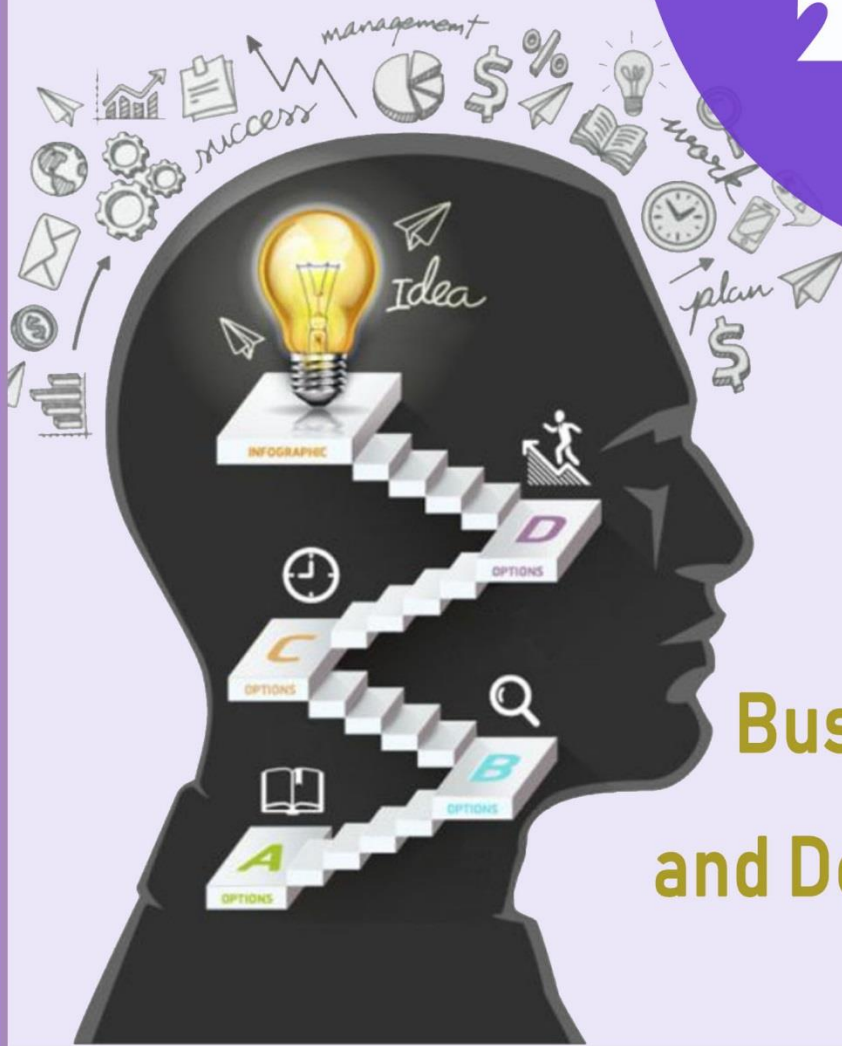# ICBBD 2019

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Contents

Performance Evaluation and Promotion Path of Fisherman's Homestay-Evidence from Changhai County, China

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Abstract

Recently, with the improvement of the people's living standard, the traditional values of people have changed quietly. Leisure tourism has gradually become an indispensable part of modern life. China's marine landscape resources are abundant, with a great advantage to develop marine leisure tourism. Fisherman's homestay plays an important role in marine leisure tourism, basing on the theme of fishing culture. In this paper, a hybrid multiple-criteria decision making technique is used to evaluate the performance of Fisherman's homestay in Changhai County, Liaoning Province, and to identify the problems in management. Finally, some suggestions on how to improve the performance of fishermen's homestay are proposed.

Keyword: Fishermen's homestay, Performance evaluation, Multiple-criteria decision making, Promotion path, DANP, VIKOR

The Raltionship between Organizational Culture and Conflict Management Styles, the Mediating Role of Psychological Safety

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Abstract

The purpose of this study was to determine the psychological safety as a mediator among organizational culture and CMS (collaborating, avoiding, compromising, and accommodating). Data was gathered from private banks of Pakistan about 295 filled questionnaires were received. The mediation analysis of Preacher and Haye (2008) was used to test the hypotheses. The findings show that psychological safety act as a mediator among organizational culture and conflict management styles (collaborating, avoiding, accommodating and compromising). Implications are also discussed.

Keywords: Organizational culture, Conflict management styles (Avoiding, Collaborating, compromising and accommodating)

Does the application of the KAIIAE 'customer results' criteria correlate with patient satisfaction? - The case of a Jordanian hospital

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Abstract

Purpose: This study aimed to explore if the application of the customer results criteria contained within the King Abdullah II Award for Excellence (KAIIAE) is correlated with high levels of patient satisfaction within a large hospital based in Jordan.

Methodology: Using a mixed methodology, supported by a pragmatist theoretical approach, a satisfaction survey was conducted with patients accessing the hospital as an in-patient across a range of specialities gathering feedback about different aspects of their care. The results were compared with a self-assessment completed by different speciality teams about the existence and maturity of customer result arrangements implemented as a result of the KAIIAE.

Findings: The findings confirmed that quality awards such as the KAIIAE can effectively be applied in a healthcare setting and can help provide a framework for improving patient experience and satisfaction. A correlation was found with those specialties that self-assessed themselves more highly in terms of these arrangements and the overall levels of patient satisfaction with that specialty, suggesting that the products of working towards the KAIIAE such as establishing effective patient experience monitoring arrangements and improved learning from complaints, has a positive impact on patient satisfaction.

Originality: There are limited studies which focus specifically on customer results and on the use of the KAIIAE more generally. This study therefore makes a valuable contribution in adding to the debate about the strategic value of working towards formal quality improvement models and awards in healthcare settings.

Keyword: King Abdullah II Award for Excellence, KAIIAE, EFQM, Patient satisfaction, Healthcare, Quality Improvement

How Network Resources Influence the Industrial Upgrading of Chinese Home Furniture Manufacturers

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Abstract

The aim of this study is to explore the nature of network resource and access its effects on industrial upgrading and transformation. We investigate this question based on survey data collected from home furniture manufacturers in Southern China. After two waves of data collection, we manage to get 186 responses from a list of 426 qualified manufacturers, with response rate of 43.7%. The results show that the strength of business and political ties is highly relevant to the amount of resources available from the network. Therefore, manufacturer can upgrade and transform its business by using network resource for better performance. As far as we understand, this study is among the first to conceptualize network resource and apply it in predicting the performance of industrial upgrading and transformation in the manufacturing sector.

Keywords: Network resource, Upgrading and transformation, Firm performance, China

A Study of Idiosyncratic Risk after Lifting Day Trading Restriction on Taiwan Stock Market

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Abstract

This paper investigates the changes of idiosyncratic risk after lifting day trading restriction on Taiwan stock market. The investors are allowed to have day trading only through margin account before December, 2013. To allow "day trading" should make the information flow more easily and overcomes the barrier of shorting the same stock which is brought among one day. We employed the two groups of companies which represent different firm sizes to observe the connection of idiosyncratic risk and excess returns for the event. Comparing the two periods before and after six months before December, 2013 in which the regulation of permitting day trading changes, we found that firm size is an important role to idiosyncratic risk. In a more free financial market with less restriction, investors, for example, can get day trading through offsetting their earlier purchasing by selling orders with in a single trading day, the positive relationship exists between idiosyncratic risk and excess returns for larger firms. However, we can't find the similar evidence in small-sized firms. The empirical results can give us a good example to consider the investing risk for the process of lifting financial market restriction for other stock market. Not all the stocks in the same financial market have similar impacts to a new financial policy..

Keywords: Idiosyncratic Volatility, Day Trading, Event Study i

The study of brand reward and brand leadership on employee brand citizenship behavior in service brand context

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Abstract

In the context of service brand, the role of employee brand citizenship behavior becomes significant issue especially in nowadays dynamic market. Past literatures argued that employee brand citizenship behavior is critical as it reflect the brand-consistent behavior that focus on extra-role behavior. Extra-role behavior is viewed as employee's action that goes beyond the prescribed roles and is flexible in order to achieve the brand goals. In comparing to employee in-role behavior the extra-role behavior is more critical in generate brand service success. Hence, the investigation of sources of employee brand citizenship behavior is necessary. In this study, the examination of internal branding practices on employee brand citizenship behavior will be executed. In particular, this study will examine the importance role of internal branding practices which referring to brand reward and brand leadership as sources of employee brand citizenship behavior. The data involving 254 questionnaires (67.4% response rate) that randomly distributed to both frontline and back stage employees of Nigeria telecommunication. Result revealed that brand reward and brand leadership have significant positive relationships with employee BCB. The implications and future research directions are further discussed.

