

PROTEIN DYNAMICS SIMULATION AS COORDINATED MULTI-AGENT REINFORCEMENT LEARNING

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ABSTRACT

The motion of macromolecules provide the foundation for understanding drug binding sites, antigen interactions, and cell membrane fusion, among many other biochemical functions crucial for living organisms. Molecular dynamics (MD) provides an essential tool for studying the temporal evolution of macromolecules. However, MD has traditionally suffered from long computational time due to resource-intensive motion integration done in fem to second-scale steps, where most salient macromolecular motion occurs on the millisecond-scale. To achieve faster simulations we must be able to learn compact approximations of complex physical functions - a problem which deep learning has been shown to excel at. To this end, we explore protein dynamics simulation in the context of protein folding as a coordination of multiple agents folding an amino acid chain using policies learned by deep reinforcement learning.

EXPERIMENTAL INVESTIGATION OF THE PREDICTIVE CAPABILITIES OF MACHINE LEARNING TECHNIQUES FOR PROTEIN MODEL SCORING

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ABSTRACT

A longstanding issue in the scientific community is the study of proteins. Proteins, which are the building blocks of life, are composed of connected amino acids and fold into three-dimensional structures which determines their functions. Knowledge of these structures is crucial for the formulation of new medicines, the study of diseases, and in the field of protein engineering. Determining the three-dimensional structures of these proteins through experimentation is very expensive and time consuming. Alternatively we can use a computer to generate hundreds or thousands of potential three-dimensional structures for each protein and then determine which of the predictions the best are.

Recently, machine learning (ML) has been used as one of the methods to predict which model bests conforms to the three-dimensional shape of a protein. ML is a significant area within Artificial Intelligence (AI). Numerous experiments in protein model scoring were carried out using the newest advances in ML. New algorithms and new available hardware allow for significant increase of the efficiency of protein model prediction. In our study, we started experiments with a data set produced by previous work and then we have extended this data set by including amino acid sub-chain information. In the paper we present a comparative analysis of multiple machine learning models for our data sets, including xgboost, adaboost, a neural network, and support vector regressor (SVR) . We present research on the importance of the various features of our data sets. Many results are based on the Local Interpretable Model-Agnostic Explanations (LIME) approach that measures feature influence on the correctness of predictions.

CONTROL F-POLICY FOR MARKOVIAN RETRIAL QUEUE WITH WORKING VACATION

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ABSTRACT

This investigation is concerned with the admission control policy for the queueing models with retrial and working vacation. The server is allowed to join and provide the service during the vacation period, but with slower rate than that of the normal busy period. To deal with more realistic situations, the concepts of exponential start-up are incorporated while developing a Markov model. We frame the governing equations on the basis of birth-death process to analyze the transient behavior of the system. The system state probabilities are obtained by using Runge-Kutta's method. Expressions for various queuing indices are established in terms of transient probabilities to study the behavior of the system. For exploring the effects of various parameters, the sensitivity analysis is carried out by taking numerical illustration.

EMERGING ISSUES AND SUGGESTIONS FOR HIGHER EDUCATION THROUGH ONLINE SYSTEMS

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ABSTRACT

The online education is one of the critical components for advancement in the field of higher education. Online education system changed the requirements of our education system. It gives a chance to basically think about the social, financial, psychological and other profound issues. This system in India needs more effective and instructed individuals to drive our online education forward. The online education system plays an important role in higher education; initially this system helps in connecting the perspective students and content providers like university, educational institution and industry. Online education will also help in educating the working people for higher education in distance education system. The role of online education in the knowledge industry is very important for our youth and where availability of quality of offline education is low but lot of issues faced by online education system. This work can state that over the timeframe, development have been happen in education as far as online frameworks, however it isn't adequate for everybody. Indian economy is confronting different difficulties with respect to online instruction, which need to overcome through fitting approach development and their successful usage. Online education in India assumes numerous parts. It is of uncommon significance to numerous and changes are frequently observed as critical dangers to particular, social plans that give advantages to capable gatherings. The legislative issues is the outcome and frequently the progressions are not executed dialect has been a comparable issues in which government endeavored to comprehend in troublesome social and political issue through strategy identifying with online education. This paper is predominantly concentrated on the general execution of online education system with emerging issues and suggestions for higher education. This paper finally presents the need and expectation of our youth, educational institution, parents and government in our online education system.

