values. In the majority of cases leaf was not successfully segmented if the markers do not contribute

← Big Data in Data Mining Techniques – A Survey

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Kristu Jayanti Journal of Computational Sciences Volume 3 2023, Pages 68-80

Big Data in Data Mining Techniques – A Survey

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Abstract

Big data processing presents itself as a novel and promising analytical field for extracting useful information from enormous databases. It is used to handle vast volumes of knowledge sets, usually large, sparse, incomplete, uncertain, complex, or dynamic information set from various and autonomous sources, in time-sensitive applications such as social site data processing and medical applications. In order for the user to easily obtain the main strategy and answers to their questions from the mined results, massive data processing also handles the storage structure of the mined results. Information slicing is done to break up the associations between columns while keeping the associations within each column. There are several types of information slicing: quasi-static, amorphous, simultaneous dynamic, quasi-static, and dynamic. Another fundamental duty in the huge information mining process is clustering, which is used to find patterns and identify information for use in large-scale processing applications. In addition to discussing the benefits and limitations of these strategies, this study examines huge data processing, information slicing, and clustering techniques. Information slicing and clumping approaches, mining platforms, and large data mining algorithms are discussed along with their quality and performance.

Keywords: *Big Data Mining, Cloud Computing Technique, Clustering Techniques, Collaborative filtering, Data Mining and Data Slicing.*

1. Introduction

Our capacity to collect data in several formats from a wide range of sensors, devices, and independent or linked applications has significantly increased in recent years. The volume of information has increased faster than our ability to handle, evaluate, store, and interpret these datasets. Important obstacles arise while attempting to make use of the vast amount of knowledge. In order to explore vast amounts of data, the mining process looks for consistent patterns or systematic correlations between the variables. The findings are then validated by applying the patterns found to the newly discovered data set. Because of the quality of the information and the increase in computing time, this is frequently an incredibly challenging assignment.

One emerging example that supports the development of connected information centre computer code and infrastructure growth is big information. Massive data could be a computation-focused approach that emphasizes the cloud system's storage capacity. By utilizing massive information processing and storage resources under strict administration, cloud computing technology aims to provide large-scale information applications with fine-grained computing capabilities. As a result, the rise of information also quickens the development of cloud computing, which offers comprehensive options for handling and storing large amounts of data.

Journal of Chemical Health Risks

www.jchr.org

JCHR (2023) 13(6), 1764-1772 | ISSN:2251-6727

Activities of Primordial Radionuclides in the tobacco cultivated fields of Dindigul and Erode districts (Tamil Nadu, India)

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(Received: 07 October 2023 Revised: 12 November Accepted: 06 December)

KEYWORDS

Primordial tobacco field Uranium Thorium Potassium

ABSTRACT:

Present study is a novel attempt to estimate the activities of primordial radionuclides such as ^{238}U (Uranium-238), ^{232}Th (Thorium-232) and ^{40}K (Potassium-40) in the soil samples collected from tobacco plantations in Dindigul and Erode Districts. Radioactivity concentrations of the collected soil samples were determined with the aid of a NaI gamma-ray detector, which ranged from BDL (2 Bq/kg) to 20.3 Bq/kg for ^{238}U, 5.1 to 156.5 Bq/kg for ^{232}Th and 87.1 to 712.5 Bq/kg for ^{40}K respectively with mean value of 6.41, 54.34 and 296.96 respectively. Frequency distribution of the radionuclides showed the leptokurtic, platykurtic and mesokurtic for ^{238}U, ^{232}Th and ^{40}K respectively. The average activity concentrations of primordial radionuclides in the tobacco field soils of Dindigul and Erode Districts were compared to the published global average values. The estimated primordial activity concentration from the current work is lesser than that of the average global values.

1. Background

Primordial radionuclides are released from the terrestrial radiation sources such as earth's crust, rocks, soil, air and water [1]. Radiations are the spontaneous emission of energy from unstable atoms [2]. Natural and anthropogenic radionuclides are a crucial requirement for the evaluation and control of public exposures [3]. Cosmogenic radionuclides arise as a result of the interaction of cosmogenic radiation with elemental substances in the atmosphere [4]. Anthropogenic activity can also be considered as a ubiquitous source of radioactivity which contributes to the background radiation level [5-6]. Natural gamma radiation that occurs in the environment is created by primordial radionuclides from the sky and on Earth [7]. Naturally occurring radionuclides in the soil significantly increase the population's background radiation exposure [8]. The primary external source of irradiation in humans is gamma radiation, which is emitted by naturally occurring radionuclides that are deposited on the ground.

Distribution of natural radiation level depends upon multiple factors such as the place, elevation, latitude as well as the higher abundance of radioactive minerals [9]. The primary sources of naturally occurring radioactivity in soil are the ^{238}U, ^{232}Th decay series and natural ^{40}K respectively [10-11]. The uranium and thorium series, which are respectively descended from the ^{238}U and ^{232}Th series [12] have average continental crust levels of 2.7ppm and 9.6ppm, respectively [13]. ^{238}U and ^{232}Th are fission products produce 12 and 11 daughter products and ^{40}K is non fission product [2]. The presence of Uranium and Thorium due to fertilizers enhances the natural radiations [14]. U, Th, and K are released into the soil by the progeny of U and Th as well as by the

FACILE GREEN SYNTHESIS AND CHARACTERIZATION OF AG-CU-ZN NANOPARTICLES USING CORDIA SEBESTENA L. FLOWER EXTRACT AND THEIR ANTIMICROBIAL EFFICACY.

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Abstract

This investigation reports on the green synthesis of selected nanoparticles ($CuSo_4$, $ZnSo_4$, $AgNo_3$) using the flowers of *Cordia sebestena* and were subjected to comprehensive characterization through various techniques. In the UV-visible spectrum analysis, the silver nanoparticles exhibited maximum absorption at 240 nm followed by copper nanoparticles exhibited their absorbance peak at 280 nm and zinc nanoparticles displayed their peak at 310 nm. XRD analysis indicated that the silver particles generated in our experiments existed in the form of nanocrystals, as evidenced by peaks at 2θ values of 7.7440, 15.1928, 19.1919, 21.1040, 23.5136, 26.731, and 31.4932, corresponding to heights of 13.71, 30.89, 232.79, 368.01, 216.01, 66.91, and 197.92 counts, respectively. Copper particles exhibited peaks at 2θ values of 5.4670, 9.4437, 11.6355, 15.6593, 18.8709, 20.7264, and 23.0335 with heights of 15.88, 41.72, 109.27, 37.58, 102.33, 197.10 and 53.14 counts, respectively. Zinc particles displayed peaks at 2θ values of 9.1935, 13.1814, 14.2828, 16.3701, 19.3166, 21.2627, and 22.4356 with heights of 115.48, 72.72, 97.51, 160.30, 577.17, 1059.99 and 446.48 counts, respectively. SEM spectral analysis revealed the slices of sticks, with cube shape structure distribution of silver nanoparticles among the surface within a size range spanning from 2 μm to 200 nm. The antimicrobial efficacy of

metallic nanoparticles derived from *Cordia sebestena* was evaluated using the disc diffusion method against both gram-positive and gram-negative pathogens, including *E.coli*, *Pseudomonas aeruginosa*, *Staphylococcus aureus*, *Bacillus subtilis*, as well as the fungi *Aspergillus flavus* and *Candida albicans*. Remarkably, metallic Ag, Cu, and Zn nanoparticles exhibited substantial zones of inhibition against the selected pathogens, with the highest inhibition zone observed in copper and silver nanoparticles.

Keywords: Synthesis, *Cordia sebestena*, Ag-Cu-ZnNPs, Characterization, Antimicrobial Efficacy, Human Pathogens.

Introduction

Green synthesis of AgNPs has gained importance and can be considered a better alternative method over conventional methods due to their distinctive properties such as cost-effectiveness, ease of availability, and less harm to the environment (Phanjomet et. al.,2012). The AgNPs are reported to have the capability to absorb/adsorb and minimize pollutants in the environment, which shows the effective remediation of contaminated water by the nano phytoremediation process (G Palaniet et. al., 2021). The acronym nano-phytoremediation refers to the approach for eliminating contaminants from the environment by leveraging both nanotechnology and phytotechnology (Srivastavet et. al., 2018). Nano-remediation and phytoremediation are compatible, while nano-remediation is a quick and efficient method but involves a high cost whereas phytoremediation is a low-cost and sustainable technique that requires appropriate plant selection (Bhati and Rai 2018).

Bimetallic nanoparticles are considered valuable for their suppleness in catalytic, optical, and electronic properties. Hashemian Rahaghi et. al (2015) and Wang HK et.al (2012) reported that bimetallic nanoparticles do not only differ in size and effect but also in their pure components composition1. Several studies have been reported in synthesizing various bimetallic nanoparticles Pd-Pt, Pt- Co, Ni-Mo, Ag-Cu, Au-Ag, etc. Oxidation of styrene was done using AgCu catalyst as this provides superior catalytic activity in different oxidation reactions2. Bimetallic NPs provide hundreds of combinations of existing metal elements and could bring about a revolution in medicinal research.

In this study, we present the synthesis of Ag, Cu, and Zn nanoparticles (AgNPs) using flowers from *Cordia sebestena* a member of the Boraginaceae family and a prominent dicot family within Angiosperms. This study employs a simple and cost-effective green synthesis approach. The resulting nanoparticles will be thoroughly characterized through various analytical techniques, including UV-visible spectroscopy, Scanning Electron Microscopy (SEM), X-ray diffraction (XRD), and Antimicrobial efficacy assessments.

Materials and Methods

Plant Material Collection:

Flowers from *Cordia sebestena* were chosen for the current study. The plant material, belonging to the Boraginaceae family, was sourced from the Ayyaneri village in the Kovilpatti region of the Tuticorin district, Tamil Nadu. Taxonomic attributes were verified using references

Uttar Pradesh Journal of Zoology

Volume 44, Issue 22, Page 361-368, 2023; Article no.UPJOZ.3000
ISSN: 0256-971X (P)

Biosynthesis and Characterization of Silver Nanoparticles Using *Barleria cuspidata* Leaves Extract and Mechanism of Antimicrobial Action of Selected Human Pathogens

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Authors' contributions

This work was carried out in collaboration among all authors. All authors read and approved the final manuscript.

Article Information

DOI: 10.56557/UPJOZ/2023/v44i223753

Editor(s):
(1) Dr. Takashi Ikeno, National Cancer Center Hospital East, Japan.
Reviewers:
(1) Akhilesh Patel, Nims University, India.
(2) Rolan Rusli, University of Mulawarman, Indonesia.

Original Research Article

Received: 04/09/2023
Accepted: 09/11/2023
Published: 14/11/2023

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ABSTRACT

Introduction: Nanoscience and nanotechnology are concerned in the invention and appliance of nanoparticles that can be used in diverse field. Silver nanoparticles (AgNPs), among other nanoparticles, have received considerable thought because of their inimitable properties.

Objective: The intention of the current study was to quickly synthesize silver nanoparticles (AgNPs) using *Barleria cuspidata* leaf extract. The nanoparticles obtained have been characterized with a variety of characterization methods resembling UV-Visible Spectrum Analysis, Fourier Transform (FT) Infrared Spectrometry, Scanning Electron Microscopy, X-Ray Diffraction and tested against selected human pathogens.

Results: Spectral studies confirmed the UV-Visible absorption spectrum of the Ag-NPs at a wavelength of 470 nm and a good crystalline nature with a face-centered cubic crystal structure using XRD spectrum. Surface topography and the presence of Silver in the prepared sample have been confirmed from SEM and EDX measurements. Various functional groups present in the sample have been examined using FT-IR spectroscopic analysis. A homogeneous dispersion of oval form nanoparticles with a usual size of 10µm was confirmed by visualization using SEM EDX.

In addition, the biological activities of Ag nanoparticles showed significant results against anti-bacterial (*E.coli*, *Staphylocouus aureus*), and antifungal activity (*Aspergillus niger*, *Candida albicans*).

Conclusion: *Barleria cuspidata* being a crucial medicinal plant widely used in the treatment of diabetic agent, the present study shows that the plant can be used as finest resource for synthesis of AgNPs for further research in the medical field.

Keywords: Biosynthesis; Barleria cuspidate; SiNPs; characterization; human pathogens.

1. INTRODUCTION

The revolution in nanotechnology has marked a significant turning point in history. Nanotechnology involves the manufacturing, manipulation, and imaging of nanostructures with sizes ranging from 1 to 100 nm [1]. Nanoparticles possess diverse physio-chemical properties such as optical, magnetic, catalytic properties [2], and biological applications in antimicrobial [3, 4], antioxidant, anti-inflammatory, antiviral, cardiac protection, wound dressing and anti-cancerous activities [5]. Nanoparticles (NPs) result in superior chemical reactivity, biological activity, and catalytic behaviour than their own larger particles [2, 6]. They are employed in major industries like food, chemical, feed, health, space, cosmetics etc. The industries preferably employ green synthesized nanoparticles for manufacturing its products [2, 7].Now in the 21 st century, AgNPs are used in broad range of applications, such as biomedical engineering, drug delivery, food industries, antimicrobial, textile industries, agriculture, water treatment (as an antioxidant), anticancer agent, larvicides, cancer cell therapy, component of ointments etc. [8]. Among the reported antimicrobial properties of different metal NPs, it was found that AgNPs exhibited prominent bactericidal and fungicidal activity [9, 10].Top-down and bottom-up approaches can be used for the synthesis of AgNPs. The top-down approach involves breaking down a bulk material into nano-sizes using techniques such as laser ablation and puttering. In contrast, the bottom-up approach refers to building nanoparticles using smaller entities, such as chemical and biological methods [11]. Biological processes, known as green synthesis, primarily conducted *via* medicinal plants, offer advantages over chemical and physical methods because they are cost-effective, eco-friendly, and readily available. Here, the present manuscript reviews the modern development in green synthesis, optimization conditions, mechanisms, and characterization techniques for AgNPs, particularly using medicinal plant extracts, and discusses the effects of different parameters on green synthesis. Standard characterization techniques include UV-Visible Spectrophotometry, Fourier Transform Infrared Spectroscopy, Scanning Electron Microscopy-Energy Dispersive X-Ray Analysis,X-Ray Diffraction (XRD), and Antimicrobial Analysis.

2. MATERIALS AND METHODS

Collection of *Barleria cuspidata* Leaves: The fresh leaves of *Barleria cuspidata* (Acanthaceae) were collected from the Gangaikondan Reserve Forest, Tirunelveli District, Tamil Nadu, India. Taxonomic attributes were verified using references such as the 'Flora of Presidency of Madras' [12] and the 'Flora of the Tamil Nadu Carnatic' [13].

SOUTH INDIA JOURNAL OF SOCIAL SCIENCES
ISSN: 0972 – 8945

A COMPARATIVE STUDY OF VARIOUS DTH SERVICE PROVIDERS

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ABSTRACT

Direct-to-Home (DTH) defines as Transmission of digital video channel to the subscribers at their Home directly through dish. It was created a revolution in the Television Industry through Digitalisation.DTH directly compete to the cable operators and keep away them by providing the best picture quality by facilitating direct broadcast to consumer. Direct-to-Home (DTH) is one of the recent addition and has become an effective medium of an entertainment through attracting everyone.. DTH players concentrate more on value added services to get market advantage.

The Indian Media and Entertainment (M&E) industry is a sunrise sector for the economy and is making high growth strides. By proving its resilience to the world, the Indian M&E industry is on the cusp of an intense phase of growth, backed by rising consumer demand and improving advertising revenues. The industry is primarily driven by increasing digitization. The mass media in the present era have assumed vital importance in daily life. Television is one of the major mass media of India and is a huge industry and has thousands of programs in all the states of India

Keywords: Consumer demand, Digitization, subscription, Mass Media

INTRODUCTION

The Government of India has supported M&E industry's growth by taking several initiatives such as digitising the cable distribution sector to attract more significant institutional funding, increasing FDI limit from 74 per cent to 100 per cent in cable and DTH satellite platforms. Also, granting industry status to the film industry for easy access to institutional finance (www.ibef.org).So this study made an attempt to know the Comparative study of various DTH services in Coimbatore District.

REVIEW OF LITERATURE

Irinsudha and Jayanthi (2013) carried out a study on 'Comparative Study on the Various Direct-To-Homes Service Providers in Chennai'. The study attempted to compare the services offered by several DTH service providers. Hence, the data consisted of a sample of 300 respondents. Several statistical tools, such as Chi-square, ANOVA, were applied to the collected data. In summary, the study concluded that there is an association among the reasons for going for DTH and the factor that more channels, transparent payment, interactive service, and superior video quality add value to the service.

Tiwari (2014) in the study entitled "A Comparative Study of Sales Promotion Strategies of DTH Service Providers". The study aimed at identifying the sales promotion strategy, which was the critical factor in a customer choosing the service provider. The extent of spread and popularity of DTH was limited to several groups. Also, the impact of DTH services and adds on among several groups of subscribers and the role of technology in the selection of service provider was highly appreciable. The total numbers of questionnaires distributed to the respondents were 400. Out of which 230 had been chosen for the study. Furthermore, two-fold questionnaires were designed to collect data from Direct-To-Home service subscribers and potential subscribers. The satisfaction level of the users was measured on three and five-point Likert Scale. From the study, it was found that the interactive services, number of channels, and price of the DTH services were the factors considered by subscribers for the selection of the DTH service provider. Dish TV and Tata Sky were the top two DTH service providers which were preferred by the respondents. Overall, the

SOUTH INDIA JOURNAL OF SOCIAL SCIENCES
ISSN: 0972 – 8945

EVALUATING CUSTOMER SATISFACTION WITH DIGITAL BANKING SERVICES IN INDIA

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ABSTRACT

This study aims to evaluate the level of usage and awareness of digital banking services and facilities among customers in India and examine the impact of these services on customer satisfaction. This study used a well-structured questionnaire to collect data from Canara Bank, The Federal Bank Ltd., and HDFC Bank customers. The data collected from 200 respondents were analyzed to gain insights into their experiences with digital banking services. This study found that customers of different banks have varying levels of satisfaction with other factors, such as their account type and expertise with digital banking services. Several factors influence customer satisfaction, including prompt handling of calls, courteous and professional manner, and ease of use and navigation. This study provides valuable insights into customer satisfaction with digital banking services in India. It can help banks improve their services to meet their customers' needs and expectations.

Keywords: digital banking, customer satisfaction, facilities offered

1.1 Introduction

After India's independence, one of the government's central tasks was to focus on the country's economic development. In the 1990s, several developments led to significant changes in the structure of banking products. The digital economy is increasing, and all parts of the economy, including commerce, financing, and logistics, require next-generation solutions. The banking industry in India plays a significant role in the country's development. Banks in India are transitioning from conventional banking to digital banking. Digital banking involves high service levels through a digital platform, eliminating paperwork such as cheques, pay-in slips, and demand drafts. This means that all banking activities are available online. The Indian banking sector is moving towards digitalized banking. This research aims to evaluate customers' usage and awareness of digital banking services and facilities and examine the impact of these services on customer satisfaction.

1.2 Review of Literature

Several studies have been conducted on customer satisfaction with digital banking services.

Sathiskumar & Rajaraman (2021) surveyed 300 respondents in Coimbatore city and found that the majority were happy with the performance of ICICI bank's ATMs. Still, many were not satisfied with the bank's grievance settlement system.

Drigă & Isac (2014) surveyed 300 people and found that 65% were aware of e-banking services. The study, titled "E-banking services – features, challenges and Benefits," provides an overview of electronic banking services and highlights aspects of e-banking. The authors note that although e-banking offers many advantages to corporate and individual clients, it is not without certain challenges and issues regarding security and customer interest.

Tandon et al. (2016) studied the responses of 450 consumers in the Delhi/NCR regions using a 5-point Likert Scale. They found that e-banking is the preferred delivery channel for banks and is gaining widespread acceptance among consumers.

Dhanya (2021) conducted a study to identify the factors influencing consumers' adoption of Internet banking services in Chennai. The study also aimed to examine the relationship between the adoption of these services and the demographic characteristics of consumers. This research provides valuable insights into the factors that drive consumer adoption of Internet banking services and can help banks improve their services to meet their customers' needs and expectations. The study found

RABINDRA BHARATI UNIVERSITY JOURNAL OF ECONOMICS
ISSN : 0975-802X

EXPLORING THE RELATIONSHIP BETWEEN DIGITAL BANKING SERVICE QUALITY AND CUSTOMER SATISFACTION

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ABSTRACT

As a result of economic reforms, the banking industry underwent deregulation and increased competition. Indian banks have leveraged technology to introduce a range of digital banking products and services. This study examines consumers' usage of these digital banking products and services and analyses their awareness and satisfaction. Out of a sample of 200 customers, this study found that nearly 41% of bank customers use digital banking services for all their transactions, including funds transfer, paying bills, and checking their balance as needed. Additionally, this study found that overall satisfaction with digital banking services is the same for male and female customers and does not differ significantly. The availability of staff members and computerised counters in the bank was given the least importance by customers, as they primarily use digital banking services on their mobile devices or computers. These findings highlight the growing importance of digital banking in the modern financial landscape and the need for banks to continue investing in technology to meet customer needs.

***Keywords*:** digital banking, customer satisfaction, facilities offered

1.1 Introduction

The banking industry underwent deregulation and increased competition due to economic reforms. In the post-reform period, new products, delivery channels, and processes were introduced, along with increased sophistication due to the more discerning nature of banking service users. To succeed in this sector, players must understand their customers, fulfil their needs, and achieve high customer retention levels by leveraging technology, knowledge, and human resources to provide quality products and services while managing risk and returns. Indian banks have introduced a range of digital banking products and services by leveraging technology. This study examines consumers' usage of these digital banking products and services and analyses their awareness and satisfaction.

1.2 Review of Literature

Ashok and Selvakumar (2006) conducted a study titled "Customer Satisfaction in Banks" to understand the feasibility of physical facilities and elicit customer opinions on their satisfaction with selected branches. The findings showed that service delivery and customer delight are among the most debated issues in the banking industry in India.

Sandip et al. (2010) conducted a study titled "Impact of Service Quality on Customer Satisfaction, Loyalty, and Commitment in the Indian Banking Sector" to examine the association between service quality and customer satisfaction, loyalty, and commitment.

Amer (2010) studied individual consumers' perception of Pakistan's Islamic banking products and services. The study explored the perception of individuals responsible for financial affairs. It examined the usage of Islamic banking facilities and respondents' understanding of the Islamic banking system on various aspects of the selection criteria.

Vidyapriya and Mohanasundari (2012)studied customer responsiveness to banking technology products in rural South India. The study aimed to measure customer knowledge of banks' technology products in rural Tamil Nadu. The research would help bank branches understand the responsiveness level of rural customers towards technology products and take necessary steps to improve.

RABINDRA BHARATI UNIVERSITY JOURNAL OF ECONOMICS
ISSN : 0975-802X

A STUDY ON CUSTOMER ATTITUDE AND PREFERENCE ON DTH SERVICE PROVIDERS

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ABSTRACT
A recent development in marketing theory centers around the effects of technology on marketing products. Social networking is a relatively new form of communication, when people discuss a product via email, Face book pages, Twitter accounts and other electronic means, a product may "go viral," or start to sell more units with no direct advertising, public relations or promotions on the part of the company. This is why more companies are participating in social networking sites hoping consumers will then take their goods or services viral. And every human being holds thousands of attitudes, including those about family and friends, political figures, abortion rights, terrorism, preferences for music, and much more. Each of our attitudes has its own unique characteristics, and no two attitudes come to us or influence us in quite the same way. Research has found that some of our attitudes are inherited, at least in part, via genetic transmission from our parents (Olson, Vernon, Harris, & Jang, 2001). Hence this study tries to find out the Attitude and preference level of service facility of DTH.
Keywords: Technology, Attitude, Direct advertising, consumer preference.

INTRODUCTION
DTH (Direct- To- Home) service is the decoding of satellite, encoded with a small personal dish at very user's premises. DTH service is basically a satellite service that provides the subscribers to enjoy the infotainment services through satellite transmission anywhere. DTH provides strong signals with lesser service break downs. DTH provides high picture and sound quality. A customer's behavior is affect by the perception and beliefs that he holds of. This study has to understand the opinion and beliefs of the customers about the DTH services

REVIEW OF LITERATURE
Senthil and Nagarajan (2012) conducted a study on 'Subscriber Attitude towards DTH Service'. The study attempted to examine the subscriber level of satisfaction and the problems faced by the subscribers. In connection with this study, sample data was collected from 150 respondents. Furthermore, percentage, rank correlation, chi-square test were applied to the collected data. The study concluded that the satisfaction level of the subscribers leads to brand loyalty. Overall, most of the respondents were highly satisfied with the number of channels and picture quality. Also, the subscribers were also satisfied with the sound effect and rate.

Kumar (2013) carried out a study entitled 'Factors Motivating Customers towards DTH Service in Andhra Pradesh'. The study discussed the factors that customers put forward in buying a DTH. The data were obtained from 500 DTH users based on convenient random sampling technique descriptive. Also, the chi-square test was applied in this study. Consequently, it was found that the reason for preferring DTH Service were price, channels, picture clarity, uninterrupted services, and sound effect.

Muthukumar (2008) in his article "Consumer satisfaction towards DTH services in New Delhi", has revealed that the availability of Direct to Home (DTH) service has brought down cable subscription fees. DTH has made the market more competitive, compelling the Local Cable Operators

FARMERS AWARENESS ON STATE BANK OF INDIA'S AGRICULTURAL CREDIT

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ABSTRACT
India - an agrarian economy occupies a significant position in enhancing India's Gross Domestic Product. Farmers own capital is always inadequate to carryout agricultural activities and development. State Bank of India (SBI) is a foremost supporter to the sector by offering wide range of agriculture credits to enhance the livelihood of the farmers. A study was carried out in AnaimalaiTaluk with 120 customers of State Bank of India, who availed agriculture credit. Simple percentage and Chi-Square test has been applied.

It was found that majority of the farmers are with high level of awareness on type of SBI agricultural loan. They are more aware on 'Multi-purpose Gold Loan' and 'Modified New Tractor Loan'. There exist a highly significant association between 'Land Extent' and farmers' awareness on type of loan provided by the State Bank of India. Further, SBI can launch innovative schemes especially for small and medium farmers with low rate of interest as well as frame special credit for Eco-friendly farming.

Keywords:
Agriculture Credit, Farmers and State Bank of India.

INTRODUCTION
India - an agrarian economy occupies a significant position in enhancing India's Gross Domestic Product. Our agriculture and allied sectors accounted for 15 to 16 per cent of the gross value added and employed 46 per cent of the population in 2022 (Pushan Sharma, 2023). Farmers own capital is always inadequate to carryout agricultural activities and development. State Bank of India (SBI) is a foremost supporter to the sector by offering wide range of agriculture credits to enhance the livelihood of the farmers.

REVIEW OF LITERATURE
Saravanan (2013) reveals that the farmer's awareness on the type of loan offered by their banker is inadequate. Farmers are highly aware on "Margin money requirements for getting bank loan" and least aware on "Security required for getting loan from banks."

PurnimaNewar and AnjanBhuyan (2020) states that awareness of the availability of loans without collateral security along with maximum loan amount, periodicity of loan and the additional facilities that are available with Kissan credit card, duely impact the agricultural entrepreneurs awareness on agriculture financing.

Sarada Siva Reddy and Ravishankar (2020) found that majority of therespondents are highly aware and the mean square between the farmers awareness on agriculture loan system ,Kissan card scheme, kissan credit card , attitude towards the agriculture loans, risk orientation and education differs significantly.

STATEMENT OF THE PROBLEM
Indian agricultural sector is continuously facing various issues and adopt innovative strategies to withstand in long run.The expensive inputs of modern agriculture have forced small and medium farmers to rely on credit to finance their farming activities and further development. State Bank of India – pioneer in offeringinnovative agriculture credits provides the farmers with 17 agriculture based credit schemes (Table 1). SBI has adopted various tactics to make reach of these schemes to their customers involved in farming. Now, it is on the part of the customers, to be aware on the schemes

FARMERS PREFERENCE ON STATE BANK OF INDIA'S AGRICULTURAL CREDIT IN COIMBATORE DISTRICT

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ABSTRACT

This study explores the preferences of farmers in Coimbatore District regarding agricultural credit services offered by the State Bank of India (SBI). As a leading financial institution, SBI plays a crucial role in providing financial support to the agricultural sector, particularly in rural regions. The research aims to identify the key factors influencing farmers' decisions to choose SBI for their agricultural credit needs, including accessibility, loan terms, interest rates, customer service, and the bank's association with government schemes. The findings indicate that farmers prefer SBI due to its widespread branch network, competitive interest rates, streamlined loan processes, and strong linkage with government programs such as the Kisan Credit Card (KCC). Additionally, the trust and reputation of SBI, coupled with its tailored loan products and flexible repayment options, further enhance its appeal to the farming community. The study concludes by highlighting the importance of these factors in shaping farmers' preferences and provides recommendations for SBI to further improve its agricultural credit services to better meet the needs of farmers in Coimbatore District. This research offers valuable insights for both policymakers and financial institutions aiming to enhance agricultural finance in rural India.

Keywords - Farmers' preferences, State Bank of India (SBI), agricultural credit, Coimbatore District, loan accessibility, interest rates, government schemes, rural finance, agricultural loans, Kisan Credit Card (KCC).

INTRODUCTION

Agriculture remains the backbone of India's economy, employing nearly 50% of the country's workforce and contributing approximately 18% to the national GDP (Ministry of Agriculture & Farmers Welfare, 2023). In Tamil Nadu, agriculture plays a vital role, with Coimbatore District being a significant contributor due to its diverse agricultural activities, including the cultivation of crops such as cotton, sugarcane, coconut, as well as a strong presence in horticulture and livestock farming. For the 2022-23 fiscal year, Tamil Nadu reported an agricultural growth rate of 3.9%, with Coimbatore contributing substantially to this growth (Government of Tamil Nadu, 2023).

Financial support is crucial for the growth and sustainability of agriculture, particularly in regions like Coimbatore where over 70% of the population is engaged in farming activities (Tamil Nadu Agricultural University, 2023). The availability of agricultural credit enables farmers to invest in modern techniques, purchase quality inputs, and improve productivity. According to the Reserve Bank of India (RBI), agricultural credit in India amounted to over Rs. 15 lakh crore in 2022, with public sector banks like the State Bank of India (SBI) accounting for a significant portion of this credit (Reserve Bank of India, 2023). SBI, as the largest public sector bank in India, has an extensive network across rural and semi-urban areas, including Coimbatore District. With over 22,000 branches nationwide and a strong presence in rural regions, SBI disbursed around Rs. 2.5 lakh crore in agricultural loans during the fiscal year 2022-23 (State Bank of India, 2023). In Coimbatore District alone, SBI accounted for over 60% of the total agricultural credit provided by formal financial institutions, highlighting its dominant role in the region (Coimbatore District Bankers Committee, 2023).

MAKING OF PAKKUMATTAI PLATES – AN ECONOMIC PERSPECTIVE

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Abstract

Pakkumattai plate making industry in India provides self employment opportunities to the unemployed people especially women, generates income, reduces unemployment problems, alleviates poverty, improves the standard of living of the people, contribute s to industrial production, GDP, market share and earns more valuable foreign exchange, utlisaes available natural and human resources, develops entrepreneurship and thereby promotes country' s economy. Hence, an attempt is made in the study so as to measure the input and output requirements for making of pakkumattai box (container/take way box).