Cost Sharing in a Shipping Market with Empty Container Repositioning

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Abstract

In this paper, we study the cost sharing and pricing issue in a two-port shipping market with one carrier and two forwarders. The Stackelberg leader carrier authorizes two forwarders to collect cargoes at different ports and then transports laden and empty containers. We first build a model to investigate the carrier's optimal cost sharing and pricing strategy. We find that the carrier will transfer all the empty container repositioning (ECR) cost to the forwarder of low demand if imbalance exists and transfer all the ECR cost to the forwarder in the high unit ECR cost direction otherwise. As a result, the forwarder who completely takes the ECR cost will have less profit compared to the model without cost sharing. Therefore, we build another two models to motivate all the players to accept the ECR cost sharing policy. We also conduct some numerical analysis to compare all these models. We find that there is a salient conflict between profit maximization and ECR minimization.

Keywords: Cost sharing, Empty container repositioning, Pricing

The Gifting Consumption and Promotion in the Context of Chinese Culture

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Abstract

Various studies focused on dyadic relationship between gift givers and recipients, thoughtfulness of gift givers or recipient standpoint. However, the extant literature ignores that gift giving behavior might be observed by other people in some public occasions, such as birthday party. We therefore investigate whether gift givers take other observers into account to have different purchasing decisions for gifts because of impression management in the public setting. Especially, the Chinese style of impression management, mianzi, is a critical factors of Chinese interpersonal relationships and communication styles. Mianzi has become a motivation which cannot be ignored for Chinese people's gift giving and purchasing behavior, and thus is treated as the main viewpoint in this research. Furthermore, there are few studies focusing on the effects of marketing promotions on gift purchasing decision. The marketing promotion (i.e., sales volume) that makes products to be more attractive may positively influence consumers' perception of mianzi, which in turn affects the gifts purchasing decision. This research conducts one lab experiment to investigate the effects of different stimuli of marketing promotions on consumers' perception of mianzi and purchasing decision in the public setting. The results show that consumers choose the product with high sales volume in the public gift giving occasion. Furthermore, the factor of mianzi plays the role of mediator in this research.

Keyword: Impression management, Gift-giving behavior, Product promotion.

Barriers of the Balanced Scorecard Implementation in the Sudanese Banking Sector

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Abstract

Despite the balanced scorecard's worldwide popularity and its acceptance as a powerful strategic management tool, a significant number of organizations have encountered different barriers when trying to introduce the balanced scorecard in their business. The main objective of this study is to identify and understand the barriers of the balanced scorecard (BSC) implementation in the Sudanese banking sector. To achieve the research objective a qualitative approach is used. The research data were gathered by conducting 12 semi-structured interviews with the managers and senior staff of ten banks working in Sudan. The interviews were complemented by several informal conversations and documentary materials. The findings of this research demonstrated that the major barriers of the BSC implementation in the Sudanese banking sector are as follows: absence of top management motivation and commitment, lack of awareness, lack of training, the high cost of the BSC implementation, the allegation of current system sufficiency, difficulties in measuring BSC perspectives, and insufficient information technology support.

The findings suggest that the top management of the banking sector should be encouraged by the Sudanese Central Bank to consider the BSC as a priority and include it within their strategic plan, initiate budgets and other resources for better BSC implementing. Moreover, top managers should set up an appropriate work environment while spreading awareness about the BSC by hiring professional and qualified trainers. This study contributes to the literature and practice by outlining the barriers of the BSC implementation in the banking sector located in a developing country.

Keyword: Balanced scorecard, Banking sector, Sudan

Political Ties and Information Disclosure in Charities in an Emerging Market

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Abstract

The role of the state in developing governance standards in emerging markets raises an interesting puzzle. In this study, we investigate how political ties influence charitable organizations' information disclosure. Our framework, that connects political ties to both mandatory and voluntary information disclosure practices, takes account of the distinct pressures. In particular, we delineate how political ties channel pressures for compliance with mandatory disclosure practices whilst shielding organizations from compliance with voluntary disclosure practices. We further consider how resource pressures from both the state and market (including foreign and domestic markets) moderate the effects of political ties on compliance with both disclosure practices. We apply this framework to examine the information disclosure of charities in China between 2010 and 2014.

Keywords: Political tie, Information disclosure, State pressure, Charities

The role of Shariah Supervisory Board in legitimizing the existence of Sudanese Islamic Banks through Social Responsibility Reporting

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Abstract

This study empirically investigates the role of Shariah Supervisory Board in legitimizing the social and ethical existence of Sudanese banks through disseminating Islamic social information in the annual reports. Using content analysis and a disclosure index the study examines a panel dataset covering the period 2006 – 2015, which yields of 150 annual reports of Sudanese banks. The role of Shariah Supervisory Board (SSB) is expressed in terms of Corporate Governance mechanisms (i.e. board size, independency, doctoral qualification, cross- directorship, and the overall effect of SSB mechanisms).The current study employs the multiple regression models by using STATA-13 statistical tools to answer the research questions. The empirical results indicate that the board size, doctoral qualification, and cross-directorship of the members were positively correlate to the level of Islamic Corporate Social Responsibility (ICSR) disclosure in the annual reports of Sudanese Islamic banks, which is in favor of legitimacy theory. Meanwhile, results indicate that, contrarily to legitimacy theory's assumptions, the independency of SSB members is found to correlate negatively with the ICSR disclosure level in the annual reports of sampled Sudanese banks. Furthermore, the overall effects of SSB mechanisms is found to have positive influence on the ICSR disclosure level. The study findings add new empirical evidence to support the view that social information disclosure by companies is influenced by country- cultural context within which the company operates. Future research could extend the study to other Islamic countries, and include additional factors that may better explain the tendency to disclose ICSR information in the annual reports.

Keywords: ICSR Disclosure Level, Shariah Supervisory Board, Legitimacy theory, Sudan

Face Detection and Market Segmentation

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Abstract

The study adopts face detection technology to examine how customer behaviors are affected by advertisements. Taiwan is well known for its high density of convenience stores. These convenience store brands include 7-11, Family Mart, Hi-Life, and OK. Since the number of convenience stores in New Taipei City is the highest among Taiwan, we used face detection technology provided to gather data. The number of visiting these convenience stores was 12,730,633 watched these advertisements. Gender is categorized into two groups (male and female). Age is categorized into four groups (1-14, 15-29, 30-49, and 50 and over). The results of this study found more people glanced at the TV advertisements on holidays and mobile game advertisements were notably popular. The store owners should broadcast different types of advertisements that can entice these two groups. It indicates that weekend and holidays are the best time for enhancing advertisement effectiveness. Finally, this study adopts gender and age to analyze the sample characteristics.

Keyword: Face detection, People counting, Advertising, Precision marketing

Estimate Alpha, Beta, and Firm-Specific Risk from Option Prices

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Abstract

This paper proposes a novel method to estimate forward-looking alphas, betas, and firm-specific risks based solely on current option prices. Utilizing the market model under a multivariate risk-neutral valuation framework, we develop a preference-free equity option pricing model which involves the volatility of market returns and the alpha, beta, and firm-specific risk of underlying stock returns. We are thus able to estimate the levels of alphas, betas, and firm-specific risks for future periods of time by calibrating the market prices of equity and index options with this option pricing model. Empirical illustration indicates that the calibration of our model for equity options performs accurately. In addition, our option-implied estimates are more effective than the regression-based historical estimates in predicting future alphas, betas, and firm-specific risks.

Keywords: Risk-neutral valuation relationship, Forward-looking alpha, Forward-looking beta, Forward-looking firm-specific risk, The market model

A Holistic Approach to Small Enterprise Development – The Case of Nedumpana Apparel Park

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Abstract

This article explains the challenges faced by small enterprises in developing countries like India, and how they can become self-sufficient and survive in the increasingly competitive environment today. It stresses on the importance of adopting an all-inclusive approach to enterprise development that focuses on supporting all activities and players along the entire value chain rather than just the internal operations of the enterprise. The idea is explained through the case of Nedumpana Apparel Park – a government-supported small enterprise in the State of Kerala, India. The Apparel Park is a high-end semi-automated tailoring facility providing entrepreneurial opportunities to local women. The products are both made to order and sold in open market. Government support is provided to develop forward and backward linkages and enable clustering and networking of similar enterprises. Support is also provided to address issues ranging from operational aspects of production processes like technical knowhow, quality and economies of scale, financing, human resource aspects of wage structure and managing and motivating workforce to branding, pricing and marketing of products. The article argues that this approach is essential for sustenance of the enterprise, which in turn can aid in local economic development and poverty alleviation of the State.