REUSABILITY ESTIMATION MODEL FOR COMPONENT-BASED SOFTWARE USING FUZZY LOGIC

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ABSTRACT

Software reuse is not a new concept it has been there from decades. A vital role is played by reusability while selecting a component for software system. It provides better understanding, improved efficiency and lower down the cost of applications and efforts required. This work identifies the factors that are related to each other and eliminate the rules that can cause contradiction. As software industry is growing at a very fast rate now a day but although it faces many challenges and lack of adaptation by the practioners when it comes to the reusing of software component. As of now there is no clear detailed framework/model that can be used for estimating the reusability according to the software reusability factors. In this paper this work has consider a no. of factors that affects the reusability of a component along with the metrics which are used to estimate the level of individual factor. This work has analyzed the individual factors that contribute to reusability then associate and provide some subjective and objective metrics that contribute to these individual factors. For framing this model this work have used the fuzzy logic approach as the factors and values of metrics can't be concrete value, so for this work require to estimate the degree up to which a particular value of a factor or metric is possessed by software. Here fuzzy logic is applied at two levels at first level individual factors are estimated based on the metrics and second level all these combined factors are applied over fuzzy model to estimate the overall reusability of Component-Based Software (CBS). This is done by using triangular membership function in fuzzy model. This model helps in estimating the reusability of software and also helps in enhancing the quality of CBS. This model provides a basic architecture for reusability estimation with the help of fuzzy model as it is very difficult to identify the crisp/actual value for a factor in a software system. Hence this model is beneficial in estimating the reusability of the software. In future this model can be validated regressively by taking the real time industry data and accuracy of results can be calculated.

ENHANCEMENT IN SELECTION AND INTEGRATION OF MULTIPLE WEB SERVICES USING MULTI CRITERIA QOS APPROACH WITH FUZZY LOGIC

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ABSTRACT

Selection of web services and their integration has been solved in various ways because user wants appropriate services for their satisfaction. Web services are the technology of the day aiming at satisfying users requests on the Web. But these days user need of multiple webs of service, so he/she has to search on the internet, spending time on a private or open to all registry, or a website. Once a list of all the services is fetched one has to then choose the most suitable service that fits in all the requirements. Thus to save time and to avoid confusion, there has to be a mechanized system that would keep all the service agreements of all the services being offered by the service providers. The automated mechanism will incorporate an algorithm that will be able to select the suitable service for the user, acting upon the various QoS attributes. Several services providers may have the same type of services but with different QoS attributes. Since multiple services can be needed at a time, composition of these services is very important. It is a tedious process to select the appropriate service, thus the need of a programmed service selection mechanism is necessary which will take into account different QoS attributes. Taking into consideration the attributes, fuzzy logic is being used for selection and composition of the multiple services. The fuzzy based system used in combination with enhanced QoS parameters intends to improve the web services selection. This paper presents the importance of the QoS parameters in selecting the suitable web services. This paper introduces some more QoS parameters which are aimed at enhancing the selection of web services. The paper attempts to broaden the field of research using computational intelligence to the web service selection.

