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Studies on Composite PVA-CA-$NH_4CF_3SO_3$-Al_2O_3 Polymer Electrolyte for Electrochemical Devices

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In the present study, polymer electrolyte with poly(vinyl alcohol) (PVA) blended with cellulose acetate (CA) was chosen to prepare composite electrolyte using ammonium triflate salt and nano sized alumina (Al_2O_3- < 50 nm) by the solution casting method. The as prepared samples were characterized by X-ray diffraction, FT-IR, differential scanning calorimetry and AC impedance spectra. The loss tangent and dielectric studies were carried out for all the prepared samples using AC impedance analysis. Activation energy with regression values and relaxation time were calculated and found to be low for the highest conducting membranes. The presence of 0.1 mol content of nano alumina has enhanced the ionic conductivity significantly to the value of 2.012×10^{-3} S/cm from that of the filler-free electrolyte (2.93×10^{-4} S/cm). Ionic transference number was calculated by electrostatic polarization method and it was found to be 0.9684, which shows the conducting species were ions. A proton battery fabricated using the configuration Zn+$ZnSO_4$. H_2O || PVA-CA-0.5 mol $NH_4CF_3SO_3$-0.1 mol Al_2O_3 || PbO_2 + V_2O_5 produced a steady state open circuit voltage of 1.39 V, which proves the prepared composite electrolyte is suitable solid electrolyte for electrochemical devices.

Keywords: FT-IR, Ionic conductivity, Dielectric analysis, Poly(vinyl alcohol), Cellulose acetate, Ammonium triflate, Nano alumina.

INTRODUCTION

In the process of achieving a good solid electrolyte for electrochemical devices the composite polymer electrolytes plays an important role. Over the past few years, many polymer blends with different lithium and ammonium salts have been reported as a potential polymer electrolyte material for solid state batteries and other electrochemical devices [1-3]. In the preparation of proton exchange membrane materials, different polymers like SPEEK, PVdF, PMMA, PVA, cellulose acetate, PEO, PANI and nano wires were used [4,5]. Among those, poly(vinyl alcohol) has been widely used because of its potential property to form good miscible blends. Poly(vinyl alcohol) has been separately reported to produce highly conducting electrolytes with salts and acids [6], but its mechanical stability is always a concern for the application of those membranes as a potential electrolyte for solid state electrochemical devices. Further, the blending of natural polymers like cellulose acetate with poly(vinyl alcohol) has been shown to give notable increments in the conductivity values and its mechanical stability. However, the ionic conductivity value was not preferable for the application in electrochemical devices. This problem can be overcome by the incorporation of organic/inorganic nano fillers with suitable ammonium salt complex polymer electrolytes [7].

The usage of ammonium triflate salt has enhanced the ionic conductivity, as one of the H atoms in the NH_4^+ ions of ammonium triflate is weakly bound to the polar group of host polymers and it easily dissociates under the electric field [8]. The transport of H^+ ions by Grottus mechanism through the coordinating sites of polymer matrix is the main reason for selecting this salt as a dopant in our system. From the earlier works reported by many researchers [9-11], the incorporation of inorganic fillers over the organic fillers reduces the cost of polymer electrolyte and thus the nano alumina was chosen to be a filler material. It helps to enhance H^+ transport through the expected interaction between the surface group of fillers and the migrating ions.

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Influence of fused aromatic ring on the stability of charge transfer complex between iodine and some five membered heterocyclic molecules through ultrasonic and spectral studies

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A B S T R A C T

The charge transfer (CT) interaction between two fused heterocyclic compounds with basic pyrrole group as donors, viz., indole (IND) and carbazole (CAR), and iodine (acceptor) in DMSO medium is investigated by ultrasonic and UV–visible spectral methods at 303 K. The formation of CT complex in these systems is established from the trend in acoustical and excess thermo acoustical properties with molar concentration. The frequency acoustic spectra (FAS) is also carried out on these two systems for two fixed concentrations 0.002 M and 0.02 M, and in the frequency range 1 MHz-10 MHz to justify the frequency chosen for ultrasonic study. The absorption coefficient values in solution are computed and discussed. The formation constants of these complexes are determined using Kannappan equation in ultrasonic method. The formation of 1:1 complexes between iodine and IND, CAR was established by the theory of Benesi – Hildebrand in the UV–visible spectroscopic method. The stability constants of the CT complexes determined by spectroscopic and ultrasonic methods show a similar trend. These values also indicate that the presence of fused aromatic ring influences significantly when compared with K values of similar CT complexes of parent five membered heterocyclic compound (pyrrole) reported by us earlier.

1. Introduction

Iodine is a σ-type acceptor and it has large molecular polarizability among halogens. Iodine forms large number of molecular charge transfer complexes with several aromatic, aliphatic and heterocyclic compounds [1–5]. Investigation of CT complexes of iodine and several donors has played important role in the development of theories of molecular association. It has been found that excitation of I_2–aromatic charge transfer band facilitates formation of the transition state for addition of halogen to aromatic compounds [6]. Iodine also forms 1:1 CT complexes with drugs like esmolol, famotidine, lansoprazole and oxprenolol. There is decrease in intensity of iodine band during the complex formation and also there is simultaneous appearance of blue shift band. This provides an efficient method for the estimation of drugs from the intensities of iodine and blue shift band [7]. There are known biologically active fused aromatic systems containing pyrrole group in natural products, namely, alkaloids or synthetic drugs containing in their structure indole and carbazole moieties [12–17]. These compounds possess anti-cancer, antibacterial, antifungal, anti-inflammatory, hepatoprotective, anti-HIV and antiprotozoan properties [8–17]. They can also be estimated by the CT complex formation with iodine.

Charge-transfer complex formation between two molecules involves the transfer of an electron from the HOMO of the donor to the LUMO of the acceptor. Iodine is electron acceptor and hence the CT complex formation is due to electrophilic interaction between iodine and donor molecules. Pyrrole, indole and carbazole give different products in electrophilic substitution reactions. Pyrrole gives mainly 2-substituted product while indole gives a mixture of 3- and N- substituted products in trifluoroacetylation reaction. Carbazole forms exclusively N-substituted product in the same

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Influences of Functionalized Nanoclays on Morphology and Mechanical Properties of Polyvinyl Alcohol-Based Composites by Twin-Screw Extruder

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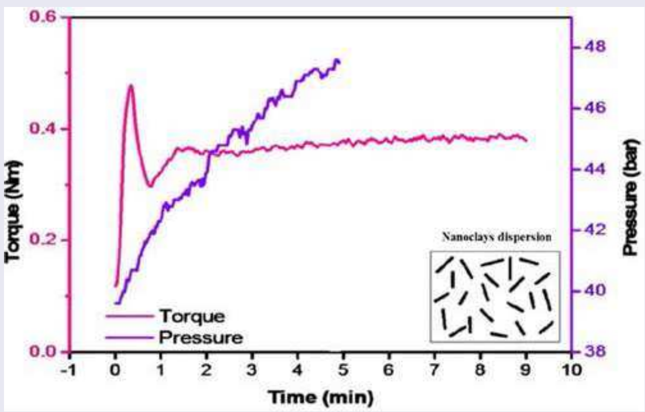
ABSTRACT

Polyvinyl alcohol-based nanocomposites filled with different weight percentage of functionalized nanoclays were prepared by melt processing with a twin-screw extruder. The effective incorporation of amine-modified bentonite nanoclays in the PVA matrix leads to the increase in thermal stability, stress–strain properties. The effect of the addition of functionalized nanoclays in PVA matrix exhibits intercalated nanocomposite structure. The thermal decomposition (T_d) temperature of the composites increases up to 30°C, than pristine PVA. The morphology influences were studied by TEM. These clay nanocomposite films could be useful for wound dressing material and for enhancing the moisture absorbance properties.

KEYWORDS
Nanoclays; nanocomposites; polymer melt; polyvinyl alcohol; twin-screw

GRAPHICAL ABSTRACT



Introduction

Polymer nanocomposites are new composite materials that are two-phase materials in which polymers are reinforced by the fillers. Polymer nanoclay composites (PCC) are synthesized by adding small weight percentage of the clays (<10%) to the polymer matrix[1,2]. The dispersed particles of the filled polymers are in the nanometer-size range. The addition of fillers to the polymer improves the mechanical strength, optical and thermal properties compared to the neat polymer[3–5]. Polymer nanoclay composites have high moduli, increased thermal stability, and high heat resistance[6–8]. The gas permeability and flammability are found to decrease with the increase in amount of nanoclay content[9,10]. The biodegradability also increases in the case of biodegradable polymer[11] and the final properties of the nanocomposites are affected by the (i) filler aspect ratio, (ii) the dispersion of filler, and (iii) the filler arrangement and orientation[12].

Polyvinyl alcohol (PVA) nanocomposites show good mechanical strength at low nanoclay loading compared to the neat polymer and composites[13,14]. Several works have been reported on PVA nanoclay composites in the literature[12,15,16]. PVA has wide range of applications in textile sizing, photosensitive coating, and used as adhesives for paper, wood, leather, and textiles[17]. But

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Color versions of one or more of the figures in this article can be found online at www.tandfonline.com/lpte.

RESEARCH ARTICLE OPEN ACCESS

Eco-Friendly And Solvent Free Synthesis Of Cerium Oxide Nano Particles Using Methacrylic Acid As Organic Dispersant. An Extended Application to the Removal of Orange G Dye.

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ABSTRACT
Cerium oxide nanoparticles have been synthesized by microwave method using cerium nitrate and methacrylic acid as precursors. The material was structurally characterized by XRD and SEM and the optical characterization was carried out using UV–visible and Photoluminescence spectro fluorimeter techniques. The X ray studies reveal the face centered cubic structures for cerium oxide nano particles. The purity of the sample was confirmed using XRD and EDAX. The absorption studies are used to confirm the bleaching of the dye in the presence of cerium oxide nano particle. The decolourization of the dye and also the decrease in the absorption peak confirms the removal of the dye..
Keywords: Solvent free synthesis, Optical properties, Blue shift, Luminescence, bleaching of dye.

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I. INTRODUCTION:

Cerium oxide (CeO_2) and ceria based materials have been investigated widely in recent years due to their potential applications in catalysis [1-6] and photo catalysis [7, 8], electronic, ceramic and gas sensors, solid oxide fuel cells (SOFC) and solar cells [9-13].etc., CeO_2 is a chemically stable oxide which has an outstanding capacity to store or release oxygen due to the variation in the oxidation state between +3 and +4. This varying oxidation state, make cerium to play an important role in scavenging reactive oxygen and nitrogen species which makes it a suitable candidate in nano biology and regenerative medicine[14].

Several methods have been reported to synthesize CeO_2 nanostructures with different morphologies, such as hydrothermal [15, 16] solvothermal [17, 18] microwave-assisted hydrothermal [19] microemulsion [20], chemical precipitation [21] urea–nitrate combustion [22], reverse micelle route [23] and sonochemical [24] etc. Among these preparation methods, microwave-assisted method is a simple and economic way to prepare nanomaterials. Hence this method has been successfully applied for the preparation of a variety of nanosized inorganic materials.

The synthesis of cerium oxide nano particles reported by H. Yang *et al*. [26] using microwave from ceric ammonium nitrate and sodium hydroxide in aqueous medium V. D. Araujo *et al*. [27] reported microwave assisted hydrothermal synthesis using cerium nitrate and sodium hydroxide Hui Wang *et al*. [28] reported preparation of CeO_2 by microwave induced method using cerium ammonium nitrate, Hexa methylene tetrammine, Poly ethylene glycol, in 100ml distilled water. B. S. Shirke [29] synthesized cerium oxide nano particle using propylene glycol as a precursor in a microwave method. In all the above methods, in addition to the precursor they used other materials to maintain the pH. Hence there are lot of possibility for the contamination But in our method, we limit the use of reagents and hence the chance of contamination is very less. We already reported the formation of zinc oxide and cerium oxide nano particle using conventional solid state method using glycerol as stabilizing agent [30]. In this current investigation, we bring out the effect of changing the dispersant.

Synthetic dyes are widely used in a number of industries such as textile and leather industries, paper printing, cosmetics, and pharmaceuticals. It is estimated to be more than 10000 commercially available dyes with over 7×105 tons of dye-stuff produced annually. Azo dyes represent about 60-70% of the dyes used in textile industry. Some of them show aquatic toxicity or allergenic effects and under reductive conditions they produce aromatic amines that are carcinogenic. Azo dyes represent a class of synthetic, colored, organic compounds which are characterized by the presence of one or more azo

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1-Near Mean Cordial and Biconditional Cordial Labeling of Certain Classes of Graphs

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Abstract

In this paper we prove that the graph k copies of Double star admits l-near mean Cordial labeling and biconditional Cordial labeling. Also we show that the graph $(P_2 \cup nK_1) + N_2$ is a 1-near mean Cordial graph.

AMS Subject Classification: 05C78.
Key Words and Phrases: K copies of Double star, 1-near mean Cordial graph, biconditional Cordial labeling.

1 Introduction

A graph is a collection of nodes and lines that we call vertices and edges, respectively. A graph can be labeled or unlabeled. Graph theory has rigorous applications in many fields like operations research, genetics, computer technology, physics, chemistry, communication networks, electrical network, economics and social sciences. Graph labeling is the labels which may be integers, prime numbers, modular integers, or elements of a group. A lot of research has been done in the topic of labeling of graphs. The study of graph labeling has focused on finding classes of graphs which admit a particular type of labeling. Many practical problems in real life situations have motivated the study of labeling of a graph subject to certain conditions. A systematic presentation of applications of graph labeling is given .

The concept of labeling of graphs has recently gained a lot of popularity in the area of graph theory. Most of the graph labeling method trace their origin to one introduced by Rosa [5]. A graph labeling is an assignment of integers to the vertices

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An Analysis on the Challenges Encountered by Single Parents and their Reflection on Children's Growth using Induced FCM and Extended FCLM

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Abstract

The tradition of joint family is overcome by nuclear family and now in recent days, single parent families are raising in number: family led by mother, led by father, led by grandparents to bring up their grandchildren. Individual accepts to run his or her life alone than experiencing intolerance condition with their family members. Present day we can witness that individuals of both genders equally get educated, earn for their living independent of one another. This status makes easy for the breaking of the bondage between the pair. Children coming from such family behave in abnormal manner either in positive tone or in negative tone. In this paper, challenges encountered by single parent and their reflection on children's growth are studied using Induced FCM and Extended FCLM.

AMS Subject Classification:

Key Words and Phrases: FCM, IFCM, EFCLM, single-parent, emotional behavior.

1 Introduction

Due to varied reasons like divorce, death of a partner etc. single parent condition exists and increases in number in day to day life. Each family and the members in it remains unique. Marriage is the covenant that brings two families as one but due varied reasons the covenant gets broken due to which the individuals live separately than being together. It depends upon the individual to be satisfied with such a

Diabetic Neuropathy Prediction by Logistic Model

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Abstract - *Diabetic peripheral neuropathy (DPN) is the most common complication of diabetes mellitus, and can be related to Type1 as well as Type2 diabetes. This neurological impairment is not known or understood, hence the treatments are still empirical and not efficient as stated by the physicians. Logistic modelling of clinical DPN offers a power tool in order to understand diabetes-mediated peripheral nerve injury. Logistic modelling clinical relevance has two draw backs – Firstly the prevalence of Type2 as compared to Type1 in adults and Secondly the lack of morphological changes in peripheral nerves. Many studies have contributed to a better pathophysiological and pharmacological understanding of the DPN.*

***Keywords* -** *Diabetes, Diabetic Neuropathy, Mathematical models, Odds Ratio, Logistic Distribution.*

Overview

Binary logistic regression is a method which estimates the probability of a character given the values of explanatory variables, in this case a single categorical variable: $p = \Pr(Y = 1 / X = x)$. Suppose a physician is interested in estimating the proportion of

neuropathy diabetic persons in a population; one should know that all sections of the population do not have equal probability of 'success', i.e. being neuropathy diabetic. Older population, population with hypertension, individuals with diabetes incidence in family are more likely to have neuropathy diabetes. If the predictor variable *X* to be any of the risk factor that might contribute to the disease. Probability of success will depend on levels of the risk factor.

I. INTRODUCTION

Insulin is a hormone that is needed to convert sugar, starches and other food into energy needed for daily life. But if the body does not produce or properly use insulin a disease diabetes is attained. The prevalence of non-insulin dependent diabetes mellitus is known to be very high among Asian Indians [1,2] as well as within the Indian sub-continent [3,4]. Non-insulin dependent diabetes mellitus in India differs from that seen among Europeans in several aspects [5]: (i) the onset of diabetes occurs at a younger age [6]. (ii) obesity is less common [4] and (iii) genetic factors appear to be stronger [7,8]. Patients with diabetes may experience a wide range of neurological disorders that can involve different types of sensory and motor nerves. Diabetes peripheral neuropathy (DPN) is one neuromuscular disorder that can occur in patients with diabetes [9]. This usually occurs within 10 years of the onset of the disease [10]. Diabetic foot ulcers are largely dependent on the sensory impairment caused by diabetic neuropathy, which is a serious complication that can lead to amputation. Other problems in diabetic neuropathy and neuropathic pain are caused by dysfunction of the sympathetic nervous system and can cause many problems for the patient and therapist [11]. Early in my studies neuropathy detection and prediction [12] is of great importance in the prevention of complications such as pain, loss of sensation, foot ulcers, gangrene, and amputations.

A. Design and Data base of the Study

The data used in the secondary form of medical records of patients with diabetes mellitus in Dr. Mohan diabetes specialities centre, Chennai. This centre has admitting patients with diabetes for treatment and providing prevalence care for complications. In addition, this centre carries out diabetes research. This research uses one response variable the NDP status(Y) and 10 variables predictors i.e. the age of patients(x_1), gender(x_2), BMI(x_3), father(x_4), mother(x_5), sibling(x_6), smoking(x_7), alcohol(x_8), hypertension(x_9) and activity last visit(x_{10}). In this paper logistic regression equation and numerical approximations are used to monitor the size of population of neuropathy diabetes with and without complications. SPSS version 24 (IBM Corporation) was used for all statistical analyses. A two sided 'p' value of 0.05 was considered statistically significant.

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ORIGINAL RESEARCH ARTICLE

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Isolation, identification and molecular characterisation of hydrocarbon degrading bacteria and its associated genes - a review

GAYATHIRI.E, BHARATHI.B, SELVADHAS.S AND KALAIKANDHAN.R

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Abstract:

Hydrocarbon is self-explanatory which means compounds of carbon and hydrogen only. Hydrocarbons play a key role in our daily life. The relatively sudden introduction of xenobiotic chemicals as well as the massive relocation of natural materials to different environmental compartments can often overwhelm the self-cleaning capacity of recipient ecosystems and therefore result in the accumulation of pollutant to problematic or even harmful levels. Hydrocarbons enter into the environment through waste disposal, accidental spills, as pesticides and via losses during transport, storage and use. Unfortunately, hydrocarbon contamination of agricultural lands that result from oil spillage kills vegetation and hence the biodiversity associated with it. Hydrocarbon substances particularly the polycyclic aromatic types have a deleterious effect on biota. The present review explores the purpose to investigate possible methods to enhance the rate of biodegradation of hydrocarbon in soil.

Keywords: Bioremediation, Hydrocarbon, Carbon, Bacterial strain, Soil, Crude oil.

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Research Article

ISOLATION, OPTIMIZATION AND CHARACTERIZATION OF BIOSURFACTANT PRODUCING BACTERIAL STRAIN FROM THE CONTAMINATED SOIL OBTAINED FROM ADYAR PETROL BUNK

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Biosurfactant, *Bacillus licheniformis*, *Bacillus subtilis,* Hydrocarbon, Inoculum, Bacteria

ABSTRACT

Naturally occurring microorganisms are having ability to produce the various enzymes and compounds. Indeed, it is boon of god because nowadays most of these compounds are industrially important and human welfare. Biosurfactant is one of the important compounds involved in bioremediation, which can be produced by various microorganisms. Many species of microorganisms are known to produce biosurfactant by the by the utilization of hydrocarbon. The biosurfactant producing bacterial strain isolated from petrol bunk sample (ADYAR, Chennai). The isolated bacterial strain was identified as *Bacillus licheniformis*. In the production optimization studies, the bacterial strain needs temperature around 37°C,PH 7, glycerol as carbon source, incubation period of 36 hrs and initial glucose concentration of 3mM as optimum parameter for better production of biosurfactant. The biosurfactant produced by above organism was acid precipitated and extracted as partially purified one using ethyl acetate extraction technique. The extracted partially purified biosurfactant characterized through TLC and the presence of corresponding amino-acid (Glu, Asp, Val, Leu, Ile) was detected whose having Rf value of 0.83.When studied with application, biosurfactant inhibited the growth of *Bacillus subtilis* thus forming clear zone of lysis around the well. Moreover it seemed to having antibacterial effect against 5 gram positive bacteria and no effect against 2 gram negative bacteria tested. The systematic position of *Bacillus licheniformis* BIOS PTK1 was determined based on 16S rRNA sequence. BLAST homology analysis revealed that the sequence of *Bacillus licheniformis* BIOS PTK1 showed 100% sequence identity with more than 60 *Bacillus licheniformis.*

INTRODUCTION

Surfactants are amphiphilic compounds that reduce the free energy of the system by replacing the bulk molecules of higher energy at an interface. They contain a hydrophobic moiety with little affinity for the bulk medium and a hydrophilic portion that is attracted to the bulk medium. Surfactants have been used industrially as adhesives, de-emulsifiers, flocculating, wetting and forming agents, lubricants and penetrants [1]

Because of their amphiphilic nature, surfactants tend to accumulate at interfaces (air-water and oil-water) and surfaces. As a result, surfactants reduce the forces of repulsion between unlike phases at interfaces or surfaces and allow the two phases to mix more easily [2]

Several microorganisms are known to synthesize surface-active agents; most of them are bacteria and yeasts. When grown on hydrocarbon substrate as the carbon source, these microorganisms synthesize a wide range of chemicals with surface activity, such as glycolipid, phospholipid, rhamnolipid, etc., .These chemicals are apparently synthesized to emulsify the hydrocarbon substrate and facilitate its transport into the cells. Biosurfactants are also involved in a group motility behavior called swarming motility. Generally the structure of biosurfactants includes a hydrophobic moiety composed of aminoacids or peptides, anions or cations or mono or di or polysaccharides. The hydrophobic portion is often made up of saturated, unsaturated or hydroxylated fatty acids or composed of amiphiphillic or hydrophobic peptides.

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Anti-inflammatory Activity of the Epidermal Glandular Extract of *Cyclosorus parasiticus* in Experimental Animals

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Abstract: The present study was designed to establish scientific evidence for the traditional claim on the use of fern *Cyclosorus parasiticus* in the treatment of rheumatism (inflammatory disease). Anti-inflammatory activity of the acetone extract of epidermal glands was tested by two models, viz., carrageenan and egg albumin-induced hind paw oedema. Before that, acute toxicity was performed following the OECD guidelines. No mortality was observed in experimental animals to the acetone extract at the test dose of 2000 mg/kg b.w. p.o. There were no signs and symptoms of toxicities. Hence, the extract was considered to be safe. The acetone extract of the epidermal glands showed dose-dependent activity against the development of oedema in experimental rats compared to the standards. The acetone extract significantly reduced the paw volume (*$P<0.001$ at 200 mg/kg and *$P<0.01$ at 100 mg/kg) compared to control. The results of the investigation substantiate and provide scientific evidence for the traditional claim against rheumatism. However, isolation of the bioactive compound from the acetone extract and its scientific screening by pre-clinical and clinical methods is a prerequisite to translate the traditional claim into plant-based drug to treat rheumatism.

Key words: Traditional use, fern, *Cyclosorus parasiticus*, epidermal glands, anti-inflammatory activity.

Introduction

The genus *Cyclosorus* Link belonging to the family Thelypteridaceae has about 51 species in the world and 23 species in India [1] wherein *Cyclosorus parasiticus* (L.) Farw. (Syn. *Christella parasitica* (L.) Lév.) is commonly distributed in wetter parts of tropics and subtropics of Asia, Malaysia, Queensland, Pacific to Tahiti and Hawaii, E. Africa, St. Helena [1] and India. It is restrictedly distributed in the higher reaches of the north-east and southern parts of India. In the latter parts, it is locally known in Tamil language as *Pooppani* [2] and *Kaatusirusurulipatchilai* [3]. Medicinally the fronds are used for skin itching and muscle contusion [2], to reduce excessive body fluid [3] and to treat gout and rheumatism [4]. Sugars, starch and aminoacids such as alanine, proline, threonine and tyrosine [4] and flavonoids such as astragalin and nicotiflorin [5], desmethoxymatteucinol [6] have been reported from the fronds. Two forms are widely recognized in this species, one with orange-coloured epidermal glands on the lower surface of the costules and veins of pinnae (glandular) and another without such glands (eglandular) [7-9]. Holttum [7] considered the epidermal glands as distinct feature but Panigrahi and

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Vicissitudes of oxidative stress biomarkers in the estuarine crab *Scylla serrata* with reference to dry and wet weather conditions in Ennore estuary, Tamil Nadu, India

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A R T I C L E I N F O

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A B S T R A C T

The primary objective of this study was to understand the impact of monsoon and summer seasons on the Polychlorinated Biphenyls (PCB's) and petroleum hydrocarbon compounds (PHC's) load in Ennore estuary and how the physiological response of estuarine *Scylla serrata* inhabiting in this estuary changed with reference to antioxidant defense. Seasonal levels of PCB's and PHC's were assessed in the water along with their bioaccumulation in gills, hemolymph, hepatopancreas and ovary of *S. serrata*. Concentration of PCB's and PHC's in water and their bioaccumulation was found to be higher in summer season when compared to monsoon season. Enzymic antioxidant assays [superoxide dismutase (SOD), catalase (CAT), glutathione peroxidase (GPX), glutathione reductase (GR), glutathione-*S*-transferase (GST)]; non-enzymic antioxidant assays [glutathione (GSH), vitamin C, vitamin E] and macromolecular alterations [membrane lipid peroxidation (LPO), and DNA Damage (strand breaks)] were assessed in the gills, hemolymph and hepatopancreas of *S. serrata*. There was a significant ($p < 0.05$) upregulation in lipid peroxidation activity and DNA damage activity collected during the summer season when compared to the pre- and post-monsoon seasons. On the contrary, the enzymic and non-enzymic antioxidants exhibited significant ($p < 0.05$) down regulation in the gills, hemolymph, hepatopancreas and ovary of *S. serrata*. Oxidative stress biomarkers represented a significant ($p < 0.05$) maximum in gills when compared to hemolymph and hepatopancreas of *S. serrata*. Present study provided scientific evidences of how the antioxidant defense status of *S. serrata* responded to PCB's and PAH's stress with reference to seasonal vicissitudes, which indirectly represented the environmental health conditions of the estuary.

1. Introduction

Estuarine environment exhibits a combination of freshwater from riverine discharges and salt waters influxes from oceans due to tidal activity. Anthropogenic pollutants eventually find their way to oceans as the final repository through estuaries (Ridgwaya and Shimmield, 2002). Water chemistry of estuarine environment undergoes constant changes due to land-based discharges and are further influenced by environmental stressors especially temperature, sun light, humidity, rainfall, and oxygen content (Vijayavel, 2010).

Climate change may drastically change the physicochemical processes and alter the characteristics of estuarine waters (Sheahan et al., 2013). Wet weather conditions such as rain events can bring in large volumes of freshwaters resulting in dilution of pollutants level. On the contrary, drought conditions are associated with the reduced surface runoff, and increased water evaporation which results in increasing the pollutants level. For instance, field investigations by Zwolsman et al. (1997) have shown strong seasonal variations in terms of riverine discharges, dissolved oxygen, pH, temperature, salinity and suspended particulate matter. Biomonitoring programs are designed by keeping weather conditions as a critical factor (Savóia et al., 2009).

Aquatic species harboring the estuarine ecosystem are under constant stress due to anthropogenic and environmental stressors, which has a negative impact on their physiology and biochemistry (Walker et al., 2000). Crustaceans and several other aquatic species use estuarine ecosystem as their breeding ground where they undergo a series of morphological, behavioral and physiological changes to sustain life (Maes et al., 1998; Vijayavel et al., 2006).

Measuring the bioaccumulation of contaminants and the response of biochemical biomarkers in estuarine sentinels can offer potential clues regarding the toxic manifestations (Van der Oost et al., 1996). Decades of environmental research have documented that aquatic organism's exhibit antioxidant defense mechanism to mitigate the oxidative stress elicited by a wide variety of environmental and anthropogenic stressors (Van der Oost et al., 2003; Vijayavel et al., 2012; Pavlović et al., 2013; Chainy et al., 2016). In brief cellular antioxidant resistance system is one of the natures biochemical stratagems that protects reactive oxygen species (ROS) mediated cellular damages. The antioxidant resistance system comprised of a battery of enzymic antioxidants viz. as

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RESEARCH ARTICLE

Acute toxic effect of sewage effluent on the early life phase of an estuarine crab *Scylla serrata*

Manickavalli Gurunadhan Ragunathan [1]

Received: 5 February 2017 / Accepted: 2 May 2017 / Published online: 2 June 2017

Abstract The biological quality of secondary treated sewage effluent was evaluated using a toolbox approach, which combined a larval developmental bioassay and measurement of fecal indicator organisms. The zoea developmental toxicity of *Scylla serrata* from stage I to stage II was determined by exposing to a range of secondary treated sewage concentrations. Results indicated that the relative progress of zoea stage I to zoea stage II negatively correlated with increasing sewage concentrations. Data was analyzed statistically to determine lethal, median lethal, sublethal, low observed effect, and no observed effect concentrations. Water samples collected along the Buckingham canal discharge zone were also analyzed for its toxicity to the larval development. Fecal indicator organisms chosen to determine the water quality were *E. coli*, enterococci, *C. perfrigens*, and F+ coliphages. Concentrations of these fecal markers were determined in the raw influent, primary treated effluent, secondary treated effluent, and in four discharge zone sites. Data showed that this biological toolbox is helpful for providing baseline information on the effectiveness of the wastewater treatment and environmental health of the discharge zone.

Keywords Effluent toxicity · Zoae development · Fecal indicator organisms

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Introduction

Wastewater research has always been engaged in the development of analytical methods to better assess the overall quality of wastewater discharged into the receiving waters (Vijayavel et al. 2010; Vijayavel et al. 2014). Chemical measurements in aquatic environment give insufficient information because they fail to account for trace pollutants, interaction between chemical constituents resulting in unknown reactive byproducts, and alteration of chemical speciation (Vijayavel 2010). Owing to these analytical challenges and limitations of chemical measurements, National Pollutant Discharge Elimination System (NPDES) permits incorporated whole effluent bioassay testing to ensure that wastewater discharged into receiving waters does not have adverse environmental effects. Discharge monitoring permits also emphasize the protection of public health by requiring the determination of bacterial groups that indicate sewage contamination (USEPA 1987). The toxic behavior displayed by test organisms after exposure to effluent discharges can be related to the synergistic, antagonistic, and additive effects of all organic, inorganic, and biological constituents present in the wastewater (Connon et al. 2012).

The great diversity of pathogenic microorganisms transmitted by contaminated water makes the measurement of all microbial pathogens in environmental waters impractical and costly (Harwood et al. 2013; Stewart et al. 2013; Whitman et al. 2014). Fecal contamination is best determined by measuring indicator organisms that commonly inhabit the intestinal tract of warm-blooded animals and occur at high concentrations in fecal material (Gronewold et al. 2013). Fecal indicator organisms (FIO's) such as *Escherichia coli*, enterococci, *Clostridium perfringens*, and F+ coliphages are used for monitoring wastewater effluent discharges (Fujioka et al. 2001; Vijayavel et al. 2013). Presence of *E. coli* and enterococcus group of bacteria in environmental waters is considered as

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FAUNAL DIVERSITY OF FISH SPECIES FROM NAKANA LAKE, DISTRICT-DHULE (MS) INDIA

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ABSTRACT

The aim of this study was to reveal the faunastic diversity of fish species from Nakana lake, during May, 2015 to Apr., 2016. Total 15 species were recorded. These belonged to 4 order, 6 families and 14 genera. The order Cypriniformes was found to be dominated by 8 species including *Amblypharingodon mola*, *Catla catla*, *Cyrrhinus mrigala*, *Garra mullya*, *Labeo calbasu*, *Labeo bata*, *Pethiya ticto* and *Puntius sarana*. The results of present study clearly showed that the Ichthyofauna of the Nakana lake is highly diverse. The proper utilization of this water resource is discussed for fisheries, proper management and its conservation.

KEYWORDS: Ichthyofauna (Fish diversity), Nakana lake, conservation.

INTRODUCTION

Fishes are the versatile animals in the world. It gives immense pleasure to the man and lively hood to the human being. From ancient time it is an important part and parcel of the human lives. Fishes constitutes half of the total number of vertebrates in the world and lives in all types of aquatic habitats. Around the world approximately 22,000 fish species have been recorded out of which 2500(11%) are found in India, Nagma and Khan, (2013); Kar (2003). From those 930 are live in freshwater and 1,570 are marine, Sing *et al*., (2013).

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Research Article

IMMUNE PROTECTION OF *SALVINIA MOLESTA* D.S. MITCHELL IN FRESHWATER CRAB *OZIOTELPHUSA SENEX SENEX* BACTERIALLY CHALLENGED WITH *AEROMONAS HYDROPHILA*

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ABSTRACT

Objective: This is aimed to study the immune protection parameters of freshwater weed *Salvinia molesta* in bacterially challenged freshwater crab *Oziotelphusa senex senex*.

Methods: In this present study, ethanolic extract of freshwater weed *S. molesta* was tested for its ability to induce immunity in bacterial challenged freshwater crab *O. senex senex.* Male and female crabs were challenged with *Aeromonas hydrophila* in relevant concentrations. The treated groups were allowed to withstand for 96 hrs. After relevant incubation time, the hemolymph of the treated crabs was subjected for various hematological, biochemical, and immunological assays.

Results: Total hemocyte count increased on infection at 96 hrs, whereas significantly reduced on treatment with *S. molesta* at 96 hrs. All the three cell types of differential hemocytes showed significant positive changes on treatment. Levels of prophenoloxidase decreased significantly on infection and showed a significant increase in treated groups at 96 hrs of treatment.

Conclusion: The present study elucidated the medicinal and pharmaceutical role of *S. molesta* weed which is been subjected to eradication in the recent days. Thus, the plant source can be utilized as an immunomodulatory agent and a better alternative to treat aquatic diseases.

Keywords: *Oziotelphusa senex senex*, *Aeromonas hydrophila, Salvinia molesta,* Immunostimulant, total hemocyte count, Differential hemocytes count, Prophenoloxidase.