Key words: Investment, Employment, Production, Cost, Sales, Net Profit and ROI

Introduction

Pakkumattai plate making industry plays a significant role in employment generation and economic development. As per the restriction of our government for using plastic products, most of the people are using the pakkumattai plates instead of banana leaf and plastic plates in both social as well as official functions like marriage functions, seminars, conferences, meetings, canteens, star hotels and other activities for providing snacks and foods due to they are natural, disposable and less expensive. Pakkumattai products in India have great demand in both domestic as well as overseas markets because of theirs special attributes like 100 percent natural, biodegradable, convenient for using, eco friendly and disposable. USA, Netherlands, Germany, Spain and UK are the major importing countries for Indian pakkumattai products**.**

SOUTH INDIA JOURNAL OF SOCIAL SCIENCES
ISSN: 0972 – 8945

MOTIVATIONAL FACTORS TO START THE BUSINESS BY RURAL WOMEN ENTREPRENEURS

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ABSTRACT

The economic development of any country depends on the physical resources it is having and also the development and utilization of its human resources. It includes both men and women. In India, women constitute around 50 per cent of the total population and they are playing vital role in boosting the economic development. Entrepreneurs are usually opting for entrepreneurship due to the dual benefits of an income coupled with flexibility at work. Women entrepreneurs have to devote her time to family and work. Efficient planning ensures success in business and the family because she has to balance family and the work properly. Rural women entrepreneurs accounts for 30.31 percent of women entrepreneurship in India. Women entrepreneurs are having common activities such as tailoring, cloth shop, provision store, pickle and papad, sweets and savouries, bakery and tea stall and the like. Women entrepreneurs are growing in the rural area of Pollachi Taluk. The present study analyse the socio-economic profile of the rural women entrepreneurs in Pollachi Taluk and to examine the business profile of women entrepreneurs. Also, it will identify the motivational factors which encourage the women entrepreneurs to start the business. Both questionnaire and interview schedule method has been adopted according to the convenience of the respondents. The women entrepreneurs are selected by using convenience sampling method. The sample size was 250 in number covering villages of Pollachi Taluk. The data have been analysed through simple percentage analysis and Friedman rank analysis. The results indicate that desire to do business is ranked as the first factor followed by economic independence, social status, self-identification, family background, supplement family income and the like. Women have capacity and capability to contribute to economic development of the country. The women entrepreneurs are having own initiation to start the business and most of them are first generation entrepreneurs indicates the women are come forward to start the business. So policies and programs have to be framed and implemented by the government accordingly to encourage the women to start the business and further to support them to stand in the business which creates a good environment among the women entrepreneurs in rural areas and contribute more to the family and uplift the nation.

Keywords:
Women Entrepreneurs, Economic Development, Business, Rural area, Government Policies

Introduction

The economic development of any country depends on the physical resources it is having and also the development and utilization of its human resources. It includes both men and women. In India, women constitute around 50 per cent of the total population and they are playing vital role in boosting the economic development. Business involves more risk. Families play an integral role in every woman entrepreneur's journey – right from choosing the career path to till providing with resources and support. Entrepreneurs are usually opting for entrepreneurship due to the dual benefits of an income coupled with flexibility at work. Women entrepreneurs have to devote her time to family and work. Efficient planning ensures success in business and the family because she has to balance family and the work properly. It will help in leading a more fruitful family life. In order to encourage them and bring out their potential out it is necessary to formulate policies and also strengthen the existing policies and it includes stimulating, supporting and sustaining their efforts. Stimulating activities include entrepreneurial education and training through this they may be motivated and the supporting activities

Shodhak : A Journal of Historical Research
ISSN : **0302-9832**
Volume: **53,** Issue: **03,** No: 05**,** September - December : **2023**

CHALLENGES AND PROSPECTUS FACED BY RURAL WOMEN ENTREPRENEURS IN POLLACHI TALUK

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ABSTRACT

Women entrepreneurs have to face and overcome many obstacles. The main difficulties faced by women entrepreneurs are managing both business and family. They are neglected in Indian society. Women do very less business as compared to male entrepreneurship and managing less variety of industries. In rural area, scarcity of resources and lack of agricultural activities and employment opportunities may lead more women to start the business. The aim of the study is to examine the problems and challenges faced by rural women entrepreneurs in Pollachi Taluk. The sample rural women entrepreneurs are selected based on convenient sampling method. The sample size is 250 in number covering villages of Pollachi Taluk. The data have been analysed through Simple Percentage Analysis, Fried Man Rank Analysis, Chi-square Test. The rural women entrepreneurs faced lack of finance is the main problems followed by lack of education, stiff competition, low risk bearing capacity, lack of entrepreneurial skills, electricity shortage, heavy interest rates and the like. So, the government may give entrepreneurship training and give priority to loans extended to women entrepreneurs and concessions in interest rates too. This will enable rural entrepreneurs to take their business to next the level which is a welcome sign for the development of the Indian economy.

Key Words : Women Entrepreneurs, Entrepreneurship, Indian Society

INTRODUCTION

Women entrepreneurs have to face and overcome many obstacles. The main difficulties faced by women entrepreneurs are managing both business and family. They are neglected in Indian society. Women do very less business as compared to male entrepreneurship and managing less variety of industries. In rural area, scarcity of resources and lack of agricultural activities and employment opportunities may lead more women to start the business. Rural and urban women entrepreneurs face lot of problems in the initial period. On efficiently managing of these issues they turn to be successful in entrepreneurship. The success of any business depends on the risk taken by the entrepreneur. If the risk is more the success is high and vice-versa. Similarly, if they are willing to take more risk the satisfaction will also be more.

REVIEW OF LITERATURE

Fungai Ngoma Mauch *et al.* (2014) revealed that majority of the women entrepreneurs faced financial difficulties, competition, work – family balance conflicts and networking problems. Other challenges faced by them were education and skills, risk taking, traditional roles, technology and access to markets.

Sweta Saurabh (2015) observed that women entrepreneurs have average production skills and average entrepreneurial skills. Administration skills found to be low and integration skills are found to be good, that is personnel skills, communication skills, negotiation skills, co-ordination skills and the like. Most of the women entrepreneurs are having poor location of unit, tough competition from larger and established units, lack of transport facility, lack of rest and sleep, competitions from male counterparts and non-availability of raw material were the significant problems faced by entrepreneurs and they are aware of the support systems from banks but more of them are not aware of the support systems helping women entrepreneurs. Poonam Sinha (2016) examined the problems and prospects of women entrepreneurship in Uttarakhand. Majority of female entrepreneurs reported that the fear of failure was the main problem at the time of starting their enterprise followed by lack of confidence,

ACADEMICUSAGEOFSOCIALNETWORKINGSITESBYTHE COLLEGE STUDENTS

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ABSTRACT

Social networking is becoming a more powerful tool for students for communication, information sharing, and discussions. This paper presents a study, based on a survey questionnaire, which aims to investigate to what extent and for what purposes teachers from different countries from all over the world use social networking in their teaching practice.Recent days, Collegestudents are education-oriented, information seeking, multi-tasking experts. In today's college classrooms, much of the information that is hunted by students is done via social media. Social media has increasingly inspired college students' everyday lives.Students find that being connected to their classmates and peers via the internet is mainly helpful.

Keywords: Socialmedia,Socialnetworksites,Students, Usage

1. INTRODUCTION

Socialnetworkingisanonlineplatformthatpeopleusetodevelopsocialrelationships with others. There are several social media networking sites that are used for instant messaging, sharing, posting, and much more. Trillions of people worldwide connected via social media to share their perspectives. However, the majority of people use social networking to interact with their family and friends in order to gain knowledge or for entertainment. Business people use social networking sites to plan their target audience and execute it via attractive advertisements that pop out when theysearch something related to it. The specialist also uses social media to enhance his knowledge in the related field, develop a network with like-minded people in a similar industry, and support each other in their career growth.Improvements in the Internet and technology have introduced new communication tools and styles. In particular, social networking sites (SNSs) have become some of the most outstanding communication tools in this era**.** With the emergence of social networking websites, such as Facebook, MySpace, and Twitter, students and teachers have started to connect outside of school **(Dr. ZeynepTuran et al., 2020).**

International Journal of Cultural Studies and Social Sciences
Vol-20, Issue-1, No.37, January - June: 2024 :: ISSN: 2347-4777
Double-Blind, Peer Reviewed, Refereed & Open Access, UGC CARE Listed Journal

USAGE AND IMPACT OF SOCIAL NETWORKING SITES AMONG THE COLLEGE STUDENTS

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ABSTRACT

Social networking is becoming a more powerful tool for students for communication, information sharing, and discussions. Social Networking Sites gives us enormous capability to provide services in real time. The paperfocused on the use and awareness of social networking sites by the college studentsas well as the benefitsand the challenges faced by the student while retrieving information and for the purpose ofknowing the awareness and usage pattern of SNS by the college student. Thepaper highlights the important findings in respect to the use and impact of SNS.

Keywords: Social media, Social network sites, Communication Tools, Students, Usage

INTRODUCTION

Social networking sites are a technology that shares ideas and information through virtual networks, and communities are busy with social media on computers, tablets, and smartphones via web-based software or applications. Social media refers to the means of interactions among people in which they create, share, and exchange information and ideas in virtual communities and networks. The office of communications and marketing managers manages the main Facebook, Twitter, Instagram, LinkDin, and YouTube accounts (Puri, 2021). With the advancement of technology and the availability of gadgets on a large scale, the role of social media has increased. Platforms that began as chatting websites have now expanded their heritages to many spheres and are assisting people based on their needs.

REVIEW OF LITERATURE

Sivakumar (2020) conducted a study entitled "Effects of Social Media on Academic Performance of Students" to understand the impact of social media on students' academic performance in the Cuddalore District. A sample of 1000 students was selected through a random sampling method, and data were analysed using descriptive and differential analyses. The study found that most students use social media sites to chat for academic purposes, which helps improve their academic performance.

In their study "Impact of Social Media on Academic Performance and Interpersonal Relation: A Cross-Sectional Study among Students at a Tertiary Medical Centre in East India," Lahiry et al. (2019) assessed the pattern of social media usage among medical students in eastern India and analysed the self-perceived impact on academic performance and interpersonal relations. A sample of 650 respondents was considered through a survey method, and data were analysed using tools such as mean, standard deviation, chi-square test, Pearson's correlation, and regression analysis. The study found that most students (88.58%) used social media for academic purposes and believed that social media usage positively improved their academic performance.

Saha and Guha (2019) conducted a study entitled "Impact of Social Media Use of University Students" to identify how excessive use of social media can affect university students' personal and social lives. Data for the study were

JOB SATISFACTION OF TEACHERS WORKING IN SELF-FINANCING COLLEGES

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Abstract

The purpose of the research article is to examine factors that are related to teachers' job satisfaction who work in self-financing colleges. The primary data used in the study was gathered through the distribution of a structured questionnaire. Using the snowball sampling technique, a sample of 682 self-supporting college instructors working the Coimbatore district was chosen. The acquired data is analysed using simple percentage analysis, weighted mean score and chi-square test. The study shows that teachers have higher job satisfaction and that this satisfaction is influenced by factors such as place of residence, number of non-earning family members, size of the family, monthly income, family income per month, nature of the institution, location of the institution, types of academic disciplines, designation, educational qualification, working hours per day, overall working experience, level of perception on various welfare measures offered by the colleges and level of job performance.

Key Words: Job satisfaction, College teachers, Self-financing colleges, Coimbatore district

Introduction:

One of the foundational elements of a healthy and forward-thinking society is education. Apart from parents, they are the primary source of knowledge and morals for kids since they take the responsibility and burden of educating. Additionally, teachers provide a source of direction for all the critical milestones in students' academic and social lives. Instructors must be happy in their jobs in order to maintain their role and interests since happy teachers may accomplish their duties with more focus and dedication. Furthermore, it has been found that teachers are keen to work in both the institutions and the services where they are happy. Furthermore, it has been discovered that instructors who are unhappy in their jobs perform at a lower level because it encourages absenteeism and raises turnover intentions. However, the extent to which college lecturers are guaranteed such job satisfaction has been a significant concern in recent years. As a result, the degree of job satisfaction among teachers in arts and scientific colleges is on par with other levels of employment in terms of teaching experience, nature of appointment, type of management, and college nature (**Senthilkumar and Kannapa, 2016)**. The type of college, the classification, the length of the position, and the remuneration all affect teachers' job happiness (**Minikumari and Binusha, 2021**). The instructors are happy with their pay, job stability, dignity, and social standing as well as the job's fit with their academic background, favourable physical surroundings, paid time off, and other advantages (**Pooja, 2019**).

Review of Literature

The studies conducted in the past regarding the level of job satisfaction among teachers and employees working for various organizations are examined in the paragraph that follows.

According to **Rajasekaran and Chithirai Selvan (2022),** the physical education teachers' designation, overall working experience, and place of residence - including semi-urban and rural areas - all have an impact on how satisfied they are with their jobs.

Rajani Sunny and Joshua's (2021) study reveals that the majority of teachers working in engineering colleges in the Ernakulam district think that things like pay, job security, the workplace, the type of work they do, opportunities for advancement, the speed with which complaints are resolved, the ability to participate in decision-making, and other perks affect how happy they are at their jobs.

EXPLORING FACTORS INFLUENCING INVESTMENT CHOICES IN LIC: A FACTOR ANALYSIS APPROACH

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Abstract
Using a factor analysis approach, this study explores the factors influencing women investors' investment choices in Life Insurance Corporation of India (LIC) products. With the increasing complexity of financial markets and the vast array of investment options available, understanding the key factors driving investment decisions is essential for investors and policymakers alike. This research aims to identify and analyze the underlying factors that shape investment choices in LIC-related products through factor analysis. The study utilizes data from surveys, financial reports, and market indicators to examine variables such as Risk tolerance, expected returns, liquidity needs, safety investment, tax benefit, regulatory environment, and investor preferences. This research provides valuable insights for investors seeking to optimize their investment portfolios in LIC products by uncovering the significant factors impacting investment decisions.
Keywords*: Investment, factor, portfolios, influencing, investor, products*

Introduction

Investment choice among women investors is a multifaceted process shaped by numerous factors. Women investors consider their risk tolerance appetite, determining the level of uncertainty they are willing to tolerate in pursuit of potential expected returns. The time horizon plays a crucial role, with investors aligning their investment choices with short-term needs or long-term financial goals. The regulatory environment is another key consideration, as investors aim to spread their investments across various asset classes to mitigate risk tolerance. Tax benefits, including economic indicators and geopolitical events, also influence investment decisions, prompting investors to adjust their strategies accordingly. Liquidity needs, tax implications, regulatory constraints, and individual financial goals shape investment choices. Investor knowledge and experience play a significant role, with seasoned investors leveraging expertise to make informed decisions, while novice investors may rely on financial advisors for guidance. Overall, investment choice is a dynamic process that requires careful consideration of these factors to construct a well-balanced and tailored investment portfolio.

Women investors often find Life Insurance Corporation (LIC) products attractive for several reasons. LIC's long-standing reputation for stability and reliability instills trust among investors, making their products a preferred choice for those seeking financial security. LIC offers a wide range of products catering to diverse investment goals and risk tolerance profiles, allowing investors to find options that align with their needs and preferences. Furthermore, LIC's extensive network and customer service capabilities provide investors with accessibility and support, enhancing the overall experience of investing with the corporation. Another compelling factor is the tax benefits associated with LIC products, which can incentivize investors looking to optimize their tax liabilities while building wealth. Moreover, LIC's solid regulatory oversight and adherence to compliance standards offer investors peace of mind, knowing that robust governance frameworks safeguard their investments. These factors contribute to the attractiveness of LIC products, positioning them as a preferred choice for investors seeking stability, diversity, tax efficiency, and trusted financial solutions.

Women investor preferences for Life Insurance Corporation (LIC) products in India reflect a blend of factors that have cemented LIC's status as a preferred choice among millions of individuals. With a longstanding presence and government backing, LIC enjoys high trust and credibility in the market. This trust translates into a preference for LIC's traditional life insurance plans, which offer a combination of protection and savings features that resonate with the risk tolerance-averse nature of many Indian investors. Moreover, LIC's reputation for stability and reliability aligns with investors'

JOURNAL OF THE ORIENTAL INSTITUTE
ISSN: 0030-5324

AWARENESS TOWARDS WOMEN CENTRIC INSURANCE SCHEMES IN TAMILNADU- (A DISTRICT LEVEL STUDY)

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ABSTRACT

This study investigates the awareness and utilization of women-centric insurance schemes among women in Coimbatore district of Tamil Nadu. The insurance schemes are designed to address the specific needs and challenges faced by women, such as maternity benefits, coverage for critical illnesses that disproportionately affect women, and support for dependents in case of unforeseen events. The objectives of the study include assessing awareness levels and identifying factors influencing insurance scheme utilization of women. A descriptive research design was employed, utilizing primary data collected through a structured questionnaire from 350 respondents. The data was analyzed using descriptive statistics, chi-square tests, and factor analysis. Findings indicate varying levels of awareness among respondents, with factors such as affordability and accessibility impacting utilization. This study involves not only knowing about the existence of various schemes but also understanding their significance, benefits, and implications for women's financial security and well-being. The study concludes that the importance of enhancing awareness and accessibility to empower women financially and foster socio-economic development in the region.

Keywords: *Awareness, Women centric insurance, Schemes, Women empowerment, accessibility, etc.,*

INTRODUCTION

In recent years, India has witnessed significant strides towards gender equality and women's empowerment, yet persistent socio-economic disparities continue to challenge these advancements. One critical aspect of addressing these disparities lies in ensuring women's access to financial protection and security, particularly through initiatives such as women-centric insurance schemes. These schemes are designed to cater to the unique needs and vulnerabilities faced by women, offering financial coverage for various life events such as childbirth, health emergencies, and livelihood support.

SOUTH INDIA JOURNAL OF SOCIAL SCIENCES
ISSN: 0972 – 8945

PERCEPTION OF RURAL FOLKS ON E-SERVICE IN COIMBATORE DISTRICT

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ABSTRACT
The internet explosion has opened the doors to a new electronic world. People are now able to use the internet for a variety of purposes such as research, communication, online banking, government process and even shopping. With such advantages, the internet is rapidly becoming the main method of communication and of conducting business conveniently. Initially in India e-Governance activity started with providing information services by the various government departments to the public through websites. Information about department, facilities and services provided was offered to the citizens through these websites. Gradually government recognized the scope of e-sevai by providing varied services such as access to government documents, utility bills payment, tax related transactions, lodging complaints, booking or reservation for public services, etc. Hence, this study aimed to anlayze the perception of rural folks on e-service in Coimbatore District. For this study, the researchers have chosen 110 consumers by implementing random sampling method who utilize e-service in Coimbatore district. A self-developed questionnaire has been made and utilized for collecting the primary data related to personal profile and perception towards e-services. The collected sample data are put into tabulation and computed with the help MS-Excel software. In addition, the collected primary data are investigated by using the statistical tools like percentage analysis, mean score and ANOVA while the null hypotheses are administered. The analysis observed that the null hypotheses are rejected and there is a significant mean difference in perception towards e-services with regard to gender, type of service using, place of using service and spending amount for e-services of the consumers.

Keyword:
Perception, e-service, rural folks, Coimbatore, Consumer and e-seva maiyam.

1. INTRODUCTION

Increasing numbers of people are gravitating towards more intensive use of the Internet as the accessibility of technology, the availability of information, and the ability to interact through the Internet increase and evolve. Obvious capabilities of the Internet include avenues for gathering information, purchasing a product, or rendering a service. These advances in Internet technology allow for the expansion of shopping options beyond traditional methods that may be more time consuming. Issues with having to physically gather information with offline shopping methods are alleviated, and customers are better able to efficiently use their time. E-seva is all about the implementation of information and communication technologies to help the government in administration, support public services and creating relationship among its citizens. Government usage of ICT is to create governmental policies, norms and regulations and thereby to manage and monitor its governance is known as e-governance. E-sevai means the application of information and communication technologies in the government business and transactions to deliver better government services, to provide free information to the people and to make government most efficient in its functioning by using electronic means. People are able to get better services and access to government information which would lead to a better interaction between the government and citizens. Therefore, e-sevai maiyam facilitates better interface between government and citizens.

Information Technology (IT) is the lifeline of e-governance. There is an interconnection between e-governance, good governance, economic development and democracy. E-governance can improve the governance can facilitate economic development due to better services, better evaluation, monitoring, better implementation and easy access to information and democracy (due to accountability transparency, efficiency, responsiveness etc.,). E-seva is an instrument of good

CUSTOMER SATISFACTION TOWARDS E-SERVICES IN RURAL AREAS OF COIMBATORE DISTRICT

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ABSTRACT

The online and digital technologies have enabled governments to transform public service provision and deliver electronic government services to citizens. The Internet has become an essential channel for citizen government interaction and public service delivery. With the development in the internet and information technology, electronic services emerged through browsing center, e-seva, and to keep pace with the on-going technological development taking place in the world, the development in the electronic services increased to include a radical change in traditional services provided to customers and replaced them with electronic services. E-services through government portal has the power of ICTs, which provide three basic change potentials for good governance for development. Although the government e-services delivery in all the areas of nation, the customers in rural areas of Coimbatore district are not getting sufficient. In view of this fact, the researchers proposed a study to analyze the customer satisfaction towards e-services in rural areas of Coimbatore district. A well-structured questionnaire has been developed and distributed for getting the primary data related personal profile and satisfaction towards e-service of the selected consumers with the help of 5 points Likert scaling technique. The researchers have chosen the sample size of 145 consumers by approaching random sampling method. The collected sample data have been entered into MS-Excel software and analyzed by using the statistical methods such as percentage analysis, mean score, standard deviation and Chi-square analysis. The null hypotheses have been framed to examine the relationship between selected independent variables and satisfaction towards e-services of the consumers. This study pointed out from analysis that high level of satisfaction towards e-services is perceived by the consumers belong to above 40 years aged, male, private employees, using welfare services, using services at bank and visiting 1-2 times for one service.

Keyword: Consumer, Satisfaction, Perception, E-service, Rural folks, Common Service Centre (CSC) and e-Seva center.

1. INTRODUCTION

India is predominantly a rural country with two-third population and 70 percent workforce residing in rural areas. Rural economy constitutes nearly 50 percent of the National Income. Thus, the rural population's sustained growth and development is critical to the overall growth and inclusive development. E-governance or e-seva is all about the implementation of information and communication technologies (ICT) to help the government in administration, support public services and creating relationship among its citizens. Government usage of ICT is to create governmental policies, norms and regulations and thereby to manage and monitor its governance is known as e-governance. India is the largest democratic country in the world. It has got numerous government organizations working in various departments. Therefore, it is required to have better E-Governance for effective governance procedures. By using the same it will be possible to increase the efficiency of the governance in terms of both internal and external operations.

The Government tries to fulfill its objective to address its role for development of the society through various centrally sponsored schemes. Such schemes are managed through various E Governance -applications. These schemes are usually not so successful due to inefficient plan for project implementation. As a result, the benefits of such projects are out of reach of the citizen. It is required to develop an effective framework in order to solve the problem. The framework will enable the project implementation team in implementing the project successfully. Good governance reforms aim to revamp this delivery system. E-Governance offers new solutions, helping improve government processes, connect citizens, and build interactions with and within civil society. The Common Service

IJCRT.ORG ISSN : 2320-2882

INTERNATIONAL JOURNAL OF CREATIVE RESEARCH THOUGHTS (IJCRT)

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Geographical And Demographic Influences In ESL Acquisition: From O'Neill To Tharoor

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Abstract

ESL acquisition programs are organized to help students and other non-native speakers of English acquire better listening, speaking, reading, and writing skills. To acquire English proficiency for various purposes, ESL teaching has been an integral part of teaching syllabus to students at various levels of education. The intent of ESL teaching is not achieved easily as there are various factors of differing intensities influencing the acquisition process. Much research has been done on most commonly influencing factors, but not a lot focusing on the geographical and demographic factors involved in the process. This research paper examines and evaluates the latter mentioned factors and their influence in the acquisition of English as Second Language, with the aid of literary works from different literatures. This research presents a viable solution in meeting a common ground to deal with the constraints and overcoming it for better acquisition.

Keywords: Holistic Education, Second Language Acquisition, American Literature, Indian Literature, Eugene O'Neill, American Drama, Indian English, Shashi Tharoor, New Education Policy, Academic Revolution.

Journal of Research Administration
Society of Research Administrators International

RE-EVALUATING COLONIAL MOTIFS AND POSTCOLONIAL MODULATIONS IN ENGLISH LANGUAGE THROUGH HUMANISTIC APPROACH

Ms. V. Harshavarthini, Dr. S. Muthukumaravel
Author

Abstract

The colonial satisfaction of stagnating classic imperialist perspectives on English Language which gradually changes into the influence of proliferating postcolonial cross culture. It creates an impact on the language with its canonical literary works related to their culture, social and political background that possesses the candour of

ISSN : 0972-9682

JSL

Journal of the School of Language, Literature and Culture Studies

Series: 26, Year: 2024

Jawaharlal Nehru University
New Delhi

HAITIAN VODOU: A RELIGIOUS DEPICTION IN IBI ZOBOI'S AMERICAN STREET

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Abstract:
'Spirituality is contagious'- claims the spiritual believers of the human race. Spirituality is a redemption of all the faults in our stars and is faceted as religion and its practice of rituals. It intends to provide meaning to life and its origin. Haitian vodou religion is traced to the roots of African culture and spread through the Atlantic slave trade. This religion is worshiped with belief in spirits conquering the divine realm. Papa Legba is an Iwa, a godly spirit who allows for communication between humans and the spirit world. Also, the spirits of the dead are not able to inhabit one's body unless permitted by Papa Legba. The paper darts the religious depiction of Haitian vodou religion in Ibi Zoboi's American Street.

Keywords:
Religion, Haitian Vodou religion, Spirituality, Spirits, Papa Legba.

Theism, a monolithic energy state of spirituality is the redemption of all the faults in our stars. A believer in God cherishes a spiritual journey of life. This happens so, in the case of so many souls who attain goose bumps from the pulpit. To substantiate the belief in God, one has to believe in God. As the power of God becomes evident in the life of human beings, the belief becomes contagious. A believer in God wishes to stand by His side and He by his side in all circumstances. Being religious is magnanimous in spirit for the believer of God. A religion is a combination of traditional, cultural and moral values and contains a lineage of sacred history from the past that intends to provide meaning to life and its origin.

Haitian Vodou, an African diasporic religion is practiced by the people of Haiti. It originated in the Kingdom of Dahomey, in West Africa, born from the meeting of Yoruba (Nigeria), Fon (Benin) and Ewe (Togo) cults ("The Cult of Ancestors, Voodoo, Documentary Photography - Paola Chapdelaine Photography"). Vodou, as a religion, reached Haiti in the 1700s with the slaves who were from Africa through the Atlantic slave trade to work in the cane fields in Haiti. It is a religion that doesn't have scripture and is passed on by word of mouth. Though the belief is the same among the people of the Vodou religion, the practice of rituals and rites differ from region to region. It is a combination of Catholicism, other forms of Christianity, several African religions and folk magic (Stang). The Iwa or Ioa, are the spirits that lie as a core element of African Vodou tradition. These spirits act as intermediates between the human and divine realms. Each spirit differs according to its distinct personality, preferences and areas of expertise. These spirits will bring blessings, protection and guidance at the same time they can also bring misfortune if they are not respected.

Fabiola Toussaint, the teenager, reaches America from Haiti with her mother to live a happy life in the host land. Unfortunately, her mother was sent to a detention center and she was left with her aunt's family to live as they had planned. Fabiola finds it hard to mingle and assimilate to American culture. She, as a Haitian girl, masters cooking and performs the vodou rituals for the spirits which she had learned from her mother. She believes that Papa Legba is constantly guiding her in the new place as a man called Bad Leg lives at the crossroads and sings songs depicting the situation in her life. The day she reached America has taught her a lot about the American culture and the fast-moving world. She yearned for the accompaniment of her mother and she wished to pray the spirits. She said "I need to light a candle for my mother so she can find her way back to me," (Zoboi 26) Praying to God at hard times in life is the nature of this spiritual girl. She believes that the Iwa of God helps her to come out of all the difficult situations in life.

"Myth is essentially the theory and history of the Gods," (Charles 392). As this essentiality necessitates history, culture becomes more evident among the people of a nation. Fabiola being an

Literary Voice

A Peer Reviewed Journal of English Studies
U.G.C. Care Group II Journal
ISSN 2277-4521 (Print) ISSN 2583-8199 (Online)
Indexed with Web of Science ESCI, Cosmos, ESJI, I2OR, CiteFactor, InfoBase

Special Edition December 2023

Identities in Transition

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Dualistic Nature and Identity of Persona in the Spirited Familial and Humid Life of Immigrants in the Select Works of Edwidge Danticat

S. Elakkiya*
S. Muthukumaravel**

Abstract

Immigration is an admonition for cultural heritage, human behaviour, ethnicity and ancestral belongings; on the other hand, it is a prodigy for multilingualism, multiculturalism and multi-ethnicity. Immigration experiences and aspirations vary among the psyche of the individuals. The research objective focuses on the immigrants facing a dual identity in the host land and the multiculturalist society developed among the life of immigrants. This dualism mirrors the sandwich identity to which the persona is affixed. Benedict Anderson, the Irish political scientist and historian argues a nation is an 'imagined community'. This imagined community states that each person holds an identity and the host land becomes an imagined arena thereby providing self-consciousness and resilience in the minds of immigrants. The immigrants possess their nationalism in the host land and favour nativism as they live in the imagined community. The immigrants fail to identify their nationality with them in the host land. This concept of "imagined community" never soothes the heart of a wounded soul that escaped the blazes of hard reality but holds the cultural identity. The paper darts the dual identity and multiculturalism in the novels of Edwidge Danticat and the mental and geographical space they hold in their life.

Keywords: Immigration, Spirit of Place, Imagined Community, Dual Identity, Multiculturalism

A sense of nationalism and patriotism adheres to pride and national identity in the minds of the citizens of a country. When people become immigrants leaving their nation behind, nationalism and patriotism find dualism and they imbibe a dual identity in the host land. The host land becomes the nation of immigration, and the immigrants, after a generation of living in the same land, assimilate into a dominant culture of the nation of immigration. The immigrants, thereafter, sustain a dual identity in the persona, of which they were unaware in their minds. Edwidge Danticat, a Haitian-American author portrays the elements of the transgressive life of immigrants tuned by the lord of their life, themselves. As the immigrants endure the pangs of their life being unsheltered and left behind the barriers of their life, they are moulded to face the challenges of their life. Immigrants switch the tradition and culture of the host land and native land to the need, as they imbibe the quality of survivorship in their minds. The survivors hold unharmed dualistic identity traits in their hearts to which they are accounted for. Most characters in the works of Edwidge Danticat, immigrate to America for shelter and survival for the cause of a person and family. As a result, they dive into a multicultural milieu, diverge their culture, relationship, food, shelter, etc., for the sake of survival. The migrated people, as refugees, lack the ownership of their native land and belongingness and commitment to the world. In the case of America, a

Indian
Literature : 341, No. 2

SURVEILLANCE AND POWER DYNAMICS: ANALYZING ALAN AYCKBOURN'S PLAY 'WAY UPSTREAM' THROUGH THE LENS OF FOUCAULT'S PANOPTICON

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ABSTRACT
This paper explores the complex interplay between surveillance, power and control by employing the concept of Michael Foucault's Panopticon to Alan Ayckbourn's play Way Upstream. It unravels how the ship in the play serves as a microcosm for the modern contemporary society in elucidating the impacts of being subjected to pervasive surveillance. It sheds light on the intricate relationship between surveillance and knowledge, uncovering the dynamics through which information and control harmonize in social contexts. It expounds on the nuanced distinctions between overt and subtle coercion, illuminating their unique impacts in legitimizing power structures within society. It examines the potential for resistance within a homogenized and normalized societal framework. It delves into an assessment of how people traverse through the complex power dynamics in the context of the play and also touches upon the diverse array of resistance strategies employed. The paper also emphasizes the importance of proactive resistance tactics in catalyzing social transformation.

Key words:
Panopticon, surveillance, power, subtle coercion, overt coercion, self-regulation, normalization, resistance.