A COMPREHENSIVE STUDY OF LANGUAGES, TOOLS AND METHODOLOGIES TO REPRESENT DATA OF SEMANTIC WEB

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ABSTRACT

The future of web can be visualized as structured semantic web instead of unstructured information available on web today. Now days, amount of web documents are increasing dramatically and so much of information is available on the web, that to collaborate, analyze and process it manually is very challenging and not price effective. Our web is comprised in such a way that it display the information based on keywords we enter in the search box. It is highly sensitive to vocabulary even if we enter a synonym of a word the output is different because it display the results without understanding the meaning of our question. Major part of World Wide Web's content is drafted in such a manner that it is readable and understandable by human mind, but not by machines and computer programs. Although computers can parse the web documents for presentation and natural processing but machine are not authentic to handle appropriate semantic of web pages. Now we have realized that machine is not able to analyze the information as human mind .To display information limited rather than huge collection of information we require to display information based on meaning. As machines don't 'understand' what data 'means. They just execute the set of instructions written in a program. To make the content machine understandable there is need to design a standard model which explain the meaning of terms and properties of entities and their relationship with other entities of a particular domain. This standard semantic model has a semantic layer of metadata entities where terms along with relationship are formalized so that human mind as well as machine can process and interpret data semantically. The ample advancement of web technologies has kick started into the notion of a "Semantic Web". This phenomenon is grasping human resources and ability of data management with automation. Among the several methods and standards that are being released as part of semantic web are the Resource Description Framework (RDF), linked data, ontologies, metadata models, vocabularies and semantic reasoners. Newer methods are being discovered for this purpose, alternate research efforts are underway that focus on integrating benefits and features available in existing methodologies with the advantages offered by the newer web technologies. This paper describes how the design, functionality and usage of the semantic web languages, tools and methodologies address, the issues and existing challenges for accelerating the growth of Semantic Web .

ANALYTICAL PROSPECTIVE OF BIG DATA AND INTERNET OF THINGS FOR SMART GENERATION

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ABSTRACT

The Internet of Things (IoT) and Big Data are two of the most important technologies in recent years, for smart generation. So, the term Big Data defines the data that is huge in amount and still increasing exponentially with time. These data sets are so numerous and byzantine that conventional data processing application software is not capable to deal with them. Volume, Variety, and Velocity these are the three aspects according to which Big Data is categorized. However, IoT provides a platform for various devices to connect to internet in order to become smart, including smartphones, tablets and anything that has sensors on them. Within a smart environment IoT enables devices to communicate with each other and also enables information sharing in convenient manner. The IoT generates voluminous data which can be useful for users as in tracking and counting everything and might help in knowing when things need replacing, repairing, and whether they are fresh or not. The main focus of this paper is to blend two technologies Big Data and IoT. IoT and Big Data are the two big buzz that have already been recognized in the realm of IT and business. The advent of cheap and numerous information sensing internet of things devices are rapidly increasing the amount of data generated which is considered to be Big Data. As, big data is only about data but IoT is about device, connectivity and data. However, IoT applications are characterize with respect to the data need but the most important feature of IoT applications are real-time communication with reference to data whether it is small or big data. For example, the IOT applications like smart homes, smart traffic light system, smart transportation and smart dustbin, generates large amount of data and in different format. This generated data based on their volume, velocity and variety are called as Big Data. The Big Data technologies can provide data storage to the generated data through IoT applications while finding valuable information which has become a key concern in this modern age of technologies. Examining various technologies, like data analytics and artificial intelligence can be used in the smart world to extract situational facts and to take actions accordingly for solving real-world problems based on the data generated through IoT. The advances in these technologies are quickly facilitating the entrance for smart cities. Smart cities, IoT and Big Data can promote urban sustainability through water distribution and management, energy efficiency, food management, and transportation system. So, this work presents the analytical prospective and challenges of Big Data and IoT faced by smart generations. According to analytics, the IoT generated data bring about useful insights for users and this data is required by two kinds of users, first one is business analyst and second one is data scientist. So this work also put a focus on the role of business analyst and data scientist for data center management and for processing of IoT generated data for further analysis.