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INTRODUCTION

The growth of aquaculture sector in the recent years and increased demand for marine products had provocated in-depth need for aquaculture farming in such sectors. Still fishes, prawns, and crabs are highly susceptible toward infectious diseases caused by pathogens, namely, bacteria, viruse, and fungal agents. Administration of synthetic chemotherapeutants and antibiotics to prevent and control infections are highly disapproved for their negative impacts such as resistance formation and immunosuppression, and hence, had ended up in reduced preference for antibiotics treated crab population [1]. Diseases caused by bacterial infection in crab causes great economical loss to the crab population. So as to maintain the animal health, several antibiotics have been used to overcome the bacterial diseases which had resulted in the development of resistance among pathogenic agents. There was a significant antibiotic resistance generated by pathogenic bacteria due to repeated uses of antibiotics, and hence, there is an urgent need for researchers to discover new drugs against such pathogenic bacteria. In the past decade, to control microbial diseases, a number of chemotherapeutic agents including synthetic antibiotics are used in crab farms. This had led to serious problems such as antibiotic resistance and decreased survival rates [2-4]. Hence, rather using such chemotherapeutics and synthetic antibiotics, a notable attention is generated for the use of natural immunostimulants from plants to control infectious diseases in aquaculture sectors. Immunostimulants are those groups of biological compounds that can effectively improve the non-specific cellular and humoral defense mechanism without destructing the base metabolism in animal systems [5]. Medicinal plants, since time immemorial, have been used as a source of medicinal agent altering the immune system. Medicinal plants chosen as immunomodulatory agent must serve as an alternative potential to conventional chemotherapy methods in curing diseases, especially in relation to host defense mechanism. Plant phytochemicals such as flavonoids, tannins, and saponins are responsible for stimulating immune responses in various *in vitro* animal models by virtue of its antioxidant ability [6]. *Salvinia molesta* D.S. Mitchell, also known as giant *Salvinia*, is a genus of floating ferns belonging to the family Salviniaceae, and it is a diversified plant with 10-14 species in world, particularly at the tropics. The plant could double its biomass in 2-3 days under favorable conditions and can stay functional even at dry conditions [7]. The potentially of *S. molesta* to accumulate certain metals and effluent treatment was recently studied and proven, whereas the medical or pharmaceutical potential of giant *S. molesta* remains still underexplored [8]. Hence, the present study was focused on screening the immunostimulant activity of *S. molesta* extract in freshwater crab *Oziotelphusa senex senex* challenged with *Aeromonas hydrophila.*

METHODS

Collection of experimental animal and treatment

The male and female crabs, *O. senex senex,* were collected from paddy fields of Thirukazhukundram, Kanchipuram district, Tamil Nadu, and was brought to the laboratory and maintained in plastic tubs. Crabs were fed with beef mutton, and water was changed daily and was acclimatized for 15 days at existing room temperature. The crabs were divided into six groups of thirty crabs each and were subjected to treatment (Table 1). Group A and B are kept as saline-treated control. Groups C and D are infected with 0.1 ml of 10^9 cfu/ml (LD_{50}) standard concentration of *A. hydrophila*. Both the groups were allowed to withstand infection for 96 hrs. After 96 hrs of incubation, hemolymph was collected from ten crabs of each group for hematological and immunological assays. Remaining twenty infected crabs were treated

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Research Article

ANALYSES OF BIOACCUMULATION OF ASTAXANTHIN IN FENUGREEK SPROUTS

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Fenugreek, Astaxanthin, Antioxidant properties.

A B S T R A C T

In the present study an attempt was made to use the prawn exoskeleton as biofertilizer to grown fenugreek sprouts. The presences of astaxanthin from the prawn shell and in the astaxanthin treated group of plants were analysed by TLC. The antioxidant analyses of the control fenugreek sprouts and the astaxanthin treated groups showed that in the astaxanthin treated group the antioxidant level was found to increase from 56% to 76%. In spite of the good growth the total chlorophyll was found to decrease in the astaxanthin treated plant.

INTRODUCTION

Malnutrition status in India

Malnutrition is a multidimensional phenomenon and one of the most depressing issues in India. In broad terms, it may be divided into protein energy malnutrition and micronutrient deficiency. India has a high prevalence of micronutrient deficiency-related health risks, which can be improved by food fortification (Pam *et al*., 2014). According to 2015, February UNICEF report, India has the largest number of underweight children and the highest number of undernourished population. The only right solution for malnutrition and also eradicating hunger is to increase the crop productivity fortified with nutrients (Allen, 2006). Micronutrient deficiency results from inadequate levels of iron, folate, iodine, and various vitamins; including A, B_6, D, and E, in the body, leading various metabolic disorders. After the green revolution, definitely in India the food production has increased tremendously, but, there is a huge lacuna to fulfill the nutritional status (Arvind, 2013). Thus, there is an increasing demand for fortifying food to meet the nutrition requirements is vital.

Biological significance of Fenugreek plants

In many parts of world plant are used as the best source of medicine for many centuries (Nasroallah *et al*., 2013). Among them fenugreek is one of the oldest plant which is commonly used in traditional medicine in many parts of Asia (Nathiya *et al*., 2012). The whole plant of fenugreek especially at the sapling stage and also its seeds are known for their curative properties (Mullaicharam *et al*., 2013). The medicinal properties are associated with the antioxidant properties of fenugreek (Petropoulos, 2002). Fenugreek is commonly consumed in raw form or in form of cooked form or as dry form in order to cure obesity, cancer, microbial infection and also known to control diabetics (Hajimehdipoor *et al*., 2010). It is also known to wade of insects (Qureshi *et al*., 2005).

Prawn shell as biofertilizer

When crustacean shell wastes are left to decay on the sea shore it putrefies and becomes a useless alkaline compound (Prabu and Natarajan, 2012). But instead, crustacean exoskeleton waste can be used to develop a wide range of value added products. According to Thirunavukkarasu and Shanmugam (2009), the crustacean processing industries throughout world generated 60,000 tonnes of waste every year. According to Jeyanthi *et al*., 2012; when the seeds of tomato, gram and peas were found to germinate faster in the presences of prawn shell powder and the shoot and root length were found to increase considerably (Jeyanthi *et al*., 2015).

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Original Article

Pharmacognostic, Phytochemical and Physicochemical Investigations of *Hypericum hookerianum* Wight & Arn. (*Hypericaceae*) of Palni Hills, India

Mahendrakumar M[1], Nirmalraj S[1], Ravikumar M[1], Bharath B[1], Seeni S[2], Perinbam K[1]

ABSTRACT

Introduction: *Hypericum hookerianum* Wight and Arn. (Hooker's wort) is a lesser known unfamiliar yet critically endangered native therapeutically active native medicinal plant. It is being characterized by the presence of various secretory glands. **Methodology:** In this present study, characterization of the plant in terms of morphology, anatomy and histochemistry of tissues and phytochemicals and antimicrobial potentials were made. **Results:** The epidermal layer contains oil cells while histochemistry showed the presence of the secondary metabolites. Qualitative analysis indicated presence of maximum phytocompounds in the high polar ethanolic extract; flavonoids, anthocyanin and phenol are prominently present and quantified. **Conclusion:** The results suggest that the less studied herb, *H. hookerianum* is a multifaceted high value species having a wide range of phytochemicals with abundant medicinal properties.

Key words: *Hypericum hookerianum*, Pharmacognosy, Physiochemistry, Palni Hills.

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INTRODUCTION

Hypericum is a large genus of herbs, shrubs and sometimes trees comprising 490 species of 36 sections.[1] They represent a large pool of natural resource for phytochemical, pharmacological and product development investigations as they accumulate pharmacologically important secondary metabolites. Many of the species contain structurally and functionally diverse phenolics, flavonoids and therapeutically important phenolic derivatives the dianthrone, hypericins and the prenylated phloroglucinol, hyperforin. The highest levels of the chemicals are found at full flowering stage when almost all the plants of the genus are widely used in folk medicine in different parts of the world. The growing interest in the usage of Hypericum in traditional medicine is due to several reasons the principal one being that modern medicine has invariably side effects and its costs are prohibitive. Among an estimated 27 species reported from India including the most popular and productized, *H.perforatum* and the recently investigated *H. hookerianum*, a high altitude shrub of the Himalayas and the Western Ghats. *Hypericum hookerianum* Wight and Arn. Also known as *Norysca hookeriana* Wight and Arn. commonly known in Nepal as Mehandiphul, is a round topped shrub with weakly spreading, non-erect branches with golden-yellow flowers also distributed in Sikkim, Khasiand Jaintia hills of Himalayas and in the high altitudes (>2300 m) of the Nilgiris and Palni hills of the Western Ghats.[2]The terete shrubs are 2-2.5 m in height, with rather flaccid ovate leaves, set bifarious, mucronate to mucronate at apex.[2]The tribal people of the Shola forest (Tamil Nadu) in Palni hills use the aerial parts of the plant for treating burns and wounds demonstrated by Mukherjee and Suresh.[3]to have wound healing properties. The Toda tribe of the Palni hills uses it as a folklore medicine for its different therapeutic potentials, including anti-depressant, spasmolytic, stimulant, hypotensive and antifungalactivities.[4]Leaf anatomy of hypericum species differ greatly and is the basis for not only identifying the species but also grouping them under different taxonomic criteria. Anatomical features in terms of types of glands present, secretions of the glands, interconnecting and extension of the ducts, quality of the products of the secretory glands and phytochemical profiles of the secretion play an important in differentiating the species. The anatomy and ultra-structure of the cavities in the internodes, leaves and petals varied extensively between species of Hypericum, especially in *H. hookerianum*. The secondary growth is more extensive in shrubs (*H. inodorum* and *H. forestii*). The petals also differ between species in the mesophyll structures and the occurrence and location of secondary structures.[5] It is against this background, the pharmacognostic profile, anatomy of the secretory

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Consumer Socialization Process and Adolescent Junk Food Consumption in Chennai and Hyderabad

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Abstract

Generally, socialization can be described as the process whereby a kid eventually becomes a more or less perfect member of a society in all respects and acquires the skills necessary to function amid the culture in which he/she is born and begins to grow. For a child, the drivers or the factors behind his/her behaviour include his/her own family and the members who interact with him/her. This socialization process leads to many merits and demerits in a child's life. One of the most serious demerits is the consumption pattern of the child which is influenced by his/her surrounding environment. The world today is witnessing childhood obesity rate, which is rising every year at an alarming pace. The habit of eating junk food (which is one large source of fat which accumulates in the body) has increased over the years, also contributing to the obesity issue. This study, conducted during 2011 to 2013, attempted to find out the reasons that could be attributed to the increasing level of childhood obesity in the cities of Chennai and Hyderabad, and the role of persuasive marketing in aggravating the issue. This article defined those reasons as motivational perception factors, that is to say, the elements which motivate the children to consume certain things about which they have their own perceptions.

Keywords

Childhood Obesity, Persuasive Marketing, Adolescent, Consumer Socialization

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References

1. American Diabetes Association. (2000). Type 2 diabetes in children and adolescents. Diabetes Care, 23(3), 381 - 389.
2. Atkin, C. K. (1978). Observation of parent-child interaction in supermarket decision-making. Journal of Marketing, 42 (4), 41- 45.
3. Blosser, B. J., & Roberts, D. F. (1985). Age differences in children's perception of message intent: Responses to TV news, commercials, educational spots and public service announcements. Communication Research, 12 (4), 455 - 484.

Journal of Advanced Research in Dynamical and Cor

A Study on Assessing the Popularity of One Person Company (OPC) and Its Impact Among Entrepreneurs at Chennai City, Tamilnadu

D. Sowmya and V. Aswini

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Abstract:

Considering the improvement and advancement in the business scenario, Indian Companies Act, 2013 has floated a new form of business, One person Company (OPC). This revolutionary concept provides opportunities to the entrepreneurs to initiate new ventures in corporate framework. This concept has its initiation for less than 5 years in India, whereas it is much popular and survived since very long time in various countries such as UK, European countries, etc. This article explains the concept of One Person Company (OPC) and it further highlights its popularity and impact among entrepreneurs at Chennai city.

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Journal of Advanced Research in Dynamical and Contr
IS

A Study on Impact of Installing Growth Mindset Ideas in the Physical Surrounding for Instilling Passion and Perseverance as Part of Education Among Students in Chennai City, from Academicians� Perspective

V. Aswini and D. Sowmya

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Abstract:

Indian education system has been one of the most recognized systems in the world. We see NRIs coming back to India, when their kids are of school going age. We have facts stating that 36% of scientists in NASA, are Indians, but what is the challenge we face today as academicians? Due to the availability of Internet, smart phones and other technological advancements we see this generation gaining only shallow grasp of things and forgetting it even faster. What is missing majorly is the element of curiosity, commitment, passion and perseverance, which are the key factors for an individual�s success. This study aims at analyzing ways and means to install these growth mindset elements by bringing about a change in their learning environment and methodologies. Growth Mindset, ideas has already gained momentum in the western world; it is time for us to look in to the goodness of the same and redefine our pedagogy to educate what is required for life beyond mere degree.

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An empirical study on professional investor's psychology towards stock market

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Abstract
Investment is an activity that is engaged in by people and it is the safety of principal and adequate return. Investment is the additional fund to get something in return and for the better growth. Investors are investing their money because to earn profit and for security. The income standard is almost uncertain and leads to more consumption rather than saving whereas now it has been a central problem. The present study identifies the preferred investment avenues among individual investor using self-assessment test. The developing countries like India face the enormous task of finding sufficient capital in their development efforts. Most of these countries find it difficult to get out of the vicious circle of poverty of low income, low saving, low investment, low employment etc. The major features of an investment are safety of principal amount, liquidity, income stability, appreciation and easy transferability etc.

Keywords: investment, stock market, investor avenues

Introduction
An investment is a commitment of funds for earning additional income. An investor has a relatively longer planning horizon. And holding period is usually at least one year. Investment is undertaken in the expectation of return which proportion to the risk the investor assumes. It involve purchase of asset which are expected to yield a certain stream of income. Expectation of certain price which has prevailed will not change in the future. Purchase of assets like shares and securities as investment, aims at a stable return over a period of time. A variety of investment avenues are available such as shares, debentures, mutual funds and so on. All the investors invest their surplus money in the above mentioned avenues based on their risk taking attitude. An investment is a sacrifice of earned money or any other resource for future benefits. Multifarious avenues of investment are available today. We can deposit money in bank account for purchase a long-term government bond or invest in equity shares of company or contribute to a provident fund account or buy a stock option or acquire a plot of invest in some other form. In investment risk as follows possibility of loss the degree of possibility of incurring a loss in a financial transaction and investor judge safety of the investment by yield and they choose to invest in those forms where the principal and interest are prime consideration in investment, certain non-manageable risk are also bound to affect an investment proposition. In risk include both the purchasing power risk and the money rate risk. Investors carefully buy securities which offer safety of principal and fair return over a long period. Always investment is involves allocation of funds for a longer term. Indian economy is indeed will in recent years. The study has been conducted to analyze the investment pattern of investment commune. The main reasons behind the study are the factors like income economy condition, and the risk covering nature of Indian investors. The percentage of Indian investor investing in the Indian equity market is very less as compared foreign investors. In project contains the investors preferences and as well as the different factor that affect investors decision on the different investment avenues.

Objectives of the study
- To study about the relationship between the respondents and their investment behaviour
- To find out the source of investment information for investment decision making
- To analyze the various factors that affect the investment decisions in the stock market

Review of Literature
L. Pandiyan, Dr. T. Aranganathan, (2012) "Saving and Investment Attitude of Salaried" The author explains about the Investment climate that must attract the people to save from their income at times even by forgoing the enjoyment of comforts and luxuries. The author concludes that the growth of a discipline investment market a well-organized monetary system though protecting the investment against eves of inflation or depletion is to be kept by government
R. Sree Priya, P. Guruswamy (2013) [2], "Investment Pattern of Customers-A study of coimbatore district"**.** The author discusses about the saving and investment pattern of customer class of investor. The author concludes that the problem faced by the investors and the impending problem could be solved in the right direction
Schwarzkopf, D.L. (2003) [9] "The Effects of Attraction on Investment Decisions. The author explains about the attraction effect occurs when an inferior item changes a decision-makers perception of the relationship between other available alternatives. The author concludes that the composition of the decision set, rather than by any intrinsic change in the investment candidate itself.
Mohit Gupta and Navdeep Aggarwal (2009) [8], "Mutual funds portfolio creation using industry concentration". The author concludes that the mutual funds are innovative and provide

THE ECO-FRIENDLY GREEN SKIN CARE PRODUCTS ARE THEY POCKET FRIENDLY TOWARDS OUR CONSUMER? A STUDY REPORT ON WOMEN CONSUMERS' AWARENESS AND PERCEPTION TOWARDS GOING GREEN.

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Abstract

With rising concern of health issues and safety, many consumers have turned their site to green products. The increased consumers' interest in green products has been attributed among others to the growing demand for green cosmetics free from chemical residues. Green cosmetic promotes a balance of human, other living organisms and the nature. It also promotes no artificial preservatives and best maintain the originality of a product. This prevents excess use harmful ingredients and thereby ensures health. This study attempted to gain knowledge about consumer perception towards green skin care products, product consumption and to see whether there is any potential this might have for changing their behaviour. The rationale for carrying out this study is that consideration for the environment could come only from well-informed citizens who are aware of, and fully committed to their rights to a quality health and environment. Nevertheless, before any behaviour can be changed, it is necessary to evaluate the current state of consumers' awareness and knowledge. Therefore consumer's attitude, perception towards green skin care products, willingness to pay for green skin care product and intention to purchase green skin care products will be the main schedule of this study.

Keywords: *Green skin care, Consumer perception, Green Marketing, Green Skin care products*

Introduction

Through the last years, the cosmetic industry has vividly spread its managerial and marketing positioning towards customer requirements due to the advance in response to the customer trends towards a healthier lifestyle and desires for natural cosmetics. The cosmetic industry is a very important industry and the use of personal care products and cosmetic products has always been an essential part of consumers' lives. Regardless of this constructive growth trend in the world, the natural cosmetics market and skin care is still an under examined area.

Furthermore, the most often stated reason for consumers not to buy natural or green skin care products is that "so many products claim to be natural or green that it's tough to tell which ones are the most natural". Besides, European standards for ecological products were defined in Standard COSMOS (Cosmetics Organic and Natural Standard) published in 2013 but such standards depend on the cosmetics manufacturer or country of origin. This confusion has headed to an increasing skepticism in the labels "organic" and "natural" which is expected to shoot from lacking regulation within the industry allowing a multitude of products claiming to be organic and natural to rush the market, Yu-Shan and Ching-Hsun, 2013. Despite such conditions on the cosmetics market, natural cosmetics have grown to be a great trend in recent years. While consumer behaviour towards organic products, especially food products, has been examined in academic research, little has been published on consumer behaviour towards natural cosmetics.

Interest in natural cosmetics has developed amazingly as consumers and marketers retort to popular media with regard to healthy lifestyles. The technological enhancements and persistent innovation are the main features of the modern cosmetic industry. Production and usage of natural

CASHLESS ECONOMY OF INDIA AND ITS AFFECTS WOMEN IN RURAL AREAS

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Abstract

Cashless Economy in India is very useful as it saves our time due to transaction. It makes our money very safety and reduce money demands. Cashless India is a mission launched by the Government of India led by Prime Minister Narendra Modi to reduce dependency of Indian economy on cash and to bring hoards of stashed black money lying unused into the banking system. It was on 8 November 2016 that the Government of India took the whole country by storm by announcing that the currency notes of Rs 500 and Rs 1,000 were no longer legal tender. Though it has many benefits, Inadequate internet infiltration, low internet speeds, limited smartphone and broadband penetration, very less PoS machines are the roadblocks towards achieving full digitalization that is here the main substitute for cash transactions. And women in India are facing too difficult to save their small money for their family. In short, a cashless economy can only be possible with sufficient infrastructure and planning that are required for supporting an economy like India.

Introduction

The developing economies of the world are going cashless. Driven by increasing rates of mobile penetration and a growing realisation that "going digital" brings a host of socio-economic benefits, governments and financial institutions worldwide are steadily moving away from cash-based commerce. In India, the government is attempting to bring banking to the unbanked via an ambitious initiative called the Unified Payment Interface, a new system that will allow people to pay for goods, manage bills, and transfer and receive money as easily as sending texts or emails.

The ability to conduct financial transactions in a completely cashless environment brings many rewards. The Mexican government has saved over $1 billion each year since shifting to electronic distribution of government payrolls, pensions and social benefits, according to the Better Than Cash Alliance. Reducing the use of cash can make welfare programmes more efficient, as payments are transferred directly to beneficiaries, whilst also helping to prevent money laundering. We all know that women face huge demands on their time, often balancing professional duties with family responsibilities. Women who are reliant on cash must often travel to pay bills for their children's education or health care – which is time spent away from vital income-earning opportunities. And, for many women, cash is a vulnerable commodity – it can be stolen or taken by husbands or other family members, and diverted away from household needs. Having the digital tools to protect and manage financial assets can be a powerful enabler of security and empowerment for women, and a catalyst for the well-being of future generations. According to the Gates Foundation, when a mother controls her family's budget, her children are 20 percent more likely to survive – and much more likely to thrive. And for women entrepreneurs, digital access is a crucial stepping stone to unlocking a range of services vital for business growth, including savings, credit and insurance.

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Hair Care Product Usage Purposes and Brand Predilection of Male Consumers

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ABSTRACT

This Marketing Research was conducted to understand the male consumer behaviour in Hair Care Products (HCP) industry in Chennai city with the primary objective to explore the underlying dominant dimensions of Hair Care Product Usage Purposes (HCP-UP) and also to identify the difference between branded and unbranded consumer usage purposes of HCP for the segmentation and targeting in Indian cosmetics industry. This study was conducted among 375 male HCP consumers residing in Chennai city by using descriptive and exploratory research design by adopting convenient non-random sampling. The tools such as, percentage analysis, factor analysis and t test has been applied to explore statistical findings and empirical evidences to draw meaningful suggestions and conclusion for the implementation. The results reveal that, Enrichment and Protection are dominant dimensions of HCP-UP variables and protection don't significant difference with respect brand preference whereas, Enrichment has significant difference with respect to brand preference in hair care products industry. This study concluded that, Male consumers prefer branded products to enhance and enrich the hair rather protection and medical purposes. Further, it is suggested that to segmentation and targeting is very imperative to understand market conditions to retain customers and also to attract new consumers by fulfilling the individual needs.

Keywords: *Hair Care Product, Usage Purpose, Brand, Protection, Enrichment, Segmentation and Trageting.*

INTRODUCTION

Shampoo, conditioner, hair dye, hair growth lotions, anti-dandruff and hair colouring/styling gel are commonly known as hair care products. Globally, hair care products are available in branded as well as unbranded with variety of categories. Hair care products helps the consumers to reduce hair fall and hair loss, to relieve from dry, itchy scalp and dandruff, to make hair silky, shiny and stronger, in order to encourage hair growth and to give life to dull hair. Consumers are using hair care products to maintain personal hygiene and also to gain personal confidence with stylish appearance. Youngsters are often using hair care products to attract opposite gender by the means of improving handsomeness and also to show their social status for the acceptance among peer group and friends. In recent years, at global scenario hair care industry is witnessing a rapid growth in expansion and revenue generation. Indian Hair care products industry is also not the exception, because the market shares and sales volumes are increasing day by day.

Branding is a vital marketing tool for hair care product manufacturers in order to reach prospective consumers. Products possess high brand value will have impact among consumer loyalty as well as consumer purchase consideration aspects. The purchase consideration aspects such as, quality, contents, price, performance, advertisement, packaging, fragrance, availability, consistency, suitability, promotions, manageability, medical indications, relief, dynamism, friends and peer group influence, popularity and brand are the predominant aspects determining the hair care products usage purpose among the consumers.

Literature Review

Mamta Vyas (2014)[1] conducted an empirical study to analyse the Indian hair care products industry with

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ROLE OF Public Private Partnership (PPP) in Eradicating Non Performing Assets (NPA)

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ABSTRACT:

INTRODUCTION:

PPP enables in eradicating NPA by:

NEED FOR THE STUDY:

Identifying the Burden of NPA on Indian Economy:

Rules for Ordinary Loans – Citizens:

- Salaried Employees

- Salaried Doctors
- Employees of Public & Private Ltd
- Public & Private Limited Companies
- Min. age of 21 yrs
- Max. age of 60 at loan maturity
- Minimum net monthly income – Rs. 15000

Rules for getting 100 crore loan:

Identifying the Burden of NPA on Global Economy:

Indian Ranking with respect to Global Scenario:

witnessed asset quality pressures which have impacted their profitability and loan ... This has raised concerns and the problem of bad loans is indeed quite severe as ... compare it with other global peers which looks daunting.

According a leading financial daily, a comparison of the NPAs of 25 large Asia-Pacific ... shows that the large Indian banks have the worst NPA ratio when compared to their large peers in the region. For FY16, India has been got the maximum NPAs of 4.6%. Thailand has been the second with NPAs of 3.2%.

The state owned banks have sufferedmore than its private peers. This will have se... consequences on India's overall credit growth as state-owned banks account for two-thirds of overall credit disbursed by scheduled commercial banks in India.

New Pension Scheme:

The New Pension Scheme works on defined contribution basis and will have two tiers. Tier-I and II Contribution to Tier-I is mandatory for all Government servants joining Government service on or after 1-1-2004 whereas Tier-II will be optional and at the discretion of Government servants.

In Tier-I, a Government servant will have to make a contribution of 10% of his basic pay plus DA, which will be deducted from his salary bill every month by the PAO concerned. The Government will make an equal matching contribution. However, there will be no contribution from the Government for private sector workers.

In order to implement the Scheme, there will be a Central Record Keeping Agency (CRA) and several Pension Fund Managers (PFM) to offer three categories of Schemes to Government servants, viz., options A,B and C based on the ratio of investment in fixed income instruments and equities. The participating entities (PFMs and CRA) would be given simple and understandable information about past performance, so that the individual would be able to make informed choices about which scheme to choose.

Comparing the reasons of Increasing NPA National & Global

The practice of bribery and corruption have put the banking and financial services sector to a standstill by the increasing NPAs. Promoter integrity issues have implied further financial losses for banks. To cope with this, all banks will need to maintain strict vigilance during pre- and post-sanction due diligence processes. They must fortify their internal processes to effectively monitor funds. The Indian Government is undertaking a regulatory upheaval for addressing the NPA "crisis". Bankers are cautiously optimistic that the NPA situation will improve, although at a slow pace. The following reasons are common to both the Nation & Global:

- Diversification of funds to unrelated business/fraud.
- Lapses due to diligence.
- Business losses due to changes in business/regulatory environment.
- Lack of morale, particularly after government schemes which had written off loans.
- Global, regional or national financial crisis which results in erosion of margins and profits of companies, therefore, stressing their balance sheet which finally results into non-servicing of interest and loan payments. (For example, the 2008 global financial crisis).
- The general slowdown of entire economy for example after 2011 there was a slowdown in the Indian economy which resulted in the faster growth of NPAs.
- The slowdown in a specific industrial segment, therefore, companies in that area tolerate the heat and some may become NPAs.
- Unplanned expansion of corporate houses during boom period and loan taken at low rates later being serviced at high rates, therefore, resulting into NPAs.
- Due to mal-administration by the corporates, for example, willful defaulters.
- Due to policy which hampers the timeline and speed of projects, therefore, loans become NPAs. For example Infrastructure Sector.
- Severe competition in any particular market segment. For example Telecom sector in India.
- Delay in land acquisition due to social, political, cultural and environmental reasons.
- A bad lending practice which is a non-transparent way of giving loans.
- Discounted import due to dumping leads to business loss of domestic companies. For example Steel sector in India.
- Due to natural reasons such as floods, droughts, disease outbreak, earthquakes, tsunami etc.

ANALYSIS:

Hypothesis Testing:

Test of Co-relation: "Net NPA and Net profit of Public, Private and Foreign Sector Banks."
The test of co-relation is used to identify the co-relation between two Variables.
The variables here in this study are:

Hypothesis for Public Sector Banks:

Hypothesis:
H0: There is no significant correlation between Net NPA and Net Profit of Public Sector Banks

Consolidated Sector Wise Advances in Bank:

The above table represents that:

- Gross NPA to total advances in % has been consistently increasing.
- Total outstanding advances 3% decreased compare with 2015 % 2016, but gross NPA has been increased 2% from 2015 to 2016.
- Gross NPA in value has been increasing consistently it show the low performance bank in terms of collect outstanding.
- Overall Non priority sectors advances is increasing compare with priority sector.
- Bank has giving less priority for housing loan. It may be more defaulters in housing loan sector.

Identify the reasons or loopholes for this increasing size

Identify the reasons or loopholes for this increasing size

Banks for 9 years
H1: There is correlation between Net NPA and Net Profit of Public Sector Banks for 9 years

$$r = \frac{\sum(X-\bar{X})(Y-\bar{Y})}{[\sum(X-\bar{X})^2-(Y-\bar{Y})^2]^{1/2}}$$

r = -0.8128

Hypothesis for Private Sector Banks:

Hypothesis:
H0: There is no significant correlation between Net NPA and Net Profit of Private Sector Banks for 9 years
H1: There is correlation between Net NPA and Net Profit of Public Sector Banks for 9 years

Year	X	Y								
2015-2016	7,469	10,634	4,862	4,994	2,607	5,640	67,96,429		3,18,09,640	1,47,03,436
Total	43,762	44,948						1,60,91,594	5,63,30,196	1,67,02,676
Mean	4,862	4,994								

$$r = \frac{\sum(X-\bar{X})(Y-\bar{Y})}{[\sum(X-\bar{X})^2-(Y-\bar{Y})^2]^{1/2}}$$

r = 0.61693

CONCLUSION:

Bank personnel jointly approach the defaulting borrowers for repayment at a place and time convenient to both the parties. These are more suited to small loans. Normally the borrowers who had availed small loans will be more in number in rural and semi urban areas rather than urban and metro centres. As such, the banks instead of conducting the recovery camps at their branches, they usually conduct such recovery camps in centres like panchayat board offices, court buildings, government department buildings etc such recovery camps so that the borrowers find it convenient to attend the recovery camps. Under certain circumstances, the manager in charge of the bank branches along with some branch officials go to each visit each house of the borrowers and recover the instalments due in respect of loans availed by them. This type of recovery camp will be successful in case an advance notice is served on the borrowers mentioning the date of recovery camps.
Therefore PPP with slight modification will suit our Indian & Global NPA.

REFERENCES:

NathwaniNirmal, "The study of financial performance of banking sector of India." Saurashtra University – Rajkot. 2004.

Oza J. "Productivity and Profitability of Public Sector Banks in India," An International Comparison, Print well publishing house.

Parmar S. J. Financial Efficiency – Modern Tools and Techniques, Raj Book Accounting. Reston Publishing Co., Inc.2001.

DETERMINANTS OF LIFE INSURANCE POLICY PURCHASE -A STUDY TO EXPLORE NEW MARKETING STRATEGIES FOR PRIVATE LIFE INSURANCE PRODUCTS

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ABSTRACT

Insurance sector occupies an important place in nation's economy. It plays a pivotal role in the economic development of a country and forms the core of the money market in our country. Insurance sector in India has witnessed remarkable changes and development since the onset of the processes of liberalization, globalization and privatization. Marketing strategy converts environmental opportunities into Profitable business activities and helps counter environmental threats .it is a driving force in the corporate strategy to gain sustainable competitive advantage. In this study an attempt has been made to explore the determinants of private life insurance policy purchase of customers in Chennai city through non-random convenient sampling by adopting descriptive and analytical research design. The empirical evidences proves that, Information Factor [IF], Advertisement Factor [AF], Guidance Factor [GF], Promotional Factor [PF], Consideration Factor [CF], Loan Assistance Factor [LAF] and Maintenance Factor [MF] are important underlying dimension for policy purchase in private life insurance companies and the marketers and insurance companies are suggested to give proper guidance, informative advertisement along with various attractive promotional activities to enhance policy purchase of private life insurance companies.

Key Words: *Private Life Insurance, Marketing Strategy, Policy Purchase, Information, Advertisement, Consideration and Loan Assistence.*

INTRODUCTION

In the organized segment, insurance sector occupies an important place in nation's economy. It plays a pivotal role in the economic development of a country and forms the core of the money market in our country. The insurance sector in India comprises of both public sector as well as private sector insurance. There are one Public sector and twenty three private sector insurance companies functioning in the country presently. Insurance deals with many customers everyday and offered various types of products in the market. It is a well known fact that no business can exist without marketing.

Insurance sector in India has witnessed remarkable changes and development since the onset of the processes of liberalization, globalization and privatization. The challenges ahead for insurance sector have greatly increased with increasing competition and the growing demand for a greater variety and superior quality of insurance services. The growth of the insurance sector has generated a lot of interest primarily because of the entry of many private sector insurance companies and also foreign insurance companies resulting in the availability of a wide variety of innovative products and services in the insurance market.

PRIVATE LABEL BRANDS AND STORE LOYALTY – A STUDY WITH REFERENCE TO APPARELS

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ABSTRACT

This research studies about the penetration of private label brands towards the minds of customers and its influence over the enhancement of store loyalty. The main objective of the study is to identify the key factors to improve store loyalty particularly in private label brands and to determine the relationship between the private label brands and store loyalty. Data comprises of 200 samples within the Chennai city. Convenient sampling technique was used to select samples. The nature of the study is descriptive. MAX, RELIANCE Trends, Big Bazaar are the three private label brands chosen for date collection.

Keywords: Private label brands, customer perception, store loyalty, loyal customers.

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Computational Analysis of Microarray Image

D. Ravikumar, Dr. Arun Raaza and Dr.V. Devi

Abstract:

The focus on image analysis and the processing of computational analysis has been explained through various methods. The methods proposed herein find application in biomedical images like; cDNA micro array images and 2D gels images obtained from the two dimensional electrophoresis of proteins. They utilize the intensity of information relating to the images and do conversion of base problems of analysis and processing inclusive of determination of the grid structure and spot segmentation for optimizing problems, and follow this up with the solution using the method of genetic algorithms. The methods proposed herein for gridding and spot segmentation have seen application in synthetic images and the real ones also. The results of such application have demonstrated the achievement of higher accuracy for the proposed methods in comparison with various well known techniques that find extensive application.

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An Image Feature Extraction and Image Representation Strategies for the Analysis of Image Processing

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ABSTRACT

Feature extraction and feature representation techniques are an important and crucial process in image processing. To extract and retrieve the ideal features is still a challenging problem in the computer vision which can reflect the essential content of the representation as complete as possible. Feature extraction is usually applied for generating the important features to be used in the feature selection and classification process. Feature selection minimizes the number of features delivered to the classification task. Those features are probable to assist in perception are selected and used in the classification process. This paper review the recent development of image feature extraction and representation. Also, this paper analyzes the efficiency of the integration of local and global features in the content based image retrieval and image annotation.

Index Terms— *Classification, Feature Extraction, Feature Representation, and Feature Selection*

INTRODUCTION

Feature extraction defines the significant shape information enclosed in a pattern so that the task of classifying the pattern is made simple by a formal practice. In image processing, feature extraction is a defined as a special form of dimensionality reduction. The main objective of feature extraction is to retrieve the relevant information from the original image and denote the information in a lower dimensionality space. If the input data is too large to be handled and it is suspected to be redundant, then the input data will be transformed into a reduced representation set of features which is also called as feature vector. Converting the input data into the distinct set of features is termed as feature extraction. If the extracted features are carefully selected, it is expected that the feature set will retrieve the useful information from the input data to perform the specific task with the help of reduced representation rather than using the full size of an image.

The primary step for a computer program in semantic understanding is to extract effective and efficient visual features and construct models from them rather than the human background knowledge. Hence, we can understand that how to extract low-level visual features of an image and what type of features will be extracted act as a vital role in numerous tasks of image processing. The most common visual features contains color, texture and shape, etc.[1-4], and most image annotation and retrieval schemes have been built based on these features. Though, their performance is greatly dependent on the usage of image features. Usually, there are three feature representation approaches, which are global based, and region-based and block features.

Chow et al[5] implements an image classification method through a tree-structured feature set, in which the root node represents the whole image features while the child nodes denote the local region-based features. Tsai and Lin[6] associateseveral combinations of image feature representation comprising the global, local block-based and region-based features for image database classification. Moreover, a block-based image feature representation[7] is used to reflect the spatial features for a particular concept. Though, a little consideration has been paid to image feature extraction when compared to a substantial amount of research on annotation or retrieval model. Hence, this paper focuses a review on the latest development in image feature extraction.

The rest of the paper is organized as follows. Section 2 elaborates the most common image visual

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The Effect of Caste System in Madurai Archdiocese

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KEYWORDS

Dalits, Christians, Archdiocese, Discrimination, Social, Cultural Diocese, *Constitutional rights for Dalit Christians.*

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ABSTRACT

Due to the discrimination with the Dalits in Indian State some Dalits who converted to Christianity or other religion have not escaped the caste system. The present study was designed to analyse the present scenario of Dalit Christians in Madurai Archdiocese with primary focus on identifying the socio – cultural status of Dalit Christians in Madurai Archdiocese. In present study the data was collected from both 'primary' as well as 'secondary' sources. The primary data collected constitutes the respondents of all age groups. Interview method was used for data collection. For sampling purposes, 13 villages in Madurai Archdiocese were selected by simple random sampling technique and the data collected was analysed by using descriptive & simple percentage method. After analysing the results some suggestions were framed out which needs to be implemented for the sustainable development of Dalits in the region of study. However, further studies are in need to understand the Socio-cultural status of the Dalit Christians in Madurai Archdiocese.