INTRODUCTION

Panopticon is the structure of a penal system first proposed by English philosopher, Jeremy Bentham in the 19th century. The structure of this prison system comprises of prison cells arranged in a disc-shaped building surrounding a tall tower where the guards are stationed to keep watch over the prisoners. The prisoners are physically disconnected with one another and not allowed to interact with their inmates. The prison cells are all structured in a way such that they face the central tower. The guards can get a full view of the prison cells but the prisoners have no idea as to who the guards are and when they are watching them. They are very much conscious of the fact that they can be watched at any time by the guards. This fear of constant surveillance drives the prisoners to assimilate the norms, stick to the rules and self-police themselves. This prison infrastructure of Bentham never materialized. It was adapted later on by the French philosopher, Michael Foucault who build upon this notion of panopticon to conceive it not just as a prison system but also as a behavioral control and social discipline system that is integrated into the daily lives of people.

The play "Way Upstream" revolves around two couples Keith and June, Alistar and Emma whose respective marital relationships have taken a hit lately and they have decided to take a vacation on a cabin cruiser to restore their strained relationships. In the midst of the incidents, Keith often leaves with his secretary, Mrs. Hatfield to deal with the threatening union issues at his factory. As long as Keith was on board, he commands the boat. But when Alistar and the others take over the boat, in the absence of Keith, they had caused the ship to run aground. Vince who came along helps them regain control of the ship. The other characters invite him onboard as a return for helping them. Vince soon takes advantage of the situation and seizes control of the ship. He also tactically throws Keith away from the ship by manipulating the other characters and turning them all against him. He exerts total domination over all the characters and dictates their terms. This continues for some days and one day Vince deems Alistar abnormal and imposes a harsh punishment to make him robust and masculine. Emma rebels this move of Vince who attempts to seemingly reform her husband. This instigates Emma and triggers her to resist Vince. She ends up getting punished too for failing to adhere to the norms

WWW.IJCRT.ORG
7.97 Impact Factor by google scholar

IJCRT
editor@ijcrt.org

International Peer Reviewed & Refereed Journals, Open Access Journal
ISSN Approved | ISSN: 2320-2882 | UGC Approved Journal No: 49023 (2018)

INTERNATIONAL JOURNAL OF CREATIVE RESEARCH THOUGHTS

Scholarly Open access journals, Peer-reviewed, and Refereed Journals, Impact factor 7.97 (Calculate by google scholar and Semantic Scholar | AI-Powered Research Tool), Multidisciplinary, Monthly, Indexing in all major database & Metadata, Citation Generator, Digital Object Identifier(DOI), Monthly, Multidisciplinary and Multilanguage (Regional language supported)

- Publisher and Managed by: IJPUBLICATION

INTERNATIONAL JOURNAL OF CREATIVE RESEARCH THOUGHTS
International Peer Reviewed & Refereed Journals, Open Access Journal
ISSN: 2320-2882 | Impact factor: 7.97 | ESTD Year: 2013

Website: www.ijcrt.org | Email: editor@ijcrt.org

Website: www.ijcrt.org

IJCRT

IJCRT.ORG ISSN : 2320-2882

INTERNATIONAL JOURNAL OF CREATIVE RESEARCH THOUGHTS (IJCRT)

An International Open Access, Peer-reviewed, Refereed Journal

A METATHEATRICAL ANALYSIS OF THE PLAY COMIC POTENTIAL BY ALAN AYCKBOURN

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Abstract

Comic Potential play by Alan Ayckbourn revolves around a futuristic world where androids are used in television programming. This study explores Comic Potential as a metatheatrical play through the analysis of the play using different conventions of metatheatre such as self referentiality, breaking the fourth wall, the play within the play in detail and emphasizing the constructed nature of the play. It focuses on how these elements contribute to the overall meaning, themes and impact of the play. Ayckbourn by utilizing these devices blurs the boundaries between reality and fiction. Highlighting the artificiality of the television industry and the performances within it, the play prompts the audience to question the nature of theatre itself and its relation to reality. The paper also endeavors to explore the boundaries between humans and humanoid robots and raises thought-provoking questions about the nature of humanity. The influence of Bertolt Brecht's 'epic theatre' as opposed to the Aristotelian theatre will be touched upon.

Keywords: Play-within-the-play, Breaking the fourth wall, Illusion and Reality, Artificial Intelligence, Alienation Effect

Introduction

Alan Ayckbourn, a highly celebrated playwright has established himself as a master of comedy and social commentary through his prolific body of work. Renowned for his ability to seamlessly blend humour with profound insights of human condition, Ayckbourn has become one of the most influential and widely performed playwrights of his generation. His works often explore themes of marital dysfunction, complexities of modern life, infidelity and human relationships. His play Comic Potential is a science fiction comedy published in the year 1998. The main characters of the play are Adam Trainsmith (a young writer), Chandler Tate (Chance, director), Prim Spring(programmer), Lester Trainsmith (Adam's uncle), Turkey (sex worker), Carla Pepperbloom (Regional director), Trudi Floote (technician), JCF 31333(Jacie Triplethree, an android actress). Comic Potential differs from other well-known plays of Ayckbourn in several ways such as, it is set in near futuristic world where the use of humanoid robots called 'actoids' have become common in television industry, while most of his other works are set in contemporary times. This play delves into the realm of science fiction and employs metatheatrical devices. These distinctive elements contribute to the play's unique voice and qualify it to stand out from Ayckbourn's other plays. Some of his well-known plays are Absurd Person Singular, A Small Family Business, Woman in Mind, The Norman Conquests etc.,

IJCRT.ORG ISSN : 2320-2882

INTERNATIONAL JOURNAL OF CREATIVE RESEARCH THOUGHTS (IJCRT)

An International Open Access, Peer-reviewed, Refereed Journal

VIOLENCE, REVENGE AND TRAGEDY IN SALMAN RUSHDIE'S 'SHAME'

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AND
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ABSTRACT

Sir Ahmed Salman Rushdie, Indian – born British – American writer of novels in English is a world renowned personality was born in Bombay on 19th June 1947. He became a controversial writer as his novels contain religious and political themes. His father was a successful business man in India. Rushdie earned his education at rugby school and Cambridge University where he obtained M. A., degree in History in 1968. He began his career in an advertising agency as a copy writer. His first novel Grimus and second novel The Midnight's Children were published in 1975 and 1981 respectively. The novel 'Shame' was published in 1983, it portrays the social, political and historical background of Pakistan. This paper aims to bring out the theme of 'Revenge and Tragedy' found in the novel based on the analysis of the content and characters.

Key Words: Post-colonialism, Shame, Violence,Tragedy, Revenge.

INTRODUCTION

The novel written on the style of magical realism is based on fictional and mythological movement associated with the style of writing which blends magical or panoramic events into realistic mode of writing and presentation. Post-colonialism refers the period after the evacuation of the British from the colonies it had established around the world. Post-colonialism is a wide term used by literary personalities to denote and describe the contemporary project or assignment to reclaim and rethink the history of the people who had been subordinated and treated as secondary citizens in their mother country during the colonial supremacy. The novel consist multiple aspects like history, politics, and social background while Revenge and Tragedy are also occupying the major part and add effect to the current of the novel. The characters woven by Rushdie in the

IJCRT.ORG ISSN : 2320-2882

INTERNATIONAL JOURNAL OF CREATIVE RESEARCH THOUGHTS (IJCRT)

An International Open Access, Peer-reviewed, Refereed Journal

Structuring Society In Lois Lowry's The Giver Quartet.

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Dr. Suja Mathew

Abstract

In The Giver Quartet series by Lois Lowry, Society and structuring plays an important stream in all the four books. Structuring is mainly about how to plan, organize (or) arrange the parts of something. In the Society, social structure is the aggregate of patterned social arrangements in society that are both emergent from and determinant of the actions of individuals. Likewise, society is believed to be grouped into structurally related groups (or) sets of roles,with different functions, meanings (or)purpose. Social Structure gives us the ability to interpret the social situations we encounter. This Paper deals with Structuring and the functions of the society as portrayed in Lois Lowry's *The Giver Quartet.*

Keywords: Society, Structure, Totalitarianism.

Introduction:

The word 'structuring' may sound ambiguous, but there is difference between totalitarian structuring and structuring on the ashes of chaos. As God created this world out of chaos, a kind of structuring, is relevant for the good of humanity. It doesnt refer to external structuring, but the internal transformative structuring to light the thought-process which was dormant for a long time. Education comes to the forefront as the empowering foot to provide directions to construct the society of caring and sharing. The language has to be understood and used in its originality and this requires the creation of perspective and freedom to accept or deny.

IJCRT.ORG ISSN : 2320-2882

INTERNATIONAL JOURNAL OF CREATIVE RESEARCH THOUGHTS (IJCRT)

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EXPLORING THE LINK BETWEEN MEMORY AND CULTURE THROUGH FOOD IN SHOBA NARAYAN'S MONSOON DIARY: A MEMOIR WITH RECIPES.

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Abstract

Food till date is the topmost common denominator between different societies. One can find food connection through the Holy Scriptures like the Bible, the Ramayana, the Vedas, and indeed in the erudite works of Shakespeare up to 21st Century literature. One can draw multitudinous parallels between the significance of both food and literature as vehicles of cultural and social development. In short, both literature and food are means to save as well as transfigure social and artistic traditions. Shoba Narayan's Monsoon Diary: A Memoir with Recipes interweaves personal remembrances with succulent Indian recipes and reflections about Indian and American culture, culinary traditions, and her own eccentric family. This paper aims to bring out the significance of memory and culture through food in Narayan's Monsoon Diary: A Memoir with Recipes.

Keywords:Food, Culture, Tradition, Memory.

" You have to taste a culture to understand it" – Deborah Cater.

Every culture is unique and has its own traditions and rituals, its own cookery, and distinct eating habits, and so does its food culture. Therefore, events involving food from cooking to serving help to define the social association and cultural identity of the communities that give rise to distinct erudite traditions. This, in turn, evokes an avalanche of memories and, feelings through food writings as food involves all the other senses besides taste and smell.

Shoba Narayan's Monsoon Diary: A Memoir with Recipes weaves a fascinating food narrative that combines tasteful Indian recipes with tales from her life, stories of her delightfully eccentric family, and musings about Indian culture. Narayan illuminates' Indian customs while opining on American culture from the edge point of the sympathetic stranger. Her characters, like Narayan herself, have a thing or two to say about cuisine and life. In this creative and intimate work, Narayan's considerable submissive vegetarian cooking talents are matched by stories as varied as Indian spices – at times pungent, mellow, pungent, and sweet. Tantalizing recipes for potato masala, dosa, and coconut chutney, among others, crop from Narayan's absorbing tales about food and the solemn and quirky customs that compass it. Much further than a cookbook, Monsoon Diary: A Memoir with Recipes is a memorial of how food is as much a vehicle of culture and identity, as language and history.

Shodhak : A Journal of Historical Research
ISSN : **0302-9832**
Volume: **53,** Issue: **03,** No: 01, September - December : **2023**

THE INFLUENCE OF (SKY YOGA) EYE EXERCISE AND LAMP GAZING PRACTICE ON VISUAL FUNCTIONING AMONG COLLEGE STUDENTS

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ABSTRACT:
The uses of technology across all the industries have advanced. Without the use of computers and smart phones, the world will not advance.As a result, digital tools can lead to a variety of eye-related problems, such as reading discomfort, weariness, blurred vision, headaches, sporadic double vision, and irritated eyes accompanied by pain. These common issues among the younger generation significantly reduce their academic performance, subsequently affecting their physical and mental health.Therefore, the study aimed to measure the influence of (SKY Yoga) Eye exercise and Lamp gazing Practice on visual functioning among College Students. Students from Nallamuthu Gounder Mahalingam College were randomly selected using the survey method. The study adopts an Experimental research design. The pre-test and post-test one-group designs were adopted to study the influence of (SKY Yoga) Eye exercise and Lamp gazing Practice on visual functioning among college students. The sample (N=237) was obtained from students at Nallamuthu Gounder Mahalingam College, Pollachi. The data were obtained and analyzed before - and - after the SKY yoga practice from the respondents concerned. Before practicing, the mean value of thevisual functioning was found at 40.2110. After the intervention of SKY Yoga practice, the mean value of the visual functioning has increased up to 61.8143. The paired T-test value -108.713 has showed that there was a significant difference in the visual functioning before and after SKY Yoga practices. The study has identified that there was a significant improvement on visual functioning after the intervention of the SKY yoga practice. The study has concluded that the benefits of SKY Yoga practice have improved the visual functioning problems of the students. Thus, most of the study review reported that the regular practice of eye exercise and lamp gazing exercise can provide a better improvement for eye sight problems. Therefore, the study highly recommends that the SKY yoga (Simplified Kundalini Yoga) practice has to be performed on regular basis to have a healthy and clear vision. Ultimately, the study suggests that SKY yoga practice can support their physical and mental health so that they can have a healthy vision to attain the academic achievements and life goals.

Key words: Visual functioning, SKY yoga practice, Eye exercise and Lamp gazing practice

INTRODUCTION

Education system has transitioned into a digitalized form, allowing students to access a wide variety of study materials for their convenience. The digital format has led them to constantly engage with Smartphone and computers, resulting in significant impacts on student's physical and mental health.

Technology is being used more and more frequently, and its benefits include improved global communication, content understanding, and real-time information. Running a business, a transportation system, a facility, an agricultural sector, a medical sector, etc., all benefit from it. Nearly the entire globe is under the power of both computers and smart phones.

In addition, when young people abuse and overuse their smart phones and computers, there are more physical and mental health problems, especially among the younger generations. A disorder known as asthenopia (eye strain) causes generalized symptoms such as discomfort, weariness, blurred vision, headaches, sporadic double vision, and irritated eyes with pain in or around them. A typical VDT (Visual Display Terminal) is a smart phone or mobile phone, which is widely utilized by the general public. The majorities of people now use smart phones on a daily basis, even college students, simply because they

"A STUDY ON THE IMPACT OF EYE EXERCISE (SKY YOGA) AND LAMP GAZING PRACTICE ON ENHANCING VISUAL FUNCTION AND WELL-BEING AMONG COLLEGE STUDENTS"

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ABSTRACT
Prolonged academic reading and writing increase the risk of eye problems including strain, dryness, blurriness, and discomfort. If not treated properly, growing technology use makes young people's eyesight issues worse, which has a negative impact on both their physical and emotional health and academic performance and wellbeing. Therefore, the study aimed to measure the impact of (SKY Yoga) Eye exercise and Lamp gazing Practice on enhancing visual function and wellbeing. Students from Nallamuthu Gounder Mahalingam College were randomly selected using the survey method. The study adopts an Experimental research design. The pre-test and post-test one-group designs were adopted to study the impact of (SKY Yoga) Eye exercise and Lamp gazing on enhancing visual functioning and wellbeing among College Students. The sample (N=237) was obtained from students at Nallamuthu Gounder Mahalingam College, Pollachi. The data were obtained and analyzed before - and - after the SKY yoga practice from the respondents concerned. The intervention significantly improved health ratings, reducing "Poor" health reports and improving ocular health. People with "Good" eyesight increased from 22.7% to 90.8%, while "Average" and "Poor" vision were less common. Ocular pain also increased, with "Good" instances rising from 23.1% to 44.5% and "Poor" cases falling. Social functioning improved from 66.8% to 76.9%, and peripheral vision improved from 21.0% to 30.07%. The study has identified that there was a significant improvement on visual functioning after the intervention of the SKY yoga practice. The study has concluded that the benefits of SKY Yoga practice have improved the visual functioning problems of the students. Thus, most of the study review reported that the regular practice of eye exercise and lamp gazing exercise can provide a better improvement for eye sight problems. Therefore, the study highly recommends that the SKY yoga (Simplified Kundalini Yoga) practice has to be performed on regular basis to have a healthy and clear vision. Ultimately, the study suggests that SKY yoga practice can support individuals' physical and mental health, enabling them to maintain a healthy vision and overall well-being, which will, in turn, support them in achieving their life goals.

Key words:
visual functioning, SKY yoga practice, Eye exercise and Lamp gazing practice, Well being

INTRODUCTION:
College students with visual impairments are increasingly participating in academic activities and using social media to gather information for their academic purposes. Even while they offer previously unheard-of opportunities for learning and social interaction, these platforms create a variety of challenges for students who have visual impairments. As continuous use of digital devices like computers and smart phones has such negative physical and psychological repercussion that students might not be able to achieve their full academic potential.

Long-term screen use can cause dry, itchy eyes, eye strain, blurred vision, and may expedite the development of myopia in young people. Students with visual impairments may experience stress and anxiety owing to academic demands and screen time, as well as feelings of social isolation and low self-esteem brought on by difficulties in accessing visual content and participating in visual-centric activities.

According to recent data, 36 million individuals worldwide are blind (defined as having a visual acuity [PVA] of less than 3/60 in the better eye), with low- and middle-income nations like India

IMPACT OF SIMPLIFIED KUNDALINI YOGA ON SINUS PROBLEM AMONG COLLEGE WOMEN STUDENTS

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ABSTRACT

Introduction: A multitude of modalities are available for the treatment of chronic rhino sinusitis; however, each has its side effects and compliance issues. Simplified Kundalini Yoga is one of the yogic methods which include Physical exercise and meditation. In this practice of yoga, offers an inexpensive and free from side effect modality in this regard.

Objective: The objective of this study was to evaluate the impact of simplified kundalini yoga in relieving the symptoms of sinusitis.

Methodology: A total number of twenty four students with sinusitis were randomly divided into two groups; group-I taught to practice simplified kundalini yoga and group-II as a control group without participating in any particular training outside of their regular daily activities. A pre and post-test was taken by the students to assess the effect of simplified kundalini yoga on sinus problem. The concerned students were specifically advised to practice SKY yoga for up to 6 weeks. In this study, the Sino-Nasal Outcome Test (SNOT-22) questionnaire was the measuring tool used to evaluate the state of sinusitis.

Results: The results are presented in this study the't' test value yoga practice group and control group are 2.77 and 0.23 for sinusitis. The experimental't' values are significantly higher than the required table value of 2.04 with degrees of freedom 11 at 0.05 level of confidence. **Conclusion:** The present study was concluded that SKY yoga practices (Group I) reduced sinusitis than the Control group among college women students. Thus Simplified Kundalini Yoga can be used as adjuvant therapy in management of sinusitis.

Keywords:
Sinusitis, Simplified Kundalini Yoga, Sino-Nasal Outcome Test

INTRODUCTION

The World Health Organization announced the COVID-19 is as pandemic one, because it increase the risk respiratory and affect the physical and mental health of public and also may cause to death. Lungs are the most important organ in the human body. This is because the oxygen obtained from the external environment due to lung activity is a basic requirement for the functioning of all organs. COVID-19 directly impacts the lungs and damages the alveoli (tiny air sacs). Sinusitis is one of the upper respiratory disorders. Chronic rhino sinusitis is a common clinical condition affecting the general population. Changing life styles, increased pollution, rapid urbanization and increase in resistance to antibiotics are responsible for the increased prevalence to upper respiratory tract infection and sinusitis. Chronic Rhino Sinusitis (CRS) affects 1 in 8 people in India, about 5-15% of urban population. Sinusitis is a common health problem that leads to frequent visit to primary care physicians and to ear, nose and throat specialists in all over the world. It contributes to a significant amount of health care expenditure due to direct costs arising from physician visits and antibiotics, as well as indirect costs related to missed days at work and a general loss of productivity due to a decrease in life-quality of those affected.

SOUTH INDIA JOURNAL OF SOCIAL SCIENCES
ISSN: 0972 – 8945

INFLUENCE OF TRADITIONAL YOGA TRAINING ON SINUS PROBLEM AMONG COLLEGE WOMEN STUDENTS

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ABSTRACT

Chronic sinusitis is a common disease affecting peoples of all ages, especially those with allergies; inflammation leads impaired drainage and poor ventilation from the sinuses. Yogic techniques have the potentiality to prevent and cure such conditions of nose by relieving the inflammation and by increasing the resistance against the infection. The main aim of the study was to observe the effect of 6 weeks of yogic interventions techniques in students suffering from sinusitis. In this study, twenty numbers of college women students with affecting sinusitis were selected and divided in to two groups. Group-I underwent traditional yoga practice and Group-II acted as a control group without participating in any particular training outside of their regular daily activities. Each group consist of ten numbers of women respondents. Data to the pre- and post-tests were collected to determine how yoga benefited sinus issues. The measurements used to evaluate the severity of sinusitis include breath-holding time and respiratory rate. The results are presented in this study the‘t’ test value of yoga practice group and control group are 4.6 and 0.07 for breath holding time and 8.62 and 0.12 for respiratory rate respectively. The experimental‘t’ values are significantly higher than the required table value of 2.26 with degrees of freedom 9 at 0.05 level of confidence. The present study was concluded that traditional yogic practices reduced sinusitis than the control group among college women students. This study suggests that yogic techniques can be employed as a more effective therapeutic way for treating sinusitis.

Keywords: Chronic sinusitis, Traditional Yoga, Respiratory Rate, Breathe holding time

INTRODUCTION:

Sinuses are the empty spaces behind the nose and face bone. Inflammation of these sinuses is called sinusitis, which may or may not be as a result of bacterial, fungal, viral infection, allergic or autoimmune disease. Because of this inflammation, the body's normal sinus drainage pathways get blocked, which results in mucus retention, breathing problems, runny noses, headaches, etc. It is estimated that more than 120 million Indians suffer at least one episode of acute sinusitis each year. Due to increasing pollution, urban growth, and resistance to medication sinusitis prevalence has increased during the past ten years. While the fact that no one has ever died from sinusitis, many people have surely felt suicidal while suffering from it, therefore the negative effects on the patient's quality of life should not be ignored. The following symptoms of chronic sinusitis could persist for up to 12 weeks. These symptoms include heavy nasal discharge, facial pain or pressure, and nasal blockage and fever.

Yoga is a special technique that may directly manage the mind while maintaining both physical and mental well-being. Yoga's holistic approach has the potential to entirely cure people of their diseases. To evaluate and standardized the effectiveness of yogic practices in the treatment of various ailments, including physical, mental, and psychosomatic ones, as well as to understand their potential for healing and preventing them, research in yoga therapy is essential. Numerous studies are conducted on yoga's impact on physical, psychological, and physiological health and disease. By opening the nasal airway, some yoga asanas help people breathe easier when suffering from sinusitis. This investigation tries to focus on the ways that Traditional Yoga Practices can aid in the management and prevention of sinusitis.

SKY YOGA IS AN USER FRIENDLY TO LEAD A HEALTHY LIFE.

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ABSTRACT

Yoga is an ancient practice that involves physical poses, concentration and deep breathing. In this paper, an attempt has been made determine the people's preference towards Yoga in Pollachi Taluk. The primary data has been collected through well structured questionnaire. A sample of 200 people was randomly selected from Pollachi Taluk. These collected data were tabulated and analyzed using simple percentage, Z- test , ANOVA and Friedman ranking test. It is found that benefits of sky yoga for healthy life are Relaxation, Healthy life , Immunity increases, Self actualization, Social adjustment Concentration.

Keywords: yoga, life, people, preference user friendly, healthy, mental,exercise etc.,

INTRODUCTION

Yoga is an extraordinary spiritual science of self-development and self-realization that shows how to develop our full potential in our many-sided lives. It was first devised by the rishis and sages of ancient India and has been maintained by a stream of living teachers ever since, who have continually adapted this science to every generation. Yoga's integrative approach brings deep harmony and unshakable balance to body and mind in order to awaken our latent capacity for a higher consciousness that is the true purpose of human evolution. The many methods of yoga spans a vast range from physical postures to breathing practices and meditation, all based upon a philosophy of consciousness and natural way of life.

In 1958 Vethathiri Maharishi founded the World Community Service Centre (WCSC), a non-profit registered society with a view to work towards World Peace through individual peace. As of 2020, more than 200 trusts and about 2000 meditation centres have been registered and affiliated to WCSC in India. In 1984, Vethathiri Maharishi Kundalini Yoga and Kaya Kalpa Research Foundation were founded at Aliyar near Pollachi, Tamil Nadu. On behalf of this foundation, a Temple of Consciousness was constructed in Aliyar, where Thathvagnani Vethathiri resides and preaches. As a unit of this Trust, a spiritual educational wing is also functioning in the name of "Vethathiri Maharishi Institute of Spiritual and Intuitional Education (VISION)".

ISSN: 2573-962X

Research Article

Journal of Pharmaceutical Research

Phytochemical Screening, GC-MS Analysis of Methanolic Extract of the Fern Adiantum Caudatum from Southern Western Ghats

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Submitted: 2023, Oct 09; **Accepted:** 2023, Nov 01; **Published:** 2023, Nov 10

Citation: Sowmiya, D. (2023). Phytochemical Screening, GC-MS Analysis of Methanolic Extract of the Fern Adiantum Caudatum from Southern Western Ghats. *J Pharmaceut Res, 8*(2), 322-326.

Abstract

The present study was to screen the presence of phytochemicals in the methanol extract of fern Adiantum caudatum species by composed with qualitative and quantitative screening methods. In qualitative analysis, the presence of pharmacologically active phytochemicals such as alkaloids, flavonoids, glycosides, steroids, tannins, terpenoids, saponins, phenols, volatile oils and resins were screened. GC-MS chromatogram analysis of the methanolic extract of Adiantum caudatum showed 12 peaks corresponding to 12 different compounds. The percentage of major bioactive compounds were 2-Hydroxymethyl-9-[Beta.-D-Ribofuranosyl] Hypoxanthine (17.995%), 2-Undecene,5-methyl- (33.497%), Pentadecane,2,6,10,14-Tetramethyl- (14.977%), Nonadecane (7.588%), Dodecane, 2,6,10-trimethyl- (1.421%), 3,7,11,15-Tetramethyl-2-Hexadecen-1-ol (2.825%), Nonadecane (7.855%). The identification of bioactive compounds is based on the retention time, peak area, molecular formula, and probability.

Keywords: Phytochemicals, Qualitative, Adiantum Caudatum, Methanol and GC-MS.

1. Introduction

It is impossible to imagine the survival of human race if the earth had no plants on it. The dependence of human beings on plants dates to the start of the human race. Medicinal plants are common sources of medicine. Solid evidences can be cited in favor of herbs being used for the treatment of diseases and for restoring and fortifying body systems in ancient systems of medicine such as Ayurvedic, Unani and Chinese traditional medicine. The innately desired purpose of the use of herbs was to obtain a positive interaction with body chemistry [01].

Traditional medicinal information is important not only for its potential contribution to the drug development as well as people's healthcare. According to the World Health Organization 80% of the world's population mostly individuals of developing countries depend on plant-derived medicines for their healthcare needs. Most of the aboriginal people are not well identified about the uses of Pteridophytes ever since it's not simply available like flowering plants. Pteridophytes are represented by 144 genera and about 1200 species distributed in India [02]. Pteridophytes are regarded as a facultative wetland plant and which can also adopt well in terrestrial habitat. They have a vital role in the earth's biodiversity [03].

Ferns have measurable indications that may reflect the effects of change in environmental factors. The ferns are not only taxonomic oddities but those are plants with dynamic relationship to their environment [04]. Pteridophytes are of immense economic importance and there is a great need for their exploitation towards the economic utility in daily life [05]. Since prehistoric times, plants have been used as a source of treatment. The use of traditional medicine is increasing day by day due to high cost of the allopathic medicines and their potential side effects [06]. Several plants or their parts have been exploited for this purpose. The value of these plants is attributed to the presence of some chemical substances, which produce a definite physiological action. These chemical constituents. These non-nutritive plant chemicals have protective or disease preventive properties. They are nonessential nutrients, meaning that they are not required by the human body for sustaining life. It is well-known that plant produces these chemicals to protect them, but recent research demonstrates that they can also protect humans against diseases [07].

Considering the rich diversity of Indian medicinal plants including pteridophytes, it is expected that, the screening of plant extract for antibacterial activity may be beneficial for humans and plants diseases. The synergistic interaction among crude extracts or the active compounds may be useful in the preparation of improved herbal or drug formulations. The extensive survey of antibiotic activity among the ferns conducted and reported about a hundred species having such property. Traditionally people

Indian Journal of Natural Sciences *www.tnsroindia.org.in ©IJONS*

Vol.14 / Issue 78 / June / 2023 *International Bimonthly (Print) – Open Access* *ISSN: 0976 – 0997*

RESEARCH ARTICLE

Eco-Friendly Dyeing of Cotton Fabric from Aqueous Herbal Extracts and its Antibacterial Activity

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Received: 27 Feb 2023 Revised: 25 Apr 2023 Accepted: 31 May 2023

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ABSTRACT

Natural dyes are found to be environmentally friendly and possess many advantages over their synthetic counterparts. Among various clothing, cotton may act as a nutrient, becoming a suitable medium for bacterial and fungal growth. Therefore, an attempt has been made to study the dyeing capacity and antibacterial activity of some plants like *Ocimum santum, Acalypha indica, Phyllanthus reticulatus, Impatiens balsamia* and *Clitoria ternatea* and the mordant used were *Terminalia chebula* and *Acacia sinuate* on cotton fabric. The work comprises the preparation of dye and mordant from the parts of different plants by means of aqueous extraction. The dyeing ability of *A. indica, O. sanctum, P. reticulatus, C. Ternatea* and *I. Balsamia* showed good results when the mordant *T. chebula* was used. Among the fabricated clothes, *O. sanctum and A. Indica* showed good antibacterial activity with the zone of inhibition 1.00 mm, 0.5 mm respectively. It can be inferred from this study that the naturally dyed clothes showed high compatibility with the environment, softer colour shades, naturalness, cost effective and antibacterial activity.

Keywords: Dye, Mordant, Fabrication, Antibacterial, Gram positive and Gram negative

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Vol.15 / Issue 83 / Apr / 2024 *International Bimonthly (Print) – Open Access* *ISSN: 0976 – 0997*

RESEARCH ARTICLE

Qualitative and Quantitative Analysis of the Unexplored fern, *Thelypteris meeboldii* from Southern Western Ghats, Tamil Nadu

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Received: 06 Nov 2023 Revised: 09 Jan 2024 Accepted: 07 Mar 2024

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ABSTRACT

The present study was to screen the presence of phytochemicals in the petroleum ether, chloroform, ethyl acetate and methanol of fern *Thelypteris meeboldii* species by composed with qualitative and quantitative screening methods. In qualitative analysis, the presence of pharmacologically active phytochemicals such as alkaloids, flavonoids, glycosides, steroids, tannins, terpenoids, saponins, phenols, volatile oils and resins were screened. The methanol fern extract performed well to show positivity rather than other studied fern extracts. Methanol extract showed strong positivity for 6 phytochemicals out of 10 phytochemicals tested. In quantitative analysis the important secondary metabolites such as total phenols, total tannins, total alkaloids, total flavonoids, total saponins and total terpenoids content were quantified.

Keywords: phytochemicals, qualitative, quantitative, *Thelypteris meeboldii*, methanol.

RESEARCH ARTICLE

Asian Research Association

INTERNATIONAL RESEARCH JOURNAL OF
MULTIDISCIPLINARY TECHNOVATION

DOI: 10.54392/irjmt2343

A Quantum Chemical and Nonlinear Optical Investigation on L-Tryptophan Hydrochloride Single Crystals for Optoelectronic Device Applications

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DOI: https://doi.org/10.54392/irjmt2343
Received: 04-05-2023; Revised: 27-06-2023; Accepted: 03-07-2023; Published: 20-07-2023

Abstract: In this study, a semi-organic crystal of L-tryptophan hydrochloride (LTHC) has been synthesized and quality crystals has been grown using a slow evaporation technique. Singe crystal XRD confirms the monoclinic system with space group $P2_1$. UV optical studies displays the transmittance in the entire visible region. The Mulliken charge distribution and MEP mapping show significant charge transfer due to nucleophilic and electrophilic moieties. The molecule's chemical reactivity was examined using HOMO-LUMO and MESP investigations. The crystal's nonlinear properties were studied using the Kurtz-Perry method. These findings suggest that LTHC crystals may have potential applications in the field of nonlinear optics.