SWARM INTELLIGENCE: IT'S TECHNIQUES AND ALGORITHM

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ABSTRACT

Swarm Intelligence (SI) is a branch of Artificial Intelligence which deals with a consolidated measure of different groups that act upon a complex problem. Swarm here refers to groups of (insects) bees, ants, termites and flock of birds etc. This intelligence has been inspired by the behavior of these swarms i.e. how efficiently and effectively they can do tasks as a group which is difficult for an individual insect to perform. It has been used in various fields of computer science for obtaining an optimized solution of a complex problem. In this paper, we are giving a brief on swarm intelligence concept followed by various algorithms that are based on this concept. In this paper, we have briefed about swarm intelligence concept and its two most popular optimization algorithms: ACO and PSO. These algorithms provide a beautiful idea that how the nature of swarms can be used to solve our real –life problems by providing us with optimized results. They are the most appropriate variants of swarm intelligence. SI has been successfully implemented in various disciplines of computer science like in solving problems to obtain optimized results, in domains of data analysis, in forming 3D images etc. The further sections of this research paper deals with different algorithms that are inspired by the natural behavior of swarms. We are going to summarize only two of the algorithms, the Ant Colony Optimization (Ants Swarm) and Particle Swarm Optimization (Flocks of Birds). There are several other algorithms as well like artificial bee colony, bacterial colony optimization, Bat algorithm etc; but our research comprises of only two algorithms. Later sections provide an analysis of ACO and PSO algorithms respectively. Furthermore in next section, we will discuss the conclusion and future scope of swarm intelligence.

DESIGN AND EVALUATION OF COMPONENT-BASED SOFTWARE QUALITY ASSESSMENT MODEL

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ABSTRACT

Software engineering is incomplete without software quality and its prediction in the development phase of software. For characterizing any software product quality quantitatively, some of the most important factors to be considered are reliability, functionality, usability etc. Software quality models are defined as the standardized way of measuring the quality of a software product. Throughout the period of time several models have been developed which includes the basic of quality. Component Based Development (CBD) is becoming increasingly important for the software industry. CBD is supposed to reduce the cost and time to market of software applications while increasing their quality. This work presents a quality assessment model for quantitatively analyzing quality of the Component-Based Software Systems (CBSS). A component of software exhibits various features like lines of code, running time, mean execution failure time. Our proposed model is developed over pre-established component quality model providing this model with a strong foundation and doing post validations through survey form among industry people to analyze whether new improvements suggested in the proposed model are valid or not. Different categories and their sub-categories for the model have been proposed based on previously developed models and a survey among related industry personnels.

LEADERSHIP AND VIRTUAL TEAM EFFECTIVENESS: A CONSIDERATION OF NEW LINKAGES AND CONFIGURATIONS

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ABSTRACT

Current research that focus on virtual team effectiveness has failed to address the gap relating to the nature of leadership influences on virtual team effectiveness. This research uses the Full Range Leadership Theory as a theoretical basis, which consists of three dimensions: transformational, transactional, laissez-faire. Virtual team effectiveness, in this case, comprise of four dimensions: relationships, absorptive capacity, innovativeness, and tasks. The virtual team configuration poses many relational challenges between members because of geographical distance which, in many cases is viewed as a competitive advantage, but without an understanding of the determinates of leadership, should not be viewed axiomatically. These links beg for attention in the leadership and virtual team literatures. There is an attempt in this research at constructing new linkages to support the notion that leadership influences virtual team effectiveness, and three propositions for future research are provided.

WORKING CAPITAL MANAGEMENT, SHORT TERM LIQUIDITY AND PROFITABILITY TO INVESTORS

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ABSTRACT

Working capital has always been considered as life blood of firms and one of the most challenging fields of management. This study is an attempt to explore and measure effect of working capital management and short term liquidity of manufacturing firms listed in Muscat Securities Market (MSM) over profitability to the firm and its investors. It has been conducted, mainly because; so far very few studies have been done to establish relationship of the three variables together, in general and at Oman in particular. Published financial reports on MSM website of 50 manufacturing firms for 5 years period (2012-16) is main source of data. The relationship has been evaluated using ratio analysis, statistical procedures and 3D analysis. The results of the study are consistent with outcomes of previous studies with slight variation. However, the relation of three variables together is inconsistent. This may be because of small sample size, variation in size and nature of business of firms under study. Since the nature of study is exploratory, the results may not be generalized. A more detailed study with larger and much diversified sample may help to reach to better outcome.