ABBREVIATIONS

CC: Catholic Churchs
DC: Dalit Christians
GoI: Government of India
SC: Scheduled Caste
ST: Scheduled Tribe

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Morphological View of English Language Learning for Engineering Undergraduates - An Analysis

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Professor L. R. S. Kalanithi
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Abstract

English Language Learning must be enhanced according to real life situations and the communicator must be highly flavoured to deliver the language simple and short according to the progress in the work area. Language learning must be strengthened and the morphological view of learning a language is highly essential. It must be renovated to stick on to its own feet and in-depth learning makes an individual to be an excellent achiever in his communication. Language is a subject dealing with skills and is on a process of continuous change. From the childhood, one can utter a sentence that has never said before. It is completely possible for a person to understand, generate, and use the function of each word because, apart from the words that a person knows and are stored in his/her mental lexicon, there might be words that have never been heard before by the same person.

This study focuses on the morphological perception of obtaining language learning skills through literature taking some illustrations from well-known works. This detailed view explicates how a learner can be strengthened in vocabulary, words, phrases, internal structure of words and the relationship among words. It masters the language including spelling, vocabulary, fluency, word recognition, pronunciation, structure of complex words and text comprehension. Further it speaks on parallelism, the inter connection of words which gives rise to rich words to comprehend and communicate at the right time at the right situation. It empowers the students to self-generate the words in which s/he expresses her/ himself clearly. Reading literary text with analysis of morphological knowledge is an added characteristic in getting words frequently using in work area to enhance language proficiency and the application can be viewed in spontaneity.

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Eco-friendly food preservation: Studies on the synergistic preservative effect of Chitosan and soap nut solution.

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Abstract

Chitosan (CS), the antimicrobial, biopolymer with film forming nature, has been used as a topical preservative for food items like vegetables, fruits, and even for sea food.[1]In order to have different choices for preservation; we need to search for more materials with such properties. Soap nut (SN), whose botanical name is *Sapindus mukorossi*, seems to have similar properties. It is saponin, the major component present in soap nut, which is responsible for its antimicrobial and film forming property. There are many reports to support that up to a certain limit saponin can be used for edible purpose.[2]In this study the synergistic preservative effect of chitosan and soap nut aqueous solutions on fruits and vegetables was evaluated. At first, the antimicrobial effect of CS, SN and [CS+SN] in the film form was studied against *Staphylococcus aureus* and *Escherichia Coli*. As expected the film CS+SN exhibited more antimicrobial activity with 25 mm and 23mm zone of inhibition against *Staphylococcus aureus* and *Escherichia Coli* respectively. The potential of CS+SN as a preservative was evaluated by spraying a known concentration on different regional fruits like lemon, banana, tomato and orange. Different concentrations of [CS+SN] - 250ppm and 125ppm, along with CS-500ppm, SN-500ppm and water, were compared, where water served as the control. Fruits sprayed with [CS+SN]-250ppm solution, showed significant delay in the change of weight loss, decay percentage, pH, as compared to control fruits. It also maintained better visual quality than CS and SN coated as well as control samples. These findings suggest that [CS+SN], with its synergistic preservative potential will maintain the fruit quality and lead to better acceptance by consumers. Thus

Micromorphological Studies On Rhizome Of *Corallocarpus Epigaeus* Benth. ex Hook. f.

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Absract: Rhizome of *Corallocarpus epigaeus* Benth ex Hook. f, Cucurbitaceae were studied and detailed pharmacognostical evaluation was done. The synonym of this plant is *Bryonia epigaea*. It is commonly called as Indian Bryonia and in tamil it is called as Karutan kilangu, Kollan kovai or Akasagarooda Morphology of the rhizome have been studied to aid pharmacognostic and taxonomic species identification using camera lucida diagrams, parameters presented in this paper may be proposed to establish the authenticity of this plant and can possibly help to differentiate the drug from its other. The alkaloid Bryonine from this plant is used in syphilis, chronic dysentery, chronic mucus enteritis and rheumatism. Plant has antirespiratory, anticancer and antimalarial properties also. It is used for external application in conjunctivitis and chronic veneral complaints. Tuber boiled with coconut oil is used to cure leprosy in siddha system of medicine.

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Key words: akasagaroodan, camera lucida, Corallocarpus, Krutan Kilangu. leprosy, pharmacognostical, phytochemical, rhizome.

Introduction

India is one of the mega diversity countries in the world and medicinal plants form the backbone of traditional systems of medicine in India, thousands of tribal communities still use folklore medicinal plants for the cure of various diseases. Indian medicinal plants have been studied for potential source of bioactive compounds. The great interest in the use and importance of medicinal plants in many countries has led to intensified efforts on the documentation of ethnomedical data of medicinal plants Dhar *et al*. (1968). Earlier there were a few or no synthetic medicine and species of higher plants were the main sources of medicines for the world Duke (1990). Medicinal plants are the rich source of novel drugs that forms the ingredients in traditional systems of medicine, modern medicines, nutraceuticals, food supplements, folk medicines, pharmaceutical intermediates, bioactive principles and lead compounds in synthetic drugs Ncube *et al*. (2008) Many plants synthesize substances that are useful to the maintenance of health in humans and animals. This experimental plant is a prostrate monoecious plant found in tropical and temperate regions of India, Ceylon, Deccan and Maharashtra Kirtikar and Basu (1996). Decoction of rhizome is useful in cases of chronic mucous enteritis and also used as anthelmintic. This plant is used by tribals of Rajasthan to cure various ailments indigestion, constipation, abdominal pain, dysentery and typhoid. In the Deccan and Mysore the root acts as antidote for snakebite. It is also used to cure skin diseases like wounds, tumors, boils, sunburns, cuts and injury Sara Oldfield (1997). It is a siddha remedy for chronic eczema Choudhary; Singh; and Pillai, (2008). Rhizome boiled with coconut oil is used to cure leprosy in siddha system of medicine Anitha; Kamakshamma; Prasad and Sundarsanam (2008). Hence the present investigation was undertaken The uses of this plant as traditional medicine confirms that it may possess some important biological activities.

Materials And Method

The rhizome of *Corallocarpus* was collected from Kolli hills of Tamilnadu, India, identified by botanist of CSMDRIA Chennai, Tamil Nadu. Fresh hand sections were taken and treated with chloral hydrate and phloroglucinol and HCl. Microscopical characters were studied Evans and Trease and Evans (1997). Camera lucida diagrams were drawn. The dried powdered was treated with Jeffereys reagent, ruthenium red.

Results

I) Botanical Description

Corallocarpus epigaeus belonging to Cucurbitaceae family is a prostrate climbing perennial plant in tamil it is called as karutan kilangu, Kollan kovai or Akasagarooda. Leaves tri or pentaangular, pubescent, apex acute, base cordate, dentate; petiolate. Flowers monoecious, yellow male flowers in racemes, stamens 3, erect female flowers solitary, ovary oblong, beaked. Fruit ellipsoid, beaked, circumscissile at base.

Ii) Macroscopic Characters

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MORPHOLOGICAL AND MOLECULAR CHARACTERIZATION OF HYDROCARBON DEGRADING BACTERIA AND ITS ASSOCIATED GENES

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Abstract:

Objectives: To isolate the effective hydrocarbon degrading bacterial species from hydrocarbon contaminated site and analyse the efficacy of isolated hydrocarbon degrading bacterial species and their degrading sequence.

Methods:

The cultures were morphologically and biochemically identified by staining and biochemical tests. The diesel dependent growths of these isolates were assessed for 15 days by monitoring the gradient fluxes in the pH and Optical density OD of the media. Evolutionary relationship was demonstrated and rendered with phytogenetic tree using BLAST tree tool.

Results: Based on their morphological, physiological and biochemical traits, strains DC1- DC7 belong to *Flavobacterium sp*., *Citrobacter freundi*, *Citrobacter intermedius, Enterobacter aerogenes, Bacillus cereus* genera, respectively. Results showed an increase in OD as well as fluctuations in pH values. Microorganisms, capable of utilizing hydrocarbon as sole carbon source, were 16S rDNA analysis of the best degraders was found to belong to the Bacillus species. DC7 was identified as Bacillus cereus with 1414bp. The sequence shows 94% similarity for Bacillus thuringiensis and *Bacillus bombysepticus,* and 95% similarity for *Bacillus toyonensis BCT-7112*.

Conclusion: These findings demonstrated that the use of Hydrocarbon degrading bacteria along with nutrient supplements could revive hydrocarbon contaminated soil effectively in large scale. The use of native bacterial consortium with diesel utilizing capabilities as seed onto oil contaminated environment could prove a more

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RESEARCH ARTICLE

ANALYSIS OF PHYSIOCHEMICAL PARAMETERS OF HYDROCARBON CONTAMINATED SOIL

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ABSTRACT

Contamination of soil by hydrocarbons is becoming prevalent across the globe. This is probably due to heavy dependence on petroleum as a major source of energy throughout the world, rapid industrialization, population growth and complete disregards for the environmental health. The effects of hydrocarbon pollution on soil physical and chemical properties were investigated by using different methods. Physical analysis like Texture, pH, Lime status and EC were performed and concentration of Micro and Macronutrients were analyzed. The results revealed that organic carbon increased with increase in pollution while nitrogen, potassium and phosphorusdecreased with increase in pollution. The pH became more basic as pollution decreases. This result reveals that the polluted soil when compared with the control (soil from unpollutedfarmland) is unsuitable for agricultural activities as full remediation has not taken place except remediation can be hastened. This result reveals that the polluted soil is unsuitable for agricultural activities. A wide range of bioremediation strategies is being developed to treat contaminated soil.

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INTRODUCTION

There is growing public concern as a widevariety of toxic chemicals are beingintroduced inadvertently or deliberatelyinto the environment. Petroleumhydrocarbons are one common example ofthese chemicals, which enter theenvironment frequently and in largevolumes through numerous routes. Petroleum hydrocarbons come into theenvironment through accidents, spills orleak, urban input, industrial releases andcommercial or domestic uses (Ou *et al*., 2004; Wang and Stout, 2007). Soil polluted with organic compounds such as hydrocarbon (HC) products is an important environmental problem around the world (Erika Mendez *et al*., 2011). The term hydrocarbon has been used to petroleum complex mixtures in which there are hundreds of organic compounds ranging from light, volatile and short - chained compounds to heavy, long - chained and branched compounds (Wong *et al*., 1997). Some researchers have been interested in studying how HC presence affects soil matrix in its physical and chemical properties (Martinez *et al*., 2001) and Munoz *et al*. (2007). Studied properties include texture, moisture content, density, soil organic matter, pH, electrical conductivity and cation exchange capacity, among others. Currently, about 80% of land are polluted by products of petroleum origin (hydrocarbons, solvent, etc.) used as an energy source in the oil industry, as well as chemicals (Marinescu *et al*., 2001). There are a variety of pollutants affecting topsoil and subsoil, such as fuel and oil products, hydrocarbon residues, crude oil, other products resulting from the operation (saturated and unsaturated aliphatic hydrocarbons, and the monocyclic and polyclic aromatic) (Engelking, 2000). Soil and water represent the first lines of recipients of oil pollution. Ground water contamination by crude oil therefore is becoming an increasing sensitive issue in India because most of the water supply is derived from shallow and unconfined aquifers. Furthermore, contamination of land is of paramount importance to man in that it is on this portion of the earth that the anvil of man's existence and activities lie. Oil pollution has deleterious effect on plant growth, soil macronutrients, microorganism and the terrestrial ecosystem in general (Osuji, 2002). Pollution results when a change in the environment harmfully affects the quality of human life including effects on animals, microorganisms, and plants. Pollution has been defined as the presence in significance amounts of an extraneous material which may be solid, liquid or gas in a particular location (SPDC, 1987). The contamination of the environment (mainly terrestrial and aquatic) by crude oil is therefore referred to as oil pollution and it is estimated that 80% of oil pollution is as a result of spillage (Odu, 1977). Spillage of petroleum hydrocarbons either byaccident or vandalization causes significant environmental pollution (Mukherjee and Bordoloi, 2010). Crude petroleum oil and its derivativesreleased in the

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Research Article

Isolation, Identification and Optimization of Exopolysaccharide Producing Lactic Acid Bacteria from Raw Dairy Samples

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ABSTRACT

Most of the Gram-positive bacteria, including lactic acid bacteria, produce exopolysaccharides (EPS). EPS are either excreted into the growth medium (slime) or attached to the bacterial cell wall (capsules). They are long-chain, high molecular carbohydrate polymers. In dairy industry, EPS producing cultures provide the fermentation produced with viscosity, stability and water binding functions. The present study was isolation, identification and optimization of Exopolysaccharides producing lactic acid bacteria from raw dairy materials. In this study, EPS production of selected isolates was analyzed between 0 hour and 54 hours in MRS medium. It was determined that EPS production was gradually increased and the maximum production was observed during 24th hour. After 24 hours of incubation, EPS production decreased gradually. EPS production increased during the exponential growth phase and no further production was observed in the stationary growth phase. Based on the results of the present study, it is concluded that *Lactobacillus lactic ssp. lactis*isolated from dairy samples showed better characteristic EPS producing ability.

Keywords: Lactic acid Bacteria, Exopolysaccharide, MRS medium and Raw dairy materials.

1. INTRODUCTION

Exopolysaccharides (EPSs) are long-chain polysaccharides that are secreted mainly by bacteria and microalgae into their surroundings during growth and that are not permanently attached to the surface of the microbial cell. The physical characteristics of EPSs are responsible for the slime-forming or mucoid trait of many microorganisms. A second group of polysaccharides that are structurally similar but that are permanently attached to the cell surface are classified as capsular polysaccharides.

Nevertheless, now, for industrial purposes, many new polysaccharides are developed from bacteria; exocellular polysaccharides are produced in a large scale by the usual techniques of microbiology and fermentation – this procedure allows a good control of the characteristics of polymers and allows the purification of polysaccharides more easily than from other natural sources. Extension of such production also allows reducing the price and extending the range of applications(Andrew Laws *et al.,* 2001).

1.1. LACTIC ACID BACTERIA

Lactic acid bacteria (LAB) constitute a group of gram-positive bacteria united by a constellation of morphological, metabolic, and physiological characteristics. The general description of the bacteria included in the group is gram-positive, non sporing, non respiringcocci or rods, which produce lactic acid as the major end product during the fermentation of carbohydrates.

The boundaries of the group have been subject to some controversy, but historically the genera *Lactobacillus, Leuconostoc, Pediococcus,* and Streptococcus form the core of the group. Taxonomic revisions of these genera and the description of new genera mean that LAB could, in their broad physiological definition, comprise around 20 genera.

Research Article

Production, Optimization and Characterization of Polyhydroxybutryate by Bacillus subtilis Isolated from Garden Soil

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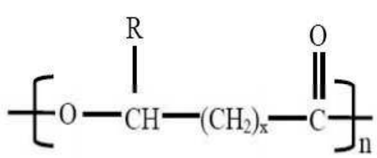
ABSTRACT

Polyhydroxyalkanoates (PHAs) are biopolymers stored by a wide variety of organisms as an energy reserve. They are polyesters formed by polycondensation of carboxylic acids with hydroxyl alcohol. Poly-3-hydroxybutyrate P(3HB), the simplest PHA, The biosynthesis of PHAs by a number of organisms occurs when these store energy in the form of polyester granules. Extensive studies and results have shown the flexibility and the ability of prokaryotic organisms to incorporate diverse substrates and consequently to produce different kind of biopolyesters. Polyhydroxybutyrate are naturally formed macromolecules during the growing cycle of the organisms, and therefore are referred to as natural polymers. Polyhydroxybutyrate (PHBs) play important roles in the attachment of bacterial cells to a surface and in building and maintaining the three-dimensional, complex structure of bacterial biofilms. Poly-3-hydroxybutyrate producing bacteria were isolated from different garden soil samples. Later Screening of bacterial strain for Poly-3-hydroxybutyrate production were done with many parameters. A bacterial strain that produces amylase and polyhydroxyalkanoate (PHA) was isolated, identified, and classified. The present study provide the useful data about the optimized conditions for PHB production by *Bacillus species* that can be utilized for industrial production of PHB, a fast emerging alternative of non biodegradable plastics.

Keywords: Polyhydroxyalkanoate, Polyhydroxybutyrate, *Bacillus subtilis*

INTRODUCTION

The annual world production of synthetic polymers amounts to about 140 million tons. A vast majority of this volume is composed of chemically stable polymers that are not easily degraded. These are mostly synthetic polymers produced essentially by chemical addition or condensation reactions in which a large number of monomers are joined sequentially. Biopolymers are naturally occurring materials: most materials formed in nature during the life cycles of green plants, animals, bacteria and fungi are polymers or polymer matrix composites. Biopolymers include the polysaccharides such as cellulose, starch, the carbohydrate polymers produced by bacteria and fungi and animal protein-based biopolymers such as wool, silk, gelatin and collagen. Biopolymers, especially the fibrous ones, have been used by mankind from the earliest days of civilization.



		Type of monomer
x = 1	R = methyl	3-hydroxybuytrate; 3HB
	R = ethyl	3-hydroxyvalerate; 3HV
	R = propyl	3-hydroxyhexanoate; 3HHx
x = 2	R = hydrogen	4-hydroxybutyrate; 4HB
x = 3	R = hydrogen	5-hydroxyvalerate; 5HV

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RESEARCH ARTICLE

OPTIMIZATION AND ENZYMATIC DEGRADATION OF COIR PITH AND SUGARCANE LEAVES BY PLEUROTUS PLATYPUS THROUGH UTILIZING NITROGEN, SULPHUR AND PHENOLIC COMPOUND

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ABSTRACT

Among white rot basidiomycetes *Pleurotus sp.,* is reported to be most efficient colonizers and degraders of lignocelluloses. The white rot edible mushroom *Pleurotus platypus* has considered as a moderate temperature loving fungus, having an optimum growth temperature ranges from 20-30°C. Alkaline pH (8) favored the fungal growth and extracellular lignin peroxidase and laccase production. *Pleurotus platypus* reported to produce extracellular lignin peroxidase under nitrogen and sulphur starvation. Among the nitrogen limiting condition tested, the organic rich yeast extract (1%) basal medium favored the production of lignin peroxidase (45.4 U/L) and in the absence of nitrogen favored the production of laccase (9300 U/L). The sulphur containing aminoacids cysteine and methionine comparatively reduced the ligninolytic enzymes production in all the basal media tested. The protein profile in SDS-PAGE gel showing band near 40 KDa and 60 KDa indicates the presence of lignin peroxidase and laccase in partially purified enzymes. *Pleurotus platypus* grown on sugarcane leaves and coir pith produced the extracellular lignin peroxidase and laccase.

INTRODUCTION

Apart from the classical biotechnological sciences which use microorganism capable of producing molecules of interest for industry, degradative or environmental biotechnologies have recently emerged. Bioconversion of the vast quantities of lignocellulosic materials of agriculture, house-hold and industrial origin into useful products has received considerable attention but has led to any commercially viable process (Coughlan 1985, Doelle 1984). Cultivation of mushroom around the world represents the only commercial successful large scale bioconversion of lignocellulosic residues into food. Economic and biotechnological significance of mushroom production as a successful large scale microbial technology has been appreciated (Wood 1989). Bacterial lignin degradation has been most extensively studied in actinomycetes, particularly Streptomyces spp. and Agropyron (Antai and Crawford 1981). Lignin is a recalcitrant heteropolymer of phenylpropanoid units present in woody plant tissues, that confers them rigidity and resistance to biological attack. In order to depolymerize and mineralize lignin, white-rot fungi have developed an oxidative and unspecific system including extracellular enzymes, low molecular weight metabolites and activated oxygen species. Due to the lack of specificity of the system involved in the lignin depolymerization, white-rot basidiomycetes and their enzymes are being studied for their application on the degradation of aromatic pollutants causing environmental problems (Mario carlos *et al.,* 2002). Laccases are copper-containing oxidase enzymes that are found in many plants, fungi, and microorganisms. Laccases act on phenols and similar molecules, performing a one-electron oxidations, which remain poorly defined. It is proposed that laccases play a role in the formation of lignin by promoting the oxidative coupling of lignols, a family of naturally occurring phenols. Among white rot basidiomycetes, *Pleurotus spp.* is reported to be most efficient colonizers and degraders of lignocelluloses (Rajaratham and Bano 1989, Zadrazil 1979). Utilization of *Pleurotus sp.* for decomposing coconut coir pith was reported by TheradiMani and Marimuthu 1992. Effect of nitrogen on production of extracellular degradative enzyme by *Pleurotus sajor caju* (Fr.) Sing. On wheat straw reported (Saxena and Rai 1992). *Pleurotus platypus* was one of the most efficient

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Research Article

OPTIMIZATION OF PLEUROTUS PLATYPUS THROUGH CARBON UTILIZATION IN LIGNIN DEGRADATION

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ABSTRACT

White rot fungus, *Pleurotus platypus* are a well known lignin degrader, was examined for its optimum growth conditions such as pH and temperature as well as carbon sources (glucose, sucrose, maltose and mannitol). For the maximum growth of *Pleurotus platypus* the 7 day incubation period was required at pH 5.0 *Pleurotus platypus* has an optimum temperature of 20-30°C with the maximum growth of 40.5 mm on the day 9 and the growth rate was 6 mm per day. The optimum pH for the growth of *Pleurotus platypus* was pH 6-7. The experiments on different carbon sources by *Pleurotus platypus* indicated that increasing concentration of carbon sources increased the fungal growth and induced the enzyme production. At 25mm concentration. of sources in basal medium induced the maximum production (35.1 U/L) of lignin peroxidase. Evidently the carbon source remarkably induced the lignin peroxidase and decreased the laccase, *Pleurotus platypus* was reported to be a better degrader of raw coconut coir pith with higher bioefficiency

INTRODUCTION

Lignin is a complex polymer and its degradation takes a number of years. It constitutes the second largest sink next to cellulose for fixed carbon therefore lignin biodegradation occupies a significant portion in the global carbon cycle (Eriksson *et al.,* 1990). The mechanism of lignin biodegradation is an oxidative process carried out mainly by white rot fungi, but our actual knowledge of the ligninolytic system still reveals large gaps. To date, three types of extracellular ligninolytic enzymes have involved in this process such as lignin peroxidase, manganese peroxidase and laccase (Kirk and Farrell, 1987; Higuchi, 1990). White rot fungi may degrade lignin and polysaccharide simultaneously but selective degradation of lignin can occur (Eriksson *et al.,* 1990). The degree of degradation of these components varies from species to species. The white rot fungi Phanerochaete chrysosporium and *Pleurotus platypus* are a well known lignin degrader (Tien and Kirk, 1983; Gold *et al.,* 1984; Kirk and Fareell, 1987; Eriksson *et al.,* 1990; Agosin *et al.,* 1985) and can produce various enzymes, such as extracellular peroxidase (Kang *et al.,* 1993), veretryl alcohol oxidase (Sannia *et al.,* 1991), glucose oxidase (Shin *et al.,* 1993) and laccase (Sannia *et al.,* 1986; Kim *et al.,* 1987) all of which are related to lignin degradation.

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Apart from the classical biotechnological sciences which use microorganism capable of producing molecules of interest for industry, degradative or environmental biotechnologies have recently emerged. Bioconversion of the vast quantities of lignocellulosic materials of agriculture, house-hold and industrial origin into useful products has received considerable attention but has led to any commercially viable process (Coughlan, 1985; Doelle, 1984). Cultivation of mushroom around the world represents the only commercial successful large scale bioconversion of lignocellulosic residues into food. Economic and biotechnological significance of mushroom production as a successful large scale microbial technology has been appreciated (Wood, 1989). Mushroom is one of the most efficient producer of food protein from worthless agrowaste and their efficiency lies in part, in their extensive degradation ability of lignocellulose. Among the various mushrooms *Pleurotus sp.* Are the most versatile, capable of colonizing and degrading a variety of lignocellulosic waste and have been considered suitable for bioconversion of agrowaste into food and feed on the developing countries (Chang and Miles, 1989., Lelley, 1987., Rajarathnam & Bano, 1989). *Pleurotus sajor caju* (Fr) Sing, is very high yielding and popular oyster mushroom. Crop residues after mushroom cultivation could be used as a better source of organic manure (Marimuthu & Krishnamoorthy, 1991). *Pleurotus platypus* was one of the most efficient species in decomposing the substrates (Nallathambi & Marimuthu 1993). Thus *Pleurotus platypus*

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Total Coloring of Central Graphs of a Path, a Cycle and a Star

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Abstract: *The total chromatic number of a graph G is defined to be the minimum number of colors needed to color the vertices and edges of a graph in such a way that no two adjacent vertices, no two adjacent edges and no incident vertex and edge are given the same color. In this paper, we discussed the total coloring and total chromatic number of the central graphs of a path, a cycle and a star.*

Keywords: *Central graph; Path; Cycle; Star; Total coloring; Total chromatic number.*

1. Introduction

Bezhad [1] introduced the concept of total coloring and found the chromatic number of some simple graphs. If $G = (V(G), E(G))$ is a graph with the vertex set $V(G)$ and the edge set $E(G)$, a proper total coloring of G is an assignment of colors to the vertices and the edges in such a way that

1. no two adjacent vertices are assigned with the same color,
2. no two adjacent edges are assigned with the same color and
3. no edge and its end vertices are assigned with the same color.

The total chromatic number of a graph G is the minimum number of colors that required to produce a total coloring of and is denoted by $\chi_{tc}(G)$. Bezhad conjectured that for any graph of maximum degree $\Delta(G)$ has a total chromatic number satisfying the condition $\Delta(G) + 1 \leq \chi_{tc}(G) \leq \Delta(G) + 2$. This conjecture is known as the total coloring conjecture (TCC). This conjecture has been verified for many families of graphs and different graphs require different proofs depending on $\Delta(G)$. Bezhad et al. [2] have verified this conjecture for complete graphs and complete multipartite graphs. Rosenfeld [3] proved that the total chromatic number of every cubic graph is totally colorable with five colors. Borodin [4] proved this conjecture for planar graphs. Borodin et al. [5] proved that the chromatic number of a planar graph with maximum degree $\Delta(G) \geq 11$ is $\Delta(G) + 1$. Yap [6] has given the total coloring of r-partite graphs and the graphs with degree $\Delta(G) = 3$, $\Delta(G) = 4$ and $\Delta(G) \geq |G| - 5$. Seoud [7] has discussed about the total coloring of join of two paths, the cartesian product of two paths and the cartesian product of a path and a cycle. Hackmann et.al [8] discussed the circular total coloring of cubic circulant graphs. Sudha et.al [9,10] have proved the total coloring and (k, d)-total coloring of prisms Y_n and the total coloring for a prism graph of n-layers and a grid graph. Chen et al. [11] found that the total chromatic number of generalized Mycielski graphs. Vaidya et al. [12] proved that the total coloring of some cycle related graphs.

Definition 1.1. The central graph of a graph G is obtained by subdividing each edge of G exactly once and joining all the non-adjacent vertices of G.

The central graph of G is denoted by $C(G)$.

In this paper, we have found the total chromatic number of the central graph of (i) a path, (ii) a cycle and (iii) a star.

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Stimulatory effect of PGPR (Plant Growth Promoting Rhizospheric Bacteria) on Medicinal and Growth properties of a potential medicinal herb *Chlorophytum borivilianum*: A review

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Now-a–days worldwide shift towards herbal preparations over synthetic pharmaceutical has realized the importance of focused research in medicinal plants. *Chlorophytum borivilianum* (Family: Liliaceae), an important threatened medicinal herb is designated as 'Rare' in Red Data Book of Indian plants. *C.borivilianum's* saponins possess a variety of biological activities, viz. antioxidant, immunostimulant, antihepatotoxic, antibacterial, anticarcinogenic, antidiarrheal, antiulcerogenic, hypocholesterolemic, anticoagulant, hepatoprotective, hypoglycemic, neuroprotective, anti-inflammatory activity, useful in diabetic retinopathy, inhibition of dental caries, and platelet aggregation. Due to overexploitation of this valuable resource of medicine, researchers are now focusing on isolation and characterization of Plant Growth Promoting Rhizospheric Bacteria (PGPR) from its rhizoshpere and its implementation to improve its growth and medicinal value. This review focuses on the current scenario of PGPR research from *C.borivilianum*.

Key words: Rare Data Book, *C.borivilianum*, Medicinal value, PGPR, Saponin, Rhizosphere.

INTRODUCTION

The rhizosphere concept was first introduced by Hiltner to describe the narrow zone of soil surrounding the roots where microbe populations are stimulated by root activities (Hiltner, 1904) and nutrients attract bacteria and fungi, which multiply in the rhizosphere to densities up to and exceeding 100 times those in the bulk soil (Lynch, 1990; van Loon and Glick, 2004).

Over the years, PGPR have gained worldwide importance and acceptance for agricultural crops. The PGPR are naturally occurring soil bacteria that aggressively colonize plant roots and benefit plants by providing growth promotion. Inoculation of crop plants with certain strains of PGPR at an early stage of development improves biomass production through direct effects on roots and shoots growth.

It is well documented that PGPR can activate soil nutrients, improve soil physical and chemical characteristics, increase soil fertility, antagonize pathogens, decrease plant diseases, enhance plant resistance to diseases, salt stress, coldness and heavy metal toxicity, improve crop growth, development, yield and quality through directly synthesizing hormones, antibiotics and other secondary metabolites, and by regulating plant related gene expressions and other living organisms community structure in rhizosphere.(Kumari *et al.,* 2016, Kumar, 2016).

Chlorophytum borivilianum commonly known as "Safed musli, a monocot belongs to family liliaceae, is a member of a special class of Ayurvedic herbs known as 'Rasayana' and falls into a group 'Vajikarna' i.e. Aphrodisiac. *C. borivilianum* 'a golden root' has been accepted presently and almost universally as a plant of exceptionally high medicinal value (Kumari *et al.,* 2014). Safed musli is celebrated as a Divya Aushad with unparalleled medicinal properties (Singh *et al.,* 2012). Among all the species of *Chlorophytum*

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Nanomedicines in Cancer Research: An Overview

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ABSTRACT

Scientists around the globe are searching for ways to exploit nanoparticles (NPs) to improve human health. The unique physiological properties of NPs like reactivity, conductivity and bioavailability made it increasingly used material for targeted tumour therapy research. Nanotechnology-based chemotherapeutics and imaging agents represent a new era of 'cancer nanomedicine' working to deliver versatile payloads with favourable pharmacokinetics and capitalise on molecular and cellular targeting for enhanced specificity, efficacy and safety. There are many pitfalls yet in cancer nanomedicine research like toxicological issues and ethical concerns also. An integrated 'bench-to-clinic' approach, realised within a structural collaboration between industry and academia, would strongly stimulate the progression of tumour-targeted nanomedicines towards clinical application.

Keywords: Nanoparticles, Nanotechnology, Nanomedicine, Cancer, Chemotherapeutics, Bench-to-clinic, Toxicity

NANOMEDICINES

One of the most promising applications of nanotechnology is in the context of medicine. Indeed, a whole new field of 'nanomedicine' is emerging. Nanomedicine has been defined as the monitoring, repair, construction and control of human biological systems at the molecular level, using engineered nanodevices and nanostructures. Almost every drug company in the world has begun to engage in nanotechnology research (Miller, 2003). Nanomedicine is a rapidly evolving paradigm where nanoscience and nanotechnology are applied to medicine (Kuncic, 2015).

At present, the majority of products are nano-formulations of existing or new drugs (58%) or nanobiomaterials (25%) (Nanomed, 2010). It has been claimed that the worldwide nanomedicine market reached €37.4 billion by 2011 and that the market may double by 2016 (BBC Research, 2012).

Nanomedicines are advantageous over standard low-molecular-weight drugs in several different regards. They are for example

(i) Reduce renal excretion and/or hepatic degradation, leading to prolonged circulation times;

(ii) Reduce the volume of distribution, leading to less accumulation in healthy non-target tissues ('site-avoidance drug delivery');

(iii) Improve the ability of drugs to accumulate at pathological sites ('site-specific drug delivery') and

(iv) Improve the therapeutic index of drugs, by increasing their accumulation at the target site and/or reducing their localisation in potentially endangered healthy organs (Moghimi, 2005; Lammers, 2008 and Duncan, 2011).

(v) In addition, nanomedicine formulations assist low-molecular-weight (chemo-) therapeutic agents in overcoming several additional barriers to efficient drug delivery to pathological sites (Rizzo *et al.*, 2013).

(vi) Nanoscience and nanotechnology focus on the understanding and control of matter at the nanoscale,

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Research Article

GOVERNMENT PARTICIPATION IN WIND ENERGY PRODUCTION IN INDIA - AN ANALYTICAL STUDY

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A R T I C L E I N F O

Article History:

xxx

Key words:

Renewable energy, wind energy, windmill, Green House Gas, political issues.

A B S T R A C T

India's energy demand has been growing rapidly. On the other hand, supply of energy too has grown but has been outstripped by demand. India has severe power demand supply gap, especially from past two decades. India derives most of its energy from fossil fuels such as coal, natural gas and oil where coal is dominant fuel. Fossil fuel based energy sources are not good for the environment. Burning of coal releases huge amount of greenhouse gases (GHGs) into the atmosphere and contributes towards adverse effects of climate change. Considering the importance of renewable energy in India's total energy mix, the Government of India came up with National Action Plan on Climate Change (NAPCC) in year 2008 under the prime minister's office. Under the plan, the Government of India has set a target of reducing country's carbon emissions intensity of GDP by 20 percent to 25 percent between 2005 and 2020. Since there is no (GHG) green house gas emission during renewable energy generation, NAPCC encourages addition of renewable energy such as wind, solar etc., based capacity in the country. Most of the Installed Wind Capacity in India is located in the southern and industrial states of the country. Tamilnadu plays a major role and occupies the first place but to install the windmill there is a Lack in getting approval from various levels. Due to this, the project is getting delayed and they are not able to do it in sanctioned time duration especially from local panchayat and TNEB is taking so much of time for approval and they are having some political and environmental issues. So, the government has to take necessary Steps to prevent these issues and also to avoid the unwanted political issues by taking measures and made the wind energy a successful one.

INTRODUCTION

India's energy demand has been growing rapidly. This demand has been boosted by industrial growth as well as a rise in household consumption. On the other hand, supply of energy too has grown but has been outstripped by demand. India has severe power demand supply gap, especially from past two decades. India derives most of its energy from fossil fuels such as coal, natural gas and oil where coal is dominant fuel. Fossil fuel based energy sources are not good for the environment. Burning of coal releases huge amount of greenhouse gases (GHGs) into the atmosphere and contributes towards adverse effects of climate change. Considering the importance of renewable energy in India's total energy mix, the Government of India came up with National Action Plan on Climate Change (NAPCC) in year 2008 under the prime minister's office. Under the plan, the Government of India has set a target of reducing country's carbon emissions intensity of GDP by 20 percent to 25 percent between 2005 and 2020. Since there is no GHG emission during renewable energy generation, NAPCC encourages addition of renewable energy based capacity in the country.

All this triggered the development of renewable energy sector in India. India is geographically, a very diverse country. Therefore, renewable energy sources are not equally available. India has wind energy potential in only six states i.e. Tamil Nadu, Karnataka, Gujarat, Rajasthan, and Andhra Pradesh. Other states have no or very less wind energy potential. For other sources like geothermal and biomass, the same scenario can be observed. Therefore, the distribution of installed capacity for renewable energy in India across all the states is not uniform.

Government of India has set a target of reducing country's carbon emissions intensity of GDP by 20 percent to 25 percent between 2005 and 2020. Since there is no GHG emission during renewable energy generation, NAPCC encourages addition of renewable energy based capacity in the country. Most of the Installed Wind Capacity in India is located in the southern and industrial states of the country. The other states like UP, Bihar lacks sufficient Wind Energy Capacity despite having high power tariffs and substantial electricity deficits. It can be said that Wind Power in India is being developed only in the progressive states like Gujarat, Maharashtra and others. To continue to grow at the same rate, the industry needs to diversify geographically but that would need the backward state governments to pull up their socks.