Keyword: Small Enterprise, Apparel Park, Value Chain, Entrepreneurship, Economic Development

A Framework for Determining Insurance Premium for Cybersecurity Risk Management

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Abstract

In the contemporary world, we are surrounded by a complex network of interconnected sensors. These allow us to share, collate, transmit, and store vast amounts of data. It is no surprised that Cyber security issues rank among the top technology challenges organizations face today. Cyber risk has become increasingly important as the severity and frequency of cyber incidents is steadily on the rise. Cyber risk management is thus a necessity for businesses to ensure firms' stability and operability. In this paper, we develop a model using cyber insurance to manage potential loss when safeguards are breached and the system fails. We utilize stochastic modeling techniques and adapt actuarial mathematics from life insurance analytics to aid the cyber risk professional in visualizing the current as well as future security state of their cyber network and provide the necessary steps to enhance the security of their enterprise network from external threats. Our model takes into consideration the attacker skill level, number of attacks and the level of security defense. Our analysis provides an explicit mechanism to evaluate the actuarial present value of expected losses and variance of losses from malicious attacks, and to evaluate changes in those losses that would result from enhancing system's security. We develop a suitable insurance premium to cover cyber risk and provide a basis for evaluating the benefits of improving system security.

Keyword: Cyber Security Risk Management, Actuarial Mathematics, Cyber insurance premium

Evaluation of Customer Satisfaction with Restaurant Services through the ACSI Model

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Abstract

This study, which is part of a wider investigation, seeks to analyze in a holistic way the satisfaction customer who make use of restaurant services through ACSI Model. Through structural equations modeling it was evidenced that there is a positive and significant relationship between the quality of service and satisfaction, as well as between the latter and the loyalty of the users. There was also a negative relationship between satisfaction and customer complaint. The results also showed that there is no relationship between perceived quality and perceived value or relationship between variable status and consumer satisfaction. The results corroborate and contradict findings of other studies making it necessary in future research to analyze more deeply this phenomenon as well as to expand the sample to verify these findings. These results highlight the importance of these variables for the integral evaluation of the satisfaction and loyalty of the clients of this type of organization.

Keyword: Customer Satisfaction, ACSI Model

Integrated Thinking and Knowledge Communication: A Commentary on Integrated Reporting Guidelines

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Abstract

Integrated reporting guidelines issued by International Integrated Reporting Council (IIRC) in 2013 are meant to promote integrated thinking in organizational contexts so that sustainable management could be promoted. Guidelines are criticized against their failure in creating integrated thinking. This paper, benefitting from Stakeholder theory and stakeholder agency theory perspectives, argues that these guidelines fail in knowledge communication to create integrated thinking among managers. Through a desk research in interpretive paradigm, this paper concludes identifying how the guidelines fail in communicating the message.

Keyword: Integrated reporting, Integrated thinking, Stakeholder theory, Stakeholder agency theory, stakeholder value creation, Sustainability accounting

The effects of knowledge capital and CEO power on firm performance

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Abstract

This study explores the effect of knowledge capital on firm performance. Product market has an important changing in the information technology (IT) industry under the impact of disruptive innovation since 2007, leading to more attention in knowledge capital. The empirical results indicate that firm with a higher knowledge capital is associated with increasing firm performance. We also show that the powerful CEO plays an important role in the relation between knowledge capital and firm value. The positive relation between knowledge capital and firm performance has pronounced effect, especially during a firm with a founder (duality) CEO.

Modelling Employee Attrition Using Logistic Regression

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Abstract

Today's organizations are working in a VUCA environment which is very uncertain and complex. Organizations are continuously striving hard to manage this volatility and acquire stability. One of the major challenges faced by them is increasing level of employee attrition. The Data analyst have attempted to build and create models which are robust and predictive. Predicting attrition can save lot of cost and time for the organizations. The current study is an attempt to build predictive model for attrition using logistic regression and understand the specific factors which leads to attrition. The attrition is also studied in various sub groups like age, education level, salary bands and tenure of employment, job involvement, and job satisfaction level. In the current study 10 independent variables have come significant which can be further classified into six main subgroups like Individual differences (Age), Traditional attitude (Environmental satisfaction &Job involvement),New attitude (Business travel &Distance from home),Organizational context (ESOPs& Overtime), Nature of work (No of training attended since last year) and Individual level (No of years in current role & year since last promotion).Exploratory analysis was done to understand hidden patterns in the data and a predictive model was constructed based on Logistic Regression. The analysis was done on a SAS tool – SAS Enterprise Miner

Keyword: HR Analytics, Employee Attrition, Logistic Regression.

The Comparison of Different Within-group Agreement Measures for Organizational Research

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Abstract

The r_{wg} and AD (average deviation) are the popular statistics of interrater agreement for multilevel modeling in organizational research. The other indices such as r'_{wg}, r^*_{wg}, and A_{wg} are the variants of r_{wg}. These interrater agreement metrics within the same group are used to determine whether group means of variables at individual level can be aggregated into organizational variable.

In this research, we survey three agreement or consensus/dissention measures from other research fields. They are agreement A of van der Eijk (2001), consensus of Tastle & Wierman (2007), and a_d coefficient of Kreuzpointner, Simon, and Theis (2010). We use 5 subjects and a 5-point Likert item to illustrate 3125 all possible response patterns and calculate the above five interrater agreement measures. The comparison of these 5 interrater agreement indexes shows that the consensus and ad coefficients have very high positive/negative correlation coefficients with r_{wg} and AD and the correlation with A is lower. The correlation coefficient between consensus and a_d coefficients is .99. In the future, we will extend these three interrater agreement measures to multiple items to examine their performance on the group level of construct.

Keyword: Interrater agreement, Consensus, Dissention, Within-group agreement

Exploring the Effectiveness of In-Store Integrated Technological Make-Up Artist on Chinese Female Consumer in Future Beauty Product Shopping

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Abstract

Data from HKTDC Research reveals that total sales of cosmetic products in China reached RMB 34.4 billion in 2017, achieving year-on-year growth of 21.3 percent. China's beauty products market is trending towards the high-end. It shows that though the retail-sales value of luxury skincare products was still below that of the fast-moving alternatives in 2017, the market share of the former has been rising gradually to 31 percent in 2017 from 27 percent in 2012. Consumers favor major international brand skincare products, and spending habits are switching from price-focused to quality and brand driven. However, online sales of the cosmetics industries in China are growing at rates 11 times compared with the eight times the respective rate of growth of sales in physical stores. So, one of the fearful scenarios is that the internet's mass access could damage the exclusivity of some branded and luxury beauty products. E-commerce is disrupting the beauty sector in China and companies should ride the wave of the change to embrace offline digital technology in order to tap China's booming beauty and personal care market. This paper aimed to investigate the effects of women' age, education, and income on new technology implementation (e.g., Magic Mirrors and Discovery Tables) in purchasing cosmetics in China that would influence the future beauty product shopping. The researchers utilized Technology Acceptance Model (TAM) to predict intention of using computer technology in Sephora in China, while also have examined the influences of potential moderating variables (e.g., age, income, and education) in the model. Structural Equation Modeling (SEM) was used as a statistical method to assess the statistical significance of the proposed relationships among sets of observed variables. All measurements that were employed in the survey will adopt the 7-point Likert scale, ranging from strongly disagree (1) to strongly agree (7). The data analysis was supported by the results of the Kaiser-Meyer-Olkin Measure of Sampling (KMO) and Bartlett's Test of Sphericity. This is of great value to retail companies in understanding the importance of "New Retail" strategy with the integration of technology on offline shopping experiences by utilizing a cohort of innovations to determine and analyze customers' preferences and in order to create a consistent and optimal shopping experience across different channels-company websites, physical stores, and mobile commerce.
Keywords: Magic Mirror, Beauty sector, China, Women consumer, Technology Acceptance Model (TAM)

Exploring Electronic Service Quality (E-S-QUAL) and E-Recovery Service Quality (E-RecSQUAL) of Intelligent Service Banking in China: Analysis of Customer Satisfaction