DEVELOPMENT OF ZIRCONIA BASED SOLID CATALYST FOR ACID CATALYZED REACTION

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ABSTRACT

Heterogeneous catalysis is of paramount importance in many areas of the chemical and energy industries due to its numerous advantages. The proposed solid catalyst is an alternate and cost effective pathway for acid catalyzed reactions and will overcome the limitations of homogenous catalyst. The catalyst can be recovered from the reaction for further use. It is eco-friendly and would make separation of products much easier and feasible. It can be employed in many important industrial chemical reactions to synthesize many commercially viable chemicals.

Sulfated zirconia due to its much garnered attention and because of a lot of applications in many areas of chemical industry was investigated for its potential to catalyze acidic reactions. The high performance of SZ for such reactions has been attributed to its super acidity and thus it's called as solid super acid. In this research work, utilizing different preparation routes, catalyst were synthesized, sulfated, loaded with HPA (wet incipient technique) and then were characterized using suitable characterization techniques such as XRD, FTIR, TPD and Surface Area Analyzer. Heteropoly acid impregnation was employed on sulfated zirconia so as to enhance its acidity and also catalytic activity. The performance was then evaluated for suitable reactions such as esterification and isomerization. A surface area of 345 m²/gm and particle size in nano range (17 nm) was achieved. XRD showed the presence of active tetragonal phase as well as monoclinic phase. An acidity of 0.3191 mmol/g was found. Results were analyzed and it was inferred that the remarkable acidity, surface area and characteristics of solid catalyst turns out to be fruitful in making acid catalyzed reactions feasible. It is highly promising and can be further explored for reactions of industrial importance.

AN INNOVATIVE MODEL FOR PREVENTION OF VEHICLE ACCIDENTS ON HILL ROADS AND BLIND TURNS

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ABSTRACT

Traffic is now-a-days increasing at an exponential rate. To control traffic and avoid accidents is a major issue these days. The accidents in hilly areas have also been increasing due to increased traffic. Blind turns are where most of the accidents happen. At such spots we often face a situation when we think whether to overtake an ongoing vehicle. To be safe, we should rather not overtake but human behaviour urges us to overtake slow moving vehicle whenever we get chance. Overtaking at such spots may lead to fatal accidents and the vehicle on the right side may become victim without any fault. What if there was a way to know if there was a vehicle on the other side of the turn. We have an innovative idea to reduce these accidents to a larger extent. A pressure transducer or proximity sensor will sense the presence of vehicle on one side. The transducer will turn ON red LED stickers pasted on the road on the other side of the turn thus alerting the driver. The sensors will be driven by solar power thus being eco-friendly.

NATIONAL INNOVATION SYSTEMS AND INNOVATION IN NATIONAL CUISINES

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ABSTRACT

National innovation systems (NIS) are embedded in economies that value growth through innovation. We examine all 196 countries to identify which of them have used innovation systems as drivers of economic growth and competitiveness. We examine if these systems have created spillover effects in national cuisine development. This study of NIS focuses on the macro components of the system, such as private food manufacturing companies, food purveyors as well as public organizations. We also examine the role of micro components such as private individuals as the source of much innovation and investigate the manner of mutual interactions and the nature of the relationships between the components. Based on the data we identify key attributes of innovative national cuisines.