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A Study on the Impact of Stock Market Volatility in India with Reference to Equity Investors

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ABSTRACT REFERENCES ARTICLE METRICS

The securitized investment which provides safety as well as liquidity for the investors in the current scenario be
happening in the stock market. The time horizon for trading is comparatively higher than stock market investment aven
good return by taking the right decision at the right time by analyzing the market, hence it is found that most of the equity
securities even though high volatility in stock market. The equity investor believed that stock market volatility is favorable
and automobile sector. The volatility is very high in the automobile sector is ranked at first among the BSE listed security
and FMCG having the highest volatility. Further, it concludes that the stock market volatility is impacting positively as we
make an investment decision.

Keywords

Equity Investor, Impact, Investment and Decision, Liquidity, Stock Market, Volatility.

THE ROLE OFMICRO FINANCE AMONGSELF HELP GROUP FOR THE WOMEN EMPOWERMENT INSOUTHERN DISTRICTS OF TAMILNADU: AN EMPIRICAL APPROACH

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Dr.S.Rajkumar[2]

Abstract

This study has been undertaken to understand the role of microfinance in the empowerment of women in southern districts of Tamilnadu. Three districts namely Tuticorin, Tirunelveli and Kanyakumari were selected. Since the women self-help groups (SHG) are emerging largely in these regions. Many of the microfinance activities are mitigated to attract the women SHG. The purpose of this study is to understand the pattern emerging among women, who are members of any self-help group, and their perception on microfinance in the three selected districts. The study was conducted among 600 women who are members of any SHG who prefer micro financing. The variables are extracted from the literatures. A model has been developed to evince the relationship among the satisfaction and the acceptance of microfinance. Acceptance of microfinance in self-help group is taken as dependent variable and Self-empowerment is taken as independent variable that is further categorized as three constructs i.e., life style development, self confidence level, financial independence are measured with five point scale of satisfaction level and These constructs are checked with factor analysis and grouped underself empowerment that is taken as latent variable used in the model. Normality, Reliability and validity of the variables and constructs are statistically tested to apply with the model developed. Categorical moderation was done to segregate the difference between the patterns emerging in he model. The result shows that the women empowerment is statistically tested and proved that it has a significant influence in the acceptance of microfinance in self help group.

Key Words: *SHG, Microfinance, Women empowerment*

Introduction

Microfinance is a most adopted crediting system available in rural India. The role of micro financing is inevitable in the development of the rural people especially women. This study aims at understanding the status quo of the rural women who are members of the self help group and their empowerment level that is assessed through three constructs and their acceptance of the credit systems by the micro finance.

Microfinance is accepted in and around the outskirts of Tamilnadu. The level of acceptance is analysed using a model developed by the researcher. The relationship between the level of empowerment and the acceptance of microfinance. Self help groups are the source of local network through which the women especially the illiterate women can gather the source of credit and other financial supports. This would eliminate the risk of lending problems the rural women facing around decades. This SHGs are a successful method that can be linked with microfinance in order to better credit systems. This study is an attempt to identify the linkages and relationships between the self-empowerment and acceptance of microfinance.

Aim of the Study

This study aims at figuring out the patterns among the variables between self-empowerment and acceptance of microfinance. This study would bring the pattern that emerges among different districts. Eventually, figuring out the level of acceptance and the influence of empowerment on microfinance among the three districts namely Tirunelveli, Kanyakumari and Tuticorin.

Review of Literature

Self Help Group emergence

According to NABARD 1995, Human is intrinsically motivated to form groups for resolving their own problems with the supports gained.

C.Gangaiah, B.Nagaraja and C.Vasudevulu Naidu, (2006), denotes that the economic development highly rely on the socio economic development and influence of the financial institutions are incrementally affecting the SHGs group effects he developed the case study in terms of the SHGs and its conditions in rural India. It was established with the purpose of emerging government utilizations.

Since self-help groups are organized and administered by the rural women who are economically backwards in

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Moving towards Digital Economy – with reference to E-wallet

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Abstract: Information and communication Technologies (ICT) has outstretched in every day's life in a revolutionary way. ICT's have impacted every human being in a peculiar manner. These days' people become more addicted and socially connected to another person avoiding one on one meeting or get-together's. Technology, and in particular the internet, provides many opportunities to the society. The primary means for sharing information is the digital network. Accordingly, this study will help in finding the principles that can be adopt the future public space to meet the needs of digital era's users with the concept of social life in place making.

Keywords: Information and communication Technologies (ICT); Internet; Society; Digital network; Digital era.

INTRODUCTION

Social media and digital technologies plays a vital role in our everyday routine. Technologies are constantly growing in a rapid space so is the applications. The new media and technology has an impact of everyday life, home, school, universities, work place etc.

In this digitalized era internet, has become a norm for everybody. For example: status updated in Facebook, tweets in twitter, bride and groom search in dating sites and matrimony websites, buy any products and any brands online, store and write sweet memories in blogs etc.

Keeping in mind that virtual interaction over face to face contact is needed for our well-being, this paper, opposing many reasons that digitalized era can only segregate the individuals. Therefore, this paper aims to implement the ICT tools to regain the status of incite meeting in real life and create liveliness.

WHAT IS DIGITALIZED ERA?

Digital era is often distinguished by the knowledge in the society and economy. The digital era can be found as a growth in which the knowledge turnover is not only high but increasingly uncontrollable by humans. This makes the human lives more difficult to handle.

WHAT IS ICT?

Information and Communication technology is the full form of ICT. It is a broad field that includes computers, communication and other service like broadcasting media, satellite communication, telephone satellite networks and other forms of all communication modes.

PLACE MAKING

Place making is nothing but making public places a living place. This is not a new idea. The concept behind it originated in the 1960s' when Jane Jacobs and William H designed a ground - breaking idea of designing cities for people and not for cars. Their concept was centered to make public spaces and make lively neighbourhood.

The goal behind place making are to invite greater interaction among people and to

28. Impact of Motivating Factors on customers' Digital Food Delivery Ordering Preference

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Abstract

Digital food-delivery apps have changed the way people dining out experience around the globe. At a tap on the smart phone one can order from a wide variety of restaurants which extend an array of attractive food choices. The restaurants have already undergone rapid changes with regard to streamlining their order receiving and executing process due to the growing popularity and success of digital food delivery apps. In the battle to win market share and customers across board, digital food delivery apps have redefined and nurtured the innovation and entrepreneurship in India. This study investigates the impact of factors that motivate customers' preference to order through digital food delivery apps. The empirical study was carried out on a sample of 150 respondents residing in Chennai city using non-probability convenience sampling method. Multiple regression technique was used to attain the research objectives and it was found that both the motivating and inhibiting factors associated with the digital food delivery apps influence customers' ordering preference but the later found to exert negative influence.

Keywords: Digital food delivery apps, motivators, Inhibitors, ordering preference, Multiple Regression.

Introduction

India's online food ordering sector has seen a huge surge in their growth rates in terms of daily orders numbers and reportedly growing 15% on quarterly basis(Business Standard, 18 Jan, 2018). Online food ordering service is most popular day by day. The process of online food ordering is customers will order food from restaurants through website or app I t helps restaurant owners to receiving order food online. Online food ordering is the method of food delivery or takeout from a local restaurant or food cooperative through a web page or app. Much like ordering consumer goods online, many of these services allow customers to keep accounts with them in order to make frequent ordering convenient. A customer will search for a favorite restaurant, usually filtered via type of cuisine and choose from available items, and choose

25. A Study on College Teacher's Teaching Responsibility in their Services at Self-Finance Colleges in Chennai city

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S. Navin Kumar, Research Scholar, Dept. of Commerce, Guru Nanak College (Autonomous), Velachery , Chennai – 42

INTRODUCTION

"The roots of education are bitter, but a fruit is sweet."

By Aristotle[1]

Improving educational outcomes in the India is a challenging problem, one that preoccupies contemporary reformers and critics alike. With a system of schooling that has never delivered high quality education to all students, policy makers and educational leaders are calling for more complex and ambitious goals to prepare youth for the demands of the 21st century. Visions of better schooling include innovative uses of technology, a much greater emphasis on collaborative work, integrated and problem based curricula, and higher expectations for students. Too often minimized is what such changes imply for the interactive work of teaching and learning. And, given that there are almost 4 million teachers in the India, preparing teachers to meet these demands is a massive undertaking. Nonetheless, improvements in student learning depend on substantial, large-scale changes in how we prepare and support teachers.

REVIEW OF LITERATURE

Fullan (1996)[2] noted that it is easier to identify effective system changes in the top half, or policy level, of the system development of goals, curriculum frameworks, and aligned assessments than in the bottom half, or classroom level, of the system. And indeed, the policy work appears fairly complete across the states, especially with regard to the development and alignment of standards, assessments, and accountability systems. This policy work should help stimulate movement toward defined, desirable goals among school staffs and reduce conflicts among policies that direct local educators.

Wilson et. all (1996)[3] studied systemic reform in three states. They concluded that reform-related learning is best facilitated when concrete classroom examples and experiences are used to ground the conversation about practice; inquiry and reflection are components of the learning; people from different parts of the system come to the table to talk together; and all of the actors view themselves as learners. Whereas much of this work started by examining the enactment of specific reforms which has been led these researchers and others to develop a broader view of professional development as teacher learning.

Cohen & Hill (1998)[4] researchers are actively studying the connection between teacher learning and student learning. Preliminary results suggest that student performance increases when teachers have greater learning opportunities these authors said that if the reform utilizes constructivist learning theory to formulate student curriculum, for example, then the learning opportunities for teachers must also be designed around constructivist ideas. Further, these learning opportunities should be firmly grounded in developing deeper knowledge of the student

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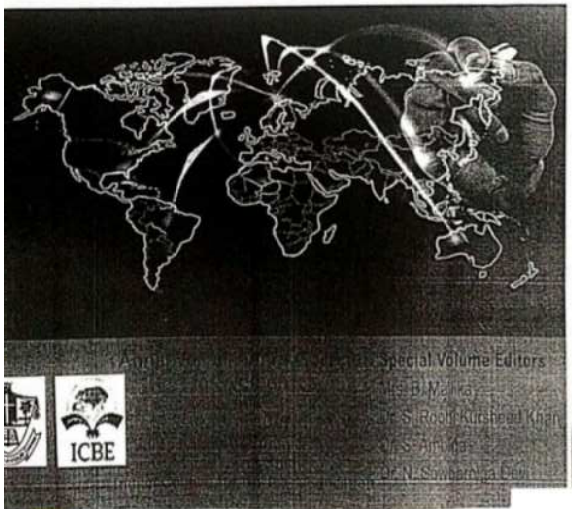

33. Role of Gender in Perception towards Social Media Marketing

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Abstract
The present empirical study is an effort to interrogate at the role of gender on perception towards social media marketing. The study was carried out on a sample of 150 respondents residing in and around Chennai city using non-probability convenience sampling method. Independent samples t- test was applied to answer research questions and it was found that the users are possessing favourable opinion towards social media marketing and the role of gender is significant as far as the same has concerned. The results also revealed the fact that male respondents hold relatively favourable perception towards social media marketing than female respondents and perceptional differences between genders is also significant.
Keywords: Social Media Marketing, Gender, Perception, t-test.

Introduction
The popularity &growth of social media networks are so well established across the globe. According to exchange4mediareports, it was observed that the Internet users have increased to 3.419 billion against the world population of 7.395 billion. Out of the total internet user base, 2.307 billion are active social media users (exchange4media users). With 24.4 per cent of internet usage population (375 millions, the scenario in India is as bright as Globe as around 16.3 per cent are found as active on social media users(136 millions (ibid). Understanding these trends, marketers are now looking at the social media networks as a promising platforms to keep connected with the targeted audience. It is also important for companies to sense the pulse of the social media users about their marketing practices and respond to it. Hence this paper devotes its attention in analysing the perception of users towards social media marketing.

Advantages
- Social media marketing creates platform large audience to start a business through Facebook, Twitter, and Instagram with million users.
- Free to create business through social media marketing without cost for the investors to invest.
- Social media marketing encourages the consumers to share their information.
- Social media marketing helps to increases brand loyalty for the organization.
- Social media marketing uncovers valuable information to their customers.

Disadvantages
- Social media marketing receives negative feedback from their consumers.
- Social media marketing also leads to potential for embarrassment for business people when they did mistakes and it will cause huge consequences.
- Social media marketing consumes time to develop the business.

Review of Literature
Social media are interactive Web based applications where the users can generate their content, such as text posts or comments, digital photos or videos, and data through online interactions. Some of the social Media sites are Facebook, Twitter, YouTube, Instagram, Linkedin, Google+, Flickr, Reddit, VK, Tumblr, Ask.fm, meetup, myspace, Livejournal. The advantages of Social Media Marketing are it has a large audience to start a business platform through Facebook, Twitter, and Instagram with million users. Free to create business through Social Media Marketing without cost for the investors to invest, encourages the consumers to share their information, helps to increases brand loyalty for the organization, uncovers valuable information to their customers. Although social media is not free from any negative side, as it receives negative feedback from their consumers, leads to potential for embarrassment for business people when they did mistakes and it will cause huge consequences, consumes time to develop the business. Social media is an effective tool helps the consumers in buying decision making (**Bashar, Ahmad & Wasiq, 2012**). Social media marketing is a revolutionary medium so the companies to make effective strategies and execute them to win larger share of business and become the innovative firm of coming future (ibid). The same phenomenon has been revealed by **SLiva, Bhuptani, Menon & D'S Liva (2011)** as the researchers found that Social Media influence the buying behaviour of consumer and it is very important tool for marketing was (**Yadav, 2012**) **who** concluded that social websites are not just a tool to interact with the different people but also medium to reach the prospective customers. Bhakani **& Arunkar (2012)** concluded that Social media marketing advertising influence the purchase intention with the students and it is a rapidly growing factor to make strong positive relationship between purchase intention and Social media advertising. It was worth citing the observation of Enser., **Bucklin & Pauwels (2009) who** concluded that Social networking sites such as Facebook, Instagram, Twitter, MySpace etc would influence the viral marketing concept is the effective marketing strategy. Kotler, **Burton, Deans, Brown, & Armstrong (2013)** observed many small groups influenced by a person's behaviour. Those small groups are run by influential people who have followers of groups in social networking sites.

Empirical gap
Though significant number of studies carried out exploring perception of users towards social networking sites not many studies have explored the gender difference in perception towards Social media marketing in Indian context. Hence this study tries to fill in this gap by studying the effect of gender on perception towards Social media marketing.

Methodology
The current study runs on 150 respondents residing in Chennai during (June, 2017). Structured questionnaire was the instrument used for the study. First part of the questionnaire had questions on demographic profile and social networking usage. Second part contained 15 items measuring perception towards Social media marketing and the scale (based on Kevin Johnston et al., 2013) has been subjected to Cronbach alpha reliability test and the value is 0.892 which shows high internal consistency of the scale. Descriptive statistics and t-test were used to answer research objective. Data were collected form 179 respondents in Chennai by employing a non probability sampling method out of which 150 responses found complete and useful for the study.

Objectives
1. To study the perception towards social media marketing.

Analysis & Interpretation
Table 1 Descriptive statistics of gender wise perception towards social media marketing

S.No	Perception towards facebook	Gender	N	Mean	SD
P1	Social media ads are more informative than traditional ads	Males	87	3.48	1.123
		Females	63	3.16	1.319
P2	Social media ads are relatively interesting	Males	87	3.67	1.313
		Females	63	3.27	1.186
P3	Social media ads are more interactive	Males	87	3.57	1.330
		Females	63	3.23	1.383
P4	Social media ads are comparatively believable	Males	87	4.02	1.107
		Females	63	3.20	1.235
P5	Expert opinion on social media sites are trust worthy	Males	87	3.50	1.324
		Females	63	2.53	1.205
P6	I consider social media ads are disturbing one	Males	87	3.69	1.166
		Females	63	2.85	1.352
P7	Social media marketing creates awareness to the educated people about product quality	Males	87	3.57	1.141
		Females	63	3.41	1.118
P8	Social media marketing promotes business to grow larger	Males	87	3.48	1.174
		Females	63	2.74	1.143
P9	Social media marketing plays an important role between organization and consumers	Males	87	3.57	.950
		Females	63	3.41	1.079
P10	Social media marketing act as a medium to reach prospective customers	Males	87	3.57	1.234
		Females	63	3.18	1.358
P11	I feel comfortable to share my information on Social media	Males	87	3.62	1.120
		Females	63	3.55	1.287
P12	Innovative strategies adopted by organizations because of Social media marketing role	Males	87	3.33	1.224
		Females	63	3.01	1.169
P13	I feel Social media marketing only helps the educated people	Males	87	3.08	1.277
		Females	63	2.83	1.203
P14	I want to know the updates & alerts regarding brand and products in Social media networking sites	Males	87	3.25	1.306
		Females	63	3.23	1.266
P15	I feel Social media marketing deceiving the customers in quality factor	Males	87	3.43	1.300
		Females	63	3.02	1.128

From Table 1 it can be seen that overall males hold relatively favourable perception towards Social media marketing as the mean values are higher than their female counterparts.

Table 2 Independent Samples Test

Perceptional Components		Levene's Test for Equality of Variances		t-test for Equality of Means					95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Perception(Total)	Equal variances assumed	.019	.891	2.385	148	.019	5.98898	2.50843	1.01109	10.96688
	Equal variances not assumed			2.347	124.837	.021	5.98898	2.55162	.91305	11.06292

From Table 2 it can be seen that males have more favourable perception towards Social media marketing than females. The result shows that there is a significant perceptional difference between genders. It should also be noted that the equality of variance assumption has been met in all cases (refer Levene's test).

Conclusion
Social media has become more powerful and promising and the pace at which the social networking sites grow is something the global marketers are interested checking in as they wanted to make wise and viable investments in their marketing communications through social media. Hence the current study looked into the perception of users towards social media marketing and gender differences in it. The results were on the expected lines, as the respondents showed favourable perception towards social media marketing. It was found that men hold more favourable perception than women and the perceptional differences between genders found to be significant.

References:
1. Bashar, A. Ahmad, I. & Wasiq, M. (2012) Effectiveness of Social Media as A Marketing Tool: An Empirical Study. International Journal of Marketing, Financial Services & Management Research, 1(11) 88-99.
2. Bhakani, P. & Arunkar P. (2012) Effect of Social Media Advertising on purchase Intentions of Students- an Empirical Study conducted in Gwalior city. International Journal of Applied Services Marketing Perspectives, 1 (1) 73-79.
3. Dash, A. K. (2011) Use of online social net- working sites by college students and its implication for marketing: A case study in Tripura. Indian Journal of Marketing, 68-76.
4. D'Silva, B. Bhuptani, R. Menon, S. & D'Silva, S. (2011) Influence of Social Media marketing on Brand Choice Behaviour among Youth in India: An Empirical Study, presented in International Conference on Technology and Business Management, March 28-30, 756-763.

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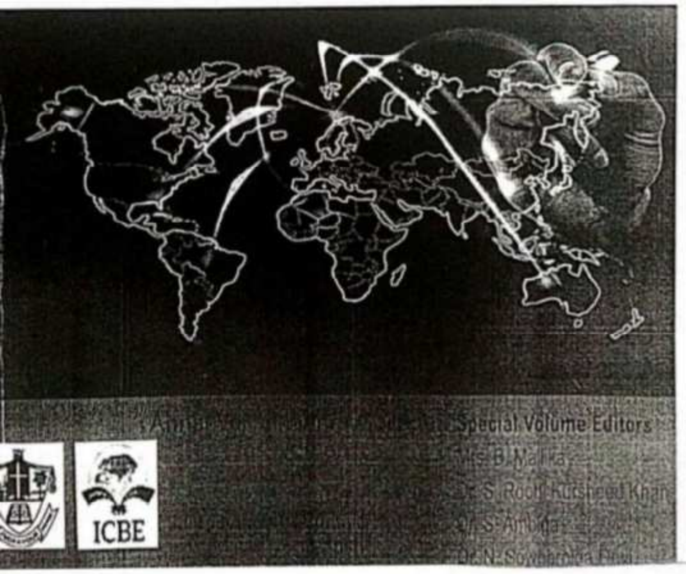

25. A study on Knowledge Management and its impact on corporate sectors

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Abstract

In this competitive world, Knowledge Management (KM) plays an important role in enhancing the organization to achieve the competitive advantage and organizational success. Hence it is necessary to view the impact of KM on the growth of the organizations, especially in corporate sectors. To our knowledge, KM practices have implemented in the majority of the sectors like banking, hotel and some corporate sectors, however, the in-depth research towards the impact of KM on corporate sectors growth is restricted. Therefore, the present study intends to represent a holistic approach via study the impact of KM practices on Indian corporate sectors through secondary data collection. Further, the study analyses the importance, components of KM and its models and application in Indian corporate sectors. From this, the study findings highlighted that how KM practices impact and enhance the organizational growth in Indian corporate sectors.

Keywords: *Knowledge Management, Knowledge discovery tools, Knowledge repositories, Knowledge capital*

Introduction

In this competitive world, Knowledge Management (KM) plays an important role in enhancing the organization to achieve the competitive advantage and organizational success. Hence it is necessary to view the impact of KM on thegrowth of the organizations, especially in corporate sectors. To our knowledge, KM practices have implemented in the majority of the sectors like banking, hotel and some corporate sectors, however, in-depth research towards the impact of KM on corporate sectors growth is restricted especially in India. Therefore, the present study intends to represent a holistic approach via study the impact of KM practices to the Indian corporate sectors through secondary data collection.

Objectives

To study the need for KM practices in corporate sectors with specific reference to India
To examine the components of KM practices in contemporary corporate sectors in India
To specify the appropriate KM models used in Indian corporate sectors
To study the impact of KM practices to the Indian corporate sectors

Need for KM

In business organization implementation of KM is influenced by certain strategy and aspects for business. Informal knowledge in a business organization requires formal approaches with diminution of staffing. Moderate time availability for gaining experience and gathering knowledge.

In an organization sometimes knowledge is damaged due to retirement of primary employees and work force flexibility. To cope up with growing difficulty small operating companies are worked as trans-national operation source. In organizations it is complex to progress with products and facilities hence it needs to be endowment with necessary information components.

Components of KM

KM in organization is characterized as explicit and tacit knowledge (Nonaka, 1991). The definition of explicit knowledge is a linguistic factor which provides communication among persons. Tacit knowledge is based on personal views, concern, standards, and acceptance.

In business organization role of knowledge is based on conventional observations, in case of tacit knowledge to generate new value by completing things with actual observed key

which is not possible with explicit knowledge. To balance and fulfill business requirement knowledge need to be affirmative with tacit or explicit method even it can be used for resolving issues in an organization (Rahimli, 2012).

KM models

KM Models	Author	Definition
SECI model	Ikujiro Nonaka & Hirotaka Takeuchi	Model for evaluating dynamic nature in knowledge creation with improved process efficiency
The Capability Maturity Model	-	Described about 5 evolutionary stage for managing process in organization
Business Intelligence Model	-	Managing data through management information system for better business decision making process
Johari Window	Joseph Luft and Harry Ingham	Provides understanding about giving and receiving information
Bridging Epistemologies	S.D.N Cook & J.S. Brown	Model defines organizational knowledge is based on knowledge of nature
Three Worlds of Knowledge	Karl Popper	Defined objective knowledge with three ontological idea domains
Pyramid to Wisdom	Russel Ackoff	Established structural and functional relation between data, knowledge and wisdom
The Knowledge Management Method	Chris Collison & Geoff Parcell	Framework is for sharing, capturing, learning and experience exploitation of knowledge
Six Knows Knowledge Model	Lundvall & Johnson	Examined mode of knowledge with What, how, why, where and when

Source: Adopted from (Dinakar, 2009)

Impact of KM practices in organizations

Basically, the KM is the method through that organisation's produce value from their knowledge-based assets and intellectual capital. Generally, the value is acquired by examining what customers, partners and employees know and passing information with other companies, in inside the departments and peers due to find better practices. In this view, there are various extensive researchers pointed out the impact of KM practices towards organizational growth in different sectors.

Recommendations

The study recommends that the company can choose an appropriate model that is suitable to their organization. Companies can take drastic steps to move their business from physical capital to knowledge capital. In order to maintain the competitive advantage, it is recommended to protect the knowledge of employees. A separate KM department may be established for discovering and maintaining knowledge to meet the organizational growth. KM can introduce some collaborative technologies for promoting the growth of organization by using Knowledge repositories.

Conclusion

From this, the study findings highlighted that how KM practices impact and enhance the organizational growth in Indian corporate sectors. KM practices provide growth to the organization but also face some challenges at the time of execution. Hence the present study gives recommendations to stakeholders in the corporate sectors in order to overcome the problems that arise from the implementation of KM practices in India.

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19 Study on Social Commerce

* K. Kanaka Durga ** Dr. M. Kavitha
*** Dr. [illegible]

Abstract:

INTRODUCTION:

ADVANTAGES OF SOCIAL COMMERCE:

Web Spoofing:

Fake websites are created to gather the confidential information of people.

Cyber Squatting:

Purchase and uses the existing domain name belong to the well known organization for the purpose of infringing trademarks.

Email Spamming:

Send or broadcast unwanted advertisement or correspondence over the internet.

Mobility matters:

Invest in apps that allow your fans and visitors to stay in touch with your facebook shop and fan page through mobile devices. The more time they spend on your business space, the higher the engagement and sales.

NEED FOR THE STUDY

The purpose of this study is to identify factors that stimulate users (sellers) of social networking platforms to engage in social commerce on those platforms. Besides the reasons mentioned above, gaining knowledge in this field will allow for improvement of social commerce functionalities such as feature sets that are specially designed for the sellers on current and upcoming social networking platforms.

PRESENT SCENARIO:

The continuity and the success of organizations appear increasingly associated with the incorporation of social media. The success depends of the structural and procedural changes that the organization has to make. Today, social media are the new digital marketing tools that help in the processes of communication.

Companies need to understand that they are no longer the exclusive owners of the relation of consumers with their products/services; instead, the survival of the organizations depends of the effective utilization of the social media. Creative and innovative solutions are not necessarily too expensive and the internet ends up being one of the best marketing tools available for the organizations.

There are few instances wherein when consumers intend to buy jewellery during that time the traditional marketing, person to person is of upper hand than the online marketing. This is the scenario when consumers want to have a high touch and feel the product. There are instances in case of buying costumes they tend to purchase through online shopping itself indicating a low touch and feel scenario.

These platforms help in effectively engaging the target audience. The posts on social media platforms, such as Facebook and Twitter, are viewed and shared by the users. Circulation of the content increases traffic to the company's website and increases the customer base.

POPULATION SURVEYED

The below data is collected with a sample size of 50 respondents for each social channels – FB, Whatsapp, Youtube, Linkedin & Blogs to identify its usage by them in different domain of social commerce – Retail, Hospitality, Health, Education & Entertainment, based on different age groups

ANALYSIS:

DATA COLLECTION & ANALYSIS

Table 1:

Role of Social Commerce in Retail

Inference:

Table 2:

Role of Social Commerce in Hospitality

Inference:

Table 3:

Role of Social Commerce in Health

Inference:

Table 4:

Role of Social Commerce in Education

Inference:

Blogs are the highest having major portion of respondents using internet frequently check with institute is best for further studies and they collect the information w respect to Education.

Linkedin as it's a professional network, lot of students gather information getting connected to lecturers, teachers, even working personnel and requesting guidance of how to build the career path. Linkedin is recommended as a good chan As students use Whats app they circulate the information to others. Facebook Youtube are having comparatively less percentage as it is entertainment sector.

Table 5:

Role of Social Commerce in Entertainment

Social Channels	No.of Respondents	% of Respondents
Facebook	50	100
Whatsapp	47	94
Youtube	49	98
Linkedin	2	4
Blogs	44	[illegible]

Inference:

When it comes to Entertainment, all the respondents first preference goes to Facebook.

It gives the latest movie updates, etc. Whats app and Youtube being the highest source of social channel for Entertainment. Respondents check the B with regards to movie review or any place to visit. Linkedin is used by emp sector only couple of respondents have mentioned that its an entertainment them in gathering information from others about the updates with respect to profession.

There is an association between Health, Facebook, Whatsapp & Blogs and not with Youtube, Linkedin reason being Youtube is an entertainment domain and Linkedin is a professional network.

There is an association between Education, Blogs, Linkedin as students search for more information about it on web and also from Linkedin even for higher studies abroad, and whatsapp to gather info from their colleagues or friends. The respondents don't prefer much with Facebook & Youtube for this domain.

There is a very strong bondage between Facebook and entertainment domain as all of the respondents mentioned that it was their first preference, then comes youtube which gives the complete info about the upcoming movies and blogs for its review, followed up with whatsapp. There is no association with Linkedin as its completely not relevant to this sector.

REFERENCES:

1. Rajendra Nagarkar 3rd Edition (2017). Marketing Research
2. Hooda, S., & Aggarwal, S. (2012). Consumer behaviour towards e-marketing: A study of Jaipur consumers. Researchers World Journal of Arts, Science & Commerce
3. Ioanăs, E., & Stoica, I. (2014). Social media and its impact on consumers' behavior. International Journal of Economic Practices and Theories.
4. Jayawardhena, C., Wright, L. T., & Dennis, C. (2007). Consumers online: Intentions, orientations and segmentation. International Journal of Retailing and Distribution Management.
5. Dhar, U. (2008). New age marketing: Emerging realities. New Delhi : Excel Books.
6. Koundinya, C. (2017). Online shopping behavior: Demographics' influence on online travel. Indian Journal of Marketing
7. Singh, A., Panackal, N., Bommireddipalli, R. T., & Sharma, A. (2016). Understanding youngsters' buying behavior in E-retail: A conceptual framework. Indian Journal of Marketing
8. P. Marsden, P. Chaney, The social commerce handbook: 20 secrets for turning social media into social sales, McGraw-Hill
9. Z. Huang, M. Benyoucef, From e-commerce to social commerce: A close look at design features, Electronic Commerce Research and Applications

31. A STUDY ON THE EMERGING TRENDS IN DIGITAL - LEARNING AND ITS IMPACT ON PERFORMANCE OF HIGHER EDUCATION STUDENTS IN CHENNAI CITY

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ABSTRACT

In global scenario, the education system has gone through a drastic change. This change is evident from the complete revolution in the teaching and learning methods, brought about by technology. We are living in a digital age, where there is a shift from printed text-books to digital tools for learning. The term, ***Digital learning*** is electronic learning (e-learning), supported by technological gadgets like computers, laptops, iPads and smart phones. It includes learning via digitalized class-rooms (or) e-books (or) internet-based learning using Apps, podcasts, videos, interactive softwares, etc. Thus, digital learning has made learning, fun and interesting with innovative audio-video features. The purpose of the present research paper is to explore the emerging trends in digital learning in Indian scenario. The study also aims at studying the impact of digital learning on the academic performance of students, with special reference to Chennai city.

1.1 INTRODUCTION

Technological advancement being enjoyed in each sector of the country, education industry is no behind. The role of technology in education is becoming crucial in preparing students for the job market. Digital learning is any type of learning that is facilitated by technology or by instructional practice that makes effective use of technology. Digital learning occurs across all learning areas and domains. It encompasses the application of a wide spectrum of practices including: blended and virtual learning." Wikipedia

Digital learning in India is evolving at faster pace. It is changing the way students learn different concepts and theory. Digital solutions prove to be an effective platform for achieving improved learning and its advantages are as follows-

(i) In digital learning, there is no physical restriction and the learner can attend the sessions anytime, anywhere according to the comfort.

(ii) It extends the learning opportunities, i.e., access to any online courses, many world languages, advanced studies and lectures by the best professors are available for free to anyone with a broadband connection.

(iii) Digital learning ensures more engaging experience as compared to traditional learning, as it provides personalized learning.

(iv) E-learning is definitely a cost effective way of learning, because of the reduced cost. This is because, text-books are usually acquired by paying exorbitant amount of money and which becomes obsolete after a certain period of time.

(v) Professionals are constantly looking to upgrade their skills and build competencies in the latest technologies and domains. Digital learning offers them to have more access to relevant and regularly updated content.

1.2 OBJECTIVES OF THE STUDY

The following are the main objectives of the study,

- To discuss on the upcoming trends in digital learning in India.
- To study the general perception of higher education students in Chennai, regarding digital learning and its impact on their academic performance.

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STUDY OF ADEQUACY OF INDIA'S FORIEGN RESERVES UNDER CRISIS SCENARIOS

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ABSTRACT

Demonetization, Lehman type scenarios and extreme stress scenarios like war severely test the economy and country's ability to provide liquidity buffers, tide over external shocks and avoid disruptive output adjustments. According to International Monetary Fund, emerging markets with adequate reserve holdings ahead of the global financial crisis in general suffered smaller output and consumption declines. It thus becomes imperative to study the adequacy of India's foreign exchange reserve. Foreign exchange reserves include foreign currency assets, reserve tranche positions and special drawing rights (SDRs) of the International Monetary Fund. This paper derives the optimum reserves needed for Lehman / Demonetization scenarios and extreme stress scenarios using modified Jeanne and Ranciere model. Based on the values of derived optimum reserves, it is determined that the reserves are adequate for India under extreme stress situation.

Key Words: Demonetization, Reserve adequacy, Jeanne and Ranciere model

I. Introduction

Sudden stress to economy due to internal factors like demonetization or external factors emanating from outside country – like Lehman type crisis has direct impact on India's ability to provide liquidity buffers, smoothen external shocks and potentially avoid disruptive output adjustments. According to International Monetary Fund, emerging markets with adequate reserve

TRUST IN FINANCIAL MOBILE APPS – A PARTIAL LEAST SQUARE REGRESSION APPROACH

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VELACHERY

ABSTRACT

After demonetisation, Government of India and private companies are trying to encourage cashless transactions through financial mobile apps. The major financial mobile apps include BHIM promoted by National Payments Corporation of India, PhonePe promoted by Flipkart & Yes Bank and Paytm promoted by One97 Communications Ltd & Alibaba Group Holdings Ltd. One of the key aspects of financial transaction through a mobile app is trust. Without trust, the consumer will not transact through his mobile. This research paper uses Partial Least Square method to understand the variables that form the basis of trust in financial mobile apps. The responses from 100 users of BHIM, PhonePe and Paytm are analysed. The moderator variables and indirect variables that encourage trust in financial mobile apps are studied. The research will help in identifying variables which should be strengthened by the companies to improve trust in their mobile apps and will help in creating targeted promotions and marketing of their financial mobile apps.

KEYWORDS
partial least square, trust in financial mobile apps, cashless economy.

I. INTRODUCTION

Government of India's push towards digital transactions after demonitisation has led to flooding of financial mobile apps of banks and private corporations in the app stores. Among the panoply of financial mobile apps, few apps standout due to their high downloads. Based on downloaded data, the major financial mobile apps include BHIM promoted by National Payments Corporation of India, Paytm promoted by One97 Communications Ltd & Alibaba Group Holdings Ltd, and PhonePe promoted by Flipkart Online Services Pvt. Ltd & Yes Bank Ltd. One of the key aspects of financial transaction through a mobile app is trust. Without trust, the consumer will not transact through his mobile. This research paper uses Partial Least Square method to understand the variables that form the basis of trust in financial mobile apps. The research helps in identifying variables which should be tweaked by the companies to improve trust in their mobile apps.

II. SCOPE OF STUDY

This study is confined to three major financial apps - BHIM, PhonePe and Paytm. The focus of the study is identifying variables which should be strengthened by the companies to improve trust in their mobile apps as trust is one of the major factor which leads to unfettered use of apps for transactions. The respondent profile is middle and upper middle class so the scope of the study is limited to this profile. The study results can be extrapolated to other financial products and apps in India after further research in the field.

III. OBJECTIVES OF THE STUDY

Following are the objectives of the study:
1. To ascertain the variables responsible for Trust in mobile apps
2. To establish the relationship between trust variables and over all trust.
3. To rank variables which lead to trust in financial transaction mobile apps.