Keywords: Semi-organic, Single crystal, Optical, SHG, Nonlinear.

1. Introduction

Over the past two decades, data transmission has experienced exponential growth, with estimates suggesting that approximately 1 billion Gigabytes of data are transmitted on a daily basis. It is clear that the industry stands to greatly benefit from the adoption of nonlinear optical materials as a replacement for standard cables. These materials possess high optical and structural properties, making them highly promising for the development of optical communication systems [1, 2]. However, in order to fabricate successful devices for these sectors, it is essential that the crystals possess specific qualities, such as strong nonlinear optical performance [3, 4].

Amino acids are important chemical compounds that possess amino groups (NH2) and carboxylic acid (COOH) functional groups that can form hydrogen bonds, enabling the creation of innovative organic materials with remarkable nonlinear optical (NLO) and electro-optic properties. L-tryptophan, the most common amino acid, is similar to L-alanine but with an indolyl group replacing a hydrogen atom in the methyl group. Amino acids can react with both organic and inorganic acids to produce various compounds, including simple salts with distinct cations and anions. L-tryptophan has been synthesized and structurally characterized in various simple salts, including L-tryptophanium chloride and bromide, which were shown to be extremely anisotropic by Takigawa *et al* in which L-tryptophan hydrochloride was crystallized in the monoclinic non-centrosymmetric space group $P2_1$ [5]. The demand for hybrid materials has significantly increased due to their unique structural, chemical, and biological properties. Thus, this study evaluated both the experimental and theoretical properties of L-tryptophan hydrochloride using various methods, such as Mulliken analysis, HOMO-LUMO analysis, molecular electrostatic potential, theoretical first hyperpolarizability UV analysis and powder SHG.

2. Experimental

2.1 Synthesis and Crystal growth

L-tryptophan hydrochloride single crystal was produced by gradually evaporating L-tryptophan and saturated 1 N HCl solutions using a progressive evaporation method. The saturated 1 N HCl solution was prepared by dissolving a predetermined volume of hydrochloric acid into double-distilled water and then gradually adding it to tryptophan while briskly stirring to

Indian Journal of Natural Sciences *www.tnsroindia.org.in ©IJONS*

Vol.14 / Issue 79 / Aug / 2023 *International Bimonthly (Print) – Open Access* *ISSN: 0976 – 0997*

RESEARCH ARTICLE

Chemical Profiling of *Scoparia dulcis* (Linn.) Plant Aqueous Extract and their *In-vitro* Antioxidant, Acetylcholinesterase Activity

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Received: 29 Mar 2023 Revised: 19 June 2023 Accepted: 26 July 2023

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ABSTRACT

Acetylcholinesterase (AChE) inhibitor medicines have been used to treat the symptoms of Alzheimer's disease (AD). *Scoparia dulcis* (Linn) leaves collected from South India's Northern region. The aqueous extract of *S. dulcis* was examined for its chemical composition by GC-MS and their biological activity such as *in-vitro* antioxidant, Acetylcholinesterase inhibitory activity. According to the findings, the plant extract from *Scoparia dulcis* has been 33 chemical components. The *in-vitro* Acetylcholinesterase inhibitory activity (AChE) of the *S. dulcis* plant extract showed moderate inhibitory activity with IC_{50} values of 90µg/ml. The antioxidant activity of *S. dulcis* extract was measured *in-vitro* using the DPPH and ABTS assays.

Keywords: *Scoparia dulcis*, Alzheimer's disease (AD), Acetylcholinesterase (AChE) Activity, GC-MS, IC_{50}, Antioxidant activity

Phytoconstituents from the leaves of *Ageratina adenophora* (Sprengel) and their pharmacological activities

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ABSTRACT

The main objective of the current study was intended for isolation of bioactive compounds from the leaves of *Ageratina adenophora* (Sprengel) and their characterization. Crude extracts of *A.adenophora* were prepared using various solvents such as petroleum ether, chloroform, ethyl acetate, and methanol. The chloroform extract showed the presence of higher flavonoid content when compared with other solvent extracts. The chloroform extract was subjected to column chromatography and the eluted fractions were checked by thin layer chromatographywith different solvent ratio. Single compound was isolated which was subjected to spectral characterization. The characterization techniques confirmed that the isolated compound wasQuercetin. Petroleum ether and methanol extracts were subjected tofree radical scavenging activitieswhich suggests that petroleum ether and methanol extracts exhibited better activity and actsaneffective source of antioxidants and anti-cancer agents.

Keywords: Anti-cancer activity, Antioxidant activity, DPPH, Flavonoids, NMR, Quercetin.

INTRODUCTION

AgeratinaAdenophora (Sprengel) (*A.adenophora)*King & Robinson (synonym: Eupatorium adenophorum) is a perennial herbaceous invasive plant native to Mexico and Costa Rica [1]. The plant was introduced in India in the 19th century and since then widely proliferated in the hilly terrain of northern, north eastern himalayan region and other lower hilly regions of southern India[2].However, utilization of the weed gives reward over effortless control processes. As a natural plant, *A.adenophora* has some bioactive components. Anti-oxidant properties and anti-bacterial bioactivities of flavonoids 4'-methyl quercetagetin 7-O-(6''-O-E-caffeoyl glucopyranoside), quercetagetin 7-O-(6''-O-acetyl-b-D-glucopy-ranoside), and eupalitin 3-O-bD-galactopyranoside have been reported[3]. Previous bioassays have shown that caffeic acid has considerable anti-oxidative properties with both radical-scavenging and metal-chelating abilities[4].Eupalitin is a type of flavonoid that is an effective component of some medicines [5]. Mostly in nature; insects and microorganisms hardly ever affect *A. adenophora*. This suggests that the plant would have a rich defence system that includes bioactive chemicals, some of which may also have pharmaceutical value. This plant was previously mentioned in certain literature as being used in Nigeria and India as a traditional or folk medicine to cure a variety of human

RESEARCH ARTICLE

INTERNATIONAL RESEARCH JOURNAL OF
MULTIDISCIPLINARY TECHNOVATION

DOI: 10.54392/irjmt24112

A Quantum Chemical Investigation on Structural, Spectroscopic and Nonlinear Optical properties of an Organic Molecule Serotonin

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DOI: https://doi.org/10.54392/irjmt24112

Received: 07-09-2023; Revised: 28-12-2023; Accepted: 13-01-2024; Published: 30-01-2024

Abstract: Serotonin, a neurotransmitter known for promoting feelings of happiness and optimism, was the subject of theoretical studies conducted using Gaussian software. In these experiments, the 6-311++G/B3LYP basis set was employed. The finite-field-based B3LYP/6-311++G (d,p) approach was used to compute the first-order hyper polarizability and associated properties of this chemical system. Additionally, a Natural Bond Orbital (NBO) analysis was conducted to assess the molecule's stability, taking into account hyper conjugative interactions and charge delocalization. Additionally, HOMO-LUMO energy levels were computed to assess whether a chemical exhibits electrophilic or nucleophilic characteristic. TD-DFT simulations were conducted to examine the electrical and optical characteristics of the material, including absorption wavelengths and excitation energy. Subsequently, the chemical compound's electrophilic or nucleophilic nature was determined by calculating the molecular electrostatic potential (MEP).

Keywords: Nonlinear Optics, Serotonin, HOMO-LUMO, TD-DFT

1. Introduction

Serotonin, also referred to as 5-hydroxytryptamine (5-HT) [1, 2], one of the central nervous system's most vital neurotransmitters, it plays a fundamental and diverse role. Operating both as a hormone and a mitogen [2], it actively participates in intracellular signaling [3]. Its impact extends across various facets of daily life and human physiology, assuming a pivotal role in mood regulation, encompassing emotions such as anxiety, sleep, overall well-being, and blood pressure [4]. The influence of 5-HT is truly multifaceted [5]. Tryptophan is utilized in the synthesis of serotonin, which is also referred to as 5-HT, 5-Hydroxytryptamine, Enteramine, Thrombocyte, 3-(β-Aminoethyl)-5-hydroxyindole, and Thrombotonin. Serotonin is produced in serotonergic centers from tryptophan. During this process, it competes for entry through the blood-brain barrier with tyrosine and branched-chain amino acids [6]. Additionally, serotonin serves as a key focus for various medications employed in the treatment of psychiatric conditions such as schizophrenia and depression [7]. Selective serotonin reuptake inhibitors (SSRIs) have proven notably effective in managing conditions such as unipolar depression and bipolar disorders [8]. Ongoing research and historical findings provide compelling evidence supporting the significant role played by serotonergic systems, especially the central 5-HT2A receptors, in the initiation of drug-induced psychotic states and their potential association with the etiology of various psychotic disorders, including schizophrenia [9]. Furthermore, variations in the efficiency of electrical coupling within brain circuits could influence the pharmacological impact of serotonin, a neuromodulatory substance associated with Alzheimer's disease and other neurological disorders [10]. The field of computational quantum chemistry is dynamic and captivating, offering robust tools for computing various characteristics of organic molecules. Some of these characteristics include ground-state geometry, studies of Natural Bond Orbitals (NBO), and evaluations of Non-Linear Optical (NLO) properties [11]. Diverse methods, such as Density Functional Theory (DFT), molecular mechanics, semiempirical approaches, and ab-initio methods, are frequently employed to compute these

Journal of the Taiwan Institute of Chemical Engineers 157 (2024) 105413

Contents lists available at ScienceDirect

Journal of the Taiwan Institute of Chemical Engineers

journal homepage: www.journals.elsevier.com/journal-of-the-taiwan-institute-of-chemical-engineers

Sustainable synthesis, superior performance: Nanoflower-like α-Bi_2O_3 from solvent-free solid state for photocatalytic crystal violet degradation

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ARTICLE INFO

Keywords:
α-Bi_2O_3
Solvent-free synthesis
Surfactant
Crystal violet dye
Photocatalytic degradation
Eco-friendly applications

ABSTRACT

Background: The main goal of this work is to demonstrate the improvement of visible light absorption for water pollution applications while simultaneously ensuring efficient disintegration of the industrial crystal violet dye (CV) through photocatalytic degradation. This strategy aims to minimize the impact on the local ecosystem.
Methods: This study utilized a simple solvent-free and novel solid-state mixing technique to synthesize α-Bi_2O_3 with surfactant-containing urea (U) and citric acid (CA) at 600 °C. The physicochemical properties were utilized to investigate morphological, structural, textural properties, optical, and photostability, the long lifespan of photogenerated charge carriers of hole-electron pairs, and the visible light energy that caused them to disintegrate.
Findings: Significantly, the surfactant based on urea was successful in maturing a nanoflower-like α-Bi_2O_3 (U) with extremely high stability and a versatile application of photocatalysis crystal violet degradation at 83.9% within 60 min. The α-Bi_2O_3 (U) shows good long-term stability with a 94.8(%) relative standard deviation after the fifth cycle, and the mechanistic analyses were evaluated by trapping experiments. Furthermore, this work provides a strategy to design low-cost and high-efficiency novel methods for sustainable photocatalysts and further investigates environmental applications.

1. Introduction

Rapid urbanization and industrialization create enormous amounts of hazardous industrial effluents, especially persistent organic pollutants that produce chemical dyes. The continuous release of these persistent pathogens into water bodies poses significant risks to human health, with existing treatment methods often proving insufficient for adequately treating these contaminated waters. Therefore, careful handling of these organic pollutants is essential [1]. Among the primary contributors to water contamination is the widespread use of coloring dyes within the textile sector [2]. Crystal violet, belonging to the significant triphenylmethane family of synthetic dyes, stands out due to its well-documented mitotic poisoning and mutagenic properties [3], making it a favoured choice in the textile industry. Crystal violet is particularly harmful to human health because it damages the reproductive system and causes teratogenic and embryotoxic consequences in animals [4]. Despite extensive research over recent years, conventional remedial strategies such as chemical, physical, and biological methods exhibit limitations including subpar efficacy, high costs, and inefficiencies. Consequently, there arises a pressing need for alternative, more cost-effective techniques to purify water contaminated with persistent organic pollutants. Thus, environmentally friendly semiconductor photocatalysis is appealing and useful. It has great chemical and physical stability, is non-toxic, cheap, and has a higher oxidizability, making it a hopeful way to deal with pollutants in wastewater treatment [5–7].

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https://doi.org/10.1016/j.jtice.2024.105413
Received 10 November 2023; Received in revised form 4 February 2024; Accepted 16 February 2024
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ACS APPLIED BIO MATERIALS

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Green Synthesis of Metal-Doped ZnO Nanoparticles Using *Bauhinia racemosa* Lam. Extract and Evaluation of Their Photocatalysis and Biomedical Applications

Anusuya Mariappan, Leelavathi Harikrishnan, Jayanthi Eswaran,* Nagaveni Arumugham, Yogeswari Balasubramaniam, Santhanaraj Daniel, and Rajakumar Kanthapazham*

Cite This: https://doi.org/10.1021/acsabm.4c00132 Read Online

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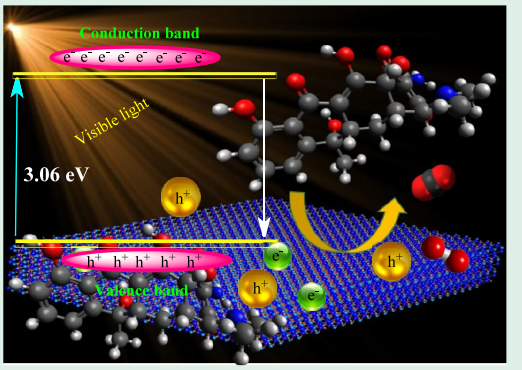
ABSTRACT: A fascinating problem in the fields of nanoscience and nanobiotechnology has recently emerged, and to tackle this, the production of metal oxide nanoparticles using plant extracts offers numerous benefits over traditional physicochemical methods. In the present investigation, ZnO nanoparticles were fabricated from *Bauhinia racemosa* Lam. (BR) leaves extract with various transition metal (TM) dopants (Ni, Mn, and Co). Plant leaves extract containing metal nitrate solutions were utilized as a precursor to synthesize the pristine and TM-doped ZnO nanoparticles. Structural, functional, optical, and surface properties of the fabricated samples were studied by using physicochemical and photoelectrochemical measurements. The organic pollutants tetracycline (TC), ampicillin (AMP), and amoxicillin (AMX) were used in the photocatalytic degradation assessment of the fabricated samples. Through X-ray diffraction (XRD) and transmission electron microscopy (TEM) investigation, the fabricated nanoparticles wurtzite crystal structure was verified. Moreover, Fourier transform infrared (FT-IR) analysis verified the existence of functional groups in the fabricated nanoparticles. The migration of electrons from the deep donor level and zinc interstitial to the Zn-defect and O-defect is related to the emission peaks seen at 468, 480, 534, and 450 nm in photoluminescence (PL) spectra. Co-ZnO nanoparticles demonstrated potent and excellent photocatalytic degradation performance for TC (91.09%), AMP (87.97%), and AMX (92.42%) antibiotics within 210, 180, and 150 min of visible light irradiation. Co-ZnO nanoparticles also demonstrated strong antimicrobial performance against *Escherichia coli*, *Staphylococcus aureus*, *Klebsiella pneumoniae*, *Aspergillus flavus*, *Aspergillus niger*, and *Bacillus subtilis*. Further investigation of *in vitro* cytotoxic potential against the A549 cell line (IC_{50} = 24 ± 0.5 μg/mL) utilizing MTT assay and the free radical scavenging performance of Co-ZnO nanoparticles estimated by DPPH assay utilizing L-ascorbic acid as a reference was also performed. Anti-inflammatory potential is also reviewed by comparing it with the standard drug Diclofenac, and the maximum activity was obtained for Ni-ZnO nanoparticles (IC_{50} = 72.4 μg/mL).



KEYWORDS: *Bauhinia racemosa Lam. extract, ZnO nanoparticles, transition metal-doped ZnO, photocatalytic activity, antibiotic degradation, biological studies*

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HIGHLIGHTS

- Biocompatible ZnO nanoparticles and transition metal-doped ZnO nanoparticles were fabricated.
- The photocatalytic efficacy is validated in the degradation of tetracycline, ampicillin, and amoxicillin antibiotics.
- Transition metal-doped ZnO nanoparticles revealed outstanding antimicrobial, anticancer, anti-inflammatory, and antioxidant potential.
- Cobalt-doped ZnO nanoparticles demonstrated excellent photocatalytic degradation performance and biological activity.

1. INTRODUCTION

Water-soluble contaminants, such as synthetic drugs from pharmaceutical manufacturing industries, have emerged as a major contributor to underground and surface water pollution in the environment in recent times.[1,2] Since they are extremely hazardous and often used in both human and pet care, antibiotics provide the greatest concern among these pollutants.

Received: January 29, 2024
Revised: March 6, 2024
Accepted: March 13, 2024

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Inorganic Chemistry Communications 162 (2024) 112289

Contents lists available at ScienceDirect

Inorganic Chemistry Communications

journal homepage: www.elsevier.com/locate/inoche

Short communication

Green-synthesized flattened rice-shaped CuO and metal doped CuO nanoparticles using *Bauhinia racemosa* Lam. leaves extract and their photocatalytic and biological applications

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ARTICLE INFO

Keywords:
Green synthesis
Bauhinia racemosa (BR) Lam.
Transition metal doped CuO
Antibiotic degradation
Photocatalysis
Biological applications

ABSTRACT

In the present investigation, a sustainable approach to the biogenic fabrication of CuO nanoparticles (NPs) and transition metals (Co, Mn, and Zn) doped CuO NPs (TMDC NPs) was proposed by employing the *Bauhinia racemosa* (BR) Lam. leaves extract as a stabilizing and capping agent. The fabrication of CuONPs was immediately verified by a change in the color of the Cu solution from blue to dark grey. Characterizations of the bare CuO and TMDC NPs were done to attribute the physical and chemical characteristics of the NPs employing Fourier Transform Infrared (FT-IR), X-ray Diffraction (XRD), UV–Vis Diffuse Reflectance Spectroscopy (UV–Vis DRS), Photoluminescence (PL), Scanning Electron Microscopy (SEM) and Energy Dispersive X-ray analysis (EDX), Transmission Electron Microscopy (TEM), and Brunauer − Emmet − Teller (BET) studies. The acquired Co-CuO NPs demonstrated a substantial crystallinity, smaller crystallite size of ~10.87 nm, lower bandgap, and reduced recombination rate and were implemented as an effective photocatalyst for the degradation of the amoxicillin (AMX) and tetracycline (TC) antibiotics, as examined by UV − vis spectrophotometric study and confirmed by a hypochromic shift. Based on UV − vis analysis, Co-CuO NPs demonstrated a potent and rapid photocatalytic degradation performance of ~99 and ~93 % for the AMX and TC antibiotics within 150 and 210 min respectively. Co-CuO NPs also demonstrated strong antimicrobial performance against *Escherichia coli, Staphylococcus aureus, Klebsiella pneumoniae, Aspergillus flavus, Aspergillus niger, and Bacillus subtilis.* Further investigation of *in-vitro* cytotoxic potential against the A549 cell line, utilizing MTT (3-[4,5-dimethylthiazol-2-yl]-2,5 diphenyl tetrazolium bromide) assay and the free radical scavenging performance of the Co-CuO NPs was estimated by DPPH (2,2-diphenyl-1-picrylhydrazyl) assay utilizing L-ascorbic acid as reference were also performed.

1. Introduction

Nanotechnology has recently received a lot of interdisciplinary curiosity and is being incorporated into various aspects of life. A variety of industries, including those in the chemical, food, electrical, environmental, and healthcare sectors, are adopting nanotechnology due to its numerous appealing and distinctive characteristics that satisfy the needs of end users [1–3]. The development of nanomaterials in nanotechnology has resulted in a significant impact on the biomedical field and considered of being the major potential catalysts for purifying contaminated water in a simple, responsible, rapid, and environmentally supportive approach due to their outstanding photocatalytic performance, stability, and exceptional solubility [4,5]. There is a persistent attempt to furnish sufficient healthcare service at a reasonable cost to improve survival and quality of life. Therefore, nanomaterials support these efforts by establishing a personalized platform with the potential

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https://doi.org/10.1016/j.inoche.2024.112289
Received 1 December 2023; Received in revised form 29 February 2024; Accepted 9 March 2024
Available online 11 March 2024
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Journal of the Maharaja Sayajirao University of Baroda
ISSN :0025-0422

6G TECHNOLOGIES SECURITY REQUIREMENTS AND CHALLENGES

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Abstract:
6G is anticipated to be enforced around the time 2030. It'll offer a significant experience for everyone by enabling hyperactive- connectivity between people and everything. In addition, it's anticipated to extend mobile communication possibilities where earlier generations couldn't have developed. These include forthcoming and current technologies similar aspost-quantum cryptography, artificial intelligence(AI), machine literacy(ML), enhanced edge computing, molecular communication, THz, visible light communication(VLC), and distributed tally(DL) technologies similar as blockchain. This paper provides perceptivity into the critical problems and difficulties related to the security, sequestration, and trust issues of 6G networks. also, the standard technologies and security challenges per each technology are clarified. This paper introduces the 6G security armature and advancements over the 5G armature. We also introduce the security issues and challenges of the 6G physical layer.

Keywords: *6G security, privacy, new challenges, security architecture, security threats, physical layer security, AI/ML security*

INTRODUCTION:

Sixth generation(6G) wireless network technology is predicted to offer advanced content, lower energy consumption, comprehensive spectral, and cost- effectiveness with advanced security(1). 6G networks will meet these conditions by planting new technologies analogous as multiple accesses, waveform design, channel rendering schemes, network slicing, numerous antenna technologies, and pall edge computing. 6G affects four significant future changes(2). First, it offers an integrated air – ground – space – ocean communication network by planting terrestrial and non-terrestrial networks(3). Second, new radio bands will meliorate network business capacity and data speed, including millimeter- swell(mm- swell),sub-6 GHz, terahertz(THz), and optical dispatches. Third, 6G will enable a new generation of intelligent operations and services using artificial intelligence(AI) and big data technologies in response to the massive datasets generated by eclectic networks with different communication scripts, wide bandwidths, a advanced number of antennas, and new 6G operations ' conditions(4). Fourth, network security and insulation must be strengthened and enhanced for 6G technologies and operations(5). This paper presents the 6G security trends and challenges of other forthcoming technologies and operations. Data processing, trouble discovery, business analysis, and data encryption are considered the most critical issues in 6G networks. The security issues due to massive business processing can be answered using decentralized security systems, in which the business can be handled roundly and locally. 6G use cases put stricter security conditions than 5G use cases,(6). The Internet of Everything(IoE), with a wide variety of capabilities and services, will make it more challenging to operate and install distributed AI, insulation, and security results. The high mobility conditions of the new connected bias make them change their connected networks and bear services from other networks, performing in security complications and insulation problems. For the Enhanced Ultra- Reliable and Low quiescence Communication(ERLLC) services, the end to end quiescence in 6G should be dropped to a numerous µs. also, 6G will need a ten- time increase in network energy effectiveness over 5G and a hundred- time increase over 4G(7). It's predicted to allow truly low- power transmissions for limited resource bias. Advanced and active operation technologies for high mobility will enable rapid-fire- fire movement at 1000 km per hour. To guarantee the quality of the service for ERLLC, the quiescence effect of security processes will be estimated. also, high conditions need largely effective security results that ensure service and resource vacuity. The IoE provides difficulties in planting and operating the new

Poisson Wavelet Quantized Piecewise Regressive Distributed Coding for Image Compression and Transmission

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Abstract:- Image compression is the process of minimizing the size of a digital image file while attempt to preserve its visual quality as much as possible. This file size reduction process is achieved by eliminating redundant or unnecessary information in an image. Therefore image compression is essential for various applications, including reducing storage space requirements, improving data transmission efficiency, and enhancing the user experience in multimedia applications. The existing compression method faces most important challenges to enhance the quality of the reconstructed image with minimum time and higher compression ratio. A novel technique called Poisson Wavelet Quantized Piecewise Regressive Distributed Coding (PWQPRDC) technique for achieving higher compression ratio. First, the numbers of natural images are collected from the dataset. The PWQPRDC first performs the Camargo's indexive gamma map filtering technique to preprocess the input image and to remove the noisy pixels from input image. Then the PWQPRDC technique performs the image compression to obtain the storage efficiency and transmission. The image compression process includes three different process namely Poisson Wavelet Transformation, Dead-Zone Quantization and Absolute piecewise regressive Geometric Distributed Coding. In PWQPRDC techniques, Poisson wavelet transformation is used for decomposing the input image into low and high frequency coefficients. After that, Dead-Zone Quantization is applied to quantize the low frequency coefficients and effectively rounding to the nearest discrete value. Finally, the Absolute piecewise regressive Geometric Distributed Coding is applied for mining the size of the quantized image with higher compression ratio. This compressed image is transmitted through the network channel. The decompression is performed as a reverse process of the compression technique such as Decoding, Dead-Zone De-Quantization and inverse Poission wavelet transformation. Experimental evaluation is carried out on factors such as peak signal-to-noise ratio (PSNR), compression ratio, compression time and Storage saved, with respect to image size. The analyzed results indicates that the superior performance of our proposed PWQPRDC techniques model when compared with existing methods.

Keywords: : *Image compression, Camargo's indexive gamma map filtering, Poisson wavelet transformation, Dead-Zone Quantization, Absolute piecewise regressive Geometric Distributed Coding*

1. Introductions

Image compression is the fundamental processes in the field of digital image transmission through the wireless channel. They play a crucial role in various applications, ranging from multimedia content delivery to medical

JETIR.ORG ISSN: 2349-5162 | ESTD Year : 2014 | Monthly Issue
JOURNAL OF EMERGING TECHNOLOGIES AND INNOVATIVE RESEARCH (JETIR)
An International Scholarly Open Access, Peer-reviewed, Refereed Journal

HYBRID ARTIFICIAL NEURAL NETWORK AND CASE BASED REASONING (HANNCBR) CLASSIFICATION MODEL FOR CLASSIFICATION OF AGRICULTURE DATA IN DIFFERENT AREA

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Abstract – Lately the erratic weather conditions changes have prompted different polemics. The utilization of cropping designs that have been done from generation to generation regardless of environmental change and the environment is the reason. The advances in computing and information storage have given tremendous measures of data. The test has been to remove knowledge from this raw data that has lead to new strategies and techniques, for example, data mining that can connect the knowledge gap. This research expected to evaluate these new data mining techniques and apply them to soil nutrients and weather database to layout in the event that significant connections can be found. So in this paper we proposed Hybrid Artificial Neural Network and Case Based Reasoning (HANNCBR) Classification Model for conclude the best crop to be cultivated considering the factors, the soil's mineral substance proportions and weather patterns. The proposed Hybrid Classification Model (HANNCBR) is contrasted and Naïve Bayes and SVM. The proposed Hybrid Classification Model (HANNCBR) performs well other than existing methodologies.

Keyword: Data mining, soil nutrients and weather database, Hybrid Artificial Neural Network, Case Based Reasoning and Classification;

1. Introduction

Developing crops on land appropriate for them is significant for the legitimate development and yield of the crops. It now and again becomes confounding to conclude which crop is reasonable for the soil type and how much respect expect once planted. Additionally because of the changing climatic conditions, mineral items in the soil change and so soil quality. Since Tamil Nadu is a state clearly dynamic in the agriculture area, it makes it important to have a model created to view the best reasonable crop as filled in various pieces of the state to boost creation and supply. This undertaking solely focuses on crops that can be grown in Tamil Nadu by the soil and climatic conditions.

1.1 Data mining

Data mining is characterized as the process in which valuable information is extricated from the raw data. To gain fundamental knowledge extricating enormous measure of data is fundamental. This process of extraction is otherwise called misnomer. As of now in each field, enormous measure of data is available and analyzing entire data is truly challenging as well as it consumes a great deal of time. The prediction analysis is most helpful kind of data which is performed today. To play out the prediction analysis the examples needs

IJCRT.ORG ISSN : 2320-2882

INTERNATIONAL JOURNAL OF CREATIVE RESEARCH THOUGHTS (IJCRT)

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AGRICULTURE DATA FEATURE EXTRACTION USING SEQUENTIAL PATTERN MINING AND RANDOM FOREST (SPM-RF) DATA MINING METHOD

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Abstract - Feature extraction assumes a critical part in analyzing agricultural datasets and acquiring experiences for decision-making. In this paper we propose a methodology that consolidates Sequential Pattern Mining (SPM) and Random Forest (RF) techniques for feature extraction in agricultural datasets. The SPM-RF approach uses the temporal request of occasions in agricultural information to extract regular sequential patterns, which are then used to determine enlightening features. These features are thusly incorporated with the first dataset to make a feature-improved dataset. The Random Forest calculation is utilized to prepare a prescient model utilizing the improved features. Experimental results show the viability of the proposed SPM-RF approach in extracting significant features from agricultural datasets, empowering further developed prediction in the agricultural area.

Keywords: Feature Extraction, Sequential Pattern Mining, Random Forest and Agricultural;

1. Introduction

Agriculture is an essential area that assumes a crucial part in guaranteeing food security, economic growth, and environmental sustainability. With the coming of cutting edge innovations and the accessibility of immense measures of agricultural data, there is a developing interest in using data mining techniques to extract significant information and insights from agricultural datasets. Feature extraction, as a crucial stage in data mining, includes identifying and selecting important qualities that catch the fundamental characteristics of the data. With regards to agriculture, feature extraction plans to uncover key markers and patterns that can add to further developed crop yield, streamlined asset distribution, and enhanced decision-making processes.

The use of data mining techniques in agriculture offers various advantages. By extracting important features from agricultural datasets, farmers and agricultural researchers can acquire significant insights into the hidden factors that influence crop production. These insights can then be used to go with informed choices in regards to crop management, asset allotment, and vermin and infectious prevention. Also, feature extraction can empower the advancement of predictive models for crop yield assessment, in this manner helping farmers in planning and optimizing their production techniques.

The utilizations of feature extraction in agriculture are assorted and far-coming to. Feature extraction can add to early detection of crop infections and vermin, considering ideal

intercession and compelling control measures. Besides, precision agriculture, which includes site-explicit crop management in view of the analysis of spatial and worldly varieties, can benefit significantly from feature extraction techniques.

1.1 Data Mining is used in Agriculture Sector

Data mining techniques are used in performing several activities in the agricultural sector such as pest identification, detection and classification and prediction of crop diseases. It can also be used in yield prediction, input management (planning of irrigation and pesticides), and fertilizer suggestion and predicting soil. In a world full of data, data mining is the computational process for discovering new patterns.

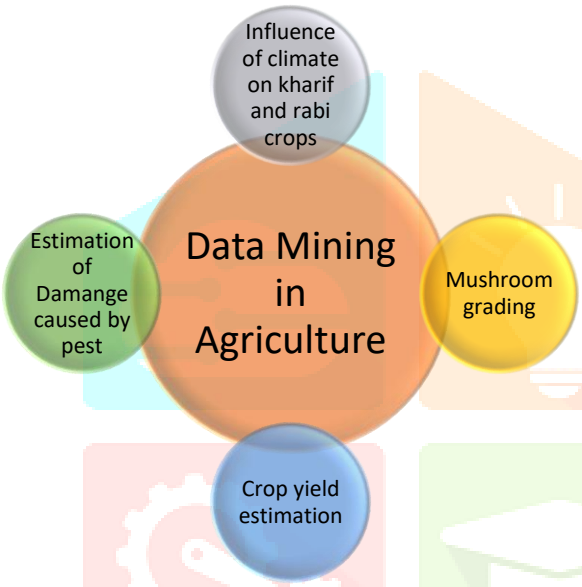

Figure 1.Data Mining in Agriculture

Data mining techniques provide a major advantage in agriculture for detection and prediction for optimizing the pesticides. Techniques for agriculture related activities provide a lot of information. The yield of agriculture primarily depends on diseases, pests, weather conditions, planning of various crops for the harvest productivity is the results. Predictions are very useful for agriculture data. For instance, by applying data mining techniques, the government can fully benefit from data about farmers' buying patterns and to achieve a superior understanding of their land to achieve more profit on the farmer's part.