THE EFFECT ON HUMAN RESOURCE ACCOUNTING (HRA) ON PERFORMANCE OF A FIRM

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ABSTRACT

The study aims at ascertaining the relationship between human resource accounting and performance of firm. The study was carried out in ten branches of Indian Nationalized bank located in Andhra Pradesh, India. Quantitative method was used to examine the present study. Researchers identified three independent factors under Human Resource Accounting (HRA) and one dependent factor as performance of a firm. The first hypothesis was there is positive association between shelter cost and firm's performance, the second hypothesis was 'there is positive association between health and safety cost and firm's performance' and third hypothesis was 'there is positive association between training and development cost and firm's performance'. According to findings of current study, shelter cost and training & development cost were strongly correlated with firm's performance, but health and safety cost was moderately correlated with firm's performance. The research helps the banks to identify the importance of investment on human capital.

UTAUT MODEL TO UNDERSTAND FACTORS INFLUENCING USERS' PERCEPTION TOWARDS OF MOBILE APPLICATIONS

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ABSTRACT

The advancement in the development of mobile phones is contributing significantly in the government services. Therefore, mobile applications (mobile Apps) have become integral part of our daily life. Mobile Apps allow people to have services at their fingertips. Meanwhile, mobile technologies have significantly expanded governments' capability by extending access of provided services and operations, and improving business performance within the public sector. This study attempts to investigate the extent of residents' willingness to use a mobile apps for government services. More specifically, the study aims at exploring the factors that may influence residents' behavioral intention to use mobile applications of the government agencies in Oman.

The investigation employed a research model based on Unified Theory of Acceptance and Use of Technology (UTAUT) to examine factors that may influence residents' behavioral intention (BI) to use mobile apps. In order to achieve this goal, we adopt a quantitative research approach in which an online questionnaire was randomly broadcasted to collect the required data from 500 participants. The data was analyzed using advanced statistical models. The findings have shown that performance expectancy (PE), Effort expectancy (EE), Facilitating conditions (FC), Trust (TR) and Quality (QU) have significant influence on the residents' behavioral intention to use mobile applications of governmental agencies in Oman.

ROBOTIC TRAJECTORY PLANNING APPROACHES IN NON-DESTRUCTIVE TESTING FOR INSPECTING DEFECTS USING ULTRASONIC AND INFRARED THERMOGRAPHY

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ABSTRACT

This paper discusses the different approaches exploited in literature for the generation of an optimal trajectory path using a robotic manipulator in non-destructive testing (NDT) methods. The paper focuses in two main NDT techniques which are ultrasonic test (UT) and infrared thermography (IRT). UT is one of the widely used NDT techniques and it uses high frequency sound energy during its inspection. IRT is also one of the modern, real-time NDT approaches which uses infrared camera to capture the radiation emitted from objects. Both techniques are synchronized with a robotic manipulator to achieve an optimal level of defect detectability. Thus, achieving a great deal of flexibility for conducting fast inspections. However, this also requires obtaining an efficient and optimal trajectory path. The numerous path planning algorithms proposed in the literature with the different optimization criteria is presented. In addition, the efficiency of the integration between the external control of the robotic manipulator and the inspection system is examined. Eventually, a benchmark between the different path planning algorithms is created and the detectability and accuracy of each NDT method is evaluated.

TWO SAMPLE-STATISTICAL HYPOTHESES TESTING BASED ON FUZZY CONFIDENCE INTERVALS

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ABSTRACT

In this paper, a fuzzy set theory based technique is proposed for testing a statistical hypothesis in fuzzy environment. The proposed technique employs the relationship between the acceptance region of a statistical test at a significant level α and the confidence interval of the concerned parameters at a confidence level $1 - \alpha$. In the proposed technique, first, confidence intervals are constructed for both the parameter using the available data. To establish the acceptance or rejection of the Null Hypothesis, a fuzzy test based on the degree of membership of each parameter $\tilde{\theta}$ in the fuzzy confidence interval has been evolved. The degree of acceptance/rejection of the Null hypothesis is derived from the average area in which the first parameter is lying in fuzzy confidence interval of the second parameter and vice-versa. Using this, a fuzzy test function is constructed. Contrary to the classical set theoretic approach the new function does not only dichotomize the acceptance/ rejection of null hypothesis, it results in a fuzzy decision, where the null hypothesis will be rejected or accepted with a certain degree of acceptance/rejection. The proposed technique is demonstrated with the help of a numerical example.