IV. SAMPLE AND SAMPLING METHOD

Convenient Sampling was used to select three Malls from Chennai. Random sampling was used to select 150 customers who used financial mobile apps. The responses were gathered using structured questionnaire. Respondents who had more than one financial mobile apps were asked to name the frequently used app. The most frequently used financial app was considered as the default app for respondents with multi-apps.

From the 150 questionnaires, 10 questionnaires were rejected. The usable data was 140. From these 140 questionnaires, 100 questionnaires were randomly selected for this study.

TABLE 1: RESPONDENTS PROFILE

Malls	Respondents
Express Avenue	45
Skywalk Ampa	34
Chennai Citi Center	21
Total	**100**

Table 1 shows the respondents profile. Maximum respondents were from Express Avenue mall

V. MEASURE AND PROCEDURE

Literature review shows no standard scale for measuring trust in financial mobile apps hence factor analysis was used to par down variables of trust. Based on factor analysis, the trust variables were divided into three groups – App Origin, App Behaviour and App Support. The variables which formed the basis of study of trust in mobile apps are listed below:

App Origin:
a) Perceived as Government app as Government officials promote it
b) App from a known Bank / large company
c) App used and recommended by User's social circle

App Behaviour:
a) Smooth User Interface
b) No crashes during transactions

App Support:
a) Prompt reversal of mistaken payments
b) Quick resolution of complaints

SUPER EFFICIENCY ANALYSIS OF CO-OPERATIVE SUGAR MILLS IN TAMILNADU

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ABSTRACT

Data Envelopment Analysis (DEA) is used to examine the Super efficiencies and relative technical efficiency of 15 Co-operative Sugar mills in Tamilnadu using Charnes, Cooper & Rhodes (CCR) model and Banker, Charnes and Cooper (BCC) model. Based on the analysis, the efficient sugar mills are found. For inefficient sugar mills, the degree to which each inputs needs to be reduced for optimum output is derived using Benchmarking. Super efficiency analysis indicates that Kallakurichi-II sugar mill dominates the sugar mills under study with a super-efficiency score equal to 1.5471. Cheyyar, Dharmapuri, Subramania Siva and Kallakurichi-I sugar mills occupy second, third, fourth and fifth place respectively.

KEYWORDS

Tamilnadu co-operative sugar mills, super efficiency, data envelopment analysis.

1. INTRODUCTION

Sugar mills across India face multitude of problems ranging from seasonal raw input, fluctuations in sugar price, old and inefficient machinery, increasing labour cost, huge borrowings with heavy interest and underutilisation of capacity. These problems are especially more notable in co-operative sugar mills in Tamilnadu. This research was carried out to understand the efficiency of 15 co-operative sugar mills, and to ferret out the Super-Efficient co-operative Sugar Mills. These super-efficient sugar mills will form the benchmark for less efficient Sugar Mills and help the co-operative sugar mills as a group to become more efficient and profitable.

2. LITERATURE REVIEW

Many researchers have contributed to the technical analysis of Sugar Mills though none have carried out Super Efficiency analysis of co-operative sugar mills in Tamilnadu. Singh S. P. (2006) applied data envelopment analysis in his paper to estimate the relative efficiencies of sugar mills of Uttar Pradesh. Benni Basavaraj (2007) conducted a study on “Interstate sugar factory efficiency: A Comparative analysis”. The study compared the average efficiency ranks of the various sugar producing states on the basis of their respective average technical efficiency scores. Mishra and Tripathi (2013) evaluated the operational efficiency of selected sugar mills in Maharashtra using data envelopment analysis. The results revealed that generally there was inefficiency in the operation of the mills. Kumar Krishna (2002) in his research took the issues about comparative behavior of the public sector enterprises and the private sector enterprises into consideration. His study revealed that overall performance of the state corporation mills is better than that of cooperative sugar mills and the private mills. Khanna Gauri (2006) employed the stochastic production frontier to estimate technical efficiency at the farm level. The study results indicate the presence of technical inefficiency. It captures 51% to 55% of the differential between observed and best practice output. Singh N.P. et al. (2007) assessed the performance of sugar mills in India in terms of technical efficiency. The stochastic frontier production function was applied by them to assess sector wise efficiency scores of the Uttar Pradesh sugar mills. The study revealed that there were a majority of mills working in the efficiency range of 60-80 %.

3. METHODOLOGY

Sample and Sampling Method

No sampling was done. All co-operative sugar mills in Tamilnadu was taken on record. Data on all fifteen co-operative sugar mills in Tamilnadu was collated from annual reports and from Tamil Nadu Co-operative Sugar Federation. The mills studied are Ambur, Amaravathi, Salem, Kallakurichi-I, National, Dharmapuri, Tirupattur, Vellore, Chengalrayan, Tiruttani, N.P.K.R.R., M.R.K., Cheyyar, Subramania Siva and Kallakurichi-II sugar mills. The input and output data for efficiencies and super efficiency analysis are given below:

- The inputs are Cane Purchase cost, Transport Cost, Material Cost, Conversion Cost, Total Interest, Over Heads and Salary &Wage expense. All values are average over the study period of 2005-06 to 2014-15 and are in lakhs of Indian rupees.
- The Output is average Total Sugar Sales in Lakhs of Indian Rupees.

Period of study

10 year data from 2005-2006 to 2014-2015 was used for the analysis.

Procedure

Data Envelopment Analysis (DEA) was used to calculate the relative efficiencies and Super Efficiencies of the Co-Operative Sugar Mills. DEA is a linear programming methodology for evaluating the relative technical efficiency for each member of a set of peer decision making units (DMUs) with multiple inputs and multiple outputs. It has been widely used to measure performance in many areas. Technical efficiency refers to the degree of the industry technology level that the production process of a production unit reaches. Technical efficiency can be measured from two aspects - input and output. In the case of the given input, the technical efficiency is measured by the degree of output maximization. Under the condition of the given output, the technical efficiency is measured by the degree of input minimization. When there are more than one inputs or outputs, the weight coefficient reflecting the relative importance between inputs and outputs has to be calculated. One method is to adopt the fixed weight, for example, determining the weight of each input and output through subjective forms such as expert consultation or discussion. Another approach is to get the weight of input and output by the data itself, which is the method used by data envelopment analysis (DEA).

There are two major methods to calculate the technical efficiency based on inputs.

Input-oriented CCR Model: Charnes, Cooper and Rhodes derived this model hence it is named CCR model. In the CCR model, the returns to scale is assumed constant. It is called ‘Constant Return to Scale’ (CRS). It indicates that there is constant ratio between inputs and outputs. Increasing the inputs leads to an equivalent increase in the output. The technical efficiency derived from CCR Model includes the component of scale efficiency, which therefore is also referred to as the Comprehensive Technical Efficiency or Over All Technical Efficiency (OTE)

Input-oriented BCC Model: Banker, Charnes and Cooper jointly developed this model. The BCC model is based on the Variable Returns to Scale (VRS) and the technical efficiency obtained eliminates the effect of scale, so it is called “Pure Technical Efficiency” (PTE). This is the more suitable model for real production as most producing units are not in a state of optimal scale of production.

Based on above two models, Scale efficiency can be derived.

Scale Efficiency: This shows if the production unit (Sugar mills) are of right size to use the inputs for optimum output. The CCR model gives the efficiency value which is not a pure technical efficiency, but contains the component of scale efficiency. The BCC model gives just the technical efficiency which is also referred to as “pure technical efficiency”. Based on these two, the scale efficiency value can be separated by using the formula SE = OTE/PTE.

146. A STUDY ON QUALITY WORK LIFE AMONG EMPLOYEES IN ASHOK LEYLAND LIMITED CHENNAI CITY

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I.INTRODUCTION:

The research has uncovered important predictors of quality of work life (QWL), yet it has been absent present and has not been fully explored. To date, much of the empirical research on QWL has implicitly, if not explicitly, adopted a contemporary view of job satisfaction, stress, labour relations and aboard based view of occupation. Past scholars have offered a variety of definitions and suggestions of what constitutes QWL. For instance, QWL is a philosophy, a set of principles, which hold that people are the most important resource in the organization as they are trust worthy, responsible of making valuable contribution and they should be treated with dignity and respect. The elements they are relevant to an individual's quality of work life include the task, the physical work environment, social environment within the Organization, administrative system and relationship between life on and off the job.QWL consists of opportunities for active involvement in group working arrangements or problem solving that are of mutual benefit to employees are employer, based on labour-management Cooperation. People also conceive of QWL as a set of methods, such as autonomous work groups, job enrichment and high-involvement aimed at boosting the satisfaction and productivity of workers. It requires employee commitment can flourish. Thus, QWL is a comprehensive construct that includes an individual's job related well-being and the extent to which work experiences are rewarding, fulfilling and devoid of stress and other negative personal consequences.Accordingly, the rising number of two-income is heightening the concern for employees' Quality of work life. Given that female participation at work is increasing, it is apparent that males and Females independently will need to take care of both work and home. Therefore, quality of work Experience rather than per became the focus of attention and workspace wellness is crucial in promoting Healthier working environments.

II. REVIEW OF RELATED LITERATURE

According to **Herriot (1990),** recognizes that sometimes there is a conflict between Personal life and work and differences in perceptions "success" in life. The perception of career includes Beliefs and values, expectations and aspirations. According to **winter (1992),** viewed QWL for

EFFECTIVENESS OF PORTER'S DIAMOND MODEL FORENHANCING COMPETITIVENESSIN AUTOMOBILE INDUSTRY

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Abstract

Automobile industry is one of the key drivers to a growing economy and plays a pivotal role in country's rapid economic and industrial development. Indian Automobile is finding increasing recognition worldwide and a beginning has been made in exports of vehicles as well as components. However, on a global level, the India's share of automobile production is almost negligible. An economical model developed by Michael Porter in his book The Competitive Advantage of Nations, where he published his theory of why particular industries become competitive in particular locations. Porter (1990) concluded that due to various national characteristics, nations cannot succeed in all industries, and thus it is important to identify and develop their internationally competitive industries. He proposed the diamond model with four major (and two additional) determinants of competitive advantage in a particular industry. Porter's diamond model provides an analytical framework with multi measurements for national or industry competitiveness. According to Porter (1990) nations are most likely to succeed in industries or industry segments where the diamond factors are mostly favourable. In present study analysis of competitive advantage of India for global competitiveness is completed on the basis of Porter's suggested determinant of competitiveness of Nation's and Global competitiveness Report 2016-2017 which is published by World Economic Forum, Geneva, Switzerland. In analysis process government circulars and report, private research report used as a secondary source of data.

Keywords: Competitiveness, Roadblocks, Automobile Industry, Porter's Diamond Model.

Introduction

The Global Competitiveness Report 2016-2017 (World Economic Forum) defines competitiveness as "the set of institutions, policies, and factors that determine the level of productivity of a country".A nation's prosperity depends on its competitiveness, which is based on the productivity with which it produces goods and services. Sound macroeconomic policies and stable political and regularity of institutions are necessary but not sufficient conditions to ensure a prosperous economy. Competitiveness is rooted in a nation's microeconomic fundamentals-the sophistication of company operations and strategies and the quality of the microeconomic business environment in which companies compete. An understanding of the microeconomic foundations of competitiveness is fundamental to national economic policy (Porter, 1990) .World Economic Forum considered the determinant for the competitiveness of nation on basis of twelve pillars of competitiveness. These pillars are institutions, infrastructure, microeconomic environment, health and primary education, higher education and training, goods market efficiency, labour market efficiency, financial market development, technological readiness, market size, business sophistication, innovation etc.

Impact of Globalisation on Developing Countries (With Special Reference to India)

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INTRODUCTION:

Globalisation has many meanings depends upon the context and the person who is talking about. Though the precise definition of globalisation is still unavailable a few definitions are worth. Guy Brainbant says that the process of globalisation not only includes opening up of world trade, development of advanced means of communication, internationalisation of financial markets, growing importance of MNCs, population migration and more generally increased mobility of persons, goods, capital, data and ideas but also infections, diseases and pollution. The term globalisation refers to the integration of the economies of the world through uninhibited trade and financial flows, as also through mutual exchange of technology and knowledge. Ideally it also contains free inter-country movement of labour. In context to India, this implies opening up the economy to foreign direct investment by providing facilities to foreign companies to invest in different fields of economic activity in India, removing constraints and obstacles to the entry of MNCs in India, allowing Indian companies to enter in to foreign collaborations and also encouraging them to set up joint ventures abroad, carrying out massive import liberalisation programs by switching over from quantitative restrictions to tariffs and import duties, therefore globalization has been identified with the policy reforms of 1991 in India.

IMPORTANT REFORM MEASURES

Indian economy was deep in crisis in July 1991, when foreign currency reserves had plummeted to almost $1billion, Inflation had roared to an annual rate of 17 percent, fiscal deficit was very high and had become unsustainable, foreign investors and NRIs had lost confidence in Indian economy. Capital was flying out of the country and we were close to defaulting on loans. Along with these bottlenecks at home, many unforeseeable changes swept the economies of nations in Western and Eastern Europe, South East Asia, Latin America and elsewhere around the same time. These were the economic compulsions at home and abroad that called for a complete overhauling of our economic policies and programmes. Major measures initiated as a part of the liberalisation and globalisation strategy in the early nineties included the following:

- Devaluation: The first step towards globalisation was taken with the announcement of the devaluation of Indian currency by 18 – 19 percent against major currencies in the international foreign exchange market.
- Disinvestment: In order to make the process of globalisation smooth, privatisation and liberalisation policies are moving along as well. Under the privatisation scheme, most of the public sector undertakings are being sold to private sector.
- Dismantling of the Industrial Licensing Regime: At present, only six industries are under compulsory licensing mainly on accounting of environmental safety considerations. A significantly amended locational policy in tune with the liberalised licensing policy is in place. No industrial approval is required from the government for locations not falling within 25 kilometres of the periphery of cities having a population of more than one million.
- Allowing Foreign Direct Investment(FDI): Some of the recent initiatives taken to further liberalise the FDI regime, inter alias, include opening up of sectors such as insurance (up to 26%), development of integrated townships (up to 100%), defence Industry (up to 26%) , tea plantation (up to 100% subject to disinvestment of 26% within five years to FDI), enhancement of FDI limits in private sector banking, allowing FDI up to 100% under the automatic route for most manufacturing activities in SEZs, opening up B2B e-commerce, Internet Service Providers(ISPs) without Gateways, electronic mail and voice mail to 100% foreign investment subject to 26% disinvestment condition, etc. The Department has also strengthened in investment facilitation measures through Foreign Investment Implementation Authority (FIIA).

Caste based Discrimination and its Repercussion on Income Gap: An Empirical Evidences from Two Districts of Tamil Nadu

S. Ulaganathan

INTRODUCTION

Exclusion on the basis of race, religion and ethnicity exists in many nations under diverse social, economic, and political systems. In the Indian context, social exclusion revolves around institutions that discriminate, isolate, shame, and deprive subordinate groups on the basis of identities like caste, religion and gender. The division of Indian society into various castes, together with the practice of untouchability, and the geographic isolation of some tribal communities, has meant that these communities have lagged behind others in terms of educational and occupational attainment, political participation and opportunities for social mobility. Social exclusion can be defined as, a person is said to be socially excluded if he is unable to "*participate in the basic economic and social activities of the society where he lives*." In the European Commission's Programme of specification for "*targeted socio-economic research*," Social exclusion is described as "*disintegration and fragmentation of social relations and hence a loss of social cohesion. For individuals in particular groups, social exclusion represents a progressive process of marginalization leading to economic deprivation and various forms of social and cultural disadvantage*[1]." In India, there is diversity in terms of caste which forms the major axis of social stratification. The two groups that are lowest in Indian social hierarchy are the Scheduled Castes (SCs) and Scheduled Tribes (STs), followed by those castes which are categorized as Other Backward Classes (OBCs). The lower castes have suffered severe exclusion from participating fully in having access to public resources like water bodies, public grounds, public roads, temples and institutions delivering services like education and health care[2]. Social exclusion is common in Indian villages and it translates into active discrimination in matters of access to land, education, business ownership, occupation and earnings. These processes have led to unequal access to productive resources.

The present study focuses on income gap by social groups in rural area as most of the vulnerable groups in Tamil Nadu live in rural areas. Tamil Nadu has been one of the Indian states with the most progressive socio - economic development. The improvement in socio-economic development would result in long and healthy life, better access to the resources

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A Study on Internal Migration in India with Reference to Construction Workers in Chennai City

J. Sivashankar and A. Abdul Jamal

INTRODUCTION

The migration of labour in the world is not a new phenomenon; it had started in an ancient period and is continuing. With the advance of industrial revolution in Europe, in the 18th and 19th centuries, a new class of factory workers had emerged in the world economy. Capital and labour were main factors of production in the production process of industrial revolution. So the 18th and 19th century were the main colonial period for migrant labour in India as well as the other western countries. The migration labour started moving from one place to another place for the purpose of seeking job. These labourers were placed in unorganized sectors like construction, brick kilns, road, railways, plantation, agriculture, canal work, etc. But these work was not permanent for them, so they were changing the work place frequently from one place to another place, they don't have any particular job and place to live. So these labour as called *migration labour*. The living and working condition of the labour is very pathetic. Among these migration labour some of them bonded labour. These migration labour were deprived from social, economic, cultural and political rights. The employment right, which incorporates the right to equality treatment with states in respect of work and employment condition and right to access of employment, trade union rights, social security rights, the right to health, which covers right to healthcare and occupational health and safety; the right to housing, including private ownership of property, the right to family reunion; and the right to education, which comprises both the education of migrant children and workers' education, such as vocational training and language instruction. The cultural rights of migrant worker and their family embrace the right to retain and develop their culture and language as well as right of the children of migrant to be taught their culture and language or to be educated in their language. The political rights of migrant encompass a right to political activity and general right to participate in the decision making process concerning their interests, including right to vote and stand as a candidate in local election. The study also considers the residence rights of migrants, broadly defined as: right to remain in the host state while in work and sometime after termination of employment; right to permanent and naturalization; and protection against arbitrary or unfair expulsion. Clearly, resident rights are integral to the enjoyment of other enumerated rights. The main

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AN ASSESSMENT OF FOREIGN DIRECT INVESTMENT IN RETAIL INDUSTRY

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ABSTRACT

Foreign Direct Investment in retail is always a controversial question. Some say it benefits the country while others say it destroys small retailers. All over the world People are concerned with Globalization which is moving at a fast rate and creating a widening barrier between the rich and the poor. This particular sector is extremely sensitive since it is dealing with essential commodities which the common man use. Large MNCs are known to adopt predatory pricing which can wipe out large number of kirana stores. The contention that FDI will create jobs is also open to question, as it is more likely to create large-scale unemployment. The unorganised retail trade in India accounts for over 40 million jobs and 98 per cent of the total trade.The majority of consumers, who buy essentials from their neighbourhood stores on credit and pay bills on a monthly basis, will also suffer with the disruption of the traditional system. Hundreds of thousands of people who earn their livelihood from the 12 million existing retail outlets may be put out of business by Big Retail. Some may find employment with Big Retail although this is doubtful given their lack of language skills or education -- the minimum requirement for staff at any sizeable store is a command of English. Even if they did, there would not be enough jobs to go around.

KEYWORDS:

FDI, Retail Industry, Kirana Shops, Single Brand & Multi Brand

1.1 INTRODUCTION:

The term 'retail' means a sale for final consumption in contrast to a sale for further sale or processing (i.e. wholesale). Thus, retailing can be said to be the interface between the producer and the individual consumer buying for personal consumption. This excludes direct interface between the manufacturer and institutional buyers such as the government and other bulk customers. Retailing is the last link that connects the individual consumer with the manufacturing and distribution chain.A

REPRESENTATION OF THE MINORITY COMMUNITY IN WILLIAM SHAKESPEARE'S THE MERCHANT OF VENICE

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Abstract

Cultural and racial discrimination stems where there is no room for tolerance between people with marked differences. People are unable to appreciate the apparent differences in culture, race or religious faith. For instance, in the book "The Kite runner", the Pashtun tribe discriminate the Hazara tribe despite inhabiting the same country and following the same customs and traditions. There are various factors for this kind of discrimination. The may be due to power, ambition, skin color and even the ideology of superiority. This paper seeks to explore the representation of the minority community in William Shakespeare's play 'The Merchant of Venice'.

Introduction

The Merchant of Venice is a comedy by William Shakespeare. The crux of the play focuses on the racial discrimination prevalent in it. The whole paraphernalia of human emotions like love, affection, hatred and jealousy are shrouded in racial overtones. The actions of every character in the play have some relevance to either celebrating their native majorculture or putting down the other minor culture. The encounter between people of different cultures happened in various ways. The earliest expedition to travel around the world was prompted by man's natural curiosity in unravelling the mysteries of the world. Conquering land was also one common reason.World travel, migration from one country to another, pilgrimage, etc. are some other reasons. All these led to the meeting of people of different cultures, religions and languages. Sometimes, this meeting established a pathway towards combined progress or it kindled hostility between people. It resulted in people settling in a community consisting of a conglomerate of different people. The differences in this kind of a community could spark mutual dislike in some cases. In 'The Merchant of Venice', the Venetian community introduces the cohabiting of a majority of Christians and a minority of Jews.

The Merchant of Venice

The Merchant of Venice was published in the year 1600. The play revolves around the Christian merchant Antonio who borrows money from the Jewish moneylender Shylock to help his friend Bassanio to court the pretty and rich maiden of Belmont named Portia. He signs a bond that allows Shylock to cut a pound of flesh from any part of his body if he fails to pay the money. Antonio is not able to pay the money and is taken to court by Shylock. Bassanio marries Portia and rushes back to court to save Antonio. Portia in the guise of a lawyer defends Antonio and saves him. Shylock is punished by not only forfeiting his wealth but also a forced conversion from one religion to another.

Jews and Their History

Shylock is a Jew. The Jews are both a religious and ethnic minority. The Jews were forced to flee their own nation and seek refuge in other countries of the world. The persecution of Jews resulted in them settling in various parts of the world. They became a minority community constantly ill-treated, discriminated and insulted wherever they were.

Storytelling and Folk Tales in the ESL Classroom

Interview with *Regina Ress* - Author Storyteller and Actor

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Would you be surprised to hear that storytelling is one of the oldest and purest art forms in the history of humankind? In all probability, you may not! If you would, that indeed would be a surprise!

Storytelling represents the most direct communication one can think of between a teller and a listener, or a whole audience! There is the ever enchanting story, the engaging teller, the almost mesmerized audience and the interplay between them. Would you ever forget the kind of stories your grandma glued you to and before you knew, the bowl of spinach you hated to eat had disapperaed into your mouth! Storytelling does entertain, challenge, teach and, indeed, transform.

And... as you would vouchsafe for, storytelling (and of course *storylistening*) is lots of fun!

Storytelling and English Language Learners

Based in the oral tradition, storytelling is uniquely suited for the language classroom. Language acquisition begins with listening and speaking. Story, too, begins orally/ aurally. Traditional storytelling often has repetition and rhythm, along with audience participation such as "call and response" and predictions. Storytelling enhances the practice of the "four skills," teaches vocabulary, functions and grammar while encouraging cross cultural awareness and personal expression. Reading and writing, brought in as extensions, can then lead back to more storytelling.

Storytelling has long been recognized as an effective medium for teaching/learning ESL (English as a Second Language). A story workshop focuses on telling stories and weaving creative, communicative classroom activities with them. Folktales, the content of storytelling, could be ably used to support the practice of the LSRW (Listening, Speaking, Reading and Writing) skills; teach vocabulary, functions and grammar, while encouraging cross-cultural awareness and personal expression. Let the goal be teaching a subject or finding ways to relate to and engage the children, we may well explore educational and enjoyable activities using story and storytelling.

It is in this wonderful world of storytelling that **Regina Ress** (Regina), the protaganist of this piece of writing, lives. She has led workshops at The NY Open Center, Omega Institute, The National Storytelling

RESEARCH DIRECTIONS

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A STUDY ON HETEROGENEITY CHARACTERISTIC OF SERVICES IN THE PERSPECTIVE OF POSITIONING EMPLOYEE SERVICES DELIVERY AS A KEY STRATEGY WITH REFERENCE TO HOSPITALITY INDUSTRY

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ABSTRACT: -

Heterogeneity is one of the key unique characteristics of services, where person to person service delivery will be differing. Service delivery of an employee is varying in different situations. The same person who is active in the morning gradually loses his concentration, attitude & behavior, efficiency, as the day proceeds. As a result the employees are not delivering to their fullest capabilities in all the situations. In this research paper, key psychological and Sociology factors of hospitality industry employees are analyzed in the perspective of how these factors (Psychology & Sociology) influences their service deliveries. In a customer centric market, especially in hospitality industry, where the services provider and consumer cannot be separated, this situation to situation delivery variableness among the employees will affect the organizational growth, profits and the brand equity. If a Star Hotel is able to overcome this problem, they can position their employee services delivery as one of the key differentiators among their rivals.

KEY NOTES: *Heterogeneity, Services, Hospitality, Psychological, Sociology, Positioning, Star Hotel, Situation.*

I. INTRODUCTION

The Psychological and social attributes are the key factors for an employee services delivery in hospitality industry. The psychic of an individual plays a vital role in influencing the attitude and behavior of an employee, which eventually leads to the services delivery success.

The Psychological factors of an employee which influences the heterogeneity characteristics among them in hospitality industry: Perception, Job satisfaction, Motivation, Learning, Personality, Attitude, Emotions, Work design, Training, Leadership effectiveness, Work Stress

The Sociology factors of an employee which influences the heterogeneity characteristics among them in hospitality industry: Group Dynamics, Work Teams, Communication, Power, Conflict, Intergroup Behavior.

As an individual's personality is influenced by heredity, environment and situation, the organization cannot change the heredity and environmental factors (early conditioning, culture and family in which the employees have been raised), as it is deeply rooted among them, so the organization has to play the game only with situation to keep the employee motivated for their effective performance.

The Situation which an employee encountering in services industry, with special reference to Hospitality industry is differed with manufacturing industry, In the case of hospitality industry the services delivery is a live performance of

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A STUDY ON SALES PROMOTIONAL ACTIVITIES OF HOSPITALITY INDUSTRY WITH SPECIAL REFERENCE TO CHENNAI MARKET

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ABSTRACT: -

This paper explores the promotional activities of Hospitality Industry particularly with reference towards Chennai market. Chennai is a place where a group of Business and leisure tourists arrive daily, hence it has been selected as a sample area. The need for sales promotion activities is vast and varied. A Hotel may offer high quality services at a reasonable price with attractive package, but still it may not attract the customers. Hotels might have spent a lot on advertising and have good sales force. Still the product may not sell by itself. Here lies the importance of sales promotion. This article focuses on promotional activities of the hotels in Chennai and the facts they are lacking.

KEY NOTES: *Sales promotion, Promotional activities, Hospitality, customers, promotional schemes and measures*

INTRODUCTION

According to American marketing association(1960), sales promotion were those marketing activities, other than personal selling, advertising, and publicity, that stimulate consumer purchasing and dealer effectiveness, such as displays, shows and exhibitions, demonstrations, and various nonrecurring selling efforts not in the ordinary routine.

Sales promotion makes use of direct mail, catalogues, house organs, trade shows, sales contests and other dealer aids. Its purpose is to increase the desire of salesman, distributors, and dealers to sell a certain brand and to make customers more eager to buy that brand. (Albert Frey; 1998).

Sales promotion is also referred to as direct inducement. This means that it accomplishes certain specific marketing objectives by motivating and stimulating sales organizations, distributors and dealers, and consumers.

An analysis of advertising age data (Bowman 1974) suggested that sales promotion expenditures increased at an average rate of 9.5 percent per annum between 1964 and1974.this growth rates was almost twice that of advertising. This is a complete reversal of the conclusions of a 1958 study that estimated total advertising expenditures to be four times those for sales promotion (Spratten, 1962).

The change has also involved service industries, including banks, insurance companies, fast-food restaurants and the airlines. The underlying causes for this growth have been discussed in an earlier study (Strange, 1975). They include an increased willingness by senior management to accept sales promotion techniques as "legitimate," the appointment of sales promotion specialists to aid planning, and the expanded use of the product manager system with its pressure for short-term results.

A vice-president of marketing at the American can company reflected this view when he concluded

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A Study of Big Data Definition, Layered Architecture and Challenges of Big Data Analytics

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ABSTRACT

Big data has drawn great attention from researchers in decision makers, information sciences and policy in enterprises and government. There are so much potential and useful hidden values in the enormous volume of data. Big data is tremendously valuable to provide productivity in evolutionary breakthroughs in scientific disciplines and businesses. It facilitates lot of opportunities to develop great progresses in many domains. Moreover, big data also comes with many challenges including data collection, data analysis, data storage and data visualization. This paper provides the review on big data definitions, layered architecture and common big data challenges. There is no doubt that the future world in technologies and business productivity will converge into the explorations of big data.

Index Terms—*Big Data, Data Analysis, Data Collection, Data Storage, Data Visualization, Hadoop and Map Reduce.*

INTRODUCTION

The evolving big-data paradigm, owed to its wider impact, has intensely converted our society and will remain to attract diverse considerations from both technological specialists and the public in general. It is clear that we are living a data deluge period, supported by the sheer volume of data from a variety of sources and its developing rate of generation. For example, an IDC report[1]forecasts that, from 2005 to 2020, the global data volume will develop by a factor of 300, from 130 exabytes to 40,000 exabytes, signifying a double growth every two years. The term of "big-data'' was created to capture the thoughtful meaning of this data-explosion development and indeed the data has been advertised, which is expected to renovate our society. The massive potential linked with big-data has led to an evolving research field which has quickly attracted remarkable interest from diverse sectors such as industry, research and government community. The wide interest is first illustrated by coverage on both industrial reports[2] and public media such as the Economist[3], the National Public Radio (NPR)[4] and the New York Times[5]. Government has also act as a major role in generating new programs[6] to quicken the progress of attempting the big data challenges. Moreover, Nature and Science Magazines have issued special issues to confer the big-data occurrence and its challenges, which escalating its impact beyond technological fields.

Owing to the distinctiveness of big-data, designing an accessible big-data system aspects a series of technical challenges, comprising:

- Due to the variety of different data sources and the sheer volume, it is problematic to gather and incorporate data with scalability from distributed places. For example, more than 175 million tweets covering text, image, video, social relationship are produced by millions of accounts dispersed globally.

- Big data systems requisite to store and accomplish the gathered heterogeneous and massive datasets, while offer function and performance assurance with respect to fast retrieval, privacy protection and scalability. For instance, Facebook needs to access, store, and analyze across 30 petabytes of user generate data.

- Big data analytics should efficiently mine huge datasets at diverse levels in real-time or near real-time - containing modeling, visualization, optimization and prediction - such that intrinsic promises can be revealed to enhance decision making and obtain further benefits.

GENETIC ALGORITHM BASED DUAL INTENSIFIED IMAGE REGISTRATION

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1. ABSTRACT

A new consistent image registration algorithm is presented in our thesis based on matching both landmark and intensity information. The consistent landmark and intensity registration algorithm produces good correspondences between images near landmark locations by matching corresponding landmarks and away from landmark locations by matching the image intensities.

In contrast to similar unidirectional algorithms, the new consistent algorithm estimate the forward and reverse transformation between two images while minimizing the inverse consistency error—the error between the forward (reverse) transformation and the inverse of the the reverse (forward) transformation. This reduces the ambiguous correspondence between the forward and reverse transformations associated with large inverse consistency errors. A thin-plate spline (TPS) model is used to regularize the estimated transformations.

Two-dimensional (2-D) examples are presented that show the inverse consistency error produced by the traditional unidirectional landmark. With 2-D MRI (magnetic resonance imaging) data, our thesis demonstrate that using landmark and intensity information together produce better correspondence between medical images than using either landmarks or intensity information alone.

2. INTRODUCTION

Registration methods can be used to compare images taken at different times, and to fuse images of different modalities. We will present both feature based and intensity-based methods. Applications will include automatic detection of evolving pathologies, augmented reality for surgery, and labeling with an atlas.

Image registration involves minimization of cost function, based on a similarity measure. Mutual information (MI) is generally considered to be a robust similarity measure in the registration of medical images. Image registration based on MI is essentially a nonlinear optimization problem. Various manipulations in the registration procedure, such as interpolation and missing data, generally introduce local minima in the cost function. Multi resolution paradigm, in which image registration is propagated from coarse to fine scale, is commonly used for improving the efficiency of registration.

The image sub sampling in multi resolution paradigms introduces distortions and shift in the MI peak. Therefore, conventional optimization techniques do not always lead to the correct global solution. Retrospective registration techniques, even with multi resolution strategies, generally tend to be slow near the neighborhood of optimum solution. Therefore, any registration strategy should pay particular attention to the computational efficiency. The global optimization technique for image registration, based on MI, which can be used in conjunction with a multi-resolution

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Substance Abuse among Street Children in Reception home

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Abstract: *Substance abuse is common among street children. This study was conducted with the aim to know the prevalence of substance abuse among street children in reception unit.Reception unit is the one which providefood, shelter, clothing and education to the children under inquiry before the Child Welfare Committees. Descriptive research design was used. In this study the researcher adopted census method to collect data. At the time of data collection 23 respondents were available and all the 23 were taken for the study. The children were interviewed through a self prepared questionnaire. The findings showed that Mean Age of the respondents was 13.87 years. Minimum age of the respondent was 6 years and maximum age was 18 years.21.7percent of the respondents were 14 years old.34percent of the respondents were studying in 8th standard.43.5percent of the respondents parent were alcoholics. Nearly half (47.8%) of the respondents' have academic problems. More than half of the respondents (60.9%) fought physically with others.43.5 percent of the respondents nature of substance abuse was solution. It can be concluded that street children abuse various substances. The social work intervention can be adopted to prevent, rehabilitate and modify their behaviour.*

Keywords: *Academic problems, Substance abuse, Street children and Reception unit*

I. Introduction

In the modern era young children are exposed to alcohol and drugs, it starts from home. Substance abuse is an increasing problem in our society and carries great social and economic burden through its impacts on crime and health. It affects their personal, professional and social activities. Street children are more vulnerable and at risk of substance abuse.

Under the scheme of "An Integrated Programme for Street Children without homes and family ties" NGOs are supported to run 24 hours shelters and provide food, clothing, shelter, non formal education, recreation, counselling, guidance and referral services for children. The other components of the scheme includes enrolment in schools, vocational training, occupational placement, mobilizing preventive health services and reducing the incidents of drug and substance abuse, HIV/AIDS etc [1]

The reception unit is governed by "Children in care and protection" under section 29 (1) of the Juvenile Justice (Care and Protection of Children) Act, 2000 as amended in 2006.The reception unit provides food, shelter, clothing and education to the children under inquiry before the Child Welfare Committees either by Government / Non-Governmental reception units. There are 23reception units (Government - 9, Non-Governmental Organizations -14)in Tamil Nadu. The capacity of an Reception Unit is 30 -50 Children. Non formal education is imparted along with Extra-Curricular Activities such as Art, Music, Dance and Sports.