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Abstract

The financial industry has experienced a proliferation of technological development and has reshaped the industry's business environment, distribution channels, and the way they provide services to their customers. The banking sector is the leading retail industry in adopting and utilizing extensive technological innovations. The number of bank's users increased significantly over the past decade from ATMs in the 1970s and telephone banking in the 80s to internet banking (IB) in the 90s, and mobile banking (MB) in 2000. Online banking using smart tools and direct channels such as internet and mobile are the most promising digital future for B2C e-commerce applications which provide multiple- array of financial service transactions and options. With the rapid development of big data, banks in China began to review their offline banking service functions. Traditionally, the offline bank can only provide a standardized service. However, Chinese customers demand more personalized and various services. So, technology has to improve for the local, fragmentary, and decentralized information created by bulk amounts of transactions in order to make a customer- centered bank by providing an integrated one-stop offline service. In the future, the majority of bank transactions may come from IT services whether online or offline instead of over-thecounter transactions. This means that a formal financial institution should prioritize intelligent financial services. Despite banks driven by the challenge to expand and continuously disseminate innovations, the use of internet banking and mobile banking is still in its infancy stage for many countries because banking innovations face service resistance. One of the major reasons for low adoption and usage of online banking is attributed to trust related issues. Arguably, the most critical time frame for any business is developing online trust at the beginning of their relationship with the consumer.

So, this study examined the different dimensions of Electronic Service Quality (E-SQUAL) and E-recovery service quality (E-RecSQUAL) of Intelligent Service Banking on Chinese customer banking satisfaction and trust. The conceptual model was tested using the sets of questionnaires that were distributed to Chinese bank consumers who were using the Intelligent Service Area. Structural Equation Modeling (SEM) was used as a statistical method to assess the statistical significance of the proposed relationships among sets of observed variables. Bank self-service technology continues to become ingrained in society. It enhances the development of the banking system in each country. However, the diffusion of new online banking services cannot fully achieve expected benefits if it is not used by all banking consumers. An often-mentioned reason for consumers not using online banking services is the lack of trust. Specifically, trust influences consumers' decision to visit the site and use offline banking services. So, it is important for financial institutions to learn how to manage consumers' online trust because trust can be maintained for a long period of time. Also, the model of this study will allow scholars and practitioners to run a series of experiments to prove its application.

Keywords: Intelligent service area, Banking, China, E-S-QUAL, E-RecSQUAL

Co-creative Interaction Framework: Engaging Stakeholders in Accommodation Services Ecosystems

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Abstract

Introduction: Sharing economy is an innovative new business model and create a revolution in how business entities interact. Peer-to-peer accommodation (P2P) creates an online marketplace where peer providers and consumers meet each other's needs and can exchange roles. Without ownership of assets, P2P accommodation becomes a strong competitor of the hotel. Academic research regarding the phenomenon of sharing economy is just emerging and as it does, it seems to be moving in a number of different directions. Although research regarding sharing economy has been accelerating, there has not been a formal conceptualization of peer-to-peer accommodation from a broadening perspective as a service ecosystem and interaction between entities in the context of co-creation. Objective: To help alleviate this confusion, this study introduces a new spectrum of interaction between actors as multi interaction involving customers, peer service providers, platform providers, and other entities in the service ecosystem. This preliminary study becomes important and relevant to the phenomenon of sharing economy considering not too much research that discusses the uniqueness and dynamics of interaction that occurs in perspective of service-dominant logic (S-D Logic). Method: This study uses the Soft System Methodology (SSM) approach precisely is the first stage that is defining an unstructured situation. Approaches of gathering data are using participant observation and in-depth interview. Conclusion: Interactions between actors can be explored by creating co-creative interaction framework to explore more about engagement between actors in the service ecosystem. In perspective of S-D Logic, service ecosystems are resource-integrating actors connected by shared institutional arrangements and mutual value creation through service exchange.

Keyword: Service-dominant logic, Sharing economy, Peer-to-peer accommodation, Service ecosystem, Soft-systems methodology

Enhancing Customer Perceived Service Value: Evidence of SelfOrdering Technology (SOT) in Fast Food Industry in China

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Abstract

With the continuous development and update of technology, the way that how customers experience services and how businesses operate their companies changed greatly. Because the demand for winning market share has improved so strong, retailers have to come up with new technology innovations to promote their competitiveness. However, during the process, there are some concerns with the innovations. Among these concerns, the growing penetration of self-service technology (SST) such as the self-ordering technology (SOT) that empower customers as well as differentiate their service from competitors. Fast food restaurant should evaluate the cost and benefits whether to adopt new technology as well as customers' behavior towards technology as part of their shopping experience. The benefits to the restaurant are service speed; service quantity; increase revenue; reduced operations costs; and improved service quality. And the benefits to the customer are improved convenience and increase control.

While some studies had considered different factors that impact customers to try new ordering technologies, a small number of empirical researches had explored the selfordering technology characteristics in the fast food industry, customers' perceptions of co-productive transaction, or customers' perceptions of technology and process value. The purpose of this study is to explore the problem facing fast food businesses at the instore operations-marketing and figure out the development of SOT in physical retail stores: How can a fast food company increase the satisfaction of customer by involving the shopper in the value co-creation process of the company? The conceptual model was tested using sets of questionnaires distributed to Chinese consumers who are fast food customers. Structural Equation Modeling (SEM) used as a statistical method to assess the statistical significance of the proposed relationships among sets of observed variables. The results of this study showed that restaurant operators should encourage and lead more customers to try new technologies for customers to realize that innovation added sufficient value to their service experience. Also, restaurants and quick-service industry may rely on self-service technology and changes to create a competitive advantage.

Keyword: Self-ordering technology, Customer behavior, Fast food, Self-service technology

Consideration in the Awareness of Quality Risk

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Abstract

Research motivation: The author studies business risk and its management. There are various business risks, such as country risk, compliance risk, natural disaster risk and operational risk. These risks are close to business management. When risks emerge, they affect business performance. Companies are working to reduce these risks. Currently, the risk I am focusing on is quality risk. Quality risk is not only operation risk, but also compliance risk and human risk. In addition, the quality is not only the product, but also the quality of service, which is very broad. Recently, quality issues are often mentioned in the news in Japan. The author believes that risk management is important in recognizing risk. Consider risk perception based on quality risk. This is the motivation for the research in this paper.

Reserch background: In Japan, there are many problems with quality. Quality problems in the steel industry and transportation equipment industry are new to memory. An organization that is experiencing these quality problems is not a company that has not been able to manage quality. Some companies have also obtained ISO 9001 certification. Just having a system to manage quality does not solve quality problems. The author believes that risk awareness is important. Quality risk is wide. Risk perception differs depending on what quality a company focuses on. The author paid attention to the background of the frequent occurrence of quality problems. This is the background of the research in this paper.

Reserch method: The research method of this paper is based on text mining. Data for research use securities reports. The securities report is a document obliged by Japanese law. Listed companies must make this document. This document shall contain business risks. In this research, the description is used as data. I use text mining to analyze keywords' characteristics in the manufacturing industry (16 industries). This is the method of research in this paper.

Reserch results and Main possible contribution: As a result of this study, we understood what kind of risk there is in the recognition of quality risk. It reports on the difference in quality risk in manufacturing and non-manufacturing industries, and the difference in each type of manufacturing industry with keywords. This study can be considered as an opportunity for companies to think about risks they have not yet recognized.

Keyword: Business risk, Quality risk, Awareness of risk, Text mining, Securities reports

How Customer Digital Technology will Improve Chinese Grocery Retailing Experience: Study on Hema Store of Alibaba

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Abstract

Grocery shopping constitutes an essential and routine type of consumer behavior. The vast majority of grocery shopping is done offline. The grocery shopping experience has a unique consumer buying contexts depending on a variety of in-store stimuli such as the in-store display, shelf configuration, store layout, and the type of store and product. However, going to the grocery store is not at the top of most Chinese consumers' list of favorite activities because China's e-commerce leaders are battling to satisfy consumers' retail experience. As Chinese customers continue to experience rapid technology change, physical retailing companies are forced to implement new technologies in order for customers to enjoy shopping in person more than online such as choosing their own fresh foods in-store. Therefore, it is recommended for retailers to re-evaluate their current marketing strategies that will fuel their future business growth.