A SURVEY OF EMERGING ISSUES IN INFORMATION SYSTEMS

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ABSTRACT

Information technology has been introduced in the every field of human effort. Nowadays, IT has been used widely across the organizations to perform different functions like recruitment, training, maintenance and development, etc. As continuously new technologies are evolving, new threats and risks are making way and making information security a tedious task, where organizations, institutions and individuals are spending on latest technologies the question that arise is “are we secured enough” ? This paper highlights the latest threat evolved in information system in various fields and applications. A review of the existing literature carries out identifying several emerging issues in information systems. Ethical, social, and other issues are closely linked. Therefore introduction of new technology has a ripple effect on the current equilibrium, creating new impacts on the current society and the scenario on the prevailing conditions and is discussed with proper references.

RELATIONSHIP BETWEEN COUNTRY-OF-ORIGIN IMAGE AND BRAND EQUITY OF HAIR CARE PRODUCTS MEDIATED BY DIMENSIONS OF BRAND EQUITY

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ABSTRACT

Objective: In the era of globalization and market proliferation, brands find the market highly competitive and therefore, branding has immersed as one of the critical marketing activities. This research is done with the objective to explore the impact of brand's country-of-origin image on the development of brand equity on haircare products. Further, present research also studies the mediation effects of various dimensions of brand equity.

Methodology: A theoretical framework is investigated in which brand's country-of-origin image is suggested to influence the level of brand equity. The brand equity and its dimensions of hair care products are examined to accomplish the appropriate results. Primary data was collected from 278 Indian consumers of hair care products using questionnaire. Earlier studies reveal that these dimensions also has mediation effects between country-of-origin image and brand equity.

Findings: The dimensions of brand equity studied in current research are brand awareness/associations, brand distinctiveness, and brand loyalty. The study shows that, in the absence of mediators, the country-of-origin image has a positive and significant influence on brand equity. Further, mediators also have the positive and significant influence on brand equity. However, in the presence of mediators, the relationship between country-of-origin image and brand equity becomes insignificant.

Implications: The results of the study validate the previous researches done in the other markets. It creates a foundation to build a constructive suggestion to the hair care companies in the formulation of marketing strategies. It develops a better understanding of the effect of country-of-origin on the brand equity. This research is significant to study the consumer psyche regarding mediators so that marketers can create the right message to the target customers.

IDENTIFYING MARKET SEGMENTS AND DEVELOPING STRATEGIES FOR ORGANIC FOOD IN DEVELOPING ECONOMIES

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ABSTRACT

Among developing economies, India is one of the most potential markets for marketing organic food. Many people since centuries are well aware that the organic food is much superior from the point of view of health than that of the conventional food, India had been one of the main followers of organic food in fact it had been fully dependent upon the natural fertilizers. Therefore, India can be the best potential market for the marketers of organic food, but to fit themselves in, they will have to have the confidence of the consumers, who are the loyal customers of organic food, with their quality products. Marketers need to understand their target consumers so that suitable marketing strategy should be formulated. The primary objective of the study is to find out market segments for organic food and to understand the profile of organic consumers. It suggests marketing strategies for making organic food popular in the developing economies like India. The data was analyzed with the help of univariate and multivariate analysis. It highlights that consumers in developing economies are also keen to purchase organic food, but the lack of effective distribution and promotion systems make the availability of this type of food a difficult task. The present study helps marketers to make policies, which will help him to convert its regular consumers into loyal consumers, irregular consumers into casual consumers.