1.2 The Importance of Agriculture:

Agriculture is a critical sector that holds immense importance for society, the economy, and the environment. Here are some key reasons highlighting the significance of agriculture:

1. Food Security: Agriculture is the essential wellspring of food production, giving food to the developing worldwide populace. It guarantees admittance to an adequate and nutritious food supply, tending to the crucial requirement for sustenance and decreasing appetite and ailing health.

2. Economic Development: Agriculture is a significant supporter of the economy of numerous nations, particularly those with a huge agricultural sector. It gives business potential open doors, creates pay for farmers and rural communities, and adds to by and large economic growth.

3. Poverty Alleviation: Agriculture assumes a critical part in poverty decrease by giving occupation valuable chances to limited scope farmers and rural populations. It engages people and communities by offering pay creating exercises and working on their standard of living.

4. Rural Development: Agriculture frames the foundation of rural communities, driving infrastructure development, social advancement, and enhanced living circumstances in rural regions. It advances practical rural development by broadening pay sources, further developing admittance to education and healthcare, and fostering social cohesion.

5. Environmental Stewardship: Agriculture altogether affects the climate. Supportable agricultural practices assist with saving regular assets, safeguard biodiversity, alleviate environmental change, and keep up with ecosystem administrations. By embracing environmentally cordial farming techniques, agriculture can add to an additional manageable and resilient future.

1.3 The Need for Data Mining Techniques in Agriculture:

The field of agriculture has seen a quick growth in data accessibility because of headways in technology, like remote sensing, IoT devices, and farm management systems. This data blast presents a chance to use data mining techniques to extract important insights and work on agricultural practices. Here's the reason data mining techniques are required in agriculture:

A. Decision Making: Data mining empowers proof based decision making in agriculture. By analyzing enormous and complex datasets, farmers, policymakers, and

researchers can acquire noteworthy insights to streamline resource portion, further develop crop management techniques, and go with informed choices in regards to vermin and infectious prevention.

B. Precision Agriculture: Data mining techniques can support precision agriculture, which includes site-explicit management of agricultural practices. By analyzing data from different sources, like soil sensors, weather conditions stations, and satellite symbolism, farmers can apply inputs, like fertilizers and water system, definitively where and when they are required, optimizing resource use and diminishing environmental effect.

C. Yield Prediction: Exact prediction of crop yields is critical for farmers to design their production, gauge market demands, and enhance profitability. Data mining techniques can investigate verifiable yield records, climatic data, soil information, and crop characteristics to foster predictive models that conjecture crop yields, empowering farmers to go with informed choices and deal with their tasks successfully.

D. Disease and Bug Management: Early detection and successful management of crop sicknesses and irritations are crucial for limiting yield misfortunes and diminishing the requirement for agrochemical interventions. Data mining techniques can investigate sensor data, satellite symbolism, and authentic sickness records to distinguish patterns, recognize early admonition signs, and give decision support to opportune and designated interventions.

E. Resource Optimization: Agriculture faces the test of optimizing resource usage, including water, fertilizers, and energy, to guarantee sustainability. Data mining techniques can examine data on soil composition, weather conditions, and crop prerequisites to streamline resource allotment, diminish waste, and improve proficiency in agricultural practices.

F. Market Analysis: Data mining techniques can break down market data, including price patterns, purchaser inclinations, and supply-demand elements, to support farmers in making informed decisions in regards to crop selection, market timing, and estimating procedures. This assists farmers with adjusting to market changes, further develop profitability, and gain a competitive edge.

2. Literature Survey

2.1 Hyperspectral Imaging and Machine Learning

Smith (2019) et.al proposed Agricultural Feature Extraction Using Hyperspectral Imaging and Machine Learning. This study investigates the utilization of hyperspectral imaging for feature extraction in agriculture. It consolidates ghostly analysis techniques with machine learning algorithms to extract applicable features connected with crop health, disease detection, and nutrient assessment. In the field of agriculture, feature extraction utilizing hyperspectral imaging and machine learning techniques has acquired huge consideration. Hyperspectral imaging empowers the catch of definite otherworldly information across a large number of frequencies, offering an extensive perspective on crop characteristics and health. By applying machine learning algorithms to hyperspectral data, significant features connected with vegetation records, disease detection, nutrient status, and feelings of anxiety can be extracted.

2.2 Convolutional Neural Networks

Johnson (2020) et.al proposed Feature Extraction for Crop Yield Prediction is using Remote Sensing Data and Deep Learning. Feature extraction for crop yield prediction has been enhanced through the mix of remote sensing data and deep learning techniques. Remote sensing gives an abundance of significant information through satellite imagery, such as vegetation indices, temperature, and precipitation data. Deep learning algorithms, such as convolutional neural networks (CNNs) can successfully investigate and extract complex features from this data. Via preparing these models on verifiable remote sensing data and relating crop yield records, the extracted features can be utilized to anticipate future crop yields precisely. It examines the utilization of CNNs to extract features from satellite imagery and further develop yield prediction accuracy.

2.3 Data Mining and Image Processing

Patel (2020) et.al proposed Feature Extraction for Pest Detection in Agriculture using Data Mining and Image Processing. The authors propose a methodology that consolidates data mining and image processing techniques for the detection of pests in agricultural settings. The researchers leverage image processing algorithms to pre-process and extract significant features from agricultural images, such as variety, surface, and shape characteristics. Thusly, data mining techniques, such as clustering and classification algorithms are utilized to recognize patterns and

classify the extracted features into pest or non-pest classifications.

2.4 Principal Component Analysis (PCA)

Li (2021) et.al proposed Feature Extraction and Selection for Soil Fertility Assessment in Precision Agriculture. This examination researches feature extraction and selection methods for soil fertility assessment in precision agriculture. It uses statistical techniques, such as PCA and correlation analysis, to identify significant soil properties and select pertinent features for fertility prediction models. PCA is a generally utilized statistical procedure that can be applied to multivariate data to identify the main patterns and diminish the dimensionality of the dataset. With regards to soil fertility assessment, PCA can be utilized to extract key features or components from an enormous number of soil factors. These techniques can assist with identifying significant patterns, relationships, or patterns in the data that are demonstrative of soil fertility.

2.5 Random forest

Wang et.al (2022) et.al proposed Feature Extraction from Weather Data for Crop Yield Prediction uses random forest. This study focuses around feature extraction from weather data for crop yield prediction. Feature extraction from weather data for crop yield prediction utilizing random forests is to catch the fundamental characteristics and patterns in the weather factors that are generally applicable to predicting crop yields precisely. It utilizes random forest calculation to identify applicable weather features and work on the accuracy of yield prediction models.

3. Proposed Methodology

3.1 Sequential Pattern Mining (SPM)

Sequential Pattern Mining (SPM) is a data mining technique that focuses on discovering recurring sequential patterns within sequential datasets. It is particularly useful when analyzing data with a temporal or sequential nature, such as transactional data or time series data. The main objective of SPM is to uncover patterns that represent frequent sequences of events or items in the data. The process of Sequential Pattern Mining involves several steps. First, the input the preprocessed dataset, after that support calculation, sequential patterns are generated using specialized algorithms like Apriori, PrefixSpan, or SPADE. These algorithms search the dataset for frequent subsequences or itemsets that surpass a specified minimum support threshold. These frequent subsequences represent the patterns of interest. Generated patterns may be further evaluated and pruned based on specific criteria, such as pattern length restrictions or the removal of redundant or less significant patterns, in order to enhance efficiency and interpretability. Finally, the discovered sequential patterns are analyzed and interpreted to gain insights into the underlying dynamics or behaviors of the data.

Sequential Pattern Mining finds applications in various domains, including market basket analysis, web usage mining, biological sequence analysis, and anomaly detection in time series data. By identifying frequent patterns, SPM allows us to understand the recurring behaviors or trends within sequential data, enabling the development of recommendation systems, process optimization, and predictive modeling. Overall, Sequential Pattern Mining is a valuable technique for extracting meaningful patterns from sequential data, providing a foundation for understanding and utilizing the inherent temporal relationships present in various domains. It helps uncover valuable insights and knowledge from sequential datasets, facilitating informed decision-making and enhancing data-driven applications.

3.2 Random Forest

Random Forest is a widely used machine learning algorithm that combines the strength of decision trees and ensemble learning. It is commonly employed for classification and regression tasks, demonstrating its effectiveness in handling complex, high-dimensional datasets. The algorithm's main attributes include the creation of an ensemble of decision trees, random feature selection, and the application of bootstrap aggregation (bagging) to generate diverse training data for each tree. One of the notable advantages of Random Forest is its robustness, as the ensemble approach mitigates the risk of overfitting. By randomly selecting features at each split, the algorithm introduces variation and reduces correlation among the trees, improving generalization. The use of bootstrap sampling helps generate multiple bootstrap samples, allowing each decision tree to be trained on a different subset of the data. For classification tasks, the majority voting mechanism combines the predictions of all trees, while for regression tasks, the averaged predictions contribute to the final result. The algorithm offers several benefits, including robustness, feature importance estimation, and the ability to handle non-linear relationships between

features and the target variable. Random Forest is also less affected by outliers and noisy data compared to some other algorithms.

3.3 Proposed Sequential Pattern Mining and Random Forest (SPM-RF)

1. Sequential Pattern Mining: a. Identify the sequential idea of the agricultural dataset, such as time series data or data with a temporal component. b. Apply sequential pattern mining algorithms (e.g., Apriori, GSP, PrefixSpan) to find continuous patterns or groupings in the data. c. Extract the regular patterns or groupings as features that represent repeating agricultural patterns or patterns.

2. Random Forest Feature Importance: a. Train a Random Forest model on the preparation dataset. Random Forest is an outfit learning calculation that can give a measure of feature importance based on how much the consideration of a specific feature works on the performance of the model. b. Utilize the feature importance scores acquired from the Random Forest model to rank the features in descending order. The features with higher importance scores are viewed as more applicable for the agriculture dataset.

This proposed SPM-RF methodology joins sequential pattern mining to extract recurring agricultural patterns or patterns with Random Forest feature importance ranking. By incorporating the two techniques, it plans to catch both the sequential information in the data and the general importance of features. The last feature selection is based on the average position of features from the two methods. Chose features can then be utilized to prepare a predictive model for agriculture data analysis and prediction.

There proposed feature extraction approach for agricultural datasets using Sequential Pattern Mining and Random Forest (SPM-RF). Here is a bit by bit breakdown of the process, along with the equations in question:

Data Preparation First, the preprocessed agricultural dataset prepared for feature extraction. This might include handling missing values, scaling the data, and encoding categorical variables, if any.

$$F = RF(SP(X))$$

Where

- X represents the input agricultural dataset.
- SP(X) represents the Sequential Pattern Mining process applied to X, which discovers sequential patterns in the data.
- RF (SP(X)) represents the Random Forest algorithm applied to the sequential patterns extracted from X.
- F represents the extracted features obtained from the Random Forest algorithm.

This equation suggests that the proposed approach involves two main steps. First, Sequential Pattern Mining is performed on the agricultural dataset to discover sequential patterns. These patterns capture the temporal dependencies or recurring sequences in the data. Then, the Random Forest algorithm is applied to the extracted sequential patterns to obtain a set of features (F) that can be used for further analysis or predictive modeling in agriculture.

It's important to note that the equation provided is a conceptual representation of the proposed approach. The specific implementation details, such as the parameters used in Sequential Pattern Mining and Random Forest, would depend on the dataset and the specific requirements of the agricultural analysis or prediction task.

Sequential Pattern Mining algorithms like Apriori, PrefixSpan, or SPADE are applied to identify patterns that capture temporal dependencies in the data. The minimum support threshold is set to filter out infrequent patterns. Random Forest, an ensemble learning algorithm, is used to construct multiple decision trees. Each decision tree is built using a random subset of features from the dataset. Feature importance is calculated using metrics such as Gini impurity or information gain. Next selects the top-k sequential patterns based on their support values obtained from Sequential Pattern Mining. For each selected pattern, the features involved in the pattern are identified. The average feature importance score across all decision trees in the Random Forest is calculated for each involved feature and stored. The feature importance scores are sorted in descending order. The top-n features with the highest average importance scores are selected as the extracted features for further analysis or modeling. The performance of the extracted features is evaluated using classification or regression tasks. The algorithm can be repeated with different parameter settings or variations of Sequential Pattern Mining or Random Forest to

explore different combinations and improve feature extraction performance. It aims to leverage the temporal patterns captured by SPM and the feature importance analysis provided by Random Forest to select relevant and informative features for further analysis or modeling tasks.

Here's a step-by-step algorithm for feature extraction using Sequential Pattern Mining and Random Forest for agriculture datasets:

Algorithm: Sequential Pattern Mining and Random Forest (SPM-RF)

Input:

- Pre-processed Dataset D with n instances and m features

Output:

- Selected features F

Step 1: Apply a Sequential Pattern Mining algorithm in pre-processed dataset to extract sequential patterns from the dataset.

Step 2: Set a minimum support threshold to filter out infrequent patterns and improve efficiency.

Step 3: Rank the extracted sequential patterns based on their support values.

Step 4: Construct an ensemble of decision trees using the Random Forest algorithm.

Step 5: Randomly sample the dataset D with replacement to create multiple bootstrap samples.

Step 6: For each bootstrap sample, build a decision tree using a random subset of features.

Step 7: Calculate the feature importance for each feature in the Random Forest model using metrics such as information gain.

Step 8: Select the top-k sequential patterns based on their support values obtained from SPM.

Step 9: Initialize an empty dictionary to store the feature importance scores for each involved feature.

Step 10: For each selected sequential pattern:

i. Identify the features involved in the pattern.

ii. Calculate the average feature importance score across all decision trees in the Random Forest for each involved feature.

iii. Store the average feature importance scores in the dictionary.

Step 11: Feature Extraction

i. Sort the dictionary of feature importance scores in descending order.

ii. Select the top-n features with the highest average feature importance scores.

iii. Output the selected features F for further analysis or modeling.

Step 12: Evaluate the performance of the extracted features.

This algorithm focuses around the feature extraction aspect using proposed Sequential Pattern Mining and Random Forest (SPM-RF) for agriculture datasets. Alternatively, perform hyperparameter tuning to streamline the Random Forest model's performance. Once happy with the model's performance, use it for predicting results on new, inconspicuous agriculture datasets. Break down the importance still up in the air by the Random Forest model to identify the most compelling features in predicting agricultural results. Utilize the results to gain insights into the relationships between various agricultural occasions and their effect on the ideal results.

4. Results and Discussions

4.1 Precision

Dataset	PCA	RF	Proposed SPM-RF
100	66.45	74.12	87.76
200	69.78	71.89	90.89
300	74.91	67.35	92.41
400	79.33	68.98	95.56
500	86.86	65.33	97.12

Table 1.Comparison table of Precision

The Comparison table 1 of Precision Values explains the different values of existing PCA, RF and proposed SPM-RF. While comparing the Existing algorithm and proposed SPM-RF, provides the better results. The existing algorithm values start from 66.45 to 86.86, 65.33 to 74.12 and proposed SPM-RF values starts from 87.76 to 97.12. The proposed method provides the great results.

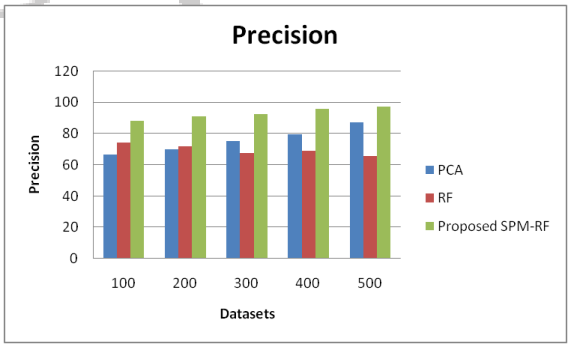

Figure 2.Comparison chart of Precision

The Figure 2 Shows the comparison chart of Precision demonstrates the existing RF, PCA and proposed SPM-RF. X axis denote the Dataset and y axis denotes the Precision ratio. The proposed SPM-RF values are better than the existing algorithm. The existing algorithm values start from 66.45 to 86.86, 65.33 to 74.12 and proposed SPM-RF values starts from 87.76 to 97.12. The proposed method provides the great results.

4.2 Recall

Dataset	PCA	RF	Proposed SPM-RF
100	0.62	0.72	0.83
200	0.66	0.65	0.87
300	0.70	0.59	0.90
400	0.72	0.62	0.94
500	0.75	0.59	0.96

Table 2.Comparison table of Recall

The Comparison table 2 of Recall Values explains the different values of existing PCA, RF and proposed SPM-RF. While comparing the Existing algorithm and proposed SPM-RF provides the better results. The existing algorithm values start from 0.62 to 0.75, 0.59 to 0.72 and proposed SPM-RF values starts from 0.83 to 0.96. The proposed method provides the great results.

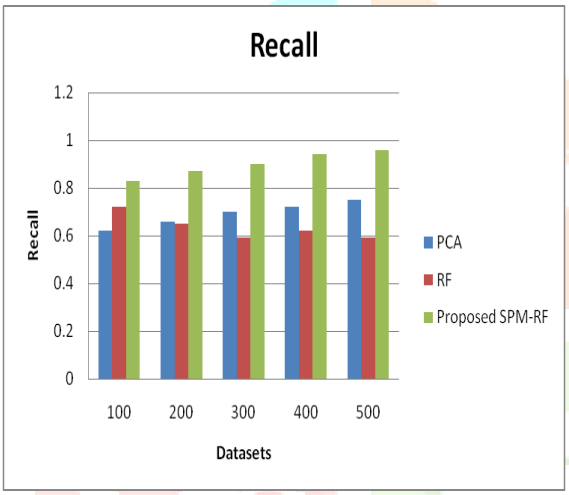

Figure 3.Comparison chart of Recall

The Figure 3 Shows the comparison chart of Recall demonstrates the existing RF, PCA and proposed SPM-RF. X axis denote the Dataset and y axis denotes the Recall ratio. The proposed SPM-RF values are better than the existing algorithm. The existing algorithm values start from 0.62 to 0.75, 0.59 to 0.72 and proposed SPM-RF values starts from 0.83 to 0.96. The proposed method provides the great results.

4.3 F-Measure

Dataset	PCA	RF	Proposed SPM-RF
100	0.89	0.72	0.98
200	0.85	0.70	0.96
300	0.86	0.67	0.95
400	0.84	0.64	0.93
500	0.82	0.61	0.92

Table 3. Comparison table of F -Measure

The Comparison table 3 of F -Measure Values explains the different values of existing PCA, RF and proposed SPM-RF. While comparing the Existing algorithm and proposed SPM-RF, provides the better results. The existing algorithm values start from 0.82 to 0.89, 0.61 to 0.72 and proposed SPM-RF values starts from 0.92to 0.98. The proposed method provides the great results.

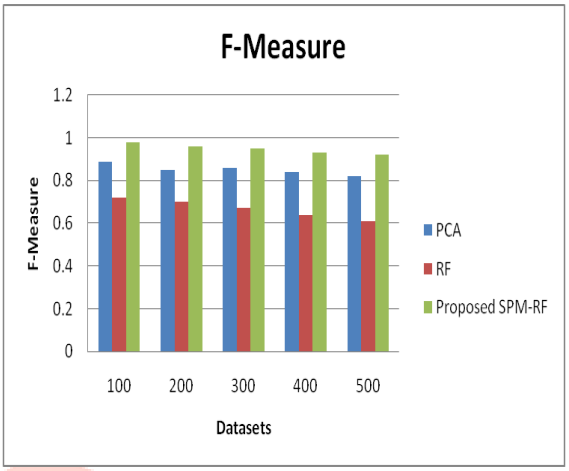

Figure 4.Comparison chart of F -Measure

The Figure 4 Shows the comparison chart of F -Measure demonstrates the existing RF, PCA and proposed SPM-RF. X axis denote the Dataset and y axis denotes the F -Measure ratio. The proposed SPM-RF values are better than the existing algorithm. The existing algorithm values start from 0.82 to 0.89, 0.61 to 0.72 and proposed SPM-RF values starts from 0.92to 0.98. The proposed method provides the great results.

4.4 Accuracy

Dataset	PCA	RF	Proposed SPM-RF
100	69	79	89
200	76	82	91
300	79	85	93
400	81	80	95
500	85	89	98

Table 4. Comparison table of Accuracy

The Comparison table 4 of Accuracy Values explains the different values of existing PCA, RF and proposed SPM-RF. While comparing the Existing algorithm and proposed SPM-RF, provides the better results. The existing algorithm values start from 69 to 85, 79 to 89 and proposed SPM-RF values starts from 89 to 98. The proposed method provides the great results.

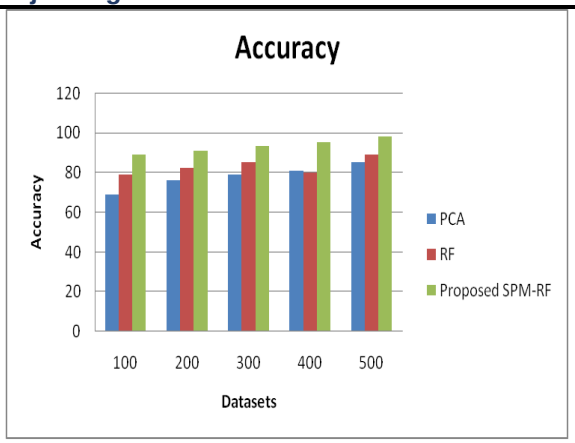

Figure 5.Comparison chart of Accuracy

The Figure 5 Shows the comparison chart of Accuracy demonstrates the existing RF, PCA and proposed SPM-RF. X axis denote the Dataset and y axis denotes the Efficiency Measure ratio. The proposed SPM-RF values are better than the existing algorithm. The existing algorithm values start from 69 to 85, 79 to 89 and proposed SPM-RF values starts from 89 to 98. The proposed method provides the great results.

5. Conclusion

In this paper we proposed combining Sequential Pattern Mining (SPM) and Random Forest (RF) approach for feature extraction in agriculture datasets. SPM-RF leverages temporal order to extract frequent sequential patterns, deriving informative features that improve the dataset. Random Forest trains a predictive model using the enriched features. Experimental results exhibit SPM-RF's viability in extracting meaningful features, enhancing prediction and decision-making in agriculture. This approach holds guarantee for analyzing large-scale datasets, providing important insights for farmers, researchers, and policymakers. It empowers identification of important features, supporting precise predictive models for crop management, disease detection, yield assessment, and resource allocation.

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Journal of the Maharaja Sayajirao University of Baroda
ISSN :0025-0422

AGRICULTURAL DEVELOPMENT METHODS IN CONTRIBUTION OF SENSORS

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Abstract: For people's food needs. From that time to this time, we depend on agriculture. Agriculture is a source of our daily needs and all the circumstances around us are mixed together with this agricultural system. This agriculture helps us to balance the energy, water, air, gas, temperature and opportunities that we need not only for our food needs but also for a balanced climate. Due to human development and increase in human population, the area of agricultural land is greatly reduced, and human density is a major factor for this. The agricultural land area is currently decreasing, but on the contrary, the human development is increasing. To balance this, it is imperative to increase the production. Only if the production increases, we can feed this population. In the limited amount of agricultural land, large scale cultivation is very important, and the demand is high in the current situation. In the present circumstances, it is considered important to know the climate and bring it under our control to increase the agriculture using Artificial intelligence to increase the yield. In the current scenario, we can use artificial intelligence to make improvements in our farming practices and use these efficiency factors to increase our yields.
Keywords: IOT, Soil, Fertilizers, Image processing, Artificial Intelligence

Introduction: Agriculture is one of the best oldest practices and oldest in today's world. It is only through agriculture that we meet all our needs, especially food, clothing, and shelter. Agriculture is not only for our needs, but also for all living things including food, and all health conditions. These agricultural practices are safe to prepare life. Preserving agriculture and passing it on to future generations is considered an essential activity of today's man. Agriculture is an essential part of human life, and it is considered to be a related aspect of all living things in some way.
In the current situation, agriculture is being formalized in a very alarming manner. The situation of farmers is alarming. The reason for this is the decrease in the area of agricultural land and the disruption of the labour-oriented agriculture and non-support agriculture. Encouraging the development of agriculture and improving the status of the farmer is very important in the current situation. We have to examine these factors. It is seen as an essential activity to improve the development of agriculture by using the best technologies available in the world. To protect the interest of the farmers. To maximize their development. When we examine artificial intelligence methods, we can use to help the farmers using the existing practices such as pre-completion activity packages

Review of Literature: Agriculture is an excellent means of fulfilling all the factors for us. In agriculture, it is an important duty for us to analyze the various factors affecting the yield and reduce its impact and increase the growth or yield factors. Our main goal is to get high yield with minimum investment in less land area. There are five things that affect agriculture or that we need to work on.

1. Water Management
2. Soil Management
3. Fertilizer Management
4. Weather forecast Management
5. **Disease Management**

To get the five types of management results we mentioned above, we can get the results we need by using sensors called the Internet of Things or by taking photos [1].
Water Management: Water management is a good practice. With this method we can solve the most important problems in the world. You cannot do all the important things without water. The world can't survive without water. Is that a saying So using water is a important process. Water management is the control and movement of water resources to minimize damage to life and property and to maximize

Journal of the Maharaja Sayajirao University of Baroda
ISSN :0025-0422

EFFICIENT TASK SCHEDULING AND LOAD BALANCING TECHNIQUES TO OPTIMIZE RESOURCE UTILIZATION IN CLOUD ENVIRONMENT

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Abstract-Big data is the collection of data that is huge in size. Big data analysis is the process of analyzing the data and extracting valuable information that can be utilized for future purposes. With the rapid increase in the volume of data, the handling of big data in multiple datacenters with available resources remains a challenging job due to some issues such as higher traffic level, bandwidth, memory and time consumption. The main idea of the proposed Resource Optimized Traffic Aware Gradient Boosting Classification (ROTAGBC) technique is to lessen the traffic occurrence level while distributing the big data in the cloud. The main contribution of the proposed Multivariate Logistic Regression based Gradient Descent firefly optimized Round Robin Scheduling (MLR-GDFORRS) technique is to perform the task scheduling with optimized resource utilization virtual machine at a less time. The main goal of the proposed Support Vector Regression based MapReduce Throttled Load Balancing (SVR-MTLB) technique is to provide better results for performing load balancing with maximum throughput and minimum makespan.
Keywords: Big Data, Task Scheduling, Multivariate Logistic Regression Analysis, Support vector Regression, MapReduce

I. Introduction

Cloud computing is the contemporary type of internet-based computing system. Cloud computing offers a different number of hosted computing services such as storage, servers, computer networks, software, database, and services over the internet to cloud users in an easy manner. By getting these cloud services, many cloud applications are performed in a cloud environment to resolve user requirements. Besides, cloud computing has better advantages such as cost reduction, shared configurable computing resources, computer maintenance, and flexibility in services than the other networks. That is the reason for cloud computing attains great attention among users. Now a days, cloud computing is one of the fastest-growing attractive technology for storing and accessing data from anywhere through the connection of cloud applications over the internet. Cloud computing operates and maintains the different tasks and applications by varying software, platform, infrastructure, and standardizing cloud service providers. Cloud computing is the on-demand network access that plays a key role in sharing the standard computing services where the available resources are delivered as a service over the internet. In cloud computing, valuable information is stored on a data center and accessed by the cloud users with the help of cloud services provided by the cloud service providers. During this, the cloud service providers take full responsibility for organizing and controlling the cloud database with the performance of computing services. In the cloud, the datacenter is the individual server room that is hosted in the association. In order to update the datacenters, the cloud service providers are organized in a cloud environment. Due to the essential factors of the cloud such as scalability, self-service provision, elasticity, pay-per-use, data storage, data recovery, and avoiding attacks, cloud computing is formed by the connection of several servers in individuals and businesses for performing the applications from anywhere.

Journal of the Maharaja Sayajirao University of Baroda
ISSN :0025-0422

INTERNET OF THINGS (IOT) IN HOUSEHOLD ITEMS

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One of the most important technologies of the 21st century is **IoT (Internet of Things)**. The real-world things/Physical objects could be connected over a network and activities like controlling, monitoring of the objects with the data collection is possible with minimum human intervention. This technology helps to build a smart and secured home.

Essentially the objects are with sensors, software, and other technologies for the purpose of connecting and exchanging data with other devices and systems over the internet. we can connect everyday objects— household appliances like washing machine, Television, Fan, Air conditioner, Fridge, car, water heater, baby monitor etc. to the internet via embedded devices and can have seamless communication is possible between people, processes, and things.

Key words

IoT - Internet of Things SaaS - Software as a Service
RFID - Radio frequency identification

Cloud - Platform to store applications, store and steam data etc. seamlessly.

Introduction

In early 90's the embedded programing language Java was invented by James Gosling for a similar kind of **IoT** requirement but in 1999 the **IoT** term was coined by Kevin Ashton, and he put together an architecture for it. He proposed (RFID) Radio frequency identification chips into the objects and tracked them over internet.

In 2008 and 2009 IoT was fully conceived and currently over 25 billion connected devices are in the world.

Now the IoT comes with prebuilt applications/ software-as-a-service (SaaS) applications that can collect, analyze and present captured IoT sensor data to the users via dashboards.

This IoT technology was made possible widely due to low-cost and low-power sensor technology, low-cost computing, mobile technologies for access, cloud for low-cost data storage with good availability and Big data for data analytics etc.

The affordable and reliable sensors are making IoT technology possible for more manufacturers. Now IoT programing is done in Java, C, C++, Python, PHPoC, Java script etc.

Journal of the Maharaja Sayajirao University of Baroda
ISSN :0025-0422

TRANSFORMATION SEARCH: ENHANCING WEB PAGE RE-RANKING WITH TRANSFORMER-BASED DEEP LEARNING ALGORITHMS

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Abstract:

In the ever-expanding digital landscape, efficient and accurate information retrieval plays a pivotal role in enhancing user experience. This study introduces a novel approach to web page re-ranking, leveraging the transformative power of deep learning algorithms, specifically based on transformers. The conventional methods of ranking web pages often rely on static features, failing to capture the dynamic and intricate relationships within the content. Our proposed framework harnesses the capabilities of transformer-based models, demonstrating their effectiveness in learning contextualized representations of web page content. The foundation of our methodology lies in the utilization of pre-trained transformer models, such as BERT (Bidirectional Encoder Representations from Transformers) or GPT (Generative Pre-trained Transformer), which excel in understanding the semantic nuances of natural language. The work adapts these models to the domain of web page ranking by training them on large-scale datasets, fine-tuning their parameters to comprehend the subtleties of diverse content types and user preferences. To evaluate the efficacy of the approach, it is been conducted extensive experiments on benchmark datasets, comparing the performance of the transformer-based re-ranking model against traditional methods. The results showcase a significant improvement in the accuracy and relevance of search results, highlighting the ability of transformer-based models to grasp the context and nuances of web content.

Furthermore, it is explored the interpretability of the work model, shedding light on the factors influencing the re-ranking decisions. This transparency enhances user trust and allows for meaningful insights into the model's decision-making process. It also addresses potential challenges and provide insights into the interpretability of transformer-based models in the context of web page re-ranking. In conclusion, the study demonstrates the transformative potential of integrating transformer-based deep learning algorithms into the realm of web page re-ranking. By embracing the dynamic nature of web content and leveraging the contextual understanding of transformers, it paves the way for more effective and user-centric search experiences in the evolving landscape of information retrieval.