Self-service technology has grown significantly in retail stores. Consequently, Chinese customers have experienced rapid technological change in the retail outlet. Thus, it is crucial to evaluate customers attitudes towards self-service technology in the retail setting and investigate how customer digital interface with self-service technology inside the retail store will improve Chinese in-store retailing experience. This study was tested using sets of questionnaires that were distributed to Chinese consumers. Structural Equation Modeling (SEM) was used as a statistical method to assess the statistical significance of the proposed relationships among sets of observed variables. The results indicated that self-service technology has direct and indirect effects on customers shopping experience by accessing customer attitude towards self-service technology. This study provided marketers and retailers with an overview of the emerging trends in the retailing industry. It answered questions such as how advanced retail technologies modify the grocery/supermarket context and affect consumers shopping experience. Particular, leveraging of data, improvement of the sale point, and the positive effects on the consumers shopping experience.

Keyword: Self-service technology, Self-scanning, Diffusion of innovation, Retail-store, China

Usefulness of Fully Integrated In-store and Augmented Reality Application in Educating Chinese Customer about Coffee

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Abstract

China has a long history of tea producing, cooking and drinking. It is true that tea used to be the main daily beverage for Chinese. However, in contemporary society, coffee culture has been quick to conquer China particularly the millennials, and Starbucks has been leading the change. Compared to the United States who is the biggest coffee consumption market in the world with 3 trillion RMB value, Chinese coffee consumption comes to 700 billion. However, it keeps 15 percent per annum growth over a few years ago, which is far higher than that of the global market (2%). In terms of per capita consumption, the number just reaches 30 grams. This level is far below that of the EU (5.6 kilograms) and the United States (4.2 kilograms). Furthermore, the annual per capital cups of coffee consumption in China only is 4 cups per day, while 200 and 140 cups of coffee are sold per year in Japan and Korean separately. Despite this, in firsttier cities such as Beijing, Shanghai, and Shenzhen, per Chinese can consume 20 cups of coffee per day proving that Chinese market still has growing space in the future with the improving of disposable income and coffee culture diffusion.

As a form of experiential marketing method, the use of AR technology in Starbucks has been raising numerous controversies concerning its long-term benefits, to effectively contribute to a positive shopping experience and customer satisfaction among Chinese customers through the formation of experiential value. AR enhances real-world individual objects with virtual supplements, which makes the objects more attractive by strengthening the human perception of the real world. Therefore, this study determined how Starbucks cultivates a unique coffee culture in China using augmented reality application in educating Chinese to gradually switch from tea beverage drinking to fresh coffee since its entrance into the Chinese market. Structural Equation Modeling (SEM) was used as a statistical method to assess the statistical significance of the proposed relationships among sets of observed variables.

The study indicated that the AR technology in Starbucks exhibits great system quality, information quality, and service quality, and the technology has a significant positive impact on customer's intention to use, satisfaction, and net benefit. This study provided a relatively comprehensive review for marketers and scholars to know the Chinese coffee market including development, structure, and Chinese coffee culture, especially fresh coffee market. Meanwhile, understanding Starbucks' marketing strategies and business model on cultivating coffee culture on Chinese millennium helps global marketers and business to understand how to create appropriate marketing strategies to respond to local millennium consumers' culture background.

Keyword: Augmented reality application, Starbucks Roastery, China, Customer shopping experience

Analytics Adoption in Nonprofit Organizations: A Case of Public Library

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Abstract

Data is one of the most important fundamental elements for knowledge discovery, decision making, and providing competitive advantage in organizations. A report by IDC in 2018 estimated the revenues for big data and business analytics industries will reach $260 billion in 2022 at a compound annual growth rate (CAGR) of 11.9%. According to the report, banking, manufacturing, professional services, and federal/central governments are top industries making the largest investments in big data and business analytics (IDC, 2018).

Similar to large, for-profit organizations, smaller, nonprofit organizations could also benefit from analytics. Unfortunately, these nonprofit organizations often face numerous barriers when it comes to digital transformation (Allen, 2017). Examples of these obstacles include lack of digital strategy, analytical skills gap, limited funding, outdated computers and digital infrastructure, fewer employees, and low digital skills among leaderships/board members (Amar and Evans, 2017).

This paper/presentation will discuss a public library in a city in the United States, and the numerous opportunities that exist for adopting analytics in its operations. Examples of analytics for this public library, which should be relevant for other public libraries (and other non-profit organizations as well), span several areas including, but not limited to, patrons' profiling, marketing analytics, digital media analytics, collection usage reports, and location (branch) analytics.

Keyword: Business Analytics, Nonprofit Organization, Public Library

How Experiential Marketing Leverage Technology That Elevates Customer Engagement in A Retail Store? Evidence from a Sportswear Company

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Abstract

Consumers are expecting retailers to better serve them based on what the business knows about the customer. With the wealth of consumer data collected by retailers and the growing consumer expectation, quality product, competitive pricing, and excellent customer service are not enough to retain customers anymore. Instead, consumers are seeking a customized experience that fits their individual needs. Retailers have to focus on the relentless pursuit of innovation to build customer satisfaction and brand loyalty. This innovation can be offered through a variety of interactions, including digital marketing and in-store technologies to entice consumers to shop in-store. However, managers are continually making decisions about whether or not to adopt new in-store innovations. As retailer companies wrestle with the decision on whether or not to invest and adopt these new technologies, they must have a full understanding of what the technology involves because some existing technologies have been less successful. They need to determine how it will affect the way they do business, and whether or not the new technologies will create customer shopping journey. So, retail companies struggle to find the best technology in conventional physical retail stores. The best solutions are that retailers should have the ability to integrate these technologies to launch new marketing strategies to enhance the customer experience which will be the biggest beneficiaries. This study addressed how experiential marketing leverage technology that elevated customer engagement in retail. The model was tested using a set of questionnaires based on the Technology Acceptance Model (TAM), that was distributed to young Chinese consumers who are the target market of sportswear. Given the breadth of the survey, there are a number of different ways in which the data was analyzed, and the results presented. Structural Equation Modeling (SEM) was used as a statistical method to assess the statistical significance of the proposed relationships among sets of observed variables. It is a fact that there will be continuous innovations in retail technology and that consumers' expectations will continue to change. So, retailers to communicate the value of new technology to their consumers in just a few seconds or the competitors will grab the opportunities. The innovation must provide an immediate, tangible benefit to the consumer. This study provided some evidence that retail innovations offer better shopping experience, tailored to the individual preferences of the particular customer. Retailers can further identify the factors leading to the creation of a positive retail customer's experience in terms of leveraging technology through experiential marketing. Creating a meaningful value and relationship with customers isn't easy in the current's competitive retail landscape. To stand out from the competition and capture the attention of consumers, retailers are moving towards experiential marketing innovations. This study will provide clear evidence of a sports store in China, on how they create experiences which in overtime builds brand loyalty and drive revenues.
Keyword: In-store technologies, Technology Acceptance Model (TAM), Experiential marketing, China

Fama-French Factor Model and the Implications of Copulas based Seemingly Unrelated Quantile Regression

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Abstract

We propose a multivariate copula based seemingly unrelated quantile regression. The model adds the multivariate copula density function into the likelihood to relax the strong assumption of multivariate normal distribution of the conventional model. We apply our proposed model to the Fama-French equation in order to investigate the systematic risk in the three major stocks in NASDAQ market. The results of this study suggest that our proposed model provides a particularly good description of these stock prices at every quartile level.

Keyword: Seemingly Unrelated Regression, Copulas, Multivariate Quantile regression, Fama and French model

Hedging Agriculture Commodities Futures with Histogram data: A Markov Switching Volatility and Correlation model

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Abstract

In this study, the bivariate flexible Markov Switching Dynamic Copula GARCH model is developed to the big data namely histogram-value data for calculating optimal portfolio weight and optimal hedge ratios to identify appropriate commodity hedging strategies. This model is an extension of the Markov Switching Dynamic Copula GARCH in which all estimated parameters can be a regime dependent. Then, the model is applied to estimate time-varying minimum variance hedge ratios for wheat spot and futures prices. We compare our purposed model with other bivariate GARCH models. The empirical results show that our model is slightly better than the conventional methods in term of the lowest AIC and BIC. Finally, the results of the optimal hedge ratios and optimal portfolio weight obtained from our proposed model suggest that there are vary over time..