According to UNICEF, there are more than 500,000 street children in India who live and work in inhuman conditions and are at high risk of substance use. [2] Merrill stipulated that the nature of continuous exposure to the street and its associated life-styles are vulnerable for street children to the use of psychoactive substances. Street children's drug use often commences with alcohol, tobacco and inhalants which are legal and easily accessible in most countries. World Health Organization estimates that globally, 25-90% of street children indulge in substance abuse.[3]

Children abuse various substances such as drugs, alcohol, and tobacco for varied and complicated reasons, but it is clear that our society pays a significant cost. The common drugs of abuse include alcohol, nicotine, cannabis, opioids, benzodiazepines and volatile solvents. Alcohol dependence is considered a public health problem because it affects people's health (physical, mental and spiritual), it is serious, it can be understood in terms of its causation and attempts can be made to prevent it. [4]

Praveen conducted a cross-sectional study among 174 children in observation homes in Hyderabad, India, to estimate the distribution of inhalant (whitener) use among this population. The result revealed that, about 61% of the children were boys and their mean age was 12.2 years (range 5–18 years). They found 35% of the children use Whitener along with concurrent use of other substances. They also highlighted peer pressure was the commonest cause for initiating substance use. [5]

Praharaj studied on Inhalant abuse among street children, used typewriter correction fluid abuse. In his findings, the inhalant abusers were boys of 10 to 17 years who were the school dropouts and also run away from

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Internally Displaced Tribes

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Abstract:

This paper briefs the living conditions of Gottikoya tribes, settled in Khammam district by Tamil Nadu. The main aim is to make aware of other section of the society and the government to do the needful for their betterment. The main aim of this paper, is to find some solution for the miseries of the tribe, by the Government, through social activists, NGO, or any other voluntary worker who are working for the welfare of Tribe. Sarvodaya means of welfare of ALL. The welfare government and its Constitution created on the basis of Gandhian concept sarvodaya order by society which gurantee, equal rights, social status and decent livelihood. The Gottikoya Tribes may get prosperity in their life in the near future.

Introduction:

The primitive tribe in spite of positive discrimination policies is at stake due to irrelevant policies of the state governments who have not still understood their flight. The primitive tribe named Gotti koya who have migrated from the chattisgarah to the border reserve forests of Khammam district, Bhadhrachalam mandal face lots of miseries and live in agony. This indigenous tribes who are innocent live with nature and lead a simple life deserted their villages in Dantewada mandal of Bijapur district and from other border districts in chattisgarah due to physical threats from the Moaists, the police and the Salwa Judum. When they left they took their children with few clothes, few utensils and little animals.

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CSR Activities for Environmental Protection in Kancheepuram and Tiruvallur District – A Case study

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Abstract:

God has given enough for our needs and not for our Greed – M.K.Gandhi. Excess use of natural resource and consumption of more electricity make the environment polluted. At micro- level, bio-gas programme alternate use of renewable energy some to control pollution. The cost of unit may not be affordable by the villages and hence Govt, corporate sector come forward to help them. This article briefs the Bio – gas programme speared by CSR project.

Case study – 1

Bio-gas Project

Introduction

An effective biogas programme leads to efficient use of cow dung for gas recovery and partial supplement to plant nutrient requirement. Biogas programme leads to improvement in rural living including rural sanitation. Biogas fermentation a process occurring widely in nature can be defined as a biological process, in which biomass or organic matter, in the absence of oxygen, is converted into methane and carbon dioxide.

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Community based rehabilitation services to HIV Victim – Case studies

Dr. S Radhakrishnan and S Yesu Suresh Raj

Abstract
The present study entitled, Community based rehabilitation services to HIV victims - development perspectives, was undertaken. The researcher started his work with defining rehabilitation that it is intended to create an environment favorable for the person living with any disability or disease. To understand more about the context of HIV/AIDS, and the rehabilitation of HIV victims through CBR approach the researcher has reviewed a number of literatures to find out the dimension of the problem taken by different researchers and the methodology adopted by team in testing their hypotheses.

Keywords: rehabilitation services, HIV, CBR, Millennium Development Goals

Introduction
The seriousness of HIV/AIDS could be understood when nearly 187 United Nations Member states and 23 international organizations came together to establish the sixth goal – Combating HIV/AIDS and other diseases as one of its eight Millennium Development Goals (MDG). Because HIV/AIDS had already become one of the major killer diseases of humankind. As per the UNAIDS/World Health Organizations (2007) statistics that over the past 25 years, nearly 25 million people have died of AIDS.
The present study entitled, Community based rehabilitation services to HIV victims - development perspectives, was undertaken. The researcher started his work with defining rehabilitation that it is intended to create an environment favorable for the person living with any disability or disease. To understand more about the context of HIV/AIDS, and the rehabilitation of HIV victims through CBR approach the researcher has reviewed a number of literatures to find out the dimension of the problem taken by different researchers and the methodology adopted by team in testing their hypotheses.

Objectives
This study is mainly aimed to find out the community based rehabilitation services for the betterment of HIV/AIDS victims in Dindigul District.
- To understand the socio-economic conditions of the HIV/AIDS victims.
- To analyze the community based rehabilitation services implemented by the Government and Non-government organizations.
- To analyze the relationship between the Communities based rehabilitation measures and socio-economic factors with reference to age, income, dependents, educational qualification, marital status and area of domicile.
- To provide suggestions for improving appropriate rehabilitation services to the people living with HIV/AIDS.

Research Methodology
This study involved descriptive design and collected the primary and secondary sources of data through interview schedule, case studies and focus group discussion. The investigator selected 300 respondents by simple random method from Dindigul, Palani, Athoor, Kodaikkanal, Oddanchatram, Vedasandur, Natham, and Nilakkottai unions in Dindigul district. This study analyzed the greater impacts of CBR approach on individual HIV victims who received services like counseling, capacity building program, exposure, linkage with govt. welfare schemes, health and education institutions, networking with local CBOs and

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Impact of industrialisation on natural resources - Gandhian perspective

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Abstract

Aftermath of globalization is mushroom growth of industries in the sub urban areas. In the name of foreign direct investment government i increase the industrial growth and GDP. The newly arrived industries are given lot of concession and exemption from excess ding industri natural resources in the suburban areas. Where the industries located initially cultivable lands are occurred and water resources are explo water disposal from the industries, air is also polluted even water resources also polluted in this situation attempted made to find out the lo industries.

Keywords

Green marketing, Environment-friendly product, Green products, Green initiatives and Business firms.

View article

Yesu Suresh Raj S

PEACE BUILDING IN AFGHANISTAN-A STUDY

[PDF] from researchgate.net

Authors	S Radhakrishnan, B Joseph Antony Vedanayagam, S Yesu Suresh Raj
Publication date	2017/7
Journal	International Journal of Research in Management & Social Science
Pages	64
Description	Love and non-violence are said to be the parents for the child called peace. All regions in the world teach love and nonviolence but there is problem in bring forth namely peace. Being a hundred percent Islamic country it is ironical to note that all Afghans irrespective of ethnic and religious sect greet each other (men greet each other by hugging and say loudly 'Salam alekum'the meaning is Peace be with you) but Afghans do not lead a peaceful life since several decades due to conflicts caused by foreign invasions and also set backs in the social and economic life due to the results of civil war on political ideology, ethic differences, and on religion basis fuelled by the two super powers. And research attempt is made to study the status of peace and livelihood in Afghanistan and the methodology and the finding of the study is briefed in this paper.
Scholar articles	PEACE BUILDING IN AFGHANISTAN-A STUDY S Radhakrishnan, BJA Vedanayagam, SYS Raj - International Journal of Research in Management & …, 2017

பயன்படுத்திய பொருட்களையும் சேர்த்து புதைத்தனர். இந்த தாழிகளை தோண்டி எடுப்பதன் மூலம் தமிழர்களின் பண்பாட்டு கூற்றை வெளிப்படுத்தும் வண்ணமாய் அமைந்துள்ளது.

இதுபோன்று பல இடங்களில் அகழ்வாராய்ச்சி நடத்தப்பட்டது.

மேற்கோள்:

"மூச்சு நின்றால் மட்டும் மரணம் இல்லை நம் நாட்டின் பண்பாடு, நாகரிகம் மறைக்கப்பட்டாலும் அது உலக மக்களின் மரணம் தான்". இதன் மூலம் பண்பாடு உணரலாம்.

கற்றல் கற்பித்தலில் நவீன தொழில் நுட்பத்தின் பயன்கள்:

"சூரியன் விழித்தெழும் திசையே பூமிக்கு கிழக்கு.
உன் விரல்களில் அடங்கும் தொழில் நுட்ப கருவிகளே
உன் வாழ்வின் விதி விலக்கு".

கற்றலிலும் கற்பித்தலிலும் அதிக அளவில் இன்று நவீன தொழில் நுட்பங்கள் பயன்படுத்தப்படுகிறது. இன்றைய பள்ளி மாணவர்களின் ஒருசில பாடங்கள் (தமிழ், சமூக அறிவியல்) இவற்றில் அதிகம் மக்களின் வாழ்க்கை முறை பற்றியும் நாகரிகம், பண்பாடு பற்றியே பாடங்கள் அமைந்துள்ளன. மாணவர்கள் தங்கள் முன்னோர் வாழ்க்கை முறைகளையும் அகழ்வாராய்ச்சி நடைபெற்ற இடங்களையும் நேரில் சென்று காண முயல்வது கடினமாகும்.

ஆதலால் இன்றைய பள்ளி மாணவர்களுக்கும் பட்டதாரி மாணவர்களுக்கும் அகழ்வாராய்ச்சி நடந்த இடங்கள் பழங்கால பயன்படுத்திய பொருட்கள் அனைத்தும் கணினி மூலமாகவும் இணையதளம் மூலமாகவும் அறிய முடிகிறது. மேலும் இன்றைய குழந்தைகளுக்கு கணினியின் மூலம் உண்மையான செய்திகளை இணையதளம் வழியாக கற்பிப்பதன் மூலம் அகழ்வாராய்ச்சி பற்றியும் நம் முன்னோர்களின் வாழ்க்கை முறைகள் பற்றியும் ஆர்வமுடன் கற்கின்றனர். மேலும் ஆசிரியர்கள் எளிய முறையில் பாடங்கள் கற்பிப்பதற்கு தொழில்நுட்ப சாதனங்கள் இன்றியமையாத ஒன்றாகிறது.

மேற்கோள்:

"சோதனையே வாழ்க்கை என்று நினைத்தால்
தோல்விகள் நம்மை வெல்லும்
சாதனையே வாழ்க்கை என்று நினைத்தால்
வெற்றிகளை நாம் வெல்லாம்"

என்பதை பறை சாற்றுகிறது தொழில்நுட்ப சாதனங்கள்.

முடிவுரை

மேற்கண்ட உரையின் மூலம் அகழ்வாராய்ச்சி பற்றியும் பண்டைய மக்களின் வாழ்க்கை முறை பற்றியும் தொழில்நுட்பங்கள் வழியாக அறிந்துக் கொள்ள முடிகிறது.

ஆய்ந்த நூல்கள்

- இணையதளம்
- பள்ளி சமூக அறிவியல் பாட நூல்
- தனிப்பட்ட கருத்துகள்

39 கற்றல் - கற்பித்தலில் புதிய தொழில்நுட்பங்கள்

முனைவர். ம.சியாமளா, உதவிப் பேராசிரியர், தமிழ்த்துறை, கிருஷ்ணசாமி மகளிர் அறிவியல், கலை மற்றும் மேலாண்மையியல் கல்லூரி, கடலூர்.

முன்னுரை

கற்பித்தலும் கற்றலும் பல்வேறு காரணிகளை உள்ளடக்கிய ஒரு நிகழ்வாகும். இக்காரணிகள் கற்பவர் தன் இலக்கு நோக்கி செல்லும் போதும், விஷயங்களைத் தெரிந்து கொள்ளும் போதும், பழககவழககங்கள, கல்வி கற்றல் மூலம் அடையும் திறன்கள் முதலியவற்றில் ஒன்றுக்கொன்று தொடர்புடையதாக அமைந்துள்ளது.

கற்பனை உலகை கண்முன் காட்சிப்படுத்துதலின் வாயிலாக பல அரிய தகவல்களைப் பெற்றுத்தர முடியும். மாணவர்களின் அறிவுத்திறன் மேம்படும். எனவே தகவல் தொடர்பு தொழில் நுட்ப கருவிகளின் வாயிலாக கற்றல் - கற்பித்தலின் சிறப்பினை எடுத்துரைப்பதே இக்கட்டுரையின் நோக்கமாகும்.

கற்பித்தலில் உள்ள தொழில்நுட்ப கருவிகள்

வெவ்வேறு வகையான தொழில்நுட்பங்களைப் பயன்படுத்தி தகவல்களை மின்னணுத்தொடர்பு மூலம் பிறருக்கு அனுப்புதல், சேமித்தல், புதிதாக உருவாக்குதல், வெளிப்படுத்துதல், பரிமாறிக் கொள்ளுதலே - தகவல் தொடர்பு நுட்பம் என்பதாகும்.

இந்த தொழில் நுட்பத்தில் வானொலி, தொலைக்காட்சி, படக்காட்சி, டி.வி.டி., தொலைபேசி (தொலைபேசி, மொபைல்) செயற்கைக்கோள், கணினி மற்றும் அதைச் சார்ந்த மென்பொருட்கள் ஆகிய அனைத்தும் அடங்கும். மேலும், படக்காட்சி மூலம் கலந்தாய்வு, இமெயில், பிலக்ஸ் உள்ளிட்ட கருவிகளின் சேவைகளும் இதில் அடங்கும்.

தகவல் பரிமாற்ற காலத்திற்குத் தகுந்தாற்போல கல்வியை வழங்க, நவீன தகவல் தொடர்பு நுட்பங்களை பயன்படுத்துவது அவசியம். இதற்குக் கல்வியாளர்கள், முதல்வர்கள், ஆசிரியர்கள், தொழில்நுட்ப வல்லுநர்கள் ஆகியோர் தொழில் நுணுக்கங்கள், பயிற்சி, நிதி, கட்டமைப்பு தேவைகள் போன்றவற்றில் சரியான முடிவுகளை எடுக்க வேண்டும். புது மொழியைக் கற்றுக் கொள்வதைவிட புதுமொழியில் கற்றுகொடுப்பது பலருக்குச் சிரமமான பணிதான்.

கல்வியில் தகவல் தொடர்பு தொழில்நுட்பத்தின் பங்கு

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AN ANALYSIS OF THE CAUSE AND EFFECT OF SINGLE PARENTHOOD IN PARENTING THEIR CHILDREN USING COMBINED INDUCED FCM AND EXTENDED FUZZY CLUSTERING MODEL

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Abstract

The main objective of this paper is to propose a new fuzzy model called Combined Induced FCM and Extended

Fuzzy Optimization of EPQ policies considering the holding cost of raw material and of owned warehouse by Yajer's Ranking method

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Abstract:

The nature of this paper reports the Traditional Economic production quantity model focused on production process used the ordering cost that includes relevant cost during the pre-production process .In this paper, we discuss the inventory problem with fuzzy environment. The yager's ranking method(1981) for fuzzy number is utilized to find the optimal inventory policies.Here we assume that the demand and the associated cost are taken as fuzzy numbers .A set of numerical data is employed to analyze the characteristic of proposed models.

Keywords:

Inventory,EPQ, yager's ranking method,raw material

Introduction

[1] and [2] developed the Economic order quantity (EOQ) model and the Economic production quantity (EPQ) model for inventory management respectively. For convenience to mathematical analysis , the parameters ordering cost includes relevant costs during pre-production process, one of them is the holding cost of raw material. A supply chain consists of all stages involved not only suppliers and manufacturers ,but also transports, ware house, retailers and customers [3].When suppliers provide raw material would affect many factors,such as climate change,shipping delays, and more ,these would increase the total relevant cost. Therefore the price fluctuation of raw becomes an important issue. Park [11] discussed the EOQ model with fuzzy cost coefficients. Ishii and Konno [6], Petrovic et. al. [14], and Kao and Hsu [7] investigated the Newsboy inventory model with fuzzy cost coefficients and demands respectively. Roy and Maiti [13] developed a fuzzy EOQ model with a constraint of fuzzy storage capacity. Chang [4] construct a fuzzy EOQ model with fuzzy defective rate and fuzzy demand. Yao and Chiang [16] compare the EOQ model with fuzzy demand and fuzzy holding cost in different solution methods. Kao and Hsu [8] find the lot size-reorder point model with fuzzy demand. Besides, there is another kind of studies which fuzzes the decision variables of inventory models. For example: Yao and Lee [18] developed the EOQ model with fuzzy ordering quantities; Chang and Yao [5] investigated the EOQ model with fuzzy order point; Wen-Kai K. Hsu and Jun-Wen Chen [14] studied Fuzzy EOQ model with stock out. Madhu & Deepa [10] developed an EOQ model for deteriorating items having exponential declining rate of demand under inflation & shortage. Kun-Jen Chung, Leopoldo Eduardo Cárdenas-Barrón [9] compare the complete solution procedure for the EOQ and EPQ inventory models with linear and fixed backorder costs. Recently W. Ritha etal. [17] fuzzified EOQ Model with one time discount offer allowing back.

In this paper we have taken the traditional annual total cost relevant cost from EOQ policies considering the holding cost of raw material and in owned ware house.Here the decision variable is ordering quantity T. demand rate, associated cost are fuzzified using trapezoidal fuzzy numbers.The approach of this paper is to find the optimal order quantity and total cost from yajer's ranking method.

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Fuzzy Inventory Models With Decentralized Polices for a Single Vendor Two Buyer System Under Crisp and Fuzzy Decisions Variable

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Abstract

In today business transaction vendor usually offers their buyers a delay period in payment. The paper consider an inventory model with decentralized polices for single vendor two buyer system in fuzzy environment by employing two types of fuzzy numbers which are trapezoidal. we consider the fuzzy total cost under crisp order quantity in order to extend the traditional inventory model to the fuzzy environment. Two fuzzy models are developed .In the first model the inputs parameter are fuzzified while the decision variable are treated as crisp variables. In the second model not only the input parameters but also the decision variables are fuzzified .We use function principle as arithmetic operation of fuzzy total cost and apply the graded mean integration method to defuzzify the fuzzy total cost and then the optimal policy for each model is determined .The optimal policy for the second model is determined by using Kuhn-tucker conditions after the defuzzification of the fuzzy total cost .Numerical examples are also given to demonstrate the developed crisp and fuzzy models solved by using Matlab software.

AMS Subject Classification: 94D.

Key Words and Phrases: One-vendor two buyer inventory system,Permissible delay in payments ,Integrated policy,Decentralized policy,Trapezoidal number,Graded mean integration,Kuhn-tucker condition.

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Analyses of Antiproliferative Property of Cleistanthin-A against A549 Cell Line

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ABSTRACT

Currently in India the population of people suffering from lung cancer is increasing at an alarming rate. Chemotherapy is widely used for the management of lung cancer; however it has various side effects. Hence, there is a need to find newer therapeutic agents with fewer side effects. Plant derived substances are generally considered as the most preferred alternative medicines. Thus, in this study, we have tested the antiproliferative property of Cleistanthin-A, a chemical compound extracted from dried leaves of *Cleistanthus collinus*, against the A549 lung cancer cell lines. The antiproliferative assays used are dye exclusion assay, MTT assay and Comet assay.

Keywords: Cleistanthin-A, anti-proliferative assay, A549 cell lines.

INTRODUCTION

Changing lifestyles, urbanization, globalization and progressive control of communicable diseases have led to emergence of cancer and other non communicable diseases as an important health problem in India. The environmental risk factors for lung cancer are carcinogen and co-carcinogen which are present in tobacco and its related products[1]. Cigarettes are the most important tobacco product worldwide (http://tobaccopedia.org). It is estimated that cancer incidence would increase to 1,869,983 (1.87 million) by the year 2026. The International agency for research on cancer called as Globocan project has predicted that in India patients with cancer by 2035 will be nearly 1.7 billion[2]. In India, approximately 63,000 new lung cancer cases are reported each year[3]. Apart from tobacco related products, other causative agents for lung cancer are radon gas, asbestos, silica, and diesel exhaust, excess exposure to air pollution, chronic lung infection like tuberculosis (www. Cancer research uk.org /about –cancer /type /lung-cancer/ about/ lung-cancer-risks-and-causes). Tobacco smokers above age 50 years are at high risk for lung cancer[4]. Lung cancer is also a hereditary disease[5]. In non-smokers, the etiology of lung cancer is due to the environmental, hormonal, genetic and viral implications [6]. Reactive oxygen species (ROS) are recognized to play a dual role in both regulation of physiological reactions and also leading to oxidative stress which generates a negative bioniche for the generation of chronic diseases like cancer[7]. Antioxidants like vitamins- A, C and E were thought to help reduce the risk of lung cancer, but evidence for this is not clear (www.cancerresearchuk.org/about-cancer/type/lung-cancer/about/lung-cancer-risks-and-causes).

A549 cell line is alveolar basal epithelial cells. A549 cell lines are widely used as an *in vitro*

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RESEARCH DIRECTIONS

PSYCHOSOCIAL INTERVENTION FOR CHILDREN IN ORPHANAGE

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ABSTRACT :

The aim of the research is to study the impact of psychosocial intervention of children in an orphanage. The researcher adopts quasi experimental design, without a control group. The Universe of study consist of children aged between 12 and 14 years, residing in one of the Governmental Orphanage which provides care to orphan children in Tiruchirappalli, lottery method was used to select 25 samples for whom pre and post assessment was done. The children were of mean age 13.4 years. The mean difference showed that there is an improvement after the psychosocial intervention in the sub dimensions of strengths and difficulties questionnaire.

KEYWORDS : *Children, Orphanage, Psychosocial Intervention, Institution.*

INTRODUCTION

UNICEF (2008) estimated that there were 25 million orphan children in India in 2007. An orphan is defined as a child under the age of 18 who has survived one or both parents (Skinner, et al. 2006). An orphan is a child who lost one or both the parents, the orphan can be a double orphan or a single orphan. Double Orphans are those who have lost both parents and single orphans are those who have lost either the mother or the father. Children who have lost their mothers are called maternal orphans and who have lost their fathers are called paternal orphans (UNAIDS, 2008). Institutional care is round the clock residential care for children, poverty is the major underlying cause for the institutionalization of children. Psychosocial refers to psychological factors and the social factors that influence the development of an individual and if unmet the individual may be at risk for emotional, social and behavioural problems (The Free Dictionary, 2016). Psychosocial support promotes psychosocial well-being and prevents mental illness (World Health Organization, 2012).

REVIEW OF LITERATURE

Skinner et al. (2004) articulated the core area of concerns for vulnerable children. They are material problems including insufficient access to money, food, clothing, shelter, health care, and education. Emotional problems, including a lack of care, love, support, space to grieve, containment of emotions, and social problems including lack of a supportive peer group, no role models to follow, no guidance in difficult situations, and risks in the immediate environment. The study conducted by Earl-Taylor & Thomas, (2003); UNICEF, (2004) stated that Children who are placed in children's homes experience stressors or trauma as a result of their parents or family not being able to care for and protect them. These stressors or trauma often take the form of child abuse or death of parents. These adverse life experiences have far reaching ramifications on affective, cognitive, behavioural

Viewpoint

Spirituality at work: enhancing levels of employee engagement

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Introduction

It is reported that 85 per cent of executives have ranked employee engagement as a top priority (Deloitte, 2016) and as such a pivotal issue, millions of dollars are spent on improving it. Many authors cite organizational factors (such as job satisfaction, work environment, rewards, and recognition) as being connected to employee engagement. However, one of the key determinants that has, as yet, had less attention is "spirituality" in the organizational context. In this paper, we assert that spirituality at work will enhance levels of employee engagement, and we offer insights on how to go about building your levels of organizational spirituality.

Organizational spirituality

Workplace spirituality is not about promoting a particular ideological system but about creating a culture that recognizes the employees' spirit at work. Such recognition has benefits for both the organization and the individual. Organizations experience improved employee loyalty and retention, thereby reducing recruitment costs and increased productivity, performance, profitability, and growth (Krishnakumar and Neck, 2002). Individuals experience lower levels of job-related stress; improved morale; greater creativity, and innovation; a higher quality of work life and greater team spirit (Daniel, 2015). Where organizations have conducted programs to enhance spirituality, they have seen improved employee satisfaction and commitment, reduced employee turnover and absenteeism, and ultimately improved quality at relatively low cost (Kinjerski and Skrypnek, 2006).

Robbins *et al.* (2011) characterized a spiritual organization as one that focuses on its purpose and objectives and has a culture of trust and openness. Employees are given autonomy to make decisions without fear and are provided with the necessary resources to help them discover their talents. Creativity is promoted and the organization assists all employees to improve and develop their abilities. Within a comfortable work environment, employees are encouraged to be themselves at work.

Employees who perceive themselves as spiritual look for a sense of meaning and purpose in their work and seek alignment with their organization's values and goals. They pursue competence and mastery and have a sense of belief in themselves and others. They are connected with their co-workers and look to be a part of the community. Nowadays, employees are keen to search for meaningful work in the organizational context, and fostering spirituality in the workplace will create a more reliable individual. Spiritual organizations inculcate a deep sense of meaning and purpose in the work, and the employees thereby feel committed and connected to the organizational goals and values.

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QUALITY OF WORK LIFE OF WOMEN LECTURERS IN ENGINEERING COLLEGES IN SOUTHERN DISTRICTS OF TAMILNADU

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Abstract: Teaching is becoming more challenging as a profession more paperwork more bureaucracy and more unruly classes. Teaching is one of the most significant and visible profession in the world. All other professions in the society have their bases in the profession of teaching. As a profession it is the basis of the development of any country. Schools are as important institutions as any other organization of the society.
Teaching has ever been accorded autonomy of full professional status. It has an appropriate responsibility in fostering the development of young. It is very important due to its responsibility because child development and well being are taken as central concerns. Women teachers tried their best to perform their duties at job and home as well. They tried to fulfill expectations of family members and at the same time they are expected to be active member at schools.
Education is a purposely organized activity between the educator and the learner. It helps the learner to lead a fruitful and harmonious life. In ancient India, education was imparted in the Gurukulam in natural condition. Every requirement for the child developed was checked and evaluated by the teacher in the Gurukulam. The role of teacher was to train the students in morality, mental growth and disciplined life

Introduction

In today's society we need more importance for human resources management in advancement of institution, improving quality of work life of employees working in that institution. . Human are the most important asset of every working environment. Quality of work life which is once a part of human resource management has now become an independent subject to evaluate. Work and family are connected through social, economic and psychological terms . The conflicts arising out of women performing double role in their home and place of work make sense only when in latest society .It is more common in case of women employees in engineering colleges. In the modern world the women employees working in colleges play an active role not only in homes but also in society in their careers. the burden on the women employees in engineering colleges as care taker of the whole family and as full time worker which leads to many hard situations to be handled both at personal life and work life. The extra role each women employees play is to meet their financial needs of their family and satisfy their inner wish which creates social identity to them.

A working women has to perform the duties of a wife and a mother in home and have a role as superior person, a friend , a colleague outside their home . The working women are required to perform multiple tasks at a single time and resolve conflict situation on their own at workplace and home. In home in addition to biological functions there are other duties which they have to perform relating to family culture and values. But at the same time they undertake duties and responsilbities and commitment connected to their profession. A women employee is emotionally more evolved and socially aware of her rights and privileges . among women teachers there are different of opinions arise in work place, they personally sort out their problem and find best quality work life at working place

Need of the Study

Now a days jobs are so demanding that it is imbalance between the family and work due to job pressure and conflicting interests. So it is essential for the educational institution to develop better an effective working environment where teachers are backbone of college.

In order to attain goals of institution every teacher should not only be committed and devoted but also competent and creative and for that matter they should be provided a better quality of work life. There

Security and privacy challenges in big data healthcare

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Abstract: Security of Big Data is a big concern. We know, big data contains structured and unstructured and semi structured data. To provide security to unstructured data is more difficult than the structured data. In emerging IT industry, big data is one. And the database is huge so difficult to manage the data. We need to protect these data against unauthorized person's updating and stolen the data, for this data security is very important one. Big data comes more vital to all industries the challenges also increased high, because it's a heterogeneous data. The private healthcare data are accessed and stored securely by implementing a decoy technique. Telemedicine is an emerging healthcare service. Healthcare is produce big data because now a days, healthcare switches paper based medical records into electronic platform to store, manage, analysis and process in the form of Electronic Medical Record (EMR) or Electronic Healthcare Record (EHR) with the help of internet. Patient agreement is necessary to provide privacy. Agreement includes, who can access patient's particular record with valid purpose. Security can be described as physical and technological measures that can be used to secure healthcare data from unauthorized disclosure or illegal access of any restricted data. Here access control policies are violated that must be prevented.

Key words: Big data, Security, Privacy, Public key infrastructure (PKI), Electronic Medical Record (EMR), Electronic Healthcare Record (EHR), Medical Big Data (MBD), Decoy Medical Big Data (DMBD), Original Medical Big Data (OMBD).

1. Introduction

If we want to protect the data means, we should do the following things, Protection against targeted threads, high performance search and accurate real time reputation. More advanced technological solutions include cryptography and encryption. Encryption is intended to encode data or information such that access is permitted only to authorized individuals who hold the "key" to unlock the encryption code. In 1970's three encryption algorithms there: the symmetric cipher- Data Encryption Standard (DES), the asymmetric cipher-Rivest Shamir Adleman (RSA), and the Diffie-Hellman key exchange.

The most widely used encryption scheme is based on DES. It is referred to as the Data Encryption Algorithm (DEA). Data are encrypted in 64-bit blocks using a 56-bit key. Algorithm transforms 64-bit input in a series of steps into a 64-bit output. The same steps with the same key are used to reverse the encryption. The widely accepted and implemented general purpose approach to public-key encryption is used in RSA algorithm. The RSA scheme is a block cipher in which the plain text and cipher text are integers between 0 and n-1 for some n. The size for n is 1024 bits or 309 decimal digits, that is, n is less than 2^{1024} . The purpose of the Diffie Hellman Key Exchange algorithm is to enable two users to securely exchange a key. That can be used for subsequent encryption of messages. The algorithm itself is limited to the exchange of secret values.

2. Security And Privacy

2.1. Meaning of Big Data Security

Data security is used to prevent unauthorized access to computers, databases and websites. Data security protects data from corruption. It is an important aspect of IT organizations of every size and type. It is also known as Information Security (IS) or Computer Security. Backups, data masking and data erasure are the examples of data security technologies. A key data security technology measure is encryption, where

Crypto Coin- Overview of Basic Transaction

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Abstract: ***A digital Currency is similar to fiat currency which supports instantaneous transactions, imprecise transfer of ownership which can be used in trading of physical goods and services, on-line gaming and other trading purpose. Like physical money it is not generated by third parties it is primarily generated by network of computers and it is also controlled by the group of miners. Cryptocurrency is a subset of digital currency which supports transactions in anonymous manner and tightly secured using cryptographic algorithms. In this paper we made a research on cryptocurrency, their opportunities, their excellence and their loss of credit that is used in business transaction. We constructed the genesis block and build up the simple and complex raw transaction using command line interface. We try to fix of the double spending of same cryptocoin more than once.***

Keywords: **Crypto currency, Bitcoin, Fiat currency, Virtual Currency, Double Spending**

I. Introduction

In the early day's centralized system of trust such as banks are used by traders, business persons and other commodities for maintaining transactions and account management. Since strangers could not do business with each other without banks, world economics become more complex and entirely dependent on bankers intermediation. The ledgers they kept inside their institutions became more important and they need to keep track of all payments regarding citizens. Thus they created rent seeking business such as fee charging gatekeepers and managers of financial traffic that make the economics checked.

The emergence of global financial crisis in the year of 2008 gives rise to the arrival of digital currency management systems (DCMS) [1]. Satoshi Nakamoto [2], *the father of decentralized digital currency management* system paved a way to the arrival of cryptocurrency in the world. The cryptocurrency protocol allows for secure digital transmission over the internet without the need for any intermediaries between buyers and suppliers, also provides instant delivery and verification of digital coins between the buyers and suppliers thus reducing the time delay.

The cryptocurrency system reduces the complexity of transaction and avoids the middleman seeking for various transaction processes such as security brokers, insurance agents, financial lawyers, payment processors and credit card companies [3]. The cryptocurrency is a subset of alternative currencies or digital currencies hence sometimes referred as Altcoins. Cryptocurrency is essentially a fiat currency [1] which is legally accepted by several countries for commodity purpose. Cryptocurrency is not tied to any particular country and it's not controlled by any central bank rather it is controlled by network of systems in the world.

Cryptocurrency is basically a digital currency with security and anticounterfieting measure implementation. Cryptocurrency takes an important role of ledger management maintained by a network of autonomous computers which keep away from centralized financial institutions [3]. Cryptocurrencies are built based on the universal principle - permanent ledger, publicly available and constantly verified by powered computers. This creates a decentralized system of trust that operates outside the institution control.

Cryptocurrency allows the strangers to deal with business commodities. This eliminates rent seeking business, positioning themselves as minimum fee charging managers of financial traffic. This is a digital asset system designed to work as a mediator of exchange and restrict the creation of additional units of currency. This eliminates need of banks and other financial intermediaries to create a trust bond.Instead of middleman a network based ledger called a *blockchain* is used as an intermediary. These ledgers are verified by a group of banks, financial and legal advisors around the world called *miners*.

Basically cryptocurrency is not about the ups and downs of digital currency market or about a unit of exchange. It is about freeing people from the arbitrary unit of power control over centralized bank and other intermediaries [3]. Cryptocurrency is the emerging payment system which is adopted by individuals, business vendors and commodities without the need for supplying credit or debit card information.

Merchants utilize these currencies by allowing customers to purchase goods and services all over the world by creating an account for accepting payments [1]. Current payment systems like Visa, MasterCard and PayPal are not

Finding Adverse Reaction of Lorcaserin Drug Using Effective Data Mining Algorithm

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Abstract--- Pediatric obesity remains an ongoing serious international health concern affecting17% of US children and adolescents, threatening their adult health and endurance. Pediatric obesity has its basis in genetic susceptibilities influenced by a permissive environment starting in utero and extending through childhood and adolescence. Lorcaserinis one of the drugs which is given for obesity and treat overweight children and adults. The purpose of this paper is to study the adverse drug reactions of Lorcaserinfrom the information available in Adverse Events Reporting System(AERS) using WEKA tool. The Hoeffding tree algorithm was used for inducing decision trees from continuous data streams using Hoeffding bounds. The enhanced Hoeffding tree has been developed for analyzing and extracting information from the AERS database. The frequent adverse effects like gastrointestinal disorders, respiratory infections etc were reported to the AERS from the results obtained.

Keywords--- Adverse Drug Reaction, Pediatric Obesity, WEKA, AERS, FDA.

I. Introduction

An estimated 70% of adult men and 60% of adult women in the United States are overweight or fat [17]. Excess body fat increases the likelihood of developing hypertension, dyslipidemia, and type 2 diabetes mellitus and is an independent risk factor for cardiovascular disease [4, 19]. Obesity is linked to an increased risk for certain cancers, osteoarthritis, and sleep apnea [3, 10, 16, 12]. Obese people are stigmatized [20]. Medical costs attributable to obesity are enormous [21]. The healthcare community and patients would thus welcome the development and approval of new obesity drugs with favorable benefit-risk profiles. To facilitate drug development, the US Food and Drug Administration's (FDA's) Center for Drug Evaluation and Research issues guidance documents for the pharmaceutical industry. These documents provide the agency's current thinking on therapeutic indications, target populations, clinical trial designs, and data analyses. This paper focuses the adverse reactions of the drug Lorcaserinon weight reduction in obese adolescents, and also measures its safety profile of patients (based on FAERS).

II. Background

Obesity is a chronic, relapsing health risk defined by excess body fat. The pathogenesis of obesity involves the interaction of genetic, environmental, and behavioral factors. Total body fat can be accurately measured using hydro densitometry and dual-energy x-ray absorptiometry (DEXA). Because body mass index (BMI), expressed as kilograms of weight divided by height in meters squared (kg/m^2), is simple and inexpensive to calculate, and correlates strongly with total body fat in non-elderly adults, it is commonly used as a surrogate for total body fat.

Excess body fat increases the risk of death and major comorbidities such as type 2 diabetes, hypertension, dyslipidemia, cardiovascular disease, osteoarthritis of the knee, sleep apnea, and some cancers [5, 6]. The relationships between BMI and risks for death and major comorbidities vary by age, sex, race, and smoking status, but, in general, are lowest in individuals with BMIs of 18.5 kg/m2 to 24.9 kg/m2 and increase in a curvilinear or linear manner with BMIs of 25 kg/m2 to approximately 40 kg/m2.Based on data relating BMI to mortality risk, the World Health Organization in 1995 and the National Institutes of Health in 1998 adopted the weight classifications by BMI that are shown in Table 1.