Key words: *Transformer, Deep Learning, Web Page re-ranking, Pre-trained Transformer models.*

1. Introduction

In the digital age, the accessibility and relevance of information are paramount, with web search engines serving as the gateway to an ever-expanding repository of knowledge. As the volume of online content continues to soar, the need for efficient and accurate web page ranking becomes increasingly crucial to provide users with meaningful and relevant results. Traditional methods of web page ranking, often reliant on static features, face challenges in capturing the dynamic and context-dependent nature of user queries and content. This paper introduces a paradigm shift in web page re-ranking through the incorporation of transformer-based deep learning algorithms. Transformers, originally designed for natural language processing tasks, have demonstrated unparalleled success in capturing intricate semantic relationships within textual data. Adapting these models to the realm of web page ranking promises to revolutionize the way search engines prioritize and present search results. The motivation for this research stems from the limitations of existing ranking techniques. Traditional algorithms may struggle to discern the subtle nuances and context-specific meanings embedded in the vast array of web content. In contrast, transformer-based models, such as BERT and GPT, leverage attention mechanisms to process information in a contextually aware manner, making them well-suited for tasks that require understanding the intricacies of

PUBLIC HEALTH CENTERS ROLE FOR THE DEVELOPMENT OF RURAL COMMUNITIES – A DECISIVE APPROACH

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Mr. Ajay Kumar and **Mr. Madhu Balaji,** II M. Com IB Students, Nallamuthu Gounder Mahalingam College, Pollachi

INTRODUCTION:

The new agenda for Public Health Centers in India includes specialized treatment against Covid 19[1]. The first case of the COVID-19 pandemic in the Indian state of Tamil Nadu was reported on 7 March 2020. The largest single-day spike (30,987 cases) was reported on 13 May 2021. The other dimensions of PHC's are to strengthen the health system, develop the human resource and build the capacity and regulate them in public health[2]. Tamil Nadu stood as the fourth highest number of Covid confirmed cases in India after Maharashtra, Kerala and Karnataka. All 38 districts of the state are affected by the pandemic, with capital district Chennai being the worst affected[3].

The state government has responded to the outbreak by following a contact-tracing, testing and surveillance model. The causes of health inequalities lie in the social, economic and political mechanisms that lead to social stratification according to income, education, occupation, gender and race or ethnicity[4]. The state has 85 laboratories approved by Indian Council of Medical Research (ICMR), capable of conducting tests. It is imperative that the government and community collectively rise to the occasion and face these challenges simultaneously, inclusively and sustainably. The government should take strict action in cases of diversion of funds and goods from social security schemes through law enforcement, community awareness and speedy redressal mechanisms[5].

STATEMENT OF THE PROBLEM:

The Public Health Centers are giving free and good treatments for all types of peoples. When the problems are all PHC are not having the proper facilities for all kind of treatments like lack of staffs, lack of medicine, lack of infrastructure, etc., and the study about also what are the problems faced by the rural communities in PHCs.

OBJECTIVES

- To depict the role of Public Health Centers in Treating COVID 19.
- To examine the ways of rural communities on the challenges posed by COVID-19
- To portray the other health problems of the rural communities in COVID -19 spread.
- To identify the best strategies and measures executed by the PHC's for developing the rural communities.

METHODOLOGY

The study is conducted in order to measure the impacts of PHC's to treat COVID-19 pandemic. For this study PHC's (Pollachi Taluk and Dindigul District) have been identified. The purposive sample method was used for selection of rural communities. The Primary data has been collected with the prominent persons and villagers in order to ensure the proper representation of local communities.

SAMPLE

The overall sample size to be determined is restricted as 90. (Based on the convenience and availability of the respondents).

FRAMEWORK OF ANALYSIS

Simple Percentage Method and Chi-square Method has been used to analyze the data collected.

PUBLIC HEALTH CENTERS ROLE FOR THE DEVELOPMENT OF RURAL COMMUNITIES – A DECISIVE APPROACH (WITH SPECIAL REFERENCE TO SAMATHUR AND NALLAMPALLI PANCHAYATH)

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A. D. Sabari Vishnu, II M. Com IB – Students, Nallamuthu Gounder Mahalingam College, Pollachi

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OBJECTIVES

- To depict the role of Public Health Centers located in Samathur and Nallampallyin Treating COVID 19.
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TO STUDY THE IMPACT OF DRUG ADDICTION AND THEIR LIFESTYLE BELOW THE AGE OF 25 WITH REFERENCE TO POLLACHI TALUK

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ABSTRACT

Drug addiction has become a worldwide problem and the leading cause of death. The global problem of addiction and drug abuse is responsible for millions of deaths. In recent years, India is seeing a raising trend in drug addiction. Around 13.1 per cent of the people involved in drug and substance abuse in India are below 20 years, which calls for further stepping up community intervention and preventive mechanism targeting adolescents. Children face increased risk of drugs and alcohol abuse due to their poor mental and physicalhealth resulting from violence, exploitation and sexual abuse against them. Nine out of 10 people with drug addiction begin using substances before they are 18 years old. Child trafficking, child labour and exploitation by criminals often result in poor mental and physical health of children, leading to high risk of drugs and alcohol abuse. Involvement of youngsters in crime is mostly due to socio-economic hardship and the lack of opportunities. This paper is made with the effort to the impact of drug addiction and their lifestyle belowthe age of 25 with reference to Pollachi Taluk.

Keywords: Drug addiction, Raising Trend, Alcohol abuse, Issues and challenges.

PREAMBLE OF THE STUDY

The National level survey conducted on drug use in India indicated that prevalence of drug abuse among males in the general population is significant. Drug abuse among women exists. Adolescent drug abuse is another major area of concern because more than half of the person's with substance use disorder are introduced to drugs before the age of 15 years. At present, there exists a significant gap in service delivery. Economic burden disturbed family environment, violence, and psychological problems are other consequences of drug abuse in the family. Partners, children, parents, and friends of someone battling with addiction also experience emotional damage. They may also have to deal with financial, legal, medical, and other consequences. Another economic effect from drug abuse is the lost human productivity, such as lost wages and decreased production that results from illnesses and premature deaths related to drug abuse. Drug addiction can lead to decreased performance or increasedabsence at school and work, changes in friends and social circles, and troubles at home, all of which will be explored further as the social effects of drug abuse in a community. It results inlarge-scale carbon emissions, water depletion, pollution and biodiversity loss. In India an NGO survey revealed that 63.6 % of patients coming in for treatment were introduced to drugs at a young age below 15 years. According to another report 13.1% of the people involved in drug and substance abuse in India, are below 20 years. A survey shows that of all alcohol, cannabis and opium users 21%, 3% and 0.1% are below the age of eighteen. Overall 0.4% and 4.6% of total treatment seekers in various states were children. Around 13.1 per cent of the people involved in drug and substance abuse in India are below 20 years, which calls for further stepping up community intervention and preventive mechanism targeting adolescents. Children face increased risk of drugs and alcohol abuse due to their poor mental and physical health resulting from violence, exploitation and sexual abuse against them. Nine out of 10 people with drug addiction begin using substances before they are 18 years old. Child trafficking, child labour and exploitation by criminals often result in poor mental and physical health of children, leading to high risk of drugs and alcohol abuse. Involvement of children in crime is mostly due to socio-economic hardship and the lack of opportunities

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SOUTH INDIA JOURNAL OF SOCIAL SCIENCES
ISSN: 0972 – 8945

CHALLENGES OF DAIRY PRODUCT EXPORTERS IN COIMBATORE CITY – AN INVESTIGATIVE STUDY

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ABSTRACT:
Globalization is one of the greatest strategic challenges for all industries. Globalization is the new mantras of the 21st century, which is more helpful to enrich all the countries business opportunities. In India all the business sector is booming with the help of healthiest human resources, especially the India's dairy industry is growing day by day, since India is the world's largest milk producer. India ranks first in milk production as well as consumption in the world accounting for around more than 17% of the global milk production. Meanwhile, Indian milk product is cheapest one comparatively other developed and developing countries. The dairy sector in the India has shown remarkable development in the past decade and India has now become one of the largest producers of milk and value-added milk products in the world. Governments also have taken steps to encourage the dairy farmers to increase exports and by promoting schemes and subsidy for strengthening the dairy sector industry.

Keywords:
Dairy exports, global milk production, Indian milk product, value added milk, promotional schemes and India's dairy industry.

INTRODUCTION OF THE STUDY

Globalization is one of the greatest strategic challenges for all industries. Globalization is the new mantras of the 21st century, which is more helpful to enrich all the countries business opportunities. In India all the business sector is booming with the help of healthiest human resources, especially the India's dairy industry is growing day by day, since India is the world's largest milk producer. India ranks first in milk production as well as consumption in the world accounting for around more than 17% of the global milk production. Meanwhile, Indian milk product is cheapest one comparatively other developed and developing countries. The world dairy market has undergone significant structural changes over the last two decades as the milk production has expanded by an annual average compound growth rate of almost 2 percent. Dairy industry provides livelihood to millions of homes in villages, ensuring supply of quality milk and milk products to people both in urban and rural areas. In India, dairy business has been considered as one of the activities aimed at alleviating the poverty and unemployment issues in rural areas. Dairy products are a major source of cheap and nutritious food to millions of people in India and the only acceptable source of animal protein for large vegetarian segment of Indian population, particularly among the landless, small and marginal farmers. In the rural areas, livestock is considered as a more secure source of income for the small farmer and landless poor people. The dairy sector in the India has shown remarkable development in the past decade and India has now become one of the largest producers of milk and value-added milk products in the world. Nearly one third of world's intake of animal protein is provided by milk and milk products. Development of dairy sector is not only required to meet the increasing demands of animal protein but its development is necessary for social and economic reasons as dairy animals are good source of regular income, economically utilize the family labour, produce social security and supply growing markets.

STATEMENT OF THE PROBLEM

Dairy industry is playing very important role in India for developing the urban and rural people economic standard and their survival. It generates regular income not only to the rural but also to the

A COMPREHENSIVE STUDY ON MPEDA – EMPOWERING FISHERIES (WITH SPECIAL REFERENCES WITH 2008 - 2023)

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1.1 INTRODUCTION:

The Marine Products Export Development Authority (MPEDA) is a statutory body established in 1972 under the Ministry of Commerce & Industry to promote marine products export from India. They have been guiding and supporting the country's seafood industry to produce and process quality seafood and market it. The marine products exports have reached USD 8.09 Billion in 2023. This achievement marked a quantum jump over our accomplishments during the previous years. This project aims to investigate and address key challenges within the MPEDA Industry. Specific issues include supply chain inefficiencies, quality control concerns, market competitiveness, and sustainable practices. Identifying and addressing these problems will contribute to the overall enhancement of MPEDA value chain. The MPEDA activities related mainly to the infrastructure facilities for seafood export trade collection and dissemination of trade information, projection of Indian marine products in overseas markets by participation in overseas fairs, and organizing international seafood fairs in India.

1.2 STATEMENT OF THE PROBLEM:

MPEDA is significantly strong in the exports of Marine products over the past four decades. MPEDA is pioneer with the exports of products like frozen shrimp, frozen fish, frozen cuttle fish, frozen squid, dried item, live item, chilled items and other items. Although these are the major products, it is having an urge with the researcher as to what extent, these products signifies the growth of MPEDA in the past 15 years? Similarly what may be the futuristic trend if these products for the next six years? And finally to investigate the trends, challenges, and opportunities in the export sector over the past 15 years by using secondary data. Keeping these as stake, the following objectives are framed.

1.3 OBJECTIVES OF THE STUDY:

- To examine the year wise exports of products like frozen shrimp, frozen fish, frozen cuttle fish, frozen squid, dried item, live item, chilled items and other items from 2008 - 2023.
- To identify the quarterly year growth in exports through Compound Annual Growth Rate.
- To predict the next five years of exports of MPEDA through Trend.
- To portray the majors ports of the world that support export import transactions of MPEDA.

1.4 RESEARCH METHODOLOGY:

1.4.1 DESCRIPTION OF THE STUDY:

This study investigates the multifaceted relationship between the stake holding ports and export statistics extracted from the website of MPEDA. Similarly this study is a base study as to how the performance of MPEDA is over the past 15 years with specific relevance to Covid Outbreak.

1.4.2 DATA COLLECTION:

This study is based on secondary data which was collected from the official website "Marine Products Export Development Authority (MPEDA)". These sources include various statistics from the year 2008-2023.

1.4.3 STATISTICAL TOOLS EMPLOYED:

- **CAGR:** Compounded Annual Growth Rate (CAGR), it is often associated with specific parameters which indicate the performance of a MPEDA relating to the growth of selected products

A STUDY ON PRODUCTION AND EXPORTS OF TEA FROM INDIA (WITH REFERENCE FOR THE PAST 15 YEARS; 2009 – 2023)

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1.1 INTRODUCTION

Tea Board of India was established on 1st April 1954, as per the provisions of Section 4 of the Tea Act, 1953. The Board is assigned with the overall development of the tea industry in India and functioning under the administrative control of the Central Government under Department of Commerce, Ministry of Commerce and Industry. The Board comprises of A Chairman and 31 members appointed by Government of India representing different sections of the Tea Industry. The Board is reconstituted in every three years. India is the 2nd largest producer of tea in the world and accounts for the highest tea consumption globally. Tea was introduced to India by the British in the nineteenth century, to overcome the monopoly of Chinese production. The first area to be planted was the mountain region surrounding the city of Darjeeling, perched on the Himalayan foothills, in the 1850s.

Tea is a fragrant beverage made from the dried or fresh leaves of the evergreen shrub Camellia sinensis, which is indigenous to China, India, and other East Asian nations. The leaves of the Camellia Taliensis are also infrequently used to make tea. It is the most extensively drank beverage in the world after water. It is the most widely consumed beverage in the world. It occupies an important role in the Indian economy not only due to its capacity to earn foreign exchange, but also because it impacts the livelihoods of scores of people employed directly and indirectly by the industry. Tea is linked to beneficial effects on human health with the polyphenols as the responsible constituents.

1.2 STATEMENT OF THE PROBLEM

The tea industry faces several challenges, including fluctuating market demands, environmental concerns, and quality control issues. Additionally, there is a need for innovative approaches in cultivation, processing, and distribution to enhance sustainability and meet evolving consumer preferences.

Although the production of tea is seasonal, it confronts multifaceted challenges encompassing market dynamics, environmental sustainability, and quality assurance. With consumer preferences evolving and market demands fluctuating, there is a pressing need to explore innovative strategies across the entire tea production and distribution chain. Furthermore, the issues related to climate change, pesticide use, and supply chain efficiency require focused attention to find out as to what is the industry's resilience and continued growth? Similarly for certain export terminology, it seems to be crucial issue to continue for the long-term viability, as the tea industry is not supreme for all countries. Hence there arises a question as to what is the stake of tea exports for over the past years? In order to address these complexities and to propose viable solutions, this study is made to foster a sustainable and thriving future of the tea industry.

1.3 OBJECTIVES OF STUDY

- To examine the production statistics of tea industry
- To predict the compound annual growth rate for the State from production
- To portray the trend projection for the next five years from 2023
- To offer suggestions so as to stay more competitive in future tea exports

1.4 RESEARCH METHODOLOGY

1.4.1 DESCRIPTION OF THE STUDY

A STUDY ON THE EXPORT PERFORMANCE OF INDIAN COIR INDUSTRY

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1.1 INTRODUCTION:

Coir Industry is an Agro based rural and export-oriented industry. Coir is one of the oldest industries in India, is the largest producer and exporter of coir and coir products. It contributes significantly to the economy of the country's major coconut producing states, i.e. Kerala, Tamil Nadu, Goa, Assam, Orissa, Maharashtra, Karnataka, Andhra Pradesh, Andaman & Nicobar, Pondicherry, Lakshadweep, etc. India, the major global coconut producer, accounts for more than two third of the world's coir and coir products production. The country, along with Sri Lanka, accounts for about 90% of the total global coir fibre production. India produces about 280,000 metric tonnes (MT) of coir fibre annually. At present, coir and its products are exported to more than 106 countries like USA, China, Netherlands, South Korea, UK, Spain, Australia, Italy, Germany, Canada, Belgium, France and Israel. United States of America is the largest importer of coir and coir products from India, accounting for 16.9% of the total quantity and 29.79%of the total value from India in 2021-22.

1.2 STATEMENT OF THE PROBLEM:

Coir industry in India is an agro-based, village and cottage industry which is affected by large number of problems in the form of labour, material, machinery and finance. Coir products are eco-friendly products it does not affect end users. Instead of plastic products coir products can be used but now a days in the manufacturing process, producers of coir are facing environmental problems like air pollution, water pollution and soil pollution. If this is the case, there exists a question as to what is the stake of coir in current field of production? Similarly, are these problems affecting the growth and development of coir industry? Further, it has great opportunities for investment, employment, production, workers, technology, marketing, productivity, profitability and earning more income. Coir products have huge demand in domestic and foreign market. The researcher is in a question as to what is the export statistics of Coir? Hence to have answers for the above said questions, present study is attempted.

1.3 OBJECTIVES OF THE STUDY:

- To portray the production statistics of Indian coir industry
- To analyse the exports and production performance of coir industry.
- To compare the year wise export performance of selected coir products for 15 years (2008-09 to 2022-2023).
- To study the conceptual framework of coir industry of India.

1.4 RESEARCH METHODLOGY:

To conduct this study in the most prospective manner, Descriptive Research Design has been employed

1.4.1 DATA COLLECTION:

This Study is based on secondary data. Data were collected from coir board, coir news, journals, thesis, articles published in press reports of the Coir Board, reviews from the research journals, web sources of the coir industry, ministry of MSME reports, daily newspapers and information from relevant websites.

1.4.2 DESCRIPTION OF THE STUDY:

This study focuses on export performance of the coir industry, leveraging secondary data sources to gather valuable insights. Utilizing existing datasets, market reports, and industry publications, the research aims to provide a cost-effective yet thorough examination of key aspects influencing coir product exports. This study will explore historical export trends, market dynamics, and the competitive

USER PERCEPTION ON COIMBATORE INTERNATIONAL AIRPORT

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Preamble of the study

Paper explores user perceptions regarding Coimbatore International Airport. Investigating factors such as facilities, services, and overall experience, the study aims to provide insights into the airport's impact on travellers and its role in shaping their perceptions. Exploring the user perception, the project investigates how elements such as airport design, signage, staff interactions, and amenities contribute to passengers' consciousness of their surroundings. By analysing feedback and behavioural patterns, the research aims to identify areas for improvement in the airport's functionality and user experience, ultimately guiding future enhancements for increased satisfaction and efficiency. Recognizing the pivotal role airports play in modern travel experiences, this research endeavours to unravel the intricacies of how travellers perceive and engage with the facilities and services offered at the airport. By employing a comprehensive approach encompassing surveys, interviews, and observations, the study seeks to uncover valuable insights that can inform strategies to enhance user satisfaction and optimize the overall airport experience. Through this investigation, a deeper understanding of the factors shaping travellers perceptions is pursued, with the ultimate goal of contributing to the refinement of Coimbatore International Airport's offerings and ensuring a seamless, positive experience for all passengers. this project endeavours to unravel the intricate web of user perceptions and consciousness surrounding Coimbatore International Airport. Through a comprehensive analysis of facilities, services, and overall ambiance, the study aims to provide actionable insights that can contribute to the continuous improvement of the airport's offerings, ensuring a positive and memorable experience for all travellers.

Literature Review

Rafael Teixeira (2023) Carried a study on "Customer satisfaction and airport efficiency in Brazil: a hybrid approach" This paper aims to measure and unveil the relationship between customer satisfaction and efficiency levels in the most relevant Brazilian airports. The authors utilize a two-stage network DEA (data envelopment analysis) and AHP (analytic hierarchy process) model as the cornerstones of the study. The first stage of the network productive structure focuses on examining the infrastructure efficiency of the selected airports, while the second stage assesses their business efficiency.

Nigel Halpern (2021) Made an attempt to study **"**Airport service quality and passenger satisfaction: The impact of service failure on the likelihood of promoting an airport online" Based on the analysis of 2278 online passenger ratings of airports worldwide, this study uses a standard multinomial logit model to determine the likelihood of a passenger being a promoter of an airport when a service attribute has failed, controlling for several passenger and airport characteristics. Results show that failures associated with airport staff and queuing times are most likely to reduce the probability of a passenger being a promoter of an airport. Failures associated with airport shopping and Wi-Fi service are least likely to do so. Data collection took place prior to Covid-19 and included 4188 reviews that had been submitted over a 12-month period.

Bacinskas, Justas, etal.., (2020) Carried as study on **"**Effects of new technologies on customer satisfaction: A study on how new customer-facing technologies in airports affect the customer satisfaction" The purpose of this study is to discover how new customer-facing technologies on airports affect the customers' satisfaction. The research goal is accomplished by implementing qualitative research and collecting the data through ten semi-structured in-depth interviews with various individuals that had a recent air-travel experience which was no earlier than three months. The data analysis is done by performing an inductive research approach.

FEASIBILITY OF COMMUTER ON RAIL TRANSPORT

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INTRODUCTION

Indian Railways (IR) is a statutory body under the ownership of the Ministry of Railways of the Government of India that operates India's national railway system. It is one of the fast growing service sectors which operate trains in and around different parts of the country Railway freight in India has been one of the most important modes for the logistics. This has been the second largest share in the freight logistics sector behind road transport. The railway system plays a crucial role in the socio-economic development of the country, providing affordable and efficient transportation for both passengers and freight. Southern Railway is one of the most prominent and vital railway zones in India, serving the southern states of Tamil Nadu, Kerala, Karnataka, Andhra Pradesh, and parts of Pondicherry. Feasibility studies play a crucial role in assessing the viability of rail transport projects, considering factors such as economic viability, environmental impact, and social considerations. This introduction sets the stage for understanding the complexities and implications of rail transport feasibility, highlighting the need for comprehensive research and analysis to inform decision-making processes and shape the future of transportation infrastructure.

REVIEW OF THE STUDY

Priyadharshini, etal.,(2023) "Passengers Satisfaction on Services Offered by Southern Railway in Coimbatore Junction" The scope of this study is mainly focused on the satisfaction Level of the passengers from the services being offered By southern railways. The objective of study is to identify the travel details of the railway passenger and to examine the facilities offered by railway and to identify the socio economic background of Railway Passengers to measure the level of satisfaction of the passenger about the services Offered by the southern Railway.

Kalaivani & Sharmili P, etal.,(2023) **"**A Study on Customer Satisfaction towards Railways Transportation Services with Reference to Coimbatore City" The main objective of this study is measure the satisfaction level of passengers on services provided by the rail system and to explore the problems faced by the railway passengers and to find out the problems faced by the passenger regarding E-ticketing. The collected information were reviewed and considered and consolidated into a master table for the purpose of analysis. The data were further processed by using statistical tools. 1. Simple percentage analysis 2. Rank analysis 3. Chi – square analysis

Esakkiammal & Dr.A.Thangaraja, etal.,(2022) "A research study of passenger satisfaction with the services quality of the southern railways.**"**The main objective of this study is to analyse the facility factors and customer satisfaction with Southern Railways' service quality and to advise appropriate actions based on the study's findings. The Statistical Package for the Social Sciences (SPSS) software was used to examine the data. The researcher employed multiple correlation, regression.

PROBLEM STATEMENT

India has the fourth largest network with over 22,593 operating trains. Mostly 24 million passengers prefer railway transport. According to respondent age, occupational status, purpose of travel which influences the passengers to prefer rail transport. In choosing the train mode, passengers are facing some disturbances in train arrivals to departures, slow down of online ticket reservation, cleanliness in railway station, in train coach and train delay information's on stations and parking facilities for passenger's vehicles at railway stations. This issues made me to address about satisfied voyage of commuter, that triggered the researcher has been to make a research on "Feasibility of Commuter on Rail Transport'

A STUDY ON THE EMPLOYEE MOTIVATIONAL FACTORS IN LOGISTICS INDUSTRY

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INTRODUCTION

The logistics industry plays a vital role in facilitating trade and commerce by ensuring the efficient movement of goods across the globe. However, the industry faces various challenges, including a shortage of skilled workers and high turnover rates. To address these challenges, it is important to understand the motivational factors that influence employees in the logistics industry. Motivation is a key driver of employee performance and job satisfaction. It is essential for organizations to identify and understand the factors that motivate their employees in order to create a positive work environment and improve overall productivity. In the logistics industry, where the work is often physically demanding and involves long hours, understanding motivational factors becomes even more critical. This study aims to explore the influencing employee motivational factors in the logistics industry. It will examine the impact of factors such as job security, career advancement opportunities, compensation and benefits, work-life balance, and recognition and rewards on employee motivation. By understanding these factors, organizations can develop strategies to attract and retain talented individuals in the logistics industry. Additionally, the study highlight areas where improvements can be made to enhance employee motivation and job satisfaction. Overall, this study aims to shed light on the influencing employee motivational factors in the logistics industry. By understanding these factors, organizations can create a positive work environment that fosters employee motivation and ultimately improves overall performance in the industry.

LITERATURE REVIEW

Hendy Tannady (2023), has examined "Analysis of the Effect of Workload and Work Motivation on Employee Performance in Logistics Companies". In his study to find out and analyze the effect of simultaneous variables on workload on employee performance. To find out and analyze the simultaneous effect of variables on work motivation on employee performance. The discussion of the study goes on Effect of Workload on Employee Performance and The Effect of Work Motivation on Employee Performance.

Joko Purwanto1, Sri Hartono2 (2021), has examined "Employee Performance Review of Competence, Motivation, And Work Discipline at Pt Indah Logistic Solo Branch". In his study to analysis, Competence has a positive and significant influence on the quality of an employee's performance; Motivation has a positive and significant influence on the quality of an employee's performance; Work discipline has a positive and significant influence on the quality of an employee's performance.

STATEMENT OF THE PROBLEM

The problem of the study to identify and analyze the influencing employees motivational factors in logistics industry. To identify factors, such as training and development, welfare and measures, monetary benefits, empowerment autonomy, teamwork and collaboration and work-life balance. As a part of International Business, I was interested to select my final year project in the field of Logistics area clubbed with Human Resources, that Impulse researcher to study the Motivational Factors in Logistics Industry

OBJECTIVES

- To identify and understand the key factors that influence employee motivation in the specific industry.

DIETARY PREFERENCE OF MILLET CONSUMPTION WITH SPECIAL REFERENCE TO UDUMALPET TALUK

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ABSTRACT

The millets are the small whole grains that grow in India, Nigeria, Africa, and other Asian countries. It is drought and pest resistant crop and can able to survive in harsh environment and also in less fertile soil. This study focused on understanding the level of familiarity with different varieties of millets, factors influencing millets consumption, as well as the form of millets consumed by respondents. Additionally, the researcher examined the association between socio-demographic factors and Millets preferences. A sample of 50 respondents was collected from Udumalpet taluk in Tirupur district using the snowball sampling method. To analyse and interpret the data, the researcher used Simple percentage, Garrett's Ranking, weighted mean score, and Chi-square. Most familiar variety of millet is finger millet, friends and family are the source of awareness, and millets are consumed most commonly in the form of dosas. The main reason for choosing millets in diet is health benefits. It is also Found that there is no association between Level of Preference towards millets with the age Group of respondents, Gender ,Marital status, Occupation, Monthly income, Family Income , Area of Residence, Number of members in the family, Earning members in the family.

KEY WORDS

Millets, Variety of millets, Dietary Preference, Health benefits.

INTRODUCTION TO THE STUDY

Millets are a whole grain that's packed with protein, antioxidants, and nutrients. They may have numerous health benefits, such as helping lower your blood sugar and cholesterol levels. Plus, they're gluten-free, making them an excellent choice for people with celiac disease or following a gluten-free diet. Seven important millets cultivated globally are finger millet, pearl millet, foxtail millet, barnyard millet, proso millet, kodo millet, and little millet. The governments have a key role in formulating policies to promote the cultivation and consumption of millet. Millets are now being used by many businesses to create products including breakfast cereals, snacks made of millet, and baked millet foods. The United Nations' International Year of Millets in 2023, which India is a major supporter of, has the potential to make a big contribution to food security and environmental sustainability in India and elsewhere (FAO).

OBJECTIVES OF THE STUDY

- To understand the level of familiarity with the selected millet variety.
- To identify the factors influencing millet consumption and the form of millet consumed by the respondents.
- To know the association of socio-demographic variables and level of preference towards Millets

REVIEW OF LITERATURE

Rajesh Reddy and Davel Patel (2023) attempted to study the consumer awareness and perception of millets. The researchers also studied the factors influencing the purchase of millets and its products along with the Consumer purchasing behaviour of millets. Primary data was collected from 200 respondents using the convenience sampling method. the study revealed that the main source of information about millets and their health benefits is word of mouth and the understand that the most preferred time of consumption is dinner. The most influencing factors are the health benefits. Consumers prefer Kirana stores to purchase the millets.

PROBLEMS AND PROSPECTS OF AGRICULTURALISTS WITH SPECIAL REFERENCE TO POLLACHI TALUK

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Abstract

Agriculture plays a crucial role in the economy. It is the backbone of a country. This sector provides employment opportunities for both rural agricultural and non agricultural labourers. It also plays an important role in international business in import and export activities. The purpose of the study was to identify the major types of crops grown in Pollachi taluk and also to understand the reasons for undertaking these practices. In addition the researchers identified the problems faced by agriculturists during preharvest and post harvest period. They also determine the association between demographic variables and the level of agricultural problems farmers face. Using a convenient sampling method, 51 respondents were selected from Pollachi taluk. Simple percentage methods, Garrett's Ranking, weighted means, and Chi-squared tests were used to analyze the data. Research findings revealed that most of the respondents cultivate Coconut, and they perceived doing agriculture to be a family tradition. The highest problem affecting their agriculture is Price Fluctuation, while land tenure is the least problem. Monthly expenses and agriculturist's problems show a significant association.

Keywords:
Problems, Prospects , Agriculturist , Farmers, Awareness on schemes

INTRODUCTION TO THE STUDY

India's major occupation is agriculture. Agriculture is the main source of income for about 70% of India's rural population. India's economy relies heavily on agriculture for its raw material for most of its industries from the past to the present. The agriculture industry is considered the 'backbone' of the Indian economy . Agriculture affects almost every sector of the country today. Agricultural exports contribute greatly to foreign exchange earnings because fruits, vegetables, nuts, spices, rice, and various processed milk products are mainly produced. Currently, agriculture is facing a major challenge due to an increasing population. By introducing hybrids, growing resistant and fast-growing varieties, agriculture copes with this challenge with great efforts. India's exports have increased in many countries due to improved production and processing technology

REVIEW OF LITERATURE

Prakash.M and Kiruthika.S (2023) made an attempt to identify the level of farmer's awareness towards agricultural product. The researcher collected 120 sample and analyzed using Simple percentage method and Rank analysis method. The result showed that Fund given by the government due to cause of flood as ranked first.

Edwin Premkumar. T (2016) conducted a study to analyse the cost of cultivation, production, and marketing of coconut growers and the return on the investment The researcher performed factor analysis by principal component method, one-sample ‘t’ test, Friedman’s test, discriminant analysis, and One-way Analysis of Variance. The result showed that, the years of experience is influenced by the problems in cultivation and maintenance and the possession of land is influenced by the problems in cultivation and maintenance.

Sundaramoorthy & Abirami. A (2021) focused on identifying cultivation, marketing and financial problems faced by farmers and also, they measure the training need of farmers in the Tirunelveli district. 350 samples were collected based on a convenient sampling technique. Percentage analysis, Cross tabs - Chi-square test, Correlation Method, One way - ANOVA (multiple comparisons), Two way ANOVA (various responses), Friedman test and Factor analysis were used for

REPURCHASE INTENTION OF NESTLE PRODUCTS WITH SPECIAL REFERENCE TO UDUMALPET TALUK (BEVERAGE, BREAKFAST CEREALS, DAIRY, FOOD AND NUTRITION PRODUCTS)

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ABSTRACT

Nestle is an international conglomerate corporation specializing in food and beverage manufacturing. Nestle's product portfolio includes a wide range of products. The objective of this study is to identify factors influencing purchase decisions of Nestle products as well as their frequency of purchases. Further, the study helps to understand the factors that affect consumer's repurchase intentions. A sample of 50 consumers from the Udumalpet taluk was examined by the researcher. In this study, convenience sampling is used. Primary data was collected using a structured questionnaire. To analyze the data, the researcher used Henry Garret's ranking method, the weighted mean score method, and factor analysis. Nestle's quality and taste are found to be the most influential factors. The most preferred Nestle product is the Nescafe latte under beverage category, Nutty granola under breakfast category, Nescafe cold coffee under Dairy category, Maggi sauce under Food products, Nestle Nangrow under nutritional value category.

KEYWORDS

Nestle, Beverage, Breakfast cereals, Dairy, Food and Nutrition products, Repurchase Intention

INTRODUCTION

Nestle is one of the world's largest and most well-known food and beverage companies. The Nestle company was founded by Henri Nestle in Vevey, Switzerland, in 1866. Nestle produces a wide variety of food and beverages. Some of its well-known brands include Nescafé, Nestea, Kit Kat, Maggi, Nesquik, and Nestle Pure Life. Nestle has its operations in almost every country. Globally, it has a significant market share, and its products are recognized and consumed across a wide range of regions. Quality, innovation, and sustainability have played a pivotal role in defining the success of the company. Throughout Nestle's history, the company has constantly strived to meet consumers' changing needs.

OBJECTIVES OF THE STUDY

1. To understand the Factors influencing the purchase decision of Nestle products
2. To determine the Frequency of purchase of Nestle products
3. To ascertain the repurchase intention of Nestle Products.

REVIEW OF LITERATURE

Saranya. S et.al (2014) in their study they focused on customer satisfaction towards the products of nestle as well as to analyze the factors influencing the purchase decision of the nestle products and the study also identified the factors affecting for consuming Nestle product. The sampling size of the study was 50 selected through Primary sampling. The statistical tools used for analysis Simple Percentage analysis, Chi- Square Test. They found that majority of the respondents are satisfied with nestle products.

Vijayanand.N&Thillairaj.P (2018) aimed to identify the customers inclination towards dissimilar chocolate varieties as well as to revise the customer needs on nestle products. 200 Respondents located in Chennai city are selected for the study. It is found that Majority of the respondents are having good trust on Nestle products and like Nestle brand chocolates. Majority of the respondents prefer Nestle Munch among chocolates and like Fruit & Nuts filling in chocolates.

REPURCHASE INTENTION OF NESTLE PRODUCTS WITH SPECIAL REFERENCE TO UDUMALPET TALUK (BEVERAGE, BREAKFAST CEREALS, DAIRY, FOOD AND NUTRITION PRODUCTS)

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PERCEPTION OF START-UP AMONG MEMBERS OF SELF-HELP GROUP (A STUDY WITH POLLACHI REGION)

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1.1 INTRODUCTION

A company is in the first stage of its operations often known as a Start-up, often being financed by its entrepreneurial founders during the initial stage. It denotes to a young company found by one or group of entrepreneurs in order to develop a unique product or service and bring it to market. One of the foremost tasks of the start-ups is to raise substantial amount of fund to further develop the product or service they providing. Start-ups have no history and almost no profit to show. To provide funds and facilitates to start-ups, Indian government initiated "Start-up India Scheme" and its primary objective is to promote start-up, generate employment and create wealth that launched on 16th January, 2016 by Prime Minister Narendra Modi under the Ministry of Commerce and Industry (Department for Promotion of Industry and Internal Trade).

The base of start-up is innovation where entrepreneur comes up with an innovation idea that can be commercialized and generate social benefit. Being small in size and new within the business, they often find difficult to arrange funds for his or her functioning. The start-up is belonging to different fields. Hence, the concepts of start-ups and entrepreneurship are similar. However, entrepreneurship refers all new businesses, including self-employment and businesses that never intend to grow big or become registered, while start-ups refer to new businesses that intend to grow beyond the solo founder, have employees, and intend to grow large. Start-up Company is designed for scalable business model for innovative product and processes. They can be found in all forms and sizes. Start-up companies focus on the innovative idea to make their mark in the competitive market. It is important for any person who wants to start a start-up to know about the different sources where money can be raised.

SHG stands for Self-help group. The term indicates a small voluntary association of rural/urban people, mainly the women folk from the common socio-economic background. They form a group for solving their common problems through self- help and mutual help usually the group consist of maximum 20 members. The group head is called as animator, who is assisted by two representatives. Micro financial institution around the world have succeeded to a great extent in reaching the poorest of the poor by providing micro loan to people, especially women who are the most vulnerable group in the society. Micro credit helps women to get rid of the financial burden. SHGs had been perceived as another instrument to meet the pressing need of poor people and it may be very well utilized as appropriate means for the up-liftmen of women. It prepares them in working on their different issues identified with monetary, social, wellbeing, education, and basic human rights. Self-help groups play a significant part in eradication of poverty in rural as well as urban areas.

1.2 STATEMENT OF THE PROBLEM

Many self-help group members are less aware about start-ups, innovative and new businesses. This means, they might not be having knowledge of the exciting and beneficial opportunities that start-ups can bring to their communities. The researcher is interested to know as to how to effective the awareness about start-ups shall increase the economic viability of self-help group members?

Knowing about start-ups is crucial in today's changing business world. Some self-help group members may not feel empowered because they are not familiar with the opportunities that start-ups can offer. Start-ups can offer new jobs, economic benefits, and chances for skill development that could positively impact the lives of those in self-help groups. What could be barriers preventing self-help group members from getting involved with start-ups? Whether this lack of awareness might be affecting not just individuals or the community as a whole? Understanding start-ups is essential for new economic opportunities for self-help group members. Awareness about start-ups is essential for

Kanpur Philosophers
ISSN 2348-8301
International Journal of humanities, Law and Social Sciences
Published biannually by New Archaeological & Genological Society
Kanpur India
Vol. X, Issue I(G) : 2023

A STUDY ON MENTAL HEALTH AND INTERNET ADDICTION AMONG COLLEGE STUDENTS

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Ms.T.Sivaranjane, Assistant Professor, Department of Social Work, Nallamuthu Gounder Mahalingam College, Pollachi.
Ms.B.V.NithiVarshini Devi, Research Scholar, Department of Social Work, Nallamuthu, Gounder Mahalingam College, Pollachi.

Abstract
In the past few years, Internet addiction among university students has gained more popularity than leading to various mental health issues among them. Low self-esteem, poor sleep quality, suicide, and mood disorder are the common health problems faced among university students due to excessive use of the Internet. Internet addiction (IA) is considered a major concern among the students of Indian universities. The mental health of the students is associated with the addition of the Internet. Internet addiction is defined as the poorly controlled behaviors of university students regarding the use of computers and the use of the Internet that lead to distress and impairment. Internet addiction among university students is on the lines of substance abuse. Internet addiction among university students leads to depression, stress, and anxiety. The Internet has been considered as one of the good sources for getting knowledge; however, the addition of the Internet among university students makes them lazier and diverts them from their purpose.

Key words: Internet Addiction, Mental Health, Students, Depression, and Stress.

Introduction
The capacity of the Internet for socialization is a primary reason for the excessive amount of time people spend having real-time interactions using e-mail, discussion forums, chat rooms, and online games **(Grohol, 2005).**Internet addiction among university students is defined as an impulse control disorder that doesn't involve an intoxicant **(Gupta et al. 2018).**The Internet has made life a lot easier by making information more accessible to all and creating connections with different people around the world. However, it has also led a lot of people to spend too much time in front of the computer, so much so that it becomes the center of their lives. **Kendal (1998)** characterized Internet Addiction as a sort of psychological Addiction addressing should be dynamic on the Internet. Web based gaming, urgent utilization of informal communication and long distance race internet riding meetings are completely remembered for this incredible addiction. r. According to **Anand et al. (2018**), psychological difficulties

Kanpur Philosophers
ISSN 2348-8301
International Journal of humanities, Law and Social Sciences
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CIVIC ENGAGEMENT AND ATTITUDE TOWARDS CORRUPTION

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Mr.S.VigneshKumar, Assistant Professor, Department of Social Work, Nallamuthu Gounder Mahalingam College, Pollachi.

Abstract
Corruption is an extraordinary crime that requires extra effort to deal with. KPK takes extra steps in dealing with corrupt behavior, namely by taking preventive actions through educational institutions. In higher education, KPK collaborates with related stakeholders to implement anti-corruption education for college students. This study explores the initial perception of college students toward civic and anticorruption education. Qualitative with a case study approach has been used as the method of this study. The findings show that the majority of college students perceive that civic and anti-corruption education is very important to study and relevant to the condition of the nation currently.

Keywords: Corruption; Civic; Engagement; Attitude; Behaviour.

Introduction
Civic engagement is recognized as one of the duties of citizens in a democratic state, and yet it is a term that has been defined in many ways. Most definitions, however, incorporate a sense of responsibility among citizens directed toward making a positive changein one's local and/or global community for the purposes of advancing social justice and promoting the well-being of people and their quality of life through both political and non-political activities**(Hatcher, 2010).** Simply put, civic engagement is a process by which people collectively work inorder to resolve shared concerns. It has been stated that corruption affects three major aspects of education: access, equity and quality (**Heyneman, 2004, 2008, 2009**). Corruption in higher education hinders all three goals. Therefore, the paper addresses the issue of corruption in relation to access, equity and quality of education.
Civic engagement requires civic knowledge, civic skills and civic identity, which when practiced together can result not only in progressive difference in the lives of target recipients of the service, but also in many types of potentiallearning for those who provide the service **(Hatcher, 2011).** It has been shown that the types of activities that students engage in are related to what they know about civic processes **(Karliani, et. al, 2019).** Similarly, attitudes toward civic engagement are associated with empathy, ethics, tolerance, and openness to others. Moreover, activities also influence attitudes toward civic work and vice versa.
Latin America is considered one the regions with higher levels of permissiveness of corruption **(Moreno, 2003**). With the exception of Chile and Uruguay, countries in this region obtain higher lever of corruption than other regions (**Transparency International, 2010**).

EXPORT PERFORMANCE OF COIR PRODUCTS FROM INDIA

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ABSTRACT

India is a largest coir producer in the world accounting for more than 80% of the total world production of coir fibre. This study covers the export performance of coir and coir products that were highly exported to other countries from 2015 to 2022. Analysis is made with the data's available in the Coir Board of India. The growth level of the coir industry and growth percentage of each coir products is analysed and interpreted. The future growth of the coir and coir products is also analysed based on the current and past data's that were available in the website of Coir Board.

(Keywords: Coir products, Export performance, Coir industry, future growth)

INTRODUCTION

Coir, also known as coco's, is a natural golden fibre extracted from the protective husk of coconuts, or mesocarp tissue. This golden fibre found multi various uses in the indigenous hands of the people in habiting in the Malabar coast of India. Since its humble beginning in 1859 when the Irish American named James Darragh started the first coir factory Darragh-small a large-scale production cum commercial factory in Alleppy over the years. Export is the most important source of foreign exchange for developing countries. Coir Board was set up under the Coir Industry Act, 1953 by the Government of India for the overall sustainable development of the coir industry in the Country. Kerala is now one of the largest cottage industries in India, which provides livelihood to millions of people in the densely populated costal belt of Kerala and various other parts of the country.

STATEMENT OF PROBLEM

Export is the most important source of foreign exchange for developing countries. All developing countries, including India, strive to increase their exports as a means for mobilizing resource for their development plans. The demand for coir products is increasing every year due to growing environmental consciousness and recognition for natural fibres worldwide. The export performance and problems in export of coir and coir products in Pollachi Taluk is covered. In this environment, it is imperative to find out the export performance of coir products. Keeping this in mind, the researcher focuses on the export performance of coir products.

OBJECTIVES OF THE STUDY

- To analyse the export performance of top 10 Coir products from India.
- To study the country-wise export performance of top 10 coir products from India.

RESEARCH METHODOLOGY

The methodology adopted in the present study includes the selection of the study area, research design, and the collection of data, tools applied and framework of analysis.

Research Design - Research design is the basic plan which guides to collect relevant information accurately and economically for objectives set up for the research.

Source of Data - The data was collected from the basis of secondary sources. The secondary data has been collected from various sources such as various reports of the coir board, coir statistics, Ministry of commerce, Export Import Bank, and coir export review etc.

EXPORT ANALYSIS OF LEATHER AND LEATHER PRODUCTS

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Mr. Praveen Kumar U, Nallamuthu Gounder Mahalingam College, Pollachi.

ABSTRACT

Depending on the design chosen for the production of leather goods, leather can be used alone or together with various supporting materials which give form and strength to it. Reinforcements are extremely important component of leather goods whether wallet or purse, handbags or suitcases, belts or portfolio. Reinforcements which provide support to the leather are used to change the drape and handling of leather goods. The physico-mechanical properties of the leather goods may vary depending on the supporting material used. In this study, the mechanical properties of leather for handicrafts reinforced with supporting materials, in particular, salpa and syntex with different thicknesses were examined. For this purpose, the measurement of thickness, tear load, tensile strength and percentage extension have been performed.
(Keywords: Leather products, Export performance, Leather industry, future growth)

INTRODUCTION

Evolution of the Indian Leather Industry over the last fifty years makes an excellentreading. Like any other business the Indian leather industry had its beginnings mainly as a trader of hides and skins. The intrinsic desire to add value to the business, introduces manufacturing activities in a gradual manner. The manufacturing activities started off with the preservation of hides and skins and further to tanning and· post-tanning activities. The prime purpose of tanning is to soften raw hides and skins and introduce the necessary quality required by the end products that are made out of leather.

STATEMENT OF THE PROBLEM

The Global import of Leather and Leather Products is growing at a cumulative annualgrowth rate of 5% (Council for Leather Exports) and this trend is expected to follow in the nearfuture. Also, among the different products imported within the leather sector, world demand forleather footwear comprises of 70.64%. To bring into line to the trend of the global imports, thepercentage share of leather footwear among the different leather products for export is also thehighest in India. The footwear sector is a very important segment of the leather industry in Indiaand is considered the engine of growth for the entire Indian leather industry.

OBJECTIVE OF THE STUDY

The following are the major objectives of the present study.

1. To analyze the export performance of leather and leather products in India.
2. To examine the country wise export performance of leather products from India.
3. To provide necessary suggestions based on the findings of the study.

RESEARCH METHODOLOGY

Research methodology is a scientific and systematic way to solve the formulated research problem. It includes theplan of research activities starting from collection of reviews to reportpreparation. The research methodology deals with research methods and takes into considerationthe logic behind the methods.

The methodology adopted in the present study includes the selection of the study area, researchdesign, and the collection of data, tools applied and framework of analysis.

IMPACT OF CHRONIC STRESS TOWARDS SELF-DESTRUCTION ATTITUDE

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ABSTRACT
Students in education settings face a wide range of stress related to academic, physical, financial and mental level. Previous research indicates that academic-related stress can reduce academic achievement, decrease motivation and increase the risk of school dropout. The longer-term impactwould reduce the likelihood of sustainable employment each year. This study presents the impact of chronic stress related to academic and physical problem that makes you feel stressed and the ways to overcome from stressful thoughts and through stress busters.

INTRODUCTION
In today's highly competitive world, students face various academic problems including exam stress, disinterest in attending classes and inability to understand the subject. Examination stress is the feeling of anxiety or apprehension over one's performance in the exams. It can lead the students not able to perform to the best of their abilities in exams. Academic stress is the major source of stress among adolescents and it may lead to low self-esteem. Many psychological problems such as depression and suicide occur as a result of low self-esteem.

Stress is generally defined as the body's nonspecific response or reaction to demands made on it, or to disturbing events in the environment. Stress can also be defined as any change in the body's equilibrium. Any negative stress is also known as distress. Distress occurs while performing a task or throughout a day to day activity and tension builds up, there is no longer any fun in it and there seems to be no relief. This may lead to poor decision making. The general characteristics of the person in distress are, over-aroused, tense, unable to relax, touchy, easily upset, irritable, easily startled, nervy, jumpy, fidgety and intolerant of interruption or delay. As mentioned earlier, excessive stress results in increased prevalence of psychological problems like depression, anxiety, substance abuse and suicide

Higher secondary school education is a very important turning point in the academic life of the individual. It is similar of GCE a level of schooling in the countries like Great Britain. At this stage, the academic performance of the youth/adolescents plays a crucial role in deciding about next higher stage of education, and probably career too. Academic stress is mental distress with respect to some anticipated frustration associated with academic failure or even unawareness to the possibility of such failure. Students have to face many academic burden/load, for example, school examination, answering questions in the class, showing progress in school subjects. Understanding what the teacher is teaching, competing with other class mates, fulfilling teachers and parent's academic expectations.

This study will find the self-immolation attitude among secondary school student due to academic and personal stress as well this study brings out the solution for the above mentioned problem.

STATEMENT OF THE PROBLEM
The causes of academic stress can be classified mainly into seven categories i.e. the stress due to teachers, stress due to exams and test, stress due to peer, stress due to parental and social, stress due to time management and infrastructure, and stress due to self-inflicted factors. These can

SELF IMMOLATION ATTITUDE AMONG SCHOOL STUDENTS ON ACUTE STRESS

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Abstract
The present research article isinvestigating about the self-immolation attitude among school students due to academic and personal on acute stress with the reference of 34 respondents from various schools in Pollachi Taluk. Today's lifestyle has made a stress as daily occurrence. Acute stress that occurred for a brief time had a serious impact on the student population, such as anxiety and despair, which cause students to think emotionally. Only when stress is under control will it be healthy. However, it becomes more difficult for students to concentrate and complete tasks when stress, worry, and anxiety start to overpower them. This study analyses the relationship between the stress level (Acute stress) of the students, reasons for their stress, steps to overcome from their stress and from the self-immolation thoughts occur due to stress.

Keywords: Stress level, Acute stress, Self-immolation thoughts, reasons and steps to overcome stress

Introduction
People often believe that students are least influenced by stress or other issues. But because of different internal and external expectations placed on school students, nowadays stress has become a part of their academic and personal lives. Mental health issues such as despair and anxiety are the effects of stress and it should be brought under control. However, it becomes more difficult for students to concentrate and complete tasks when stress, worry, and anxiety start to overpower them. In today's educational environments, students deal with a variety of normative stress which cause inconveniences in academic obligations. The pressure to achieve high marks, worries about receiving poor grades, homework deadlines, exam anxiety, health crises, family problems, and other related issues are examples of academic-related stress that secondary and higher secondary students frequently report. It creates tension among students which make them to depart from their studies and trap them towards self-destructive impulses. As part of this the present study was carried out to find the stress level of the school student and its causes and effect among themselves.

Statement of the problem
Students are affected due to stress for various academic and personal reasons. Stress has become a part of the student’s life nowadays due to their academic and personal problems. Acute stress has led to a sharp rise in the number of attempted suicides and the incapacity of students to control their stress levels.Stress become a common word which was used and felt by all students nowadays. This study throws a light on the reasons and problems which create stress among the students.

Objectives
- To study the impact of acute stress among the gender of the school students.
- To study the main reasons of the stress and its impact.
- To know how the students overcome from stress and self-immolation attitude.

Scope of the study
Students stress level is the existing problem faced by the society and government is finding the way and means to solve the societal problem. Stress has become an unavoidable part of everyone's life, even though learning to manage it is crucial. Students felt more stressed for a variety of personal and academic reasons, which leads to self-immolation thoughts. The study will assist the government in formulating the strategy to address the relevant issue.

SOUTH INDIA JOURNAL OF SOCIAL SCIENCES
ISSN: 0972 – 8945

WOMEN ENTREPRENEURS FINANCIAL CONSTRAINTS ON WEALTH CREATION

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Abstract

Women entrepreneurs play a significant role in structuring the country's economy. However, their development has remained significantly lowered due to financial restrictionsFinance places a pivotal role in smooth and effective operations, expansion and research and development of the business. The business carried out by women entrepreneurs does not get much patronage from society, especially in finance. This paper examines the influence of business profit and the initial investment on financial challenges women entrepreneurs face in obtaining finance to run a business.

Keywords: Women Entrepreneurs, Financial Constraints

1. Introduction

A woman entrepreneur is ambitious with business expertise, risk-taking capabilities, and a daring spirit marching with vision. The entrepreneurship process starts with identifying opportunities willing to take the risk, with persistent effort and attempts to identify and use opportunities for better results. The entrepreneur has to cross severe hurdles from the moment she starts with the conception of the idea of starting his own business. The challenges faced in the business may be more or less the same whether it may be a small, medium or large enterprise. Indian women operating at the global level is increasing nowadays, and they come across substantial financial constraints concerning the mobilisation of funds and working capital in the growth path of their businesses.

2. Statement of the Problem

Entrepreneurship plays a vital role in the growth of an economy. Both male and female entrepreneurs should share this development, irrespective of the differences. Women empowered in building nations often lack the capital to start a business and face numerous obstacles in raising funds and other loans. Women need a certain level of financial literacy to overcome financial problems. The woman has to mobilise either with the help of her funds or through loans which is essential to strengthen women's role as producers and to widen the economic opportunities available to them. This article focuses on the financial constraints faced by women entrepreneurs.

3. Objectives

1 To understand the financial constraints faced by small-scale women entrepreneurs.
2. To study the relationship between age and business profit towards the financial constraints of women entrepreneurs.

4. Research Methodology

This study focuses on the problems faced by the financial constraints faced by small-scale women entrepreneurs in Tiruppur District. This data were collected from primary and secondary sources such as journals, scholarly articles, web resources and newspapers and through observation. This study is descriptive. This study's primary aim is to find women entrepreneurs' financial constraints in the Tiruppur District. For this purpose, the nine blocks of Tiruppur district were chosen: Tiruppur North, South, Avinashi, Uthukuli, Kangeyam, Palladam, Udumalpet, Madathukulam and Dharapuram). A total of 100 questionnaires were administered for the study. The unorganised women entrepreneurs were chosen based on the snowball sampling method.

5. Review of Literature

The subsequent review of the literature depicts the financial constraints faced by women entrepreneurs. Most of the literature outlines the hurdles faced by women due to lack of capital

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International Journal of Tamil Language and Literary Studies
A Bi-Yearly Peer-Reviewed International Journal

E-ISSN: 2581-7140 UGC CARE Listed Journal
Volume - 5, Special Issue - 2, June 2023 Available at: www.ijtlls.com

நாட்டுப்புறக்கதையும் சிலப்பதிகாரக்கதையும் ஓர் ஒப்பாய்வு

A Comparative Analysis of Folklore and *Silappathikaram*

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Abstract

Literary research has been conducted every minuite in the name of 'Literary Criticism' and is now growing rapidly all over the world. Many books on literary criticism have been written in Western languages such as English, Russian, German, French, and Italian. Tho.Mu. Ragunathan wrote the first book on Literary Criticism in Tamil. Following this, many books and researches began to appear. Today, many studies are conducted using multiple analytical approaches and using one or the other approach. Folklore is the collective language of the people and the people wish to hear and watch them. They are enacted or sung to give knowledge in a simple way to the laymen in any society. Tamil Literature has rich evidence in folk literature. They are mostly ballads. In many areas of Tamil Nadu, folkloristic features are in vogue and people enjoy it. Most probably, ancient myths, legends, epics, and other regional incidents or calamities are the main themes of folklore. Among them, the greatest epic "Silappathikaram" is one of the major plots of folklore. It evinces the morals in society and strengthens the mind with goodness. Very limited research has been conducted in this area. Hence, this article will conduct a comparative analysis of folklore and "Silappathikaram".

Keywords: Comparative Analysis, Tamil Literature, Folklore, *Silappathikaram.*

ஆய்வுச்சுருக்கம்

இலக்கிய ஆராய்ச்சி என்பது இலக்கியத்திறனாய்வு என்ற பெயரில் உலகெங்கும் இப்போது வேகமாக வளர்ந்து வருகிறது. ஆங்கிலமொழி, ருசிய மொழி, ஜெர்மன் மொழி, பிரெஞ்சு மொழி, இத்தாலி மொழி போன்ற மேற்கத்திய மொழிகளில் இலக்கியத் திறனாய்வு பற்றிய நூல்கள் நிறைய எழுதப்பட்டு வந்துள்ளன. தமிழில் முதன்முதலில் இலக்கிய விமரிசனம் என்ற நூலை எழுதியவர் தொ.மு.சி.ரகுநாதன். இதனைத் தொடர்ந்து பல நூல்களும் ஆராய்ச்சிகளும் ஏற்படத் தொடங்கின. இன்று பல திறனாய்வு அணுகுமுறைகளையும் பயன்படுத்தியும் ஏதோ ஒரு அணுகுமுறையைப் பயன்படுத்தியும் ஆராய்சிகள் பல செய்யப்பட்டு வருகின்றன. நாட்டுப்புறவியல் என்பது மக்களின் கூட்டு மொழி, மக்கள் அவற்றைக் கேட்கவும் பார்க்கவும் விரும்புகிறார்கள். எந்தவொரு சமூகத்திலும் உள்ள பாமரர்களுக்கு எளிய முறையில் அறிவை வழங்குவதற்காக அவை இயற்றப்படுகின்றன

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International Journal of Tamil Language and Literary Studies
A Bi-Yearly Peer-Reviewed International Journal

E-ISSN: 2581-7140 UGC CARE Listed Journal
Volume - 6, Special Issue - 1, October 2023 Available at: www.ijtlls.com

சிலப்பதிகாரச் சுற்றுப்புறச் சூழலும் தற்காலச் சூழலும்

Environment in the Times of *Silappathikaram* and Present

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Abstract

Environment is the natural environment around us that includes forests, oceans, mountains, and various other landscapes. These regions are rich in non-renewable mineral resources. In this natural environment, various organisms and thousands of microorganisms created by humans coexist with nature. Earth's biodiversity can only be preserved if we preserve and protect this natural environment, which contains innumerable living organisms and microorganisms. There are many proofs in Tamil literature that Tamil Nadu is a great country with abundant natural resources. This article compares the Moovendras who are mentioned in three Cantos and thirty divisions in the epic literature "Silapathikaram" and the three triumvirs who ruled Chola Nadu, Chera Nadu and Pandiya Nadu and the natural resources in them that made those countries prosperous by the rivers Kaveri, Vaigai, Periyar etc. and the natural resources and natural environment of these areas.

Keywords: Environment, Fertile, *Silappathikaram*, Present Times, Tamil Nadu.

ஆய்வுச்சுருக்கம்

சுற்றுப்புறச் சுழல் எனபடுவது நம்மைச் சுற்றியுள்ள இயற்கைப் பரப்பாகும் இவ்வியற்கையானது காடுகள், கடல்கள், மலைகள் மற்றும் பல்வேறு நிலப்பரப்புகளையும் கொண்டமைந்துள்ளன. இப்பகுதிகளில் புதுப்பிக்க முடியாத கனிமவளங்கள் நிறைந்துள்ளன. இவ்வியற்கைச் சூழலில் பல்வேறுபட்ட உயிரினங்கள் மனிதர்கள் உற்பட்ட பல்லாயிரக்கன்கான நுண்ணுயிரிகளும் இயற்கையோடு இணைந்து வாழ்கின்றன. கணக்கிடமுடியாத பேருயிர்களையும் சிற்றுயிர்களையும் தன்னகத்தே கொண்டமைந்த இவ்வியற்கையை பேணி பாதுகாத்தால் மட்டுமே பூமியின் உயிர்ப் பல்வகைமையை பாதுகாக்க முடியும். நமது நாடானது பல்வேறுபட்ட வளங்களைக் கொண்ட ஒரு சிறந்த நாடாக திகழ்ந்தது என்பதற்கு ஆதாரமாக தமிழ் இலக்கியங்களில் பல சான்றுகள் காணக்கிடக்கின்றன. அந்த வகையில் காப்பிய இலக்கியமான சிலப்பதிகாரத்தில் மூன்று காண்டங்கள் மூப்பது காதைகளில் கூறப்பட்டுள்ள மூவேந்தர்கள் பற்றியும் அவர்கள் ஆட்சிசெய்த சோழநாடு, சேரநாடு, பாண்டியநாடு என்ற மூன்று நாடுகளைப் பற்றியும் அவற்றில் உள்ள இயற்கை வளங்கள் அந்நாடுகள் வளங்கொழிக்க காரணமாக அமைந்த ஆறுகளான காவிரி, வைகை,

SOUTH INDIA JOURNAL OF SOCIAL SCIENCES
ISSN: 0972 – 8945

"IMPACT ASSESSMENT OF GST IMPLEMENTATION ON SMALL AND MEDIUM SCALE TRADERS"

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ABSTRACT

Implementing the Goods and Services Tax (GST) posed a significant challenge, particularly in educating India's population of 1.33 billion about the new system. This was especially difficult in regions where change is often met with resistance. In the post-GST period, many returns were mismatched, leading to technical difficulties for Indian taxpayers and further complicating the new tax system. Consequently, most dealers faced issues submitting reports and reclaiming Input Tax Credits (ITC). As a result, the World Bank has deemed GST as a complex tax system. This study aims to investigate potential issues arising from the implementation of GST. Data was collected from 275 respondents who operate businesses in and around the Coimbatore District using a questionnaire. Respondents were selected using a convenience sampling method. The data was then analyzed using simple percentage, ANOVA and T-test statistical tests. The findings of this study will benefit traders in enhancing their understanding of the GST concept. It will also guide them on how to avoid common errors when filing monthly returns and effectively claim common problems they may encounter under various circumstances.

Keywords:
Traders, GST, Small and Medium Traders, Tax

INTRODUCTION

The Goods and Services Tax (GST) is a significant indirect tax reform adopted by many countries, each implementing it uniquely. GST replaced all other indirect taxes in India, including state VAT, central excise duty, service tax, and central sales tax. GST is a value-added tax on goods and services that applies to every stage of the production process, benefiting all parties involved, from the producer or service provider to the ultimate consumer. GST has fundamentally transformed India's tax structure intending to create a unified Indian market by eliminating distortions in the cost of goods and services. India categorizes its goods and services into four sectors based on GST rates: 5%, 12%, 18%, and 28%. Overall, GST simplifies the tax payment process. Organizations registered for GST are required to submit monthly, quarterly, and annual returns via the Government of India's GST portal. They must disclose their purchases and sales of goods and services and the taxes collected and paid. As per Prime Minister Narendra Modi, businesspeople and traders with zero transactions, known as "Nil filers," can now file taxes via SMS (The Hindu, dated 30th June 2019). The MSME Act of 2006 was established to assist Micro, Small, and Medium Enterprises (MSMEs) in their initiation and expansion. It also enhances their competitiveness both domestically and internationally. Several modifications were recently made to simplify the GST returns filing process. On 30th October 2017, the Ministry of Micro, Small, and Medium Enterprises Development Act (MSME) launched MSME Samadhaan to support micro and small business owners nationwide. Specific funds are allocated for fostering enterprise competitiveness, with various programs and schemes available.