Keyword: Hedging strategy, Markov Switching, Time varying dependence and Histogram data

Multivariate Copula-based SUR-Probit Model: with an Application to Insolvency Probability of Enterprises

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Abstract

The purpose of this study is to introduce a more flexible joint distribution for a Probit model with more than two equations or a so-called SUR-Probit model. The main idea of the suggested method is to employ a multivariate copula to join the errors of equations in the SUR-Probit model. Later, the introduced model is applied to a real economic problem that is the insolvency probability of small and medium enterprises in Thailand. This study considers three economic sectors and speculates some dependencies among them. This study shows that the copula-based SUR-Probit model is suitable to explain the causal effect of the companies' financial statements on their insolvency probability and challenged results for the Thai enterprises are brought out.

Keyword: Multivariate Copula, Multivariate Probit Model, Small and Medium Enterprises, Financial Statements, Insolvency Probability

Improving the Convergence and Extracting Useful Information from High Dimensional Big Data with Neural Networks

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Abstract

The ability of Feedforward Neural Networks (FNNs) to solve complex nonlinear high dimensional big data problems more accurately than traditional statistical techniques exist in their universal approximation capability. Recently the FNNs has gained much attention in many applications to make a more informed decision from the available information. The range of applications includes, but is not limited to, management information systems, supply chain and logistics, marketing and sales, financial analysis, product and process improvements, manufacturing cost reduction, business improvements, decision support systems, and health services. The application of the FNNs in the diverse domains are not simple and extensive knowledge is needed to achieve the desired intended results. With the advancement of modern information technology, the big data is becoming more challenging to handle because of growing and changing at a rapid rate and may become a costly resource if not processed properly. Efforts are being made to overcome the challenges by building the optimal FNN that may extract a useful pattern from the big data and generate information in real time for making better-informed decisions.

The reason which limits the applicability of FNNs in the big data is user expertise and theoretical information needed to construct the network having characteristics of better generalization performance and fast convergence. The key influencing global and local hyperparameters that need user expertise and theoretical information prior to building the network are: 1) What should be the network size and depth i.e. shallow or deep? 2) How many hidden units should be generated by each hidden layer? 3) How many hidden layers will be adequate for deep learning? 4) What should be network initial connection weights and learning rate? 5) How hyperparameters should be adjusted? 6) What should be the size of the dataset during network training? 7) Which learning algorithm should be implemented? 8) Which network typology is more efficient i.e. fixed or cascade? 9) What should be the criteria for increasing or decreasing the global and local hyperparameters? and 10) What type of activation function to be used in the hidden units?

In the literature, answers to the above questions are not straightforward. The existing applications are focused on selecting and comparing traditional algorithms which may be solely based on expertise and the available data. The insufficient user expertise and theoretical information to adjust local and global hyperparameters may cause the network to convergence at suboptimal local minima with an increase in learning time. Researchers have made efforts to reduce the drawbacks by critical thinking on the above problematic questions, however, a study is missing and an open challenge to gather the answers for above questions on one platform. The purpose of this work is to answer above questions by identifying noteworthy contribution made in improving generalization performance and convergence rate of FNN, identify new research directions that will help researchers to design new, simple and efficient algorithms, and the users to implement the optimal designed FNN for solving complex nonlinear big data problems. FNN has gained much popularity during the last three decades. Therefore, the study is focused on algorithms proposed during the last three decades and their applications in solving problems in engineering, life sciences, and management sciences domains. The study identified in total 54Nos. unique learning and optimization algorithms proposed to improve the generalization performance and convergence speed of FNN. The identified learning and optimization algorithms are further classified into six categories based on their problem identification, mathematical model, technical reasoning and proposed solution. The authors also explained the importance of categories in term of their applications on more than hundred real-world problems. The categories are named as 1) Gradient learning algorithms for Network Training, 2) Optimization algorithms for learning rate, 3) Bias and variance (underfitting and overfitting) minimization algorithms, 4) Constructive topology FNNs, 5) Gradient free learning algorithms, and 6) Metaheuristic search algorithms.

The study has identified a major shift in research trend in the last three decades in improving the FNN. For instance, research contribution in FNN during the last three decades has changed from complex gradient-based algorithms to the gradient-free algorithms, trial and error hidden units fixed topology approach to the cascade topology, hyperparameters initial guess to analytically calculation, and converging algorithms at a global minimum rather than the local minimum. The identified categories may be considered as a research gap and further improvement can bring a significant contribution. The extensive knowledge in the study will contribute by helping researchers and practitioners to deeply understand FNN existing algorithms merits with limitations and research gaps. Moreover, the user, after having in-depth knowledge, can apply appropriate FNN algorithms to get optimal results at the shortest possible time with fewer efforts for their specific application and big data problems. After discussing FNN algorithms with their technical merits and limitations in their respective categories along with applications, the authors suggested five new future directions to contribute to strengthening the literature to overcome the challenges of handling big data.

Keyword: Big data, Feedforward neural networks, Generalization performance, Convergence rate

An Intelligent Constant Humidity Irrigation System Based on the Soil Moisture Consumption Model

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Abstract

This paper proposed a method a Constant Humidity Irrigation System (CHIS) based on the soil moisture consumption (SMC) model. The SMC model collects the moisture data from several characteristics to deduce the moisture consumption rate of the soil. The results of this model provide the knowledge to predict the soil humidity. The CHIS dynamically changes the irrigation period to retain the soil humidity at a constant level based on the proposed SMC model. Simulation results show that the prediction error of the SMC model is controlled within 1.02% ~ 2.5%. The CHIS can control the soil humidity in a predefined level within 5% error rate over 80% experiment duration. It provides the crops which require stable soil humidity an excellent growing environment.

Keyword: Soil Moisture Prediction, Soil Moisture Consumption (SMC) Model, Artificial Intelligent, Constant Humidity Irrigation System

The Effects of Ingredient Information with Clean Labels on Older Adults' Food Product Evaluation

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Abstract

The proportion of older people in Taiwan is going to reach 14% by the year of 2018, which make it become an "aged society." How to live a healthy life is an important thing to the older people, and safe diet is the most concerned issue to them. Clean labels are an emerging issue and receive a lot of attention from consumers and manufactures in recent years. Surprisingly, little academic research has been discussed and investigated on this issue. Moreover, the effect of clean labels on consumers' food choices remains unclear and in need of empirical evidence to gain further understanding. The present research aims at exploring the underlying mechanisms how older adults respond to ingredient information with and without clean labels when they evaluate and choose food products. In addition, personality traits are also incorporated to discuss their effects on the relationship between clean labels and consumers' food product evaluation.

The study is to examine the persuasive effectiveness of ingredient information with clean label versus without clean labels. Furthermore, individual differences, such as older adults' gender, individuals' health knowledge and self-rated health status are also incorporated into discussion. The results showed that ingredient information with clean labels are more persuasive than those without clean labels because older adults are motivated to process information which is relevant to their health and clean labels indicate that the ingredients of the food product are natural and additive-free. In addition, the results revealed that these individual differences have moderating effects on the relationship between clean labels and consumers' food product choice.

Keyword: Oder adults, Cean labels, Elaboration Likelihood Model, Gnder; Halth knowledge, Slf-rated health status

Pest Anthropomorphism: Get Rid of Mr. Pest

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Abstract

Anthropomorphism is defined as attributing humanlike characteristics, motivations, intentions, or emotions to non-human entities (Epley et al. 2007). More and more brands use pest anthropomorphism in their advertisements. For example, a recent commercial for Strepsils' lozenges shows a germ party where various viruses and bacteria imbued with humanlike feature, devilish eyes and sharp teeth, are laughing and dancing in the throat of a human victim, resulting in a sore throat and infection. At the end of the commercial, the product is shown to help kill the pests thereby rescuing the human victim and restoring them to health. This paper investigates how consumers feel and react to pest anthropomorphism in the context of the healthcare product promotion. In study 1, we provide real-world evidence that the majority of participants choose to consume a healthcare product when a disease-causing pest is anthropomorphized (with an aggressive face) than not anthropomorphized. However, this effect is moderated by pest type (high vs. low in behavior immune response, BIR). Studies 2 and 3 show that the positive effects of pest anthropomorphism (with an aggressive face) on intention to fight and likelihood of purchase are retained in low BIRpest conditions and that threat perceptions mediate the relationships (moderated mediation). That is, endowing a low-BIR pest with an aggressive humanlike face and features may prompt consumers to treat and respond to this pest as human being (e.g., a villain), which in turn boosts their feelings of being threatened when facing that person, consequently leading to a stronger intention to fight and greater willingness to purchase the product as a weapon to protect themselves. However, the differences are diminished when the pests cause high BIR. Finally, our findings in study 3 confirm that pests portrayed with crying faces can weaken the effect of anthropomorphism. Thus, illustrating a low-BIR pest with a crying face may cause consumers to shift the category of evaluation from pest to some specific human category such as that of victim, thereby decreasing their perception of threat and weakening the defensive reaction.

Keyword: Humanness, Behavioral immune system, Emotional facial expression, Angry face, Brand communication

Time-varying Spillovers among Housing Markets in China

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Abstract

Over the last few years, numerous attempts have been made by spillovers (ripple effects) among cities to evaluate overheated housing markets. What seems to be lacking, however, is to apply a rolling-window approach to further explore into time-varying spillovers in a timely manner in order to fully reply to housing market with Chinese characteristics. According to total spillovers, our estimation results using 2000-2017 monthly housing price data across six cities indicate that time-varying spillovers offer the key to a better understanding of the interaction among first-tier cities. It is more interesting to note that after facing economic downside risk of 2014, the total spillovers among cities have abruptly been increased.

Keyword: Ripple effects, Rolling window, First-tier cities, Housing frenzies

Using ANP to Explore the Key Factors in MICE Industry

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Abstract

Research Motivation. For the service quality in MICE industry, there are some studies just discuss the specific industry individually, such as conference (Wu & Hung, 2009) or exhibition (Chang, 2010; Lin & Lin, 2013; Kuo, Tseng & Tseng, 2013; Lin, Liu, Chuang & Hung, 2016). However, there is no evaluation framework that can be used in the four industries simultaneously. The opinion of this study is that the four industries have the common characteristic. Therefore, this study will construct the evaluation framework that can be used in the four industries in a time. Meanwhile, this study will explore their key factors.

Methodology. This study takes ANP (Analytic Network Process) as the analytic tool to learn the key factors.

Result. The evaluation framework this study constructed includes 7 aspects and 28 criteria. Meanwhile, the four industries all value Assurance and Empathy the most.

Contribution. This study considers the common characteristic among the four industries (Meeting, Incentive, Convention and Exhibition (MICE) to construct the service evaluation framework. In a time, to learn the key factors.

Keyword: MICE, Service, ANP

Shopping Tourism: A Case of Chinese Female Tourists Choosing Luxury Venues

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Abstract

This study explores the concept of impulsive and hedonic buying behaviors regarding overseas luxury shopping, and it also identifies the perceived importance of various shopping venues. The study examines the significant differences in venue choices among various types of Chinese female tourists on the basis of their age, income, and shopping frequency. Using analysis of variance (ANOVA) as a statistical tool, the results show the significant differences among groups of (1) young-age consumers, middleaged consumers and old-age consumers, (2) low-income consumers, middle-income consumers and high-income consumers, (3) high shopping frequency, upper-middle shopping frequency, lower-middle shopping frequency and low shopping frequency. The findings of this research provide better direction for luxury brands in choosing the shopping venues and for countries in attracting Chinese female tourists.

Based on the results of this study, marketing managers can promote luxury brands related to hedonic and impulsive buying and decide which luxury shopping venue is more attractive for Chinese female consumers.

Keywords: Luxury shopping, Venue choices, Tourism, Chinese, Impulsive buying, Hedonic buying

Top Management Changes and Firm Stock Performance

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Abstract

Top management is responsible for the success and failure of the entire business performance. The purpose of this research is to examine the relationship between the changes of top managers and firm stock return. A total sample of 1,268 effective start dates and end dates of top managers from 602 firms listed in the Stock Exchange of Thailand (SET) during the years 1999 to 2014 were collected from SETSMART database. Event study methodology was employed to investigate reaction of stock returns around each event. After every effective start date and resignation date was obtained as a center date or event window, daily stock price of 756 trading days (three years) prior to and after each event were retrieved and calculated as daily returns. The stock returns over short and long periods ranging from 3-day, 1-week, 2-week, 3-week, 1-month, 2-month, 3-month, 4-month, 5-month, 6-month, 1-year, 2-year and 3-year returns surrounding the each event window were estimated and further used to computed abnormal return; the difference between the actual and normal return. The results of this study revealed two main findings. Firstly, firms' stock returns were unfavorable prior to the entering of new manager and significantly improved and turned to positive after two years later. Secondly, on average, following the firms with one-year decline in stock return, the managers were likely to resign and stock return remained unfavorable for years. The findings implied that investors could gain favorable returns from investing in firms associated with new top manager, however, should avoid firms associated with top management resignation.

Keyword: Top management change, Stock return, Abnormal Return, Event Study Method

Shopping Behavior in the New ERA4.0: the Case of Office Staff Behavior on E-Commerce Sites in Ho Chi Minh City – Vietnam

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Abstract

Online shopping gradually assert its position in daily exchange activities, helping consumers get more choices when shopping, improving people's living standards, catching up with the trend of world integration. The massive growth of online businesses in both quantity and scale has proved that Vietnam is a hot market (Ministry of Industry and Trade of Vietnam, 2015). However, Vietnamese people still have habit to go to the wet markets, especially the elder (X generation). In the last two decades, the Y and Z generations boom heavily, so that the consumer shopping behavior changes a lot. The aims of this paper are to discover how consumers react to the development of e-commerce in the biggest city of Vietnam – Ho Chi Minh City and what they behave to the new type of shopping. The paper just focus on the office staffs who are very busy with workload and prefer to online shopping.

This paper is designed with mix method, qualitative and quantitative research. The sample size is about 264 office staffs, working in Ho Chi Minh City. Data collected is analyzed by descriptive method of SPSS.

Keyword: Consumer Behavior, E-commerce, Online Shopping, Ho Chi Minh City

Mobile Device Usage on Interpersonal Relationship of University Students under Different Zodiac Signs

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Abstract

In recent years, due to the popularization of wireless network and smartphones, wireless application through the cell phone has become an indispensable part in university students' social life. However, only few studies have targeted at students under different Zodiac signs, bringing a discussion on the correlation of the use of mobile devices and their interpersonal relationship. With the reference of relevant literature from our country and other countries, this research questionnaire was devised to conduct a random sampling survey on students aged 18 to 23 from five universities in Taiwan. A total of 450 questionnaires were distributed, and 416 valid ones were reverted. The themed question is "using mobile devices can quickly enhance the relationship with a stranger" which aims to determine the influence between the students' use of mobile devices and interpersonal relationship by employing exploratory factor analysis, confirmatory factor analysis, and grey theory analysis. The result indicates an obvious difference in associated variables of overall usage of mobile devices and interpersonal relationship among university students under difference Zodiac signs. It is suggested that relevant counseling system shall highlight the influence between mobile devices and interpersonal relationship, and provide students under different Zodiac signs with effective counseling based on the study result in order to effectively improve the interpersonal relationship among students.

Keyword: Interpersonal Relationship, Mobile Device Usage, Zodiac Signs, Grey Relational Analysis

Association Rules in Mobile Game Operation

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Abstract

Mobile games are now playing a significant role in the gaming industry as the Internet developed, bringing high economic and cultural benefits to China every year. It is of great importance to maintain and further improve product quality to remain competitive in the industry. After the game's publication, operation becomes the key to maintain product profitability. This paper analyzes the data collected during operation to reveal the internal relationship within the revenue, and proposes reasonable operation strategies accordingly. A correlation coefficient algorithm suitable for time sequences is proposed, in which the association is defined by the similarity between data. The level of association between two time sequences is reflected in the probability of the association occurring. Based on this discovery, we can analyze the next popular mobile game in depth to explore the correlation between the number of online players, the number of new users, and the retention rate. The study found that there are two fatigue periods of 30 days and 120 days for the number of players, which can be considered in the strategic planning for the game operation.

Keyword: Mobile Games, Association Rules, Sequence Correlation, Operation Optimization

Dependency-Aware Cloud Storage for Efficient Blockchain-Based Medical Data Analytics

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Abstract

The main goal of this paper is to design a cloud storage platform with dependency awareness for integrating blockchain-based medical records. With a huge amount of medical records, we can perform medical data analytics to provide various healthcare services. Blockchain has the de-centralized, untamperable, and undeniable properties. Based on a medical blockchain, medical records (transactions) are integrated within a block based on their occurrence times, which have less dependency among them. Therefore, while integrating medical records from different hospitals in cloud storage, medical record dependency is required to be injected. For achieving this purpose, we use a clustering technique to classify medical records on end sites (hospitals) into multiple dependency groups. The medical records in the same group are more related to each other than those in other groups. After the local clustering, we use a light-weight data structure to delineate the dependency distribution of the medical records in a hospital. Then, the cloud site further integrates the given dependency data structures of all end sites to obtain the total dependency distribution of all medical records. Based on the total dependency distribution, we can know the required storage size of each dependency group and their total required size. In this paper, the cloud storage platform is based on Hadoop distributed file system (HDFS). Given a total size of all medical records, HDFS allocates a number of storage blocks according to the storage usage balance mechanism. The allocated storage blocks will form a number of local storage areas, each with different storage size. If we store a dependency group across two or more local storage areas, the medical records in the dependency group are corresponding dispersed among a number of non-neighboring storage servers. This storage manner is harmful for the medical data analysis execution since the data retrievals incur many remote accesses. To avoid deteriorating the analytical execution, we should store the medical records of a dependency group within a local storage area. This storage manner has the placement optimization problem between dependency groups and local storage areas, such as maximizing the number of dependency groups to be wholly placed in a local storage area. We formulate the corresponding integer linear programming (ILP) model of the placement optimization problem. We also propose a heuristic placement algorithm. Finally, we will perform extensively simulation experiments to demonstrate the effectiveness of dependencyaware cloud storage mechanism in storing and analyzing medical records. This research was supported by the Ministry of Science and Technology, Taiwan, R.O.C, under Grant MOST 105-2221-E-030-004-MY3

Keyword: Cloud storage, medical data analytics, blockchain, clustering, heuristic algorithm.

The Effects of Augmented Reality Apps on Impulse Buying Behavior: An Experiment of Tourists

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Abstract

This paper study about Mobile Augmented Reality (MAR), which are interested by many other scholars recently. MAR is expecting to grow and create a big changing for consumer buying behavior as a new type of e-commerce. Augmented reality was assisted by smart mobile and GPRS, ranging from games to navigation to marketing activities. While the online impulse buying is increasingly through the web-based. Now with the help of MAR, retailer can increase the sale to even double time. However, as of yet there have been no attempts to mix these two ideas – MAR apps and impulse buying (IB) behavior in research specially in tourism industry. Hence, this study fulfill the gap by integrates Technology Acceptance Model (TAM), Stimulus-OrganismResponse (S-O-R), Flow theory, and combine with satisfaction of user in MAR apps environment. In addition, this study explore the relationship between MAR apps characteristics with tourist IB behavior. Based on the survey conducted with over 500 respondents, a series of subjective user tests by using SPSS and SEM-PLS approach were conducted. The main findings indicates that within the augmented reality environment, the MAR apps characteristics play the important role to lead tourist to unplanned purchase. The study shows that the more useful and easier of using mobile augmented reality apps will improves the perceived enjoyment and satisfaction of the tourist, then increase the tourist impulse buying behavior. Moreover, this study also found the mediating effects of flow experience to the relationship between perceived ease of use to satisfaction why using MAR apps. The results are consistent with some previous researchers and explores characteristics of MAR apps which influence to user.

Keyword: Mobile Augmented Reality apps, Augmented Reality, Impulse Buying, Human – computer interactive

The Optimal Housing Price Modeling：Growing of House Price and Income in Taiwan

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Abstract

This thesis is based on the model of the Campbell and Cocco (2015) , under the maximization of utility, from many factors like number of periods, residential consumption to the general residential consumption preference, discount factor, risk aversion coefficient, the importance of the end of wealth, interest rate, inflation interest rates, house prices, growth rates and price levels, to discuss the housing price growth and income growth for the optimal purchase price. The results show that the growth of house price and the optimal purchase price has a positive relationship. On the market, people tend to short-terms loan when the income growth rate is low and tend to longterms loan when the income growth rate is high. And also when the first of real interest rate is higher, people on the market tend to invest in non-housing consumption.

Keyword: Interest Rate, Optimal Housing Price, Utility

An Application of Classification Trees in Logistic Regression Analysis: Factors Affecting the Renewal of a Hospital Benefit Rider of Life Insurance Policy

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Abstract

The objective of this research is to study factors affecting the renewal of a hospital benefit rider of life insurance policy, including comparing probabilities and searching a factor that related to the renewal of a hospital benefit rider. Binary logistic regression analysis is the main tool to model the available data. The 25,249 insurance policies starting from 2016 were obtained from a life insurance firm in Thailand. Classification trees method was applied to classify groups for all quantitative factors. In addition, we used 10-fold cross-validation technique to determine the order of polynomial for all quantitative factors related to the renewal of a hospital benefit rider. Furthermore, descriptive statistics, binary logistic regression and the best subset selection of independent variables were used. The best explanation factors were selected in the model using R-squared criterion, Bayesian Information Criterion, cross-validation error and area under the ROC curve. The response variable in the model is a status of each hospital benefit rider which gender, age, face amount value, annual life premium of rider, premium mode, domicile, marriage status, based policy type, annual life premium of base policy, totals of claims, amount of claims and average duration of paid claims operation are independent variables. The result showed that age (under 21 yrs., 21-30yrs., 31-40yrs., over 40 yrs.), face amount squared, marriage status (single, married, divorce and widow), domicile (Bangkok and others), premium mode (annual, semi, quarterly and monthly), base type (whole type, endowment and others), base premium and claim counts squared were includes in the optimal model.

Keyword: R Squared, Bayesian Information Criterion, Cross Validation Error, Multiple Imputation, Area Under the ROC Curve

Effects of Data Rounding of Test Statistics for Comparison of More Than Two Population Locations under Heteroscedasticity

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Abstract

ANOVA is the most frequently used method for comparing locations of more than two groups. A correct application of this technique has three main requirements: (i) independent samples; (ii) normally distributed populations; and (iii) homogeneity of variances. Violation of the last condition is a serious problem in statistical inference and can generally occur in practice. Another topic which should be concerned in data collection and recording is data rounding. In general, real data are rounded to some smallest unit of measure, and especially they are rounded to be integer. The data may lack of continuity characteristic and are far from normality assumption. In this study, the performance of the F-test in ANOVA, Welch's test, Kruskal-Wallis test, and BrownForsythe test was compared by empirical type I error rate and power, when heterogeneity of variance and data rounding occur and find out which method is the most suitable. Data for three-group comparison were generated via Monte Carlo simulations with heterogeneity of variance, balanced and unbalanced cases. Results suggest that when the null hypothesis is true, Welch and Brown-Forsythe can keep the nominal level for all scenarios. Importantly, ANOVA and Kruskal-Wallis cannot control the probability of type I error in case in which heteroscedasticity is presented, data are rounded, and sample size in each group is unequal. Besides, heteroscedasticity is still a problem in ANOVA even in case of balanced design. Most importantly, Kruskal-Wallis test is not robust for data rounding especially when data are rounded to be integer. In terms of power analysis, four methods have different powers depending on the settings of situations.

Keyword: Heterogeneity of Variance, Rounded Data, Monte Carlo Simulation, Quantization

The Impact of FDI on Economic Growth in Dong Nai, Vietnam in the Period of 2015-2020

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Abstract

Dong Nai province, which is one of the localities in the southern key economic region, attracts a lot of foreign direct investments (FDI). This FDI attraction has positively contributed to speeding up the rate of economic growth of Vietnam in general and Dong Nai in particular as well as promoting the economic restructure of the country towards industrialization - modernization. The research has been based on the theory of FDI and economic growth to analyze and assess the impact of FDI on the economic growth of Dong Nai province, including assessing the impact of FDI inflows on the economic growth of Dong Nai province, identifying the factors affirming FDI attraction into Dong Nai province and proposing policies to push ahead the economic growth and FDI inflow attraction into Dong Nai province. This helps Dong Nai government to have good orientation for the management of FDI capital and limit negative impacts spreading to the business environment in general.

Keywords: Foreign direct investment, Economic growth, Factors affirming, Dong Nai

Handling the Missing Data of Water Level using Machine Learning

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Abstract

The good data quality is required for being the input sets of water model to monitor flood events. However, missing water level data often arise from measurement instrument failures, data transportation errors, or values that have not passed quality control criteria, etc. This study applied the K-Nearest Neighbor (KNN) algorithm which is a type of supervised machine learning algorithm with the water level observations on the rivers in Thailand which are the datasets.

K-Nearest Neighbor method was used to classify the missing water level cases with other similarity cases. When the missing water level was detected, its distance from each of the cases in the datasets was computed. If the missing water