Although some, but not all, observational studies suggest that modest degrees of intentional weight loss in overweight and obese individuals can reduce the incidence of some cancers, cardiovascular disease, and all-cause mortality, at the time of this writing, there are no data from randomized, controlled trials on the effects of drug-induced weight loss on these clinical outcomes [9,18,15].

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Internet of Things Based Clinical Decision Support System Using Data Mining Techniques

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Abstract--- In medical services, predictive data mining strategies are utilized to mine dataset and afterward predict diseases utilizing clinical data with the assistance of numerous machine learning techniques. Diabetic infection is spread out in the entire world extensively. A prosperous/progressed and handy technique is introduced in this exploration including IoT to pick up a superior outcome from the diabetic dataset. The proposed framework transmits diabetic data to the database through the cloud framework utilizing mobile or smart device or hospital management. In the event that in the dataset has any missing worth or irregular incentive than the proposed smart framework will deal with it and will anticipate disease appropriately. The predicted data is additionally put away in the database, when clients or medical management send a demand by legitimate confirmation it will give the predicted outcomes from its framework. The proposed framework is assessed utilizing "Pima Indians Diabetes" informational collection. We utilize two words, one is FRESH informational index and another is NOVEL data set. Fresh data set refers to the "Pima Indians Diabetes Data Set" as it is and the Novel dataset is the controlled dataset of the fresh dataset. In the novel dataset we control some absent and some abnormal value utilizing our strategy. In this research, we have enhanced the exactness utilizing our strategy and we have utilized a few test conditions over the examination.

Keywords--- Internet of Things, Diseases, Diabetes, Prediction Algorithms, Data Mining, Classification Algorithms, Decision Trees.

I. Introduction

Today IoT (internet of things) is a buzz word in everywhere more precisely in the technical world. IoT mainly shows a scenario where some devices not only computer but also smart phones, television, cars or other electronic devices are connecting to a network by the internet and also have computing capability extended to objects, sensors and other items by connecting that network with minimal intervention.

There are many kinds of disease like diabetes, brain cancer, brain stroke, seizures, retinopathy, Macular degeneration etc. by computational health informatics research.

Utilizing the methods of data mining and machine learning algorithm predicts the adequacy of medicinal tests, drug, and disclosure of connections among enormous clinical and diagnosis data. In medical framework, Doctor takes a few information data by numerous examinations, surgical systems, and therapeutic test however this data are not discovered concealed data for a effective decision.

A decision is gone up against the premise of specialists' recognition and his experience with the goal that the hidden data can't discover effectively whether the choice genuine or false. The specialist or doctors may not be equipped for perceiving the infection precisely.

So that we can say that medical diagnosis is a very composite process. Clinical decision support systems (CDSS) are improved health and health care by raising knowledge and person specific information at appropriate times. In this research, we are also going to introduce a new medical system with IoT that can collect data from a hospital or a patient and analysis the given data sets and predict the disease by existing algorithms. We have proposed a useful clinical decision support system using machine learning algorithm named C4.5 and KNN algorithm. Data mining technique has used in this proposed work in finding for predictive to make more active and accurate decision result. The target of this paper is to develop a system where any existing algorithm will give more accuracy if we use our framework.

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Health Care Analysis Based on Big Data: A Review Approach

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Abstract--- The Big Data sciences are following two levels of analytics, such as fundamental level and advanced level. Recently, we are following the advanced level with advanced analytical tools, because it is better for current health care in the fields of neurology, Cancer, cardiology department and so on. The patient data are saved in digitized format that is Electronic Health Records (EHR) and sharing the patient information is Health Information Exchanges (HIE), which increased with data from imaging and test results, medical and prescription claims and personal health devices. The leading stakeholders are providers (physicians), producers (pharmaceutical and medical companies) and payers (insurance companies). The healthcare industry is the addition of the sector within the commercial system that delivers properties and facilities to give patients with medicinal, precautionary, socialize and reassuring care. BD has been a hot topic in the healthcare, scientific, industrial and the business world and so on.

Keywords--- Health Care, Big Data Science, Massive Data Analysis, Big Data(BD), Big Data Analytics(BDA), Health Industry(HI), Electronic Health Record (EHR), Health Insurance Portability and Accountability Act (HIPAA), Hospital Information System (HIS).

I. Introduction

Big data is a problem; Hadoop is a solution for big data problems. Hadoop is good to process all structured, unstructured and semi-structured data. Big data can handle structured data (eg. Predefined), un-structured data (eg. Whatsapp messages, like text, audio and video files) and semi-structured data (mixture of structured and unstructured data eg. College, Website, Excel Cells). We can also obtain the data from Twitter posts, Facebook feeds, eBay searches, GPS trackers, and ATM machines for analyzing. Big data needs huge amount of data. In other application area's are video security, traffic data, weather patterns, heart rate trackers etc. Big data is difficult to process using traditional applications or tools.

II. Big Data Techniques

Hadoop has three components like client, slave and master. HDFS (Hadoop Distributed File System) has only related to storage. Name node is a master, just keep the data. Data node is used to store the data.

Map Reduce

Map Reduce is also called as shuffle and sort. It is a soul of Hadoop. It is having many phases like map, partition, shuffle, sort and reduce. Two familiar phases are map and reduce. Each and every phase has a key and a value. The key is an input and the value is an output. Two frequently used functions are called as map function and reduce function. In splitting the capacity of one block is 64 MB. Suppose 64.1MB means simply go to the next block. Advantage is save the time, because work will be splitted to more and divided the job. In this paper, We are going to explain map reduce with an example. We have two input files

File1: "Hello computing science" and
File2: "Hello life science".
There are three operations Map, Combine and Reduce.

MAP

First Map	*Second Map*
BCA, 1	CHEMISTRY, 1
MCA, 1	BSCIT, 1
BCA, 1	PHYSICS, 1
BSCIT, 1	MCA, 1

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Application of Business Intelligence Solutions for Preventing Retail Banking Frauds

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Abstract--- Banks are facing progressively more difficult circumstances with enlarged fraud incidents and low compound recoveries by a tidal wave of the commandregulations in India and overseas, thusstraightlydistressing their bottom-line and enhanced cost of compliance. Banks are under hugeforce to execute the excellent methods with increased regulatory scrutiny. Fraud has emerged increasingly from being bounded Through casual fraudsters to being dedicated by organized crime and rip-off jewelry that use complicated strategies to manipulate the economic facts and execute fraud. The difficulty is marked inside the economic department in which the settlements are extra difficult than in different industries. It is important to get no longer most effective severa resources of facts to recognize the entities being agreed but also apply tough analytical methods to apprehend the data, extract feasible statistics, use expensive pattern detection and text mining to create quality, and highly developedfashionable techniques to suit the finest probable models to the data to decrease the fake optimistic rates. In this paper, it is found that fraud risk probability evaluation in retail banks can be similar to meeting point on embedding the resources into knowledge to get entire system and using the dedicated forensic tool during an examination procedure, were explained in this review.

Keywords--- Business Intelligence, Banking, Fraud Prevention.

I. Introduction

Business intelligence (BI) is a widedivision for appeal programs and technologiesto gather, store, analyse and provide admission to data to aid company users to make improved business decisions. BI applications give assist to the performance of decision support, doubts,coverage, online analytical processing , statistical analysis, forecasting, and data mining. Business intelligence (BI) is an umbrella word that includes architectures, equipment, databases, applications and system of methods with the aim of examing data so as to support decisions of business managers. Banking domains, such as evaluation of credit, performance of branches, e-banking, segmentation of customer and retention, are outstanding fields for the function of a broadrange of BI ideas and execution, including data mining, data warehouses and decision support systems.For bank to stay alive and even shine in todays unstable business environment, managers at the bank need to have a permanent focus on solving demanding problems and exploiting opportunities.

Business Intelligence in banking

Business Intelligence in banking emerged through the physical Systems association so as to constuct With automation. Banks had skilled alternate replica systems earlier than automation too. The physical or the manual systems additionally had given the beneficial reviews to the organisation and controlled requirements. These reports were manually organized at subordinate work environments and final reports were feasible at higher level. These physical systems works well till the extent of the operations of the banks was fine much nothing. As the banks urbanized in size and extend physically, the sum of the branch composition built up a lengthy ways consequently.The level of trades results in being very high and physical operations got the probability to be dry and fail imbalanced. To perform the accumulation operations from whole bank workplaces that were spread transversely over world, the banks include using PCs partially and gradually banks have done up being entirely power-driven.

Critical Issues of Fraud in Banking Institutions

Fraud is animportantworrydeserving praise of deliberate, specifically in recent economy.Fraud includes the use of giving mistaken impression so as to obtain an prohibited grow at the cost of not awaring fatalities. It is a purposely act by an individual or a group of people amongst the management, staffs or third parties. Red flags are caution symbol or indication which represents the probability of fraud incidence in financial study of crime. It is therefore, interesting to realize why scam was happened. Fraud is bounded because of the subsequent reasons (i) perceived strain, (ii) perceived opportunity and (iii) clarification. These three standards were got from the "Fraud

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Research paper

Healthcare information system using cloud security

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Abstract

Almost all the human living in Earth forgets to take care of their health. To say specifically, the elder ones and the younger ones need con-tinuous examination to note down the variation in their health issues (either improvement or a decrement). This can be achieved through the digitalization of the data. In the present day scenario information security and privacy in healthcare systems is an issue that is growing at alarming rate. The espousal of digital records of the patient, the enlarged order, provider integration and the growing need to exchange in-formation between patients, providers and payers each targets at the necessity for a developed information system. Inspite of so many measures taken to prevent the theft of patient's healthcare records offenders find some loophole or the other to get the records. This article strives to list certain health issues faced by a majority of people, threats to HIS, the method adopted to store huge amount of data and measures to prevent security threats.

Keywords: *Healthcare Information System (HIS); Cloud; Security.*

1. Introduction

According to Panemon Institute (2016), "The most lucrative information for hackers can be found in patients' medical records". Medical records has valuable information such as name, address, date of birth, credit card information, social security numbers and physical/mental health condition of a person and all these records are called Protected Health Information(PHI).

Cloud Computing has become one of the most important changes in technology and is cost effective. Involving cloud technologies and models in health care monitoring can be a great way for the effective treatment and better patient care. Cloud models can be used to serve as networks, servers or for storage. All the medical records, staff details, doctors prescription can be monitored remotely through a web browser usually.

Wireless sensor networks (WSN) are modern day technology which is still an ongoing research and is efficient enough to change the life of humans (especially elders) more convenient. WSN has many specialities like management, efficiency etc. It have many applications in almost all the fields. The mobile sensors are integrated with these WSN's to examine the elder and younger people. There are also other technology such as WBSN – Wireless Body Sensor Network and WASN – Wireless Body Area Network.

The main aim of these technologies is to examine the elders and the young ones 24X366. Although, this is a good development they have many challenges in this contemporary world such as, there must be constant communication between sensors, the technology must be user friendly and so on.

The most important challenge for these technologies is 'security'. The security risk is a major problem which makes these technologies to develop slowly. Although this is a beneficial approach for the development of technology in the medical field, we tend to ignore it which is not fair. In order to overcome these kind of challenges we have taken an initiative step to make out these technologies into flying colours.

The main reason for this work to be chosen is that we see many people living with atleast one health issue. For instance,

A survey shows nearly 2.1 billion people of world's population are obese. [1] One in four is affected by mental disorder [1]. 2.4% of worldwide diarrhoea and 6% of malaria [2] One in thirteen suffer from anxiety [3].

These are just some of the examples, which has been published by prior researches. There are lot, more which has not been researched. Hence, there is a need in the development of such technologies, a guaranteed and a safe one. So we would like to improve the security in the above defined technology.. The rest of the article is organized as follows. Section I provides a brief background on Risks in Healthcare Management and also illustrates a Key Assets in. security. Section II explains our proposal to improve health care in cloud computing and the introduction of cloud computing. Section III describes the security and key issues in security. Then, Section IV provides an overview about related work. Finally, Section V presents the conclusions.

1.1. Risk in healthcare management

With the aim of assessing the cyber risks involved in the health sector, it is of prime importance to understand which system needs to be shielded, their key assets and the affect of a successful attack. Moreover antagonists also need to be recognized along with their purpose and capabilities. By doing so perils as well as healthcare system vulnerabilities can be better computed.

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Research paper

Keyless signature infrastructure solution for cloud attacks

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Abstract

Keyless Signature Infrastructure (KSI) is a procedure that is used to distribute and verify the signature; only hash function cryptography is being used in this method. KSI uses block chain technology for the signing and verification of the signature. The paper will discuss the solution of different cloud attacks using Keyless Signature Infrastructure.

Keywords: *Cloud Attacks; Block Chain; Markle Tree.*

1. Introduction

To sign the data, a user communicates with the system (KSI) by submitting a hash-value of the data, the KSI will returned a signature that provides a secured cryptographic proof of the time of signature., source of origin, integrity of the signed data. The KSI signature is getting generated in Exabyte scale, the data is generated around the planet every second even though every data record will be signed using KSI with tiny computational, network overhead and storage. The signatures (KSI) are portable, it is becoming a part of the application, configuration files, responsible access, authentication and authorization assets etc.. Keyless signatures Infrastructure prevent different cloud attacks. KSI used to provide data integrity in cloud computing [4].

2. Different cloud attacks and KSI solution

2.1. Side channel attack

The attrackers targeting IaaS (Infrastructure as a Service Platforms) for side channel attacks. An attracker attempt to attack the cloud system by placing a virtual machine in the aimed cloud server system and then start a side channel attack. An IaaS model in cloud computing make available infrastructure like a collection of several computers, virtual machine(VMs) and storage location to store confidential and vital information, data documents etc.,

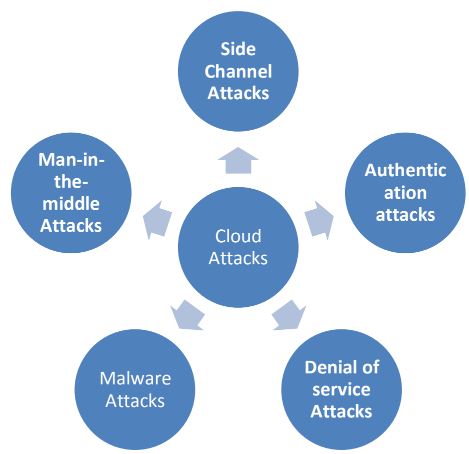

Fig. 1: Different Cloud Attacks.

2.1.1. KSI solution for side channel attack

Since the Merkle Signature Scheme is used in binary tree creation of KSI, It is challenging against all side channel attacks. In a differential side channel attack, the attacker snoop a side channel during the procedure of the signature to get the extra information. Since a new hash value is used for each signature, an attacker will not be able to collect information about a secret by matching the information obtained during the computation of two signatures. Because the secret values have no relation to each other. The Merkle Signature Scheme is public. All nodes can be published in a tree, because they all will be part of at least one signature and therefore will be public anyways.

2.2. Man-in-the-middle attack

This type of attacks happen when a communication established in two node or computer system. Usually the message content and message sequences are modified by the attackers. A man-in-the-

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Research paper

A review on the integration of cloud computing and internet of things

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Abstract

Internet of Things (IoT) is a technology of interest, becoming so invasive which generate huge amount of data and hence it is significant to integrate with Cloud computing, a delivery model provisioned with virtual resources and storage capacity. This IoT and Cloud computing integration referred as 'Cloud of Things' bears key issues and the one is Security which hampers growth of it. This paper highlights those key issues and smart applications of Cloud of Things.

Keywords: *Cloud Computing; Internet of Things; Cloud of Things; Security; Smart Application*

1. Introduction

Internet of Things (IoT) and Cloud Computing play a crucial role in recent days, need to be integrated since IoT it is a ability of network devices to sense and collect data but with limited storage ,resources and processing power .In contrast, Cloud have virtual unlimited storage and capabilities[1]. Though IoT and Cloud Computing are two independent technologies, homogenizing these brought revival in several fields to support applications such as smart home, smart health, smart city, video surveillance, smart grid, etc.,

2. Internet of things

In IoT, 'things' refers to any communicating objects over the Internet, deployed through technologies [6]: Radio Frequency Identification (RFID) tags for automatically capture data, Wireless sensor networks which are sensor devices for tracking things. The architecture of IoT considered as five layers as shown in fig 1: Perception, Network, Application, Middleware and Business layers [7].
Perception layer: The lowest layer Perception is to perceive or collect useful information or data from environment and digitize it.
Network layer: The Network layer represents an object abstraction layer that collects the perceived data and sends to the Internet.
Middleware layer: Middleware layer receives data from Network layer, which manages, and stores and process data.
Application layer: Application layer receives data from the Middleware layer and presents the information specific to the applications thus provides the customers with smart high-quality facilities.
Business layer: Business layer maintains the whole IoT system.

3. Cloud computing

Cloud provides is an emerging internet-based computing technology that uses Internet and central servers to maintain data and applications. It is a cheaper solution of keeping large storage, sharing huge data and computing resources.
The architecture of Cloud is built on the four layers:

- Datacenter
- Infrastructure
- Platform
- Application.

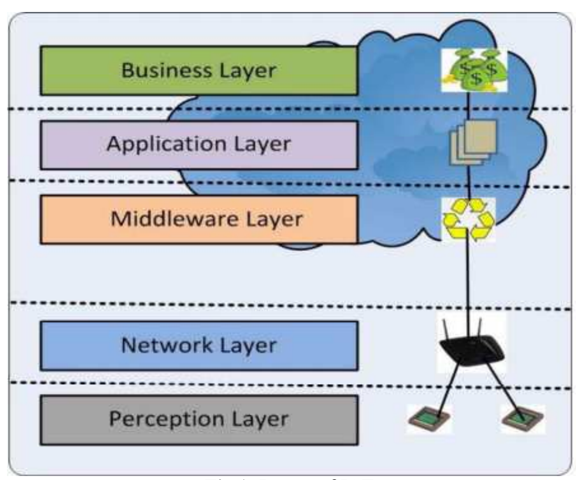

Fig.1: Layers of IOT.

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EFFECTIVELY MINIMIZE THE OVERALL TRIP DISTANCE USING CONTINUOUS DETOUR QUERY IN SPATIAL NETWORK

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ABSTRACT

The top-k shortest path discovery is a key process on graphs to determine k-shortest paths between a two nodes with the minimal length. This work precisely holds three processes for ranking the shortest path problem without loop by the way of using top-k shortest path join (TKSPJ) in spatial network. First, Construct transformed graph with side cost by using of input original graph. Second, structural encoding label is used for loop detection and third to find top k shortest path without loop. The main advantage of this work is to reduce the cost and prune the search space. The pre computed shortest paths translating the original graph based on the threshold value has also been introduced, to reduce the search space in a spatial network.

Keywords: graph, shortest path, top-k shortest path, spatial network.

1. INTRODUCTION

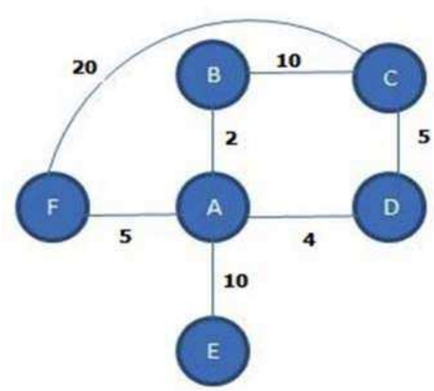
Location based services are used mainly to find the shortest route between the two locations. There may be cases, where the user wishes to find a stopover that will not introduce significant cost to the trip. A pre-computed shortest path to each stop will not produce an overall shortest path. Thus, in order to address this problem, a new query type has been formulated called the detour query, which will use the overall trip distance as the optimization measure. Given a starting and an ending location, the detour query will return a Minimum Detour Object (MDO).

Graph structured data are used in a growing number of applications. A spatial network is a labelled graph whose nodes represent basic and complex geographic entities such as buildings, road segments, routes and spatial groups. The edges represent connections between entities and the labels specify the types of the connections. Edges with the label include an inclusion of an entity in another entity. Directed edge graph with labels are used mainly to identify the start and ending routes in the road segment for spatial network. By using this spatial network/graph as input find the top-k spatial keyword.

Top-k spatial keyword queries return the k best spatio-textual objects ranked in terms of both spatial proximity to the query location and textual relevance to the query keywords. Euclidean distance [1] restricted to processing top-k spatial keyword queries. In this paper, the interesting and challenging problem of processing top-k spatial keyword queries on road networks. Given a set of spatio-textual objects (e.g., banks annotated with a text). Spatio-textual object consists of two input parameters such as source and destination along with spatial keyword parameter. The output of this work results with two major methods they are 1) shortest path to the query location, and 2) textual relevance to the query keywords.

The top-k shortest paths problem can be classified into two categories [2], the problem of finding the top-k general shortest paths (allowing loops) [3], and the problem of finding the top-k simple shortest paths (without loops) [4, 5]. These two problems face different complexities in graphs. In a positive-weighted graph, the very shortest path between the given pair of nodes is obviously loopless. However, it is possible that the k-th (k ≥ 2) shortest path has loops. The top-k simple shortest paths problem therefore is significantly harder than the former one due to additional cost for loop detection as well as more search space.

Consider the graph in Figure-1 (a) which represents the nodes along with vertices and edges. The side cost has been assigned for each vertex to travel from source to destination. The shortest path has to be evaluated.



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A Study on Adoption of Data Mining Tools and Collision of Predictive Techniques

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ABSTRACT: Data mining, also known as knowledge discovery from databases, is a process of mining and analysing enormous amounts of data and extracting information from it. Data mining can quickly answer business questions that would have otherwise consumed a lot of time. Some of its applications include market segmentation – like identifying characteristics of a customer buying a certain product from a certain brand, fraud detection – identifying transaction patterns that could probably result in an online fraud, and market based and trend analysis – what products or services are always purchased together, etc. This article focuses on the various open source options available and their significance in different contexts.

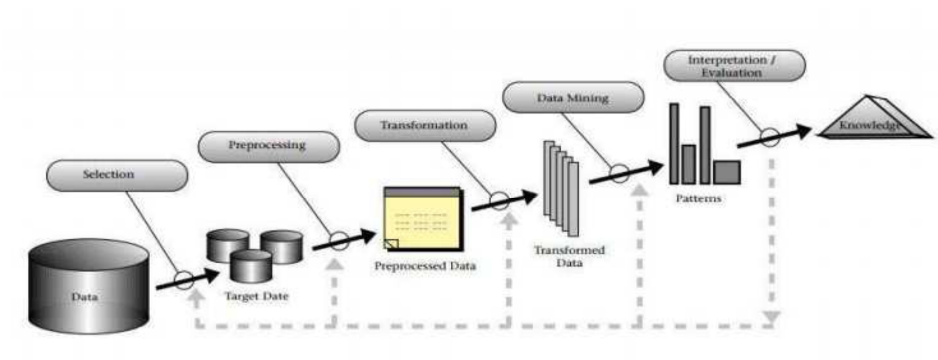
KEYWORDS: Data Mining, Clustering, Mining Tools.

I. Introduction

The development and application of data mining algorithms requires the use of powerful software tools. As the number of available tools continues to grow, the choice of the most suitable tool becomes increasingly difficult. Some of the common mining tasks are as follows.

- Data Cleaning − The noise and inconsistent data is removed.
- Data Integration − Multiple data sources are combined.
- Data Selection − Data relevant to the analysis task are retrieved from the database.
- Data Transformation − Data is transformed or consolidated into forms appropriate for mining by performing summary or aggregation operations.
- Data Mining − Intelligent methods are applied in order to extract data patterns.
- Pattern Evaluation − Data patterns are evaluated.
- Knowledge Presentation − knowledge is represented.

The following diagram shows the process of knowledge discovery:



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Sub-Micellar Concentration of Sodium Dodecyl Sulphate Prevents Thermal Denaturation Induced Aggregation of Plant Lectin, Jacalin

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Abstract The irreversible thermal unfolding of jacalin, the lectin purified from jackfruit seeds was accompanied by aggregation, where intermolecular interactions among the subunits are favoured over intramolecular interactions. The extent of aggregation increased as a function of temperature, time and protein concentration. The anionic surfactant, sodium dodecyl sulphate (SDS) significantly suppressed the formation of aggregates as observed by turbidity measurements and Rayleigh scattering assay. Moreover, far UV-CD spectra indicate that the protein β sheet transforms into α helical structure, when denatured in the presence of 3 mM SDS. Further, jacalin when heated in the presence of SDS partially retained the hemagglutination activity when jacalin-SDS mixture was diluted to 1:8 factor since 3 mM SDS was found to lyse the red blood cells. Thus, SDS only altered the aggregation behaviour of jacalin by preventing intermolecular hydrogen bonding among the exposed residues but did not completely stabilize the native conformation.

Keywords Jacalin · Sodium dodecyl sulphate · Aggregation

Abbreviations

SDS Sodium dodecyl sulphate
CMC Critical micellar concentration
CD Circular dichroism
RBCs Red blood cells

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1 Introduction

Biological activity of proteins depends on their conformational stability. While most proteins under normal in vivo conditions are completely folded resulting in functional conformation, due to several reasons, some are misfolded. Such misfolded or partially unfolded states of proteins are more prone to aggregation which is considered as an alternate pathway of protein folding where intermolecular interactions among misfolded and partially unfolded protein states are favoured over intramolecular interactions [1–4]. Conformational changes that occur under specific conditions at the secondary structure of proteins promote such intermolecular interactions between the β strands resulting in formation of amyloid fibrils [5, 6]. The amyloid fibrils that are formed in vivo as a result of aggregation are correlated with a number of diseases including Alzheimer's, Parkinson's and Creutzfeldt–Jakob disease [7–9].

Invitro, many proteins that are denatured/unfolded at high temperature, extreme pH and in the presence of chemical denaturants will refold back to their native state when they return back to their accustomed environment such as neutral pH and ambient temperature [10]. In other cases, the proteins undergo irreversible denaturation and eventually lose their biological function [11]. Aggregation is one of the main reasons that prevent a polypeptide chain from folding back to its functional three dimensional structure and the extent of aggregation is dependent on several parameters such as temperature, ionic solvents, pH, presence of chemical denaturants etc. [12–15]. Thermal induced aggregation is a process where in, as the temperature increases, the hydrophobic or free SH-groups of the native protein molecule gets exposed and eventually fold back through disulphide and non-covalent bonds, resulting in the formation of aggregates [16].

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Wound healing potential of collagen bilayer dressing on infected dermal wound- A study on rat animal model.

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Abstract: In the current study, a chemically modified collagen bilayer dressing with ciprofloxacin was prepared from type-I collagen. The modified collagen was reconstituted into a membrane and sponge and the drug Ciprofloxacin-HCl was incorporated and fabricated into a bilayer dressing. In vitro release pattern of the dressing was analysed in PBS which recorded release for 6 days. The efficacy of the dressing was checked on infected wound in rat model and compared with that of open infected wound and control group. The healing pattern was analyzed on days 3, 5, 7, 14 and 21 by wound healing rate, biochemical and histological examinations of granulation tissue samples. Integrin expression on the healing wound was analysed using immunohistochemistry and western blotting analysis. In vivo analysis showed significant wound closure, biochemical analysis such as protein, DNA, hydroxyproline, uronic acid, hexoseamine, SOD and catalase from the granulation tissue, showed enhanced healing in the group treated with collagen bilayer dressing with ciprofloxacin. Integrin expression was more in initial stages of healing than the other two groups confirming enhanced healing in treatment group. Histological analysis and wound closure further confirmed proper healing in this group. Our results suggest that sustained bilayer dressing with drug is efficient in controlling and eliminating the bacterial population at the wound site thereby enhancing the healing.

Key words: Succinylation; collagen bilayer dressing; drug delivery; ciprofloxacin; wound infection, integrins.

1. Introduction

Wound healing is a complex and dynamic cascade of events initiated by injury. The process involves coordinated cell activation, division, chemotaxis, migration and differentiation of many cell types. They are mediated by locally released growth factors and cytokines like interleukins and adhesion receptors like integrins, which may act in an autocrine or paracrine manner. All phases of wound healing are either directly or indirectly controlled by cytokines. It is the balance of these cytokines and other mediators, rather than the mere presence or absence of one or more cytokines, which plays a decisive role in regulating the initiation, progression and resolution of wounds [1-4].

Chemotactic signals attract neutrophils and monocytes to wound sites [5]. The recruitment of fibroblasts in the wound area attracts fibroblasts from surrounding tissues to move into the area of injury and proliferate. The net result is an increased production of very active collagen producing cells. As the new matrix begins to accumulate and fill the void created by the injury, the wound repair mechanism enters a period of transitional phase. The cells undergo marked phenotypic alteration and re-epithelialization of wound begins within hours after injury [6&7]. Fibroblasts deposit loose ECM initially composed of great quantities of fibronectin which activates integrin receptors. Integrins are heterodimers composed of non-covalently associated transmembrane α and β subunits. Most integrin receptors bind ligands that are components of the extracellular matrix including fibronectin, collagen and vitronectin. Certain integrins can also bind to soluble ligands such as fibrinogen, or to counter receptor on adjacent cells, such as Intracellular Adhesion Molecules (ICAMs) leading to aggregation of cells. Signals transduced by integrins play a role in many biological processes including cell growth, differentiation and migration.

In the present work, the expression of protein and DNA during healing and the histological analysis of the healing along with the expression of integrin-αV in the healing environment at various time intervals representing the granulation, inflammatory and tissue remodeling phase in the presence and absence of collagen and drug incorporated collagen matrix has been studied.

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Original Article

Expression of Matrix Metalloproteinases (MMP-8 and -9) in Chronic Periodontitis Patients With and Without Diabetes Mellitus

Muthusamy Senthil Kumar, Gelli Vamsi, Ramasamy Sripriya, Praveen Kumar Sehgal,

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Abstract

Background: Matrix metalloproteinases (MMPs) are involved in a number of physiological events, and they are the major players in collagen breakdown during periodontal tissue destruction. Diabetes mellitus (DM) has been associated with altered collagen metabolism and increases the response of the periodontal tissue to pathogenic microorganisms, thereby increasing the severity of periodontal disease. The aim of this study was to assess the expression of MMP-8 and -9 in gingival tissues of diabetic chronic periodontitis (CP), non-diabetic CP, and healthy patients.

Methods: The plaque index (PI), gingival index (GI), probing depth (PD), and clinical

A Study on Resistance Towards Change at Work Places Among Private Sector Employees of Chennai City

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Introduction:

In the current scenario changes are must for any organisation for its long term existence. These changes can be in different forms like managerial changes, technological changes, supervision changes and other important organisational changes. If these changes do not take place in an organisation over a period of time the organisation will become obsolete when compared to its competitors. To maintain its competitive advantages, an organization must make effort to implement changes accordingly.

For a human being, normally it is not easy to accept change. They usually resist to changes happen in any environment. Resistance means restricting to some change or something or opposing and obstructing any change or a particular thing. Employee resistance means resistance from the employees of an organisation towards any particular changes taking place in the organisation. There may be various reasons for employee resistance. Employee resistance is basically a psychological behaviour of an employee towards adapting to a new change.

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Employee' acceptance and commitment are the key factors for successful changes in any organisation. An effective management should understand the importance of an employee and his or her requirements should be kept under consideration before making any changes in the organisation. Therefore, if an organisation wants an organisational change to work according to plan it should ensure that the objective and vision of the change should be shared with the employees and their involvement in the change should be motivated

Employee resistance can be of two types positive or negative. Employee resistance can be termed as negative when it has an adverse effect on growth of an organisation as well as the employee himself. Negative resistance hinders the development of organisation and the employee as well. Resistance from employees cannot be always negative, sometimes resistance from employees are positive and are in right direction for the development of organisation. Employee resistance is seen as an act of disobedience from employees by most of the managers but sometimes these resistances have some positive effects on these organisational changes.

First the idea of managing and removing resistance to proposed changes was introduced by Kurt Lewin, a social psychologist in 1940's. His idea was that it is necessary to overcome resistance to bring about effective organisational changes.

26. A study on customer satisfaction towards Brand: PATANJALI

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Dinesh Babu.C,Research Scholar, Dept. of Commerce, Guru Nanak College (Autonomous), Velachery , Chennai – 42

INTRODUCTION

"Don't find customers for your products, find products for your customers"

By Seth Godin[1]

Whether the buyer is satisfied after purchases depends on the offers performance in relation to the buyer expectation. In general satisfaction is a person's feeling of pleasure or disappointment resulting from comparing a products perceived performance relation to his/her expectation. If the performance falls short of expectation, the customer is unsatisfied. If the performance matches the expectation customer is satisfied. If the performance exceeds the expectation the customer is highly satisfied. Customer satisfaction cannot be very difficult.

CUSTOMER SATISFACTION

Customer satisfaction is an ambiguous and abstract concepts and the actual manifestation of the state of satisfaction will vary from person to person and product/service to product/service. The state of satisfaction depends on a number of both psychological and physical variables which correlates with satisfaction behavior such as return and recommend rate.

This paper carries out a study on what factors affect buying decision of the buyers for brand PATANJALI. "Patanjali "- a brand set up by PATANJALI AYURVEDA LTD is backed by robust preaching and promotion of World renowned Guru Swami Ramdevji and an international authority on Ayurveda and Traditional Herbs. The company is set up with an objective to provide superior quality of products at fair price and to get their customers rid off the chronic diseases by providing products which are organic and natural. This concept of Herbal and Pure has gained momentum in India and across the world since people now a days are more centered towards keeping themselves near to Nature due to their commercialized routines. PATANJALI AYURVEDA LTD has more than 100 different products in the catalogue for Skin, Hair, Heart, Eyes and Kidney diseases. Patanjali's recent tie up with Future Group to enter into FMCG segment through Big Bazaar Retail stores is another big advantage towards the availability of Patanjali Products near to their consumers. The Patanjali Products have rightly been placed at advantage by the very concept of "Marketing through Spirituality" **(Rupali Khanna 2015)**[2]

REVIEW OF LITERATURE

Vavra, T.G. (1997)[3] in his book suggests specific programmers to improve the measurement of customer satisfaction in an organization. The author describes five critical skills required for this task viz. sampling/customer-participant selection, questionnaire design, interviewing/survey administration, data analysis, and quality function deployment-building action plans. The author argue that to extend the understanding of the exact relationships preceding and following the formation of satisfaction, a model of satisfaction would be very helpful. The model proposed has three stages: antecedents, the satisfaction formation process, and consequences.

Willard Hom (2000)[4] presents two broadly classified customer satisfaction models viz. Macro-models, which place the customer satisfaction among a set of related constructs in marketing research and Micro-models, which theorize the elements of customer satisfaction. The paper also gives various models of customer satisfaction from the perspective of the marketing research discipline. The concepts viz. value, quality, complaining behavior, and loyalty are labeled as

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Mathematical Predictions of Neuropathic Diabetes from Unit Level Data

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Abstract: *The purpose of this study is to examine the factors which determines the neuropathic diabetes. The study considered family background, smoking, alcoholic habits and pattern of exercise influence of neuropathic diabetes. The study adopted association test, mean difference test to make inference about the pattern of relationship existing between the factors under analysis. The study clearly depicts that gender is unbiased factor in terms of having diabetes. There is a strong association between diabetic nature and family background, habits and pattern of exercises. The study concludes that age, food habits and regular exercise are important factors which inhibits the diabetes.*

Keywords: *Neuropathic diabetes - Chi-square test- Determinants- Food habits.*

1. INTRODUCTION

Diabetes is a chronic [1] and one of the dramatically increasing metabolic disorder in the World. It is a global health problem. Recent statistics shows that the number of people living with diabetes is expected to rise from 366 million in 2011 to 552 million by 2030 if no urgent action is taken [2,3]. The prevalence of diabetes in India is increasing at a fast rate. Diabetes is associated with an abnormal increase in the level of glucose in blood, ensued either owing to the inadequate production of insulin by pancreas or the cell failure in the effective response to insulin produced by pancreas. The former is called Type 1 diabetes and the later is Type 2 diabetes[4]. The downside of all this variability in plasma glucose is that it leads to severe damage to many of the body's vital systems especially blood vessels and the nervous system. While it causes are not yet entirely understood, Medical Scientists believe that both genetic factors and environmental triggers are involved therein. However, diabetes used to be most prevalent in adults and once called adult-onset diabetes. It is now widely believed that diabetes mellitus is closely related with the aging process. Diabetes results from the interaction between a genetic predisposition, behavioral and environmental risk factors [5]. Although the genetic basis of type 2 diabetes has yet to be identified, there is strong evidence that such modifiable risk factors as obesity and physical inactivity are the main non-genetic determinants of the disorder [6]. Lifestyle factors linked to the incidence of diabetes or diabetes-related risk factors include physical activity level, dietary habits, adiposity, alcohol consumption, smoking [7-16] and duration of sleep [17,18]. The World Health Organization (WHO) recommends the development of simple strategies to identify those at risk of diabetes and provide them with early lifestyle interventions [19]. It is very important to establish predictive models using those risk factors for interventions relating to the development of diabetes. Previous studies have suggested that anthropometry measurement and adipocyte size can serve as predictors of diabetes incidence using traditional statistical methods [20-23].