REVIEW OF LITERATURE

Ahmad et al. (2016) conducted a study to examine taxpayers' awareness, perceptions, and acceptability of the GST implementation. The findings indicated that public awareness of GST has not

Journal of Data Acquisition and Processing
ISSN: 1004-9037
https://sjcjycl.cn/
DOI: 10.5281/zenodo.7922885

DETERMINATION AND SEGMENTATION OF MAIZE PLANT DISEASE USING IMPROVED GAUSSIAN PARTICLE SWARM OPTIMIZATION ON CONVOLUTION NEURAL NETWORK

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Abstract

Maize Plant diseases are the major concerns in the agricultural domain. But significant loss of yield occurs due to awful techniques. Hence automatic and accurate identification of the quantifying disease is very important. Most of the diseases symptoms are reflected in maize leaves, but diagnosis by experts in laboratories are costly and time-consuming. In this paper, Optimization of Convolution Neural Network is carried out by using Improved Gaussian Conducted Particle Swarm Optimization [IGCPSO] for classifying the maize diseases based on optimization. Initially Contrast Limited Adaptive Histogram Equalization [CLAHE] is framed for partitioning of designated image in to particular non-overlapping segments of similar sizes using deep learning architecture. Preprocessed image is segmented into several segments by employing graph cut segmentation process. Segmented disease regions are useful to extract the discriminative features for remaining process. Color Level Co-occurrence Matrix (CLCM) is a new texture based technique employed to extract informative features related to the diseased region. Improved Gaussian Conducted Particle Swarm optimization is emphasized to generate optimal features by identifying and clustering of important points having similar attributes for classification. In proposed model, experimental analysis using plant village dataset improves performance in terms of dice coefficient, sensitivity, and specificity towards disease identification.

Keyword: Convolution Neural Network, Color Level Co-occurrence Matrix, Graph Cut Segmentation, Particle Swarm Optimization, Contrast Limited Adaptive Histogram Equalization

1. Introduction

Maize is vital food crops around the world which is less equivalent to the production output and plant area of rice and wheat. It is used to development of light industrial products and suitable for cultivation in any climatic condition. However, maize plant disease have enhanced owing to variation in the cultivation systems and pathogen changes to diversifies the infections such as , gray leaf spot, dwarf mosaic, northern leaf blight, brown spot , Curvularia leaf spot, southern leaf blight round spot and rust[1]. Leaf diagnosis by experts in laboratories on basis of severity is costly and time-consuming for early detection of plant disease [2]. Hence automatic and accurate identification of the quantifying disease using image processing techniques is very crucial in monitoring the maize leaf on basis of its appearance and symptoms has become essential to control and manage the crop yield[3].

CONSUMER PERCEPTION TOWARDS MOBILE FOOD DELIVERY DURING COVID 19 PANDEMIC -A STUDY ON SPECIAL REFERENCE TO POLLACHI TALUK

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ABSTRACT

The mobile application period has thrown open a new pathway for today's marketing. The mobile application has made all usual modes of business outdated and generated wonderful new potential in business. Mobile application is a combination of marketing insight and expertise – uses the Internet as a average to promote and sell services and goods. Today, more people are receiving connected through mobile application and they are ready to trade through it. It also affects the operation of companies and organizations. Companies have changed their traditional business strategy into online marketing to suit customer needs and taste at any time. This research paper aims to discuss the consumer's perception towards the mobile food delivery during covid 19 pandemic in Pollachi. The survey was conducted for a purposeful analysis of the study on around 100 respondents. The research is focused on the study and analysis of data collected from all those users who are already using the mobile food delivery services. The purpose is to know what are the influencing factors, their perceptions, needs, position of various attributes of different online portals in their mind and overall preference towards mobile food delivery services.

Key words: Mobile food delivery service, consumer preferences, mobile applications.

INTRODUCTION

Mobile food delivery is growing in Indian market day by day. Indian public are so lively while using the apps for order food online. As a result of all these online food marketing is also able to make sufficient sum of opportunity for employment. It also helps local vendors to attach with public payable to which they are clever to encourage their earning. Basically ordering scheme is a website or mobile application throughout which users can order food online from a food cooperative or even a resident eating place ordering food online is similar to online shopping. So with such benefits online food services is attractive a enormous division & will benefit India's economic circumstance.

REVIEW OF LITERATURE

H.S. Sethu & BhavyaSaini (2016): The study's primary objective was to understand the attitudes, behaviors, and motivations of students who opt for online food delivery services as their primary choice for meals . According to the findings, students prefer online food delivery services because they offer the convenience of ordering their desired food at a reasonable cost, which saves them time during busy periods such as exams. The internet also provides a quick and hassle-free option for students to order food via their mobile applications without any time-wasting activities.

Journal of Indian Intellectual T
Vol.XVII (2), Oct-2023
ISSN:-2249-7129

CONSUMER PERCEPTION TOWARDS CASHLESS TRANSACTION

(A STUDY WITH SPECIAL REFERENCE TO POLLACHI TALUK)

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ABSTRACT

The primary objective of the present study is to identify the consumer perception towards cashless transaction. The study is based on both primary and secondary data. The primary data is collected with the help of Questionnaire. The secondary data is collected from the websites, journals etc,. The study is concerned with Consumer perception towards cashless transaction. The total 110 respondents are issued and 100 respondents are collected were selected for the study in Pollachi Taluk. Convenient sampling techniques were used for the collection of data. The collected data should go through analysis process which is done with the help of statistical tools and methods such as percentage analysis, Weighted Average Ranking Method. Results indicates that majority of the respondents are using the cashless transaction for the purpose of AEPS is get first mark.

KEYWORDS : Consumer - Perception - Cashless Transaction – Economy

INTRODUCTION

Cashless transaction becomes a lot easier to track the flow of money with every transaction being recorded with the buyer, seller as well as regulated bodies, making the system much more transparent and compliance. Some of the cashless payment options are debit card, credit card, cheque, mobile banking, demand, draft, e-wallet, etc., these payment modes are easy to adopt for urban people. So, the purpose of this study is to highlights perception of rural people on present cashless transaction.

Cashless transactions refer to any payment or financial transaction that does not involve physical cash. This can include transactions made through credit and debit cards, mobile payment apps, online payment platforms, electronic bank transfers, and other digital payment methods. Cashless transactions have become increasing popular in recent years due to the convenience and security

SOUTH INDIA JOURNAL OF SOCIAL SCIENCES
ISSN: 0972 – 8945

FACTORS INFLUENCING THE RURAL PEOPLE IN THE CHOICE OF HIGHER EDUCATION AND CAREER PROGRESSION, WITH SPECIAL REFERENCE TO UDUMALPET TALUK

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Abstract

Education and Career are interrelated and interdependent. Education makes a man perfect and career creates an identity to an individual. Sometimes, choice of career is not purely based on the domain knowledge received, but the education makes one to choose career irrespective of fields. In India, Government gives much importance for the empowerment of people through education including women education. Rural areas are also expected to be participative in economic development so that the rural education and rural employment are fully focused by the government. The present study aimed at exploring factors influencing the rural people in the choice of higher education and career progression, with special reference to Udumalpet Taluk. There are 55 villages in Udumalpet Taluk. Of the available population 80 respondents were taken as sample using convenient sampling method. The findings revealed that the rural people are not aware of the new schemes of higher education and rural employment. Almost three-fourth of the respondents said that they are not able to compete in line with the urban population in terms of education and career. The respondents mentioned the finance as the primary factor that influences the choice of higher education and the income as the primary factor that influences the choice of career options after education. The study has further scope to analyze the individual factors affecting rural education and employment separately.

Keywords: Rural education, Rural employment, Higher education, Career opportunities, Career progression, Factors influencing rural education, Factors influencing career progression.

Introduction

From the ancient period to digital era, Education is always considered as potential one and it is followed by employment or career. Education helps in equipping oneself and planning what-to-be and how-to-be in career. Education and Career are interrelated and interdependent. Education makes a man perfect and career creates an identity to an individual. Sometimes, choice of career is not purely based on the domain knowledge received, but the education makes one to choose career irrespective of fields. In India, Government gives much importance for the empowerment of people through education including women education. Rural areas are also expected to be participative in economic development so that the rural education and rural employment are fully focused by the government. But the question mark lies in the place whether they are working actually and they are fruitful or not.

Rural areas are always under focused and underrated. But the economy is in the hands of rural development and produces from agriculture. While the cities and townships grow fast in rocket speed, the rural development happens in the tortoise speed. The challenges of rural people in acquisition of higher education and career progression are many and they highly impact the peoples' choices of what-to-be and how-to-be in career. Unless the rural education and employment are empowered, the nation's development is not even and uniform. The fullest concentration of rural education and employment will gradually increase the participation of rural people in higher education and employment. The enrolment ratio in higher education institutions should be increased post higher secondary class. As well as, the employment rate should be increased in villages, post-graduation.

Review of literature

Erica Chenoweth et.al (2004) examined the factors influencing rural high school students' towards college choice decisions. Individually age characteristics like family, peer and school and broader cultural influences all influenced them in predicting rural students' academic ambitions. Additionally, interest differences also emerged in patterns of prediction between males and females. Family and peer factors emerged as more salient predictors of college choices for males, whereas variables aligned with

Industrial Engineering Journal
ISSN: 0970-2555
Volume : 52, Issue 6, No. 4, June : 2023

ROLE OF EDUCATIONAL INSTITUTIONS IN UPLIFTING THE RURAL PEOPLE IN HIGHER EDUCATION AND CAREER PLANNING, WITH SPECIAL REFERENCE TO UDUMALPET TALUK

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ABSTRACT
From Gurukul system to e-Learning system, the education evolved itself completely. Education is a basic need that everyone should get. Education creates a pathway to identify career of individual mostly. Sometimes, the rural education and career progression are ignorantly treated and concentrated poorly. In India, Government takes efforts for the empowerment of rural people through education including women education and rural employment. Rural areas are participative in economic development with the help of agricultural sector. The rural education and rural employment are part of economic policies in the recent years. The present study targeted to understand the Role of educational institutions in uplifting the rural people in higher education and career planning, with special reference to Udumalpet Taluk. There are approximately 55 villages in Udumalpet Taluk. Among the total population of study, 60 respondents were taken as sample using convenient sampling method. The findings revealed As per Chi-square, There is no significant association between institution type and uplifting rural education; and there is no significant association between annual income and uplifting rural career planning. The respondents mentioned the finance as the primary factor that influences the promotion of higher education and career planning in the rural areas. The government educational institutions also should actively participate in the promotion of higher education and employment opportunities in the rural area. The study has further scope to analyze the Role of higher educational institutions in uplifting the rural people in higher education and career progression in villages.

KEYWORDS
Rural education, Rural employment, Educational institutions, Career progression, Higher education.

1. INTRODUCTION OF THE STUDY
Education to empower is the motive of modern society. It is always prioritized as crucial one and it is influenced by employment or career. Career assists the society in uplifting standards and economic status. Education and Career are interrelated and interdependent as always. From Gurukul system to e-Learning system, the education evolved itself completely. Education is a basic need that everyone should get. Education creates a pathway to identify career of individual mostly. Sometimes, the rural education and career progression are ignorantly treated and concentrated poorly. In India, Government takes efforts for the empowerment of rural people through education including women education and rural employment. Rural areas are participative in economic development with the help of agricultural sector. The rural education and rural employment are part of economic policies in the recent years.

Rural education, employment and empowerment are always poor-concentrated and ignored. But the economy highly believes and needs the rural development in terms of education, employment and empowerment. While the urban develops rapidly, the rural develops slowly. The challenges of village people in of higher education and career progression are many. Unless the educational institutions focus on rural employment and career planning, the overall development in the country is not possible and attained. The concentration of Educational Institutions (EI) on rural education and rural employment will gradually gear up the contribution of rural people in higher education and employment. As per the New Education Policy 2020, the gross enrolment ratio in higher education

WOMEN EMPOWERING THROUGH ENTREPRENEURSHIP IN FOOD INDUSTRY

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ABSTRACT

Women entrepreneurs are key players in any developing country particularly in terms of their contribution to economic development. Women entrepreneurship has been recognized as an important source of economic growth. Women entrepreneurs create new jobs for themselves and others and also provide society with different solutions to management, organization and business problems. They also entered in food processing industry. Food processing is one of the largest industries in India. It is the process of transforming food items into a form that can be used.Rural women constitute a substantial section of the workforce in the unorganized sector, particularly in the food industry. Their involvement in entrepreneurial activities plays a crucial role in the economic development of rural areas.Food industries are mostly small and medium sized enterprises and face such constraints as poor infrastructure, shortage of entrepreneurial talent and skilled manpower, and limited access to appropriate technologies. So to overcome this problem this project aims to focus on the challenges and sustainable approaches to create awareness among rural women entrepreneurs.

Key Words: Entrepreneurship, Women entrepreneurs. Unorganized sector, Food Industry.

INTRODUCTION

Rural women constitute a substantial section of the workforce in the unorganized sector, particularly in the food industry. Their involvement in entrepreneurial activities plays a crucial role in the economic development of rural areas.Food industries are mostly small and medium sized enterprises and face such constraints as poor infrastructure, shortage of entrepreneurial talent and skilled manpower, and limited access to appropriate technologies. So to overcome this problem this project aims to focusonthechallengesandsustainableapproachestocreateawarenessamongrural women entrepreneurs. And also this research paper will highlight how many food industries in unorganized sector available in Coimbatore District and what are the factors associated with it. How many entrepreneurs working in this field etc.Because Food industry in unorganized sector plays a vital role in poverty alleviation, empowerment of women and

CONSUMER PREFERENCES FOR ORGANIC FOOD IN COIMBATORE DISTRICT : AN EMPIRICAL STUDY

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Abstract

The COVID-19 pandemic seems to have acted as a catalyst, intensifying these trends and prompting more individuals to prioritize sustainable choices.It's interesting to see how the COVID-19 pandemic has influenced Indian consumer attitudes and preferences towards organic food products, especially in the context of the impact of Southern culture on consumerism. Conducting an online survey among 120 respondents from Coimbatore District provides valuable insights into the awareness, preference, willingness, and consumption patterns of organic food products in the region.he results indicate a significant level of awareness among respondents regarding the health benefits of organic products, leading to a preference for purchasing them. It's particularly noteworthy that educated and upper-middle-income individuals are willing to pay a premium of up to 50% for organic products, highlighting the importance they place on health and sustainability.Identifying fruits, vegetables, and milk as highly sought-after organic commodities aligns with broader trends in consumer demand for healthier and more environmentally friendly food options.However, the study also highlights several challenges in the organic food market, including the high prices of organic products, difficulty in identifying genuine organic products, and issues related to accessibility and availability. These constraints pose significant barriers to widespread adoption and consumption of organic products.Addressing these challenges will be crucial in fostering a thriving organic food market in Coimbatore District and beyond. Ensuring fair prices for organic farmers can incentivize increased production and help bridge the demand-supply gap, ultimately benefiting both consumers and producers.

Keywords : Covid - 19 pandemic, organic food products, challenges, environment friendly.

Introduction

The resilience of nutritional health status during times of destabilization highlights the importance of prioritizing healthy eating habits even in challenging circumstances. These habits not only contribute to physical health but also play a crucial role in mental and emotional well-being.The shift towards consuming more greens or organic products is particularly noteworthy, as these foods often contain higher levels of beneficial nutrients like antioxidants compared to conventionally grown alternatives. Additionally, opting for organic products can have environmental benefits and support sustainable agricultural practices.Understanding the term "organic" and its implications for both plant-based and animal-derived products is essential for making informed food choices. Organic agriculture involves processes that prioritize environmental sustainability and avoid the use of synthetic chemicals and pesticides. This approach not only produces food that is free from harmful chemicals but also promotes the well-being of livestock by providing them with natural living conditions and organic feed.

As India aims for modernized lifestyles, it's encouraging to see a growing awareness of nutritional requirements alongside the prioritization of convenience and taste. Balancing these factors can lead to a more holistic approach to food consumption, where health, taste, and environmental considerations are all taken into account.The upsurge of environmental consciousness indeed plays a significant role in shaping consumer behavior, particularly regarding the preference for organic products. This heightened awareness of environmental issues has led to a notable expansion of the organic market in India, reflecting a growing desire among consumers to make environmentally sustainable choices.Encouraging more domestic producers to enter the organic market and providing support for their marketing and distribution efforts can help address the imbalance between export

IPE Journal of Management
ISSN 2249-9040 Volume 14, No 23, January-June 2024

DETERMINANTS OF CONSUMER SATISFACTION TOWARDS ONLINE FOOD DELIVERY SERVICES IN COIMBATORE DISTRICT

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Abstract
This research paper explores consumer satisfaction with online food delivery services, focusing specifically on the Coimbatore District. With the rapid growth of digital platforms and changing consumer preferences, online food delivery has become an integral part of the urban lifestyle. This study aims to identify the key factors influencing consumer satisfaction and to assess the overall satisfaction levels among users in Coimbatore. For this purpose, primary data has been collected through structured questionnaire using Convenience sampling technique. A sample of 279 consumers has been selected. The collected data have been analyzed by employing simple percentage analysis and ANOVA. Key determinants of satisfaction include timeliness and reliability of delivery, ease of use, and the quality of food. The analysis shows that different demographic groups have varying levels of satisfaction, suggesting that online food delivery services need to tailor their offerings and marketing strategies to cater to the diverse needs and preferences of their customer base.

Keywords –
Consumer Behaviour - Online Food Delivery – Satisfaction

Introduction

In our modern day world, technology is playing a major role in online food delivery system. Many people are utilizing mobile applications to connect these days, and many of them are prepared to transact using them. The daily operations of numerous businesses and organizations are also being impacted by technology. Food has taken over a sizable portion of the internet due to its excellent presentation on television networks, periodicals, and bestseller lists. To cater to the demands and preferences of their customers, businesses have modified their conventional business methods to include online marketing. Online food ordering is becoming more and more commonplace over time. This is because one of the main benefits that customers experience is ease; orders can be placed from any mobile device with a few clicks, and they are delivered according to the customer's specifications.

Traditionally, Indians like to have Home-cooked meals – a concept supported religiously as well as individually. However, with times due to increasing awareness and influence of western culture, there is a slight shift in food consumption patterns among urban Indian families. It started with eating outside and moved on to accepting a wide variety of delicacies from world-over. Liberalization of the Indian economy in the early 1990s and the subsequent entry of new players set a significant change in lifestyles and the food tastes of Indians. Fast food is one which gained acceptance of Indian palate after the multinational fastfood players adapted the basic Indian food requirements viz. vegetarian meals and selected non-vegetarian options excluding beef and pork totally from their menu. Multinational fast food outlets initially faced protests and non-acceptance from Indian consumers. This was due to primary perception that these fast food players serve only chicken and do not serve vegetarian meals.

Review of Literature

Devrshi Upadhayaya and **Hitanshi Thakkarb (2020)** studied the promotion and marketing of meal delivery and customer purchasing behaviour. Which programme they prefer, and whether they want to use an online application if they have any issues. The research is based on empirical evidence. The conclusion is that customers prefer to get high-quality cuisine through food apps rather than going to restaurants. People between the ages of 15 and 25 use online meal delivery the most of any age group. The most popular online meal delivery apps are Zomato and Swiggy. It has been discovered

UNDERSTANDING CONSUMER PREFERENCE TOWARDS FOOD DELIVERY APPS: A CASE STUDY IN COIMBATORE DISTRICT

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Abstract
This paper presents a comprehensive study conducted to analyze consumer preferences towards food delivery apps in Coimbatore District. With the rapid growth of the food delivery industry, understanding consumer behavior and preferences becomes crucial for both businesses and policymakers. For this purpose, primary data has been collected through structured questionnaire using Convenience sampling technique. A sample of 279 consumers has been selected. The collected data have been analysed by employing simple percentage analysis and weighted average ranking method. The findings reveal valuable insights into the factors driving consumer preference in Coimbatore District Consumer preference towards food delivery apps in Coimbatore District is primarily driven by competitive pricing, discounts, and overall satisfaction with the service.

Key words:
Online Food Delivery - Food Delivery Apps – Preferences- Price – Satisfaction

Introduction

The advent of technology has revolutionized the way people access goods and services, with food delivery apps emerging as a prominent example of this transformation. In recent years, the food delivery industry has witnessed exponential growth, fueled by the convenience, variety, and accessibility offered by mobile applications. Coimbatore District, situated in the southern part of India, has not been immune to this trend, experiencing a surge in the usage of food delivery apps among its residents. Understanding consumer preferences in this context is paramount for businesses operating in the food delivery sector and policymakers seeking to regulate this burgeoning market effectively. Coimbatore District, known for its diverse culinary landscape and vibrant food culture, presents a unique case for studying consumer preferences in the realm of food delivery apps. With a mix of traditional and modern food establishments catering to a diverse population, understanding the dynamics of consumer choices becomes imperative for businesses vying for a competitive edge in this thriving market.

Review of Literature

Preeta & Iswaraya (2019) conducted research in to analyze towards online order and delivery application, considering demographic as a part of its study. According to their study young person is mostly like are order to online restaurant delivery, using one of these services. According to their survey 63% of people between 18-29 years old have used a multi restaurant delivery website or app service in past 90 days,51% between 30-44-years old,29% between 45 to 60years old and just 14% between 60 & above.

Jyotishman Das (2018) the doorstep delivery is the most highly ranked factor of influencing the consumers to use the food ordering applications. The consumers are also often influenced by discounts and cash back they enjoy. On comparing the factors the most preferred service provider came out to be Zomato followed by Swiggy. But some negative influencer like bad past experience and, negative experience of friends and family also in some cases prevents the consumers on using the process

J. Das (2018) has studied, analyzed and compared the top 4 food delivery apps namely, Zomato, Swiggy, Foodpanda and Uber eats. Providing better discounts" and "better choices of restaurants", Zomato is positioned at the top by the customers. Zomato is also positioned at the top by the customers while considering delivery on time and good customer service. In both situations, customers ranked Uber eats in the last position.

IPE Journal of Management
ISSN 2249-9040 Volume 14, No 23, January-June 2024

A STUDY ON CONSUMER BEHAVIOR TOWARDS FMCG PRODUCTS WITH SPECIAL REFERENCE TO POLLACHI TALUK

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Abstract:

Fast-Moving Consumer Goods (FMCG) or Consumer Packaged Goods (CPG) are products that are sold quickly and at a relatively low cost. The rapidly changing environment is a major concern for the people throughout the world, and also making them more concerned about the environment. The purpose of the study is to analyze the consumer behavior towards the purchase of FMCG Products in Coimbatore District. The primary data were collected through the well-structured questionnaire. The consumers were selected through convenient sampling technique and the sample size is considered for study is 110. The secondary data were taken from various books, published journals, magazines, companies' websites and other academic resources. The Chi-square test has been employed.

Keywords:

Fast-Moving Consumer Goods (FMCG), Consumer Packaged Goods (CPG), consumer behavior

Introduction

In today's aggressive world it's very difficult to outline consumers approach and intentions and shift them to the next level of purchasing process, marketers find it yet more difficult and challenging to break through the chaos of competitive marketing efforts of different companies. Every marketing effort tries to create reach ability for their products and attempts to stimulate a lasting reflection in the minds of customers.

Fast moving consumer goods (FMCG) sectors is indicate the all type of tangible goods that are used by consumed on regular basis at a comparatively faster pace. The middle class customer and the rural sectors are the most concentrate market in Indian economy and the most vibrant and striking market towards economy contribution. Indian FMCG market is at the fast verge of revolution from unorganized retail format into organized retailing sectors. This type of transformation is anticipated to convey radical changes in the retail format. Now days organized FMCG retailer format have high demand towards various overhead cost and working capital mainly due to increase in expenses on human resource, infrastructure and information system. More competition with high strategy and more firms will reside in high industry space; individual competitive and comfortable shopping environment will be the only reason for survival and increase in growth trends of retail.

Statement of the Problem

It is always a superior challenge for the companies to calculate the consumer purchasing behaviour towards different products and especially Fast-Moving Consumer Goods (FMCG). Since on an everyday basis various Fast-Moving Consumer Goods (FMCG) are coming with pioneering marketing concepts, need arises whether these marketing efforts having any impact on the consumers purchasing behaviour. The present study tries to identify the various factors that leading to the consumers purchasing of Fast-Moving Consumer Goods (FMCG) with special reference to Coimbatore district.

Objectives of the Study

The Primary objective of this study is to find out the factors which affecting the consumer's buying behavior towards Fast-Moving Consumer Goods (FMCG) with special reference to Coimbatore district.

Methodology

The area of study is Pollachi Taluk. The study is relying on the primary and secondary sources. A total of 120 consumers are taken for the study using simple random technique, using

A STUDY ON CONSUMER AWARENESS ON FMCG PRODUCTS WITH SPECIAL REFERENCE TO POLLACHI TALUK

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Abstract:
The term FMCG all though popular and frequently used, it does not have a standard definition and is generally used in India to refer products of everyday use. The Indian FMCG sector plays a significant role in Indian economy as a contributor to the country's Gross Domestic Product (GDP). FMCG sector in India can be categorized into three main segments as per the report of IBEF, such as Household and personal care, healthcare and food and beverages. This study focuses on to study consumer awareness on FMCG products with special reference to Pollachi taluk. The study is relying on both the primary and secondary data. The consumers' main sources of awareness about to know the FMCG Products in Pollachi Taluk in through television advertisement.

***Keywords**:*
Fast moving consumer goods (FMCG), Consumer Packaged Goods (CPG), Gross Domestic Product (GDP), Awareness

Introduction

The Indian FMCG sector plays a significant role in Indian economy as a contributor to the country's Gross Domestic Product (GDP). It is the fourth largest sector in the Indian economy and is accountable for more than five percent of the total factory employment in India. Well organised and established distribution channel networks, as well as extreme competition between the organized and unorganized segments are the main characteristics of FMCG industry. Fast moving consumer goods (FMCG), popularly named as Consumer Packaged Goods (CPG) are those products that are sold quickly and at comparatively low cost. The middle class customers and the rural segment of the total population are the most promising market for Indian FMCG, and provide brand producers the opportunity to translate them to branded products. Major FMCG product categories like toothpaste, jams, skin care, shampoos, etc. in India have huge potential for growth though they have low per capita consumption as well as low penetration level. FMCG market in India will be boosted by favorable demographics and rise in income level. It is expected to grow at a compound annual growth rate (CAGR) of 20.6 per cent and is expected to reach USS 103.7 billion by 2020 from USS 49 billion in 2016. By 2025, FMCG sector in rural and semi-rural area in India is anticipated to cross USD 220 billion. Generally, progress in private final consumption expenditure (PFCE) relates well with growth on non-durable goods with a ratio of 0.8 times on an average. Hence, going forward, with the nominal GDP expected to be at 11.5%, and also Indian economy expects the FMCG industry to grow by about 9 - 9.5% in financial year 2018.According to IBEF, FMCG sector in India can be categorized into three main segments such as Household and personal care, healthcare and food and beverages.

Statement of the Problem

FMCG sector is currently the fourth largest industry in the Indian economy and has been growing at a very steady pace over the last few years. The scope of growth for FMCG sector in a hugely populated country like India has attracted many prospective entrepreneurs to start their own ventures and has also opened up new horizons for the entire business world. The frequent entry of new companies, new products and new brands has created a hectic competitive environment in the Indian FMCG sector and awareness on new brands and products among the customers plays a significant role in FMCG sector. At this backdrop this study focuses on consumer awareness on select FMCG products with special reference to Pollachi taluk.

Objectives of the Study

- To determine the level of awareness on selected FMCG products with special reference to Pollachi

PERCEPTION TOWARDS E-BIKE USERS IN COIMBATORE CITY

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INTRODUCTION

The feeling of freedom and being one with the Nature comes only from riding a two-wheeler. Indians prefer the two wheelers because of their small manageable size, low pricing and maintenance, and availability of loans on liberal terms. Indian streets are full of people of all age group riding two- wheelers. The populace sees motorized two wheelers as a symbol of status. Majority of Indians, especially the youngsters prefer motorbikes rather than cars. Capturing a large share in the two- wheeler industry, bikesandscooterscoveramajorsegment.Bikesareconsideredtobethefavoriteamongyout h,astheyhelpineasycommutation. Largevariety of two wheelers is available in the market, known for their latest technology and enhanced mileage. Indian bikes, scooters and mopeds represent style and class for both menand women in India. The E-bikes are originated in Japan in the early 1980s. Improved batteryand motor technology, component modularity, as well as economics of scale improvementshavemeantE-bikescannowtravellongerdistances,arefaster,andmoreaffordablethanever.In the past decade more than 150 million E-bikes have been sold, the largest and most rapiduptake of alternative fuelled vehicles in the history of motorization. The E-bikes are highlyadvanced with cruise control technology, theft braking system, Lock braking, Internationalstyling , keyless entry ,No number plate , No licensee and a lot of other features. E bikes areeasy to use, lightweight and maintenance free providing a stress free experience. India is thesecondlargestproducerandmanufactureroftwo-wheelersintheworld.ItstandsnexttoJapanand China in terms of the number of two-wheelers produced and domestic sales. Indian two-wheelerindustryhasgotspectaculargrowthinthelastfewyears.Thefaceofautoindustrythatwasredefinedwit htheinventionoffuel-efficienttechnologyisallsettoseedawnofaneweraintwo-wheelerindustry.

It'snotpetrolordieseloranyotherfuel,butitiselectricitythathas initiated are volutionin two wheelerindustryinIndia.Indiantwo wheelerindustryhasembracedthenewconceptof Electric Bikes and Scooters that are very popular mode of personal transport in the developedcountries like America, Japan and China. With the rising cost of fuel at International level,increasing levels of pollution and congestion in transport system especially in urban areas,higherrunningandmaintenancecostofvehicle,theelectricallychargedbikesorscootershavevery bright future in area of personal transportation. In today's competitive and fast pacedworld,automobilesplaysaverypivotalroleinanyindividualsoveralllife.Beittheproductivity,perform anceorcopingwithlivelihoodissues,vehiclessavesasignificantamountoftimeandeffortsaidingasabridgeb etweendifferentcommutingpoints.MajorityofIndiansdependontwo wheelerstocatertheirmobilityneeds"AsperCensus2011,37%peopleusing

Motorized modes to commute to work relied on two-wheelers compared to 33% for buses and 8% for private cars" (Kumar & Prakash, 2020). The havoc created by pandemic Covid-19 since the onset of year 2020 and hence the new normal of WFH (work from home) was expected to impact the two wheeler segment heavily. However the latest data released by the Society of Indian Automobile Manufacturers (SIAM) as on October 2020, shows a clear spike of 16.88% in the total domestic salesof two-wheelers (Priya, 2020).

IMPACT OF FDI IN INDIAN ECONOMY WITH MACRO – ECONOMIC VARIABLES

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Abstract

Indian FDI industry is an important cottage industry contributing significantly to the economy of the major coconut-growing states and union territories i.e., Kerala, Tamil Nadu, Andhra Pradesh, Karnataka, Maharashtra, Goa, Orissa, Assam, Andaman & Nicobar, Lakshadweep, Pondicherry etc. This industry is of great importance as it contributes significantly to the economy of rural areas in these states. As FDI products are eco-friendly and the demand for such products especially FDI pith is increasing, there is a vast scope for promoting their export from India. However, there is a growing global concern for environmental issues, going green, and sustainable production and consumption yet FDI pith exporters are faced with several challenges like non-availability of skilled/semi-skilled labour, high rate of interest on loan, delay in getting a bank loan, higher rate of wages, lack of adequate transporting facilities and lack of qualified exporting staff, etc. This article will provide a clear perception of these outstanding challenges faced by FDI pith exporters in Western Tamil Nadu

Keywords: Challenges, FDI pith export, Western Tamil Nadu, sustainable development

1. Introduction

India is the largest manufacturer and exporter of FDI products and some of the importing countries are from North America, Europe, and Asian regions. The FDI pith, which is one of the by-products of extracting FDI fiber from the husk of the coconuts has a multitude of uses as it is used in the horticulture industry as an additive that conditions as well as replaces peat moss. The raw material used in producing FDI pith in Western Tamil Nadu has the prospect of becoming popular soon as the global community is gradually becoming more conscious of the products they use. The exports of FDI and FDI products from India during the year 2021-22 registered a record of 1234855MTs valued at Rs.4340.05 crore. FDI pith with export earnings of Rs.2259.18 crores constituted 52.05% of the total export of FDI products from the country. During the year 2021-22,103 countries have imported FDI and FDI products from India. Despite