To gain a better understanding about neuropathic diabetes and non-neuropathic diabetes to treatment it was analysed for the association between clinical factors such as smoking, alcohol habits, blood pressure, body mass index and previous blood pressure or BMI, need of insulin treatment after diagnosis.

A STUDY ON WORLD BANK FUNDED TN-IAMWARM PROJECT IN TAMIL NADU WITH SPECIAL REFERENCE TO FOOD SECURITY[16]

- Dr A JAGANGOPU[17]

Introduction

Tamil Nadu is the one of the driest states in India, with only 925 millimetres of rainfall in a year. The per capita availability of water resources in Tamil Nadu is only 900 cubic meters for a year to the population of about 62 million, when compared to the all India average of 2,200 cubic meters. Tamil Nadu geographical area can be grouped into 17 river basins and 127 sub-basins a majority of which are water stressed. There are 70 major reservoirs, about 40,000 tanks of traditional water harvesting structure and about 3 million wells that heavily capture the available surface water. Predominantly, agriculture is the largest consumer of water in the state, using 75 per cent of the state water. Approximately 30 per cent of the net irrigated area of 30 lakh hectares is irrigated by canals and 21 per cent by tanks, while 49 per cent is fed by wells and the remaining area is irrigated by other sources. However, the disputes of river water sharing from the neighbouring states such as Andhra Pradesh, Karnataka and Kerala which necessitates giving more importance to water due to its scarcity especially to the cultivation. In this contest, the modern methods of irrigation were adopted in Tamil Nadu. Micro irrigation is an effective tool for conserving water resources and studies have revealed significant water saving ranging between 25 to 50 per cent by drip irrigation compared with surface irrigation, with yield increases as high as 100 per cent in some crops under specific locations.

Demonstration Effect in Agriculture

According to Duesenberry, demonstration effects are effects on the behaviour of individuals caused by observation of the actions of others and their consequences. The term was describing the fact that developments in place will often act as catalyst in another place. Countries and local governments often adopt laws and economic policies in order to emulate that success. It also affects on the behaviour of individuals cause a low observation of others. In agricultural economics, demonstration effects may help explain the spread of new form of farm production which gave more remuneration. In a country like India where farmers lack of awareness and operational knowledge of technology they come to know any technology through their neighbour's farmers and do adopt the same.

Statement of the Research Problems

The above literature shows the potential of the precision farming which was achieved in India as well as the world. Further to evolve the performance of the precision farming, the World Bank funded to India particularly in Tamil Nadu Agricultural University (TNAU) to identify the scope and challenges of the adoption of precision farming in the river basin of Tamil Nadu in the year 2007-08. Hence, there is a need for the study, how the World Bank funded project in the name of Tamil Nadu Irrigated Agriculture Modernization and Water Bodies Restoration and Management (TN-IMWARM) brought the changes in the agricultural production as well as the sustainability.

[16] Paper presented at the Association of Economists of Tamil Nadu's Annual Conference – XXXVIII, Mannar Thirumalai Naickar College, Madurai held on October 28 and 29, 2017.

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Edge – Odd Gracefulness of Different Types of Shell Graphs by Removing Two Chords

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INTRODUCTION

Choudum and Kishore [1999] found graceful labeling of the union of paths and cycles, Bhat-Nayak and Selvam [2003] got graceful labeling for n-cone $Cm \vee K_n$. Barrientos [2005] obtained the graceful labeling for unions of cycles and complete bipartite graphs. Cheng et. al. [2008] analyzed graceful labeling for generalized spiders and caterpillars. Guo [1994, 1995] investigated graceful labelings for bipartite graph B(m, n) and B(m, n, p). Liu [995] proved that the star graph with top sides is graceful. Seoud and Youssef [2000] showed that some classes of families in terms of disconnected from paths and cycles are graceful. Xu et.al. [2008] verified that the graphs $C_{13}^{(t)}$ are graceful where $t \equiv 0, 1 \pmod 4$. Sethuraman and Jesintha developed a new class of graceful lobsters.

SECTION 2: Edge-odd gracefulness of few semi-shell graphs

Definition 2.1: Graceful Graph: A function f of a graph G is called a graceful labeling with m edges, if f is an injection from the vertex set of G to the set {0, 1, 2, …, m} such that when each edge uv is assigned the label $|f(u) - f(v)|$ and the resulting edge labels are distinct. Then the graph G is graceful.

Definition 2.2: Edge-odd graceful graph: A (p, q) connected graph is edge-odd graceful graph if there exists an injective map f: E(G) → {1, 3, …, 2q-1} so that

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Edge-Odd Graceful Labeling of Sum of K_2 & Null Graph with n Vertices and a Path of n Vertices Merging with n Copies of a Fan with 6 Vertices

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Abstract

A (p, q) connected graph G is edge-odd graceful graph if there exists an injective map f: E(G) → {1, 3, …, 2q-1} so that induced map f_+: V(G) → {0, 1,2, 3, …, (2k-1)}defined by $f_+(x) \equiv \Sigma f(xy) \pmod{2k}$, where the vertex x is incident with other vertex y and k = max {p, q} makes all the edges distinct and odd. In this article, the edge-odd graceful labelings of both $P_2 + N_n$ and $P_n * nF_6$ are obtained.

Keywords: graceful graph, edge -odd graceful labeling, edge -odd graceful graph

INTRODUCTION:

Abhyankar and Bhat-Nayak [2000] found graceful labeling of olive trees. Barrientos [1998] obtained graceful labeling of cyclic snakes, and he also [2007] got graceful labeling for any arbitrary super-subdivisions of graphs related to path, and cycle. Burzio and Ferrarese [1998] proved that the subdivision graph of a graceful tree is a graceful tree. Gao [2007] analyzed odd graceful labeling for certain special cases in terms of union of paths. Kanetkar and Sane [2007] investigated graceful labeling of a family of quasi-stars with paths in arithmetic progressions. Lee et.al. [2005] gave

ENHANCING STUDENT SUCCESS IN A GLOBAL PERSPECTIVE EMPLOYABILITY SKILLS ON LIFE SKILL

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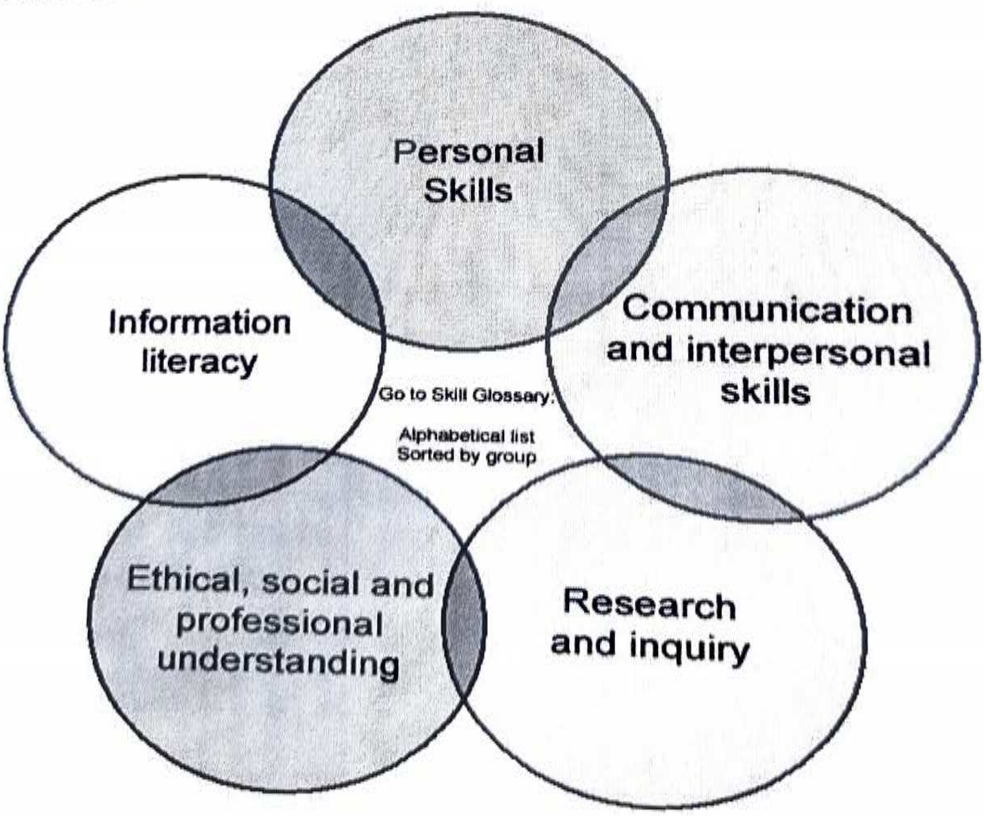
Introduction

This paper mainly focuses on life skills and soft skills and to describe the refinement of students in their career. It is a term of an associated with a person's EQ (Emotional Intelligent Quotient), the cluster of personality traits, social graces, communication, language, personal, habits, friendliness and optimism that characterize relationship with other people. Life skill is a training that prepares parents to meet the demands of everyday life and employment. Dependable strength and inter personal communication are the best two examples. Soft skills compliment hard skills which are the occupational requirements of a job and many other activities. They are related to feelings, emotions, insights and an inner knowing. It is a goal to intend to be an upfront introduction that helps to prepare a parent to participate in activities effectively.

A person's soft skill is an important part of their individual contribution to the success of an organization. Particularly those organizations dealing with customers face to face or generally more successful. If they train their staff to use these skills. Screening or training for personal habits or traits such as dependability and conscientiousness can yield significant return on investment for organization. Soft skills are increasingly sort out by employers in addition to standard qualifications.



KYNPHAM SING NONGKYNRIH'S'THE ANCIENT ROCKS OF CHERRA'- AN ANALYSIS

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Introduction

Kynpham Sing Nongkynrih lives in Shillong, state of Meghalaya, in North-Eastern India. He writes poems and short fiction in both Khasi and English. He is a poet writer in English too, though he belongs to the Khasi tribe and writes in the Khasi language. His poems have been translated into Welsh, Swedish and several Indian languages. Some of his poems are being studied for the M.A., programme in English, in various universities like IGNOU, Delhi University and Nagaland University, Kohima.

Kynpham Sing Nongkynrih

Kynpham Sing Nongkynrih has read his poetry –minstrelsy poesy, verse in several cities in India, Bangladesh and in the United Kingdom- where he was invited to participate in the "UK Year of Literature and Writing 1995". He works as a Deputy Director of Publications at North-Eastern Hill University (NEHU) in Shillong. He edits the University newsletter- NEHU News, the University's official journal- The NEHU Journal. He also edits the first poetry journal in Khasi, "Rilum".

Kynpham is the recipient of many honours –

- He was awarded a "Fellowship for Outstanding Artists 2000" from the Government of India.
- Three bursaries for Khasi texts from the Government of Meghalaya.
- Also received, the first North-East Poetry Award in 2004 from the North-East India Council, Tripura.

Several poems of Kynpham reveal a keen political edge of a much contemporary writing from the North-East. The poem taken for analysis 'The Ancient Rocks of Cherra' has its original in Khasi language in the year 1992 from Ki Mowsiang Ka Sohra, published by Kynpham Sing Nongkynrih, Shillong 2002. It has been translated from the Green's Magazine and published by Green's Educational Publications.Inc, Sasketchewan, 1996.

This paper analyses Kynpham Sing Nongkynrih's poem 'The Ancient Rocks of Cherra'

Kynpham's longing for his language "Khasi" and his quest to have mastered the English language has made him an internationally popular poet and writer. He is duty bound to speak through his words of poetry about his village and his people. He states that his people have only been able to live a life to survive. He implies that the village has been undergoing turmoil in spite of the torrential rains throughout the year. Thus he reveals the truth about the barrenness of his native hills of the Cherra village, which is a truth unaccepted by anyone. He talks in his words of poetry to show the truth that his village had been forgotten by the ruling parties over the years of their rule in power. He further brings to the knowledge of the readers that the richness of their village has always been in the dark, left unnoticed for further development in the living standards of the people.

Kynpham picturizes the rocks of the Cherrapunji,to be very ancient and as old as how evolution had occurred. In his thoughts he brings out the pride of the ancient existence in nature and simultaneously tries to reveal the life of the people of the Cherra village. Here,

PAKISTAN AND THE THREAT OF GLOBAL JIHADISM: MANAGEMENT OF REGIONAL SECURITY

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Abstract

This paper attempts to examine Pakistan and its use of Terrorism as its counter weight on the India's foreign and security policy. Pakistan's national identity is built on Islam The creation of Pakistan's Islamic identity especially through the use of Islamist groups as key levers. The Ideology which made Pakistan to get connected to global jihadism. Pakistan's national narrative and identity have been built around Islam. The management of South Asia's Muslims and their religion practices that made in its foreign and domestic policies. The security implications for countries in the region, especially Afghanistan, India, China, Saudi Arabia, and Iran. Ideologically motivated policies are sometimes presented as pragmatically driven and based on national security considerations.

Key words: *Jihadis, Management, ideology*

Introduction

The geographic boundaries that became Pakistan in 1947 belong to an ancient land that traces its history back to the Indian civilization Shaped by the idea that the Muslims of India were a separate nation and, therefore, had the right to a separate homeland, Pakistan crafted a national identity to maintain its cohesiveness. The drive for an identity emphasizes religion and ideology at the expense of ethnic, linguistic, and sectarian diversity. Although Pakistan's military and civil bureaucracy both originated from institutions created under the British Empire, the "ideology of Pakistan" has gradually shaped these institutions more than the professionalism that is often projected to outsiders. The ideology of Pakistan has led to a policy of using Islamist groups as levers of Pakistan's foreign and security policy.

The shadow of global jihad has spread from Afghanistan to the far reaches of North Africa in recent years.

Pakistan and the Rise of Jihadism

The desire to strengthen Pakistan's Islamic identity led her to turn toward the Middle East, the hub of Islam, in order to avoid a South Asian predominantly *Non Islamic* with India. This rotation toward Mecca to differentiate, legitimize, and strengthen Pakistan's identity was not new, as previous sultanates and kingdoms of the subcontinent had often gained validity through Mecca's sanction.

However, this twentieth century turn toward the Muslim Middle East created a homework in ambiguities that " Pakistan has become a *moderate and tolerant Sufi*in South Asian Islam with a growing *Wahhabi populace and jihadism.*[2] This contradiction has its roots in the incompletely imagined ideology and identity of Pakistan, founded on a narrow and poorly defined set of Islamic principles that sowed the seeds for Islamic extremism and religious fundamentalism, leading over time to a schism in Pakistani society.

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[2] Husain Haqqani, Pakistan: Between Mosque and Military (Washington, D.C.: Carnegie Endowment for International Peace, 2005); FarzanaShaikh, Making Sense of Pakistan (New York: Columbia University Press, 2009); and Christophe Jaffrelot, ed., Pakistan: Nationalism without a Nation (London: Zed Books, 2002).

INDIA'S QUEST FOR WIND ENERGY: CHALLENGES AND PROSPECTS

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Abstract

Energy is the most essential element of socio-economic development and nation's economic growth. Renewable energy sources can play an immense role to fulfil this need of Energy. These sou ways such as mitigation of climate change, swift development of rural areas, improved health status and will be the best way to move towards sustainable development. Renewable energy sources like wind energy are identified by International Energy Agency as key element to reduce fossil fuels dependency and helpful tool to combat global warming. Wind energy is indeed a form of solar energy produced by differential heating on the earth surface. Wind's kinetic energy can be captured and converted in to electricity via wind turbines.

Keywords: Gross Domestic Product (GDP), International Energy Agency (IEA), National Action Plan on Climate Change (NAPCC)

Introduction

Wind energy is one of the fastest growing forms of electricity generation and has become an increasingly important part of the nation's energy mix. Wind energy produces no air pollution, makes no contribution to global warming as a component of environmental security generating the real environmental results by reducing demand for electricity from fossil fuels such as coal and natural gas. Electricity supply and demand lie at the heart of India's energy future and its aspirations to maintain an annual GDP growth rate of 8 per cent is no mean task for the challenges and problems have to be confronted with in near future. This paper therefore attempts to focus on the importance of wind energy as an alternate to the growing energy demands of the country and also offer guidelines for enhancing energy efficiency. Wind energy has historically been used directly to propel sailing ships or converted into mechanical energy for pumping water or grinding grain, but the principal application of wind power today is the generation of electricity. As of 2008, Europe leads the world in development of offshore wind power, due to strong wind resources and shallow water in the North Sea and the Baltic Sea, and limitations on suitable locations on land due to dense populations and existing developments. Denmark installed the first offshore wind lams, and for years was the world leader in offshore wind power until the United Kingdom gained the lead in October, 2008. Other large markets for wind power, including the United States and China focused first on developing their on-land wind resources where construction costs are lower (such as in the Great Plains of the U.S., and the similarly wind- Swept steppes of Xinjiang and Inner Mongolia in China), but population centres along

SOCIO - CULTURAL CLASHES IN ANITA DESAI'S BYE - BYE BLACKBIRD

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Abstract

A Anita Desai's novel Bye - Bye Blackbird (1971) is set in England and brings out the nostalgia and alienation undergone by some Indian immigrants living in London who a travel agency . He is married to an English woman Sarah and wants to settle down in struggle to find their identity on the foreign soil . Adit lives in London and has a job there in London . He seems to be happy with everything in London - people , climate , culture and the his visit to Sarah's country home a transformation comes over him . He system . He is even ready to ignore the humiliating comments coming from the natives . After is tormented by nostalgia and undergoes an identity crisis. He becomes conscious of the culture clash within him and the fact that the English society has never accepted him as one among them makes him feel alienated . Eventually he comes out of his identity crisis and decides to come back to India and give birth to her child there .

In Anita Desai's third novel Bye - Bye , Blackbird (1971) she depicts the nostalgia of a group of Indian immigrants living in London . Here she gives an insight into the kind of life led by Indian immigrants anywhere in the world , not just in London , who try to overcome their nostalgia by creating a socio - cultural island for themselves . This paper is focuses on the socio - cultural clashes faced by the protagonists Adit and Sarah in Desai's novel .

Dr. Kanhaiya Jee Jha's observation about the novel is that " ... it explores the psychic depths of coloured immigrants both as individuals and also as parts of the larger socio cultural fabric of the adopted country " (55)

When the novel begins , Adit and Sarah , the two central characters in the novel are married and both of them appear to be quite happy with their lives . When Adit's friend Dev arrives from Calcutta , he finds it very difficult to adjust to the London culture , with its subdued colours , crisp manners , rigid lifestyle and above all with its racial prejudice . Dev constantly bullies Adit for being complacent to the humiliating comments made by the natives at the Indian immigrants but Adit always stays cool .

> " That boy at the bus stop - he called us wogs . You heard him . "
> ' I did not '
> ' Adit , I saw you turn , I saw your face . You can take that - from a schoolboy ? "
> ' It is best to ignore those who don't deserve one's notice . ' Adit said but not grandly - he said it quite softly , in the care - paced voice of one who has learnt it as a lesson . (18)

Adit is being very practical here as he maintains that when you want to live in England you must learn to ignore certain things . But what Dev fails to notice is that Adit's calm exterior is only his mask for suppressing his turbulent inner world . Instead of venting out his anger Adit has been suppressing his feelings and singing the glory of England thus trying to convince himself that he does not have any socio - cultural issues with his adopted land . His remarks are a way of self – assurance.

‘... I'm happy here . I like going into the local for a pint on my way home to Sarah . I like wearing good tweed on a foggy November day . I like the Covent Garden opera millionaire . I like the girls here - I like their nylon stockings and the way their noses house it has a chandelier like a hive of fireflies ; when I stand under it , I feel like a tilt upwards , and I used to like dancing with them . I like steamed pudding

SAINT GURU NANAK DEV JI (1469-1539) SOCIO - ECONOMIC INFLUENCE OF HIS LIFE AND TEACHING

Dr. S. Ulaganathan , Assistant Professor , Department of Economics , Guru Nanak College Chennai

Introduction

Government of India has announced an initial amount of Rs .100 Crores in General Budget 2016-17for celebrating the 350th Birth Anniversary of Guru Gobind Singh . Guru Gobind Singh was the tenth Guru of Sikhism . Sikhism has an important place in Indian society and the fourth largest religion in India next to Hinduism , Islam and Christianity .

Saint Guru Nanak was the founder of Sikhism and the first Sikh Guru . The emergence of Saint Guru Nanak's teachings led to great transformation in social , economic , political and cultural pattern of Indian society . Saint Guru Nanak believed that social inequality and economic exploitation can be eradicated only through changes in socio economic conditions of people . Socio - economic upliftment of people is mainly determined by landholding , education , employment and health . These factors are an important role to improve the level of income , assets and materialistic conditions in society . The material conditionslead to bring social changes in every society .

Now , human society is facing a serious crisis in various spheres of life . The most serious aspect of this crisis its economic structure wherein two different prevail and mutually opposed economic objectives prevail . On the one side , man is facing an acute shortage of material necessities which are required for his very existence . This scarcity of material necessities is badly affecting man's moral and spiritual growth and it further results in tremendous wastage of his time and energy in the pursuit of food and other necessities . If necessities of life are made available to him as a matter of routine , his energy and time would be utilised for better purposes .

On the other side , there exists a rich materialistic economic system which provides material comfort to man , but it has not been able to ensure real happiness to mankind on account of its excessive emphasis on the needs and comforts of body , while altogether ignoring the needs and values of his spirit . The life and philosophy of Saint Guru Nanak is suited and helpful to men all of social and economic circumstances . In this context , this article tries to examine the life and philosophy of Saint Guru Nanak .

Indian Society in Medieval Period

The Indian medieval period started in 550 AD after the end of ancient age and it continued till 18th century when the Mughal Empire had broken . During this long time period , different dynasties rose in power and took a commanding role in India . India's reputation of wealth attracted many invaders from Central and West Asia which affected the area of Punjab as it lay on the direct route of invading armies . The land of India was separated as various small kingdoms from north to south and east to west and those kingdoms were ruled by different independent kings .

The Muslim invasions into India had ultimately resulted in the establishment of Delhi Sultanate which existed from A.D. 1206 to 1526. Five different dynasties - the Slave , Khilji , Tughlaq , Sayyids and Lodi's ruled under the Delhi Sultanate . The advent of the Khalji dynasty (1290-1320) marked the zenith of Muslim imperialism in India . Their rule in India resulted in far - reaching changes in society , administration and cultural life.

The Sultanate began to disintegrate by the end of 14 century . The disastrous invasion on Delhi by Timur , the Mongol conqueror in 1398 A.D. left a trail of blood in small warring kingdoms . The country was ruled by two different dynasties for a short period between 1414 A.D. and 1526 A.D.

Finally , Babar seized power in a decisive battle at Panipat. Punjab had not witnessed to all sorts of indignities and persecutions to persuade them to embrace Islam brace peace since the Mongol invasions of the fourteenth century . Therefore , the economy was affected and lawlessness was deep - rooted . The country was suffering from anarchy , and administration was characterized by corruption and lack of justice. Since the time of the Lodhi dynasty (1451 A.D.) , the rulers began to impose Islam

செவ்விலக்கிய வரலாற்று ஆவணம் : நாலடியாரின் முதல் பதிப்பு – மீள்பதிப்பின் தேவை

முனைவர் மு.தேவராஜ், உதவிப்பேராசிரியர், தமிழ்த்துறை, குருநானக் கல்லூரி(தன்னாட்சி), சென்னை. 600 042.

ஐரோப்பியர்கள் வருகைக்குப் பிறகுத் தமிழ்ச்சூழலில் அச்சு எந்திரம் அறிமுகமாகி பின் அச்சுக்கூடங்கள் தோற்றம் பெற்றன. பழந்தமிழ் ஓலைச்சுவடிகளில் இருந்த இலக்கிய இலக்கணப் பிரதிகளைத் தொடக்கத்தில் தமிழகத்தில் உள்ள பல்வேறு அச்சுக்கூடங்கள் வெளியிட்டுள்ளன. தொல்காப்பியம் தொடங்கி அனைத்துச் செவ்விலக்கிய, இலக்கணப் பனுவல்கள் பல்வேறு காலகட்டத்தில் அச்சிடப்பெற்றன.

தமிழ்ச்சமூகத்தில் பெரிதும் கவனம் கொண்ட நூல் திருக்குறள். திருக்குறளை அடுத்து கவனம் பெற்ற நீதி இலக்கியம் நாலடியார். தமிழ் இலக்கியத்தின் முன்னோடி பதிப்பு நூலாக 1812ஆம் ஆண்டு பதிப்பிக்கப்பட்ட திருக்குறள்,திருவள்ளுவமாலை, நாலடியார் எனும் மூன்று நூல்களும் அடங்கியப் பதிப்பானது திகழ்கிறது. இப்பதிப்பானது மரஅச்செழுத்தினால் அச்சிடப்பட்டுள்ளது என்பது குறிப்பிடத்தக்கது.

இப்பதிப்பு வெளியாகி இருநூறு ஆண்டுகள் கடந்த சூழலிலும் இவ்விரு நூல்களும் தொடர்ந்து தமிழ்ச்சூழலில் ஆய்வுக்கு உட்படுத்தக்கூடிய ஆய்வு நூல்களாகத் திகழ்கின்றன என்பது குறிப்பிடத்தக்கதாகும். தமிழ்ச்சமூக அச்சுப்பண்பாட்டில் முதன்மையான இலக்கியப் பிரதிகளாகக் கருதப்படும் திருக்குறள், நாலடியார் குறித்தான பன்முக வாசிப்புக்கு மிகுந்த கவனம் கொண்ட பதிப்பாக 1812இல் வெளியான பதிப்பு இன்றளவும் திகழ்கின்றது. திருக்குறளுடன் இணைத்து வெளியிடப்பட்ட நாலடியார் பதிப்பினை அறிமுகம் செய்து அதன் அமைப்பை விளக்குவதாகவும் தமிழ்ப் பதிப்பு வரலாற்றில் அப்பதிப்பின் முக்கியத்துவத்தை விளக்கியுரைத்து அப்பதிப்பின் மீள்பதிப்புத் தேவையை வலியுறுத்துவதாகவும் இக்கட்டுரை அமைகிறது.

நாலடியார் முதல் பதிப்பு (1812) :

பழந்தமிழ் இலக்கியப் பிரதிகளான திருக்குறள், நாலடியார் அடங்கிய பதிப்பானது 1812ஆம் ஆண்டு திருநெல்வேலி அம்பலவாணக் கவிராயரால் மாச தினச்சரிதை அச்சுக்கூடத்தின் மூலம் வெளியிட்டுப்பட்டுள்ளது. தமிழ்ச் சமூகத்தில் பெரிதும் கவனம் கொண்ட நூல் நாலடியாரின் முதல் பதிப்பு வெளிவந்து, இரு நூறு ஆண்டுகளை கடந்தும் இப்பதிப்பானது தமிழியல் ஆய்வு வரலாற்றில் குறிப்பிடத்தகுந்த இடத்தினைப் பெற்றுள்ளது.

இப்பதிப்பானது நாலடியார் முனிவர்கள் அருளிச்செய்தது என்கிற முதற்பக்கம் தொடங்கி அகராதி வரிசை முற்றும் இறுதிப் பக்கம் வரை பல்வேறு சிறப்புத் தன்மைகளைக் கொண்டுள்ள பதிப்பாகக் காணப்படுகின்றது.

நாலடியார் நூலின் முகப்பு பக்கத்தில் அம்பலவாணக்கவிராயர் பதிவு செய்துள்ள பதிப்பு விவரணங்கள் பின்வருமாறு,

“நாலடியார மூலபாடம முனிவரகள அருளிச செயதது./ இலககண விலககிய வாராயசசி யுடையவாகளா விகிதப பிழைய றவாராயநது சுததபாடமாக கபபடடது./இது

EFFECTIVENESS OF ACTIVE LEARNING METHOD IN TEACHING OF PROSE TO HIGHER SECONDARY LEARNERS

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Abstract

English Language learning in general, can be successful only when learners are involved in dynamicintensive and extensive learning throughout their curriculum when a proper approach can be applied through teaching. It helps to construct knowledge rather than just to consume. All areas of the curriculum, at all stages, can be enriched and developed through an active approach. Every child is gifted with a set of abstract rules which he or she applies to absorb and internalize the data of the language and with a set of universal formal rules, he or she is capable of forming unconsciously an infinite number of hypotheses about sentences that are to be produced and understood. After that he or she is exposed to utterances and sentences of the language to be learnt. Active learning has long been an established approach, and when asked to reflect on what active learning might look like in early primary school, delegates to a Curriculum. Active involvement can be through different activities like discussion or project based learning or dramatization or through any other means such as variety of materials like role-play, debate, case study, participating in co-operative learning, or producing short written exercises and so on. questions or puts forward various situations for students and they actively react accordingly. Active Learning Approach may have to be fully implemented in institutions to carry out effective language educational programme. Active Learning Approach makes learning student-centred which is interactive. This paper dwells on the learning of prose through AL method. It is commonly used, for example, in literature, newspapers, magazines, encyclopedias, broadcasting, film, history, philosophy, law and many other forms of communication. Prose lessons normally have ample scope for learning with regard to spelling, vocabulary, pronunciation and grammar. Active Learning method is quite apt to develop communication skills.

Introduction

Bonewell and Eison (1991) state that Active Learning is involving students directly and actively in the Learning process itself. Active learning helps students develop their understanding with deep learning and provide opportunities for them to apply and demonstrate what they are learning. "Active Learning" is learning which engages and challenges children and young people's thinking using real-life and imaginary situations. It takes full advantage of the opportunities for learning presented by spontaneous play, which is planned, investigating and exploring events and life experiences with focused leaming if teaching enables it. The quality of teaching and learning is improved when students have enough opportunities to clarity, question, apply, and consolidate new knowledge. The core elements of active learning are student activity and engagement in the learning process. Active learning is often contrasted to the traditional lecture where students passively receive information from the instructor. In the traditional approach to college teaching, most of the class time is spent on listening to lectures and the students watching and listening. The students work individually on assignments, and mere listening alone does not complete the wholeness of learning as distractions are lot here with limited co-operation. Such teacher centered instructional methods have repeatedly been found inferior to instruction that involves active learning, in which students solve problems, answer questions, formulate questions of their own, discuss, explain, debate, or brainstorm during class.

Importance of Active learning in the language classroom

After delving into the observed study of the educators' use of the term, "Active Learning" has relied more on an intuitive understanding than a common definition. Consequently, many faculties assert that all learning is inherently active and that students are therefore actively involved while listening Analysis of the research literature (Checkering and Gamson 1987), however, suggests that

BIG DATA APPLICATIONS, CHALLENGES AND OPPORTUNITIES WITH SMART CITIES: A REVIEW

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Abstract

Big data" -arises with many challenges to shape the smart enterprise for the development in all the fields. Big data, quite new, exhibits in different flavors, which stores large amount of information sets that require special computational platforms to be analyzed. This paper highlights the significance of big data applications, big data management and services in different perspectives: Finance, manufacturing. healthcare, Government sectors, Banking, Organizations and firms. Also, this review exposes findings and predictions from current on-going research. The main contribution of this paper explores the opportunities and challenges for utilizing big data in smart city with security and privacy.
Keywords: Big data, Big data Analytics, Finance, Banking, Manufacturing, Government, Retail, Healthcare, Security and Privacy, Hadoop, Machine Learning, Cloud.

Introduction

Big data analytics comes out with new challenges involving security, complexity and risks to privacy, essential for new technology and human skills. Also, Big data gets power from the Web as well as from the Cloud that offers new opportunities for discovery, value creation, and rich business brainpower for decision support in any organization. The term Big data is a range of large data sets almost impractical to manage and process using standard data management tools because of its size, and its complexity. Big data analytics, the large pool of data - both structured and unstructured, that underlines the support and overwhelms a business on a day-to-day basis. These data can be captured, clustered, communicated, stored, and analyzed. To analyze such a large volume of data, big data analytics is typically performed using specialized software tools and applications for predictive analytics, required. Undoubtedly, insights from big data enables employees to make better decisions- excavate customer engagement, preventing threats and frauds, and introducing new sources of revenue. Big Data helps in giving useful insights about people, products, industries and it also enables organizations to find and capture new opportunities, generate new policies, revenues and create tomorrow's trends. Many companies are striving to make the best use of big data analytics. In addition to this, many governments have started to make use of big data analytics to support the development and sustainability of smart cities around the world. To facilitate such applications and services, large computational platforms and storage facilities are required. One way to provide such platforms is to rely on Cloud Computing and utilize many advantages of using cloud services to support smart city big data management and applications. The statistics shows that up to 500+terabytes of new data get consumed into the databases of social media site for example, Facebook, and WhatsApp messages every day. This data is mainly produced in terms of message exchanges, photos and video uploads, putting comments etc.

FOREIGN INSTITUTIONAL INVESTMENT

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Introduction

From the emergence of the globalization there has been increase in the inflows of the foreign investment into the Indian market. As a part of the reforms process, the government under its Industrial policy has recognized the foreign investment into the Indian market, thus there recognized Foreign Direct Investment as an instrument of technology augmentation of foreign exchange reserves and globalization of Indian economy. With the introduction of Foreign Direct Investment the government also brought simultaneously Foreign Institutional Investment market by the foreign investors, It seems that the FlI is the result of the Narsimhan Committee report on the financial system. From September 14, 1992 the foreign institutional investors are allowed to invest in the Indian stock market including the primary and secondary market including the shares, debentures, and warrants issued by the companies which are already listed or which are about to be listed in Indian stock exchanges.

According to S.2 (f) of the Securities and Exchange Board of India (Foreign Institutional Investors) Regulations, 1995 herein after called as SEBI Regulations which says that "Foreign Institutional Investor means an institution established or incorporated outside India, which proposes to make investment in Indian securities". Thus in the common parlance it can be defined as institution organized outside of India for the purpose of making include "spung Pension funds, Mutual funds, Investment trusts, Insurance company and re-insurance company, International and Multilateral organization or agency thereof, foreign governmental agency, Foreign central banks, Banks, Endowments, University funds Foundations, Charitable trusts/ Charitable societies, Sovereign wealth fund, Broad based investment into the Indian Securities Market. According 6(1)(d) the definition also fund (If the institution is not coming any of the above category) in addition to the above the following are also included to invest on behalf of broad based funds are also eligible to be registered as FIl's they are: Asset management companies, Investment manager/advisor, Institutional portfolio managers, Trustee of a trust established outside India, and proposing to make investment in India on behalf of broad based funds and its proprietary, if any. An asset management company, investment manager/ advisor/ institutional portfolio manager set up and / or owned by non resident Indians, provided that the NRI's do not invest their proprietar funds.

Registration

The FII seeking to invest in the Indian stock market has to register itself with the SEBI, once they are registered they have to comply with the regulations and the guideline framed by SEB1 ie Securities and Exchange Board of India (Foreign Institutional Investors) Regulations, 1995. The FIl seeking the registration has to apply in Form A, the applications accompanied with the enclosures has to subumit in duplicate to the SEBI. For the purpose of registration nominee companies, affiliates, subsidiary companies of FII are treated as separate FlIs and they are required to take separate registration. As regards to the registration the Indian laws are stringent as compared to the laws of Malaysia, Pakistan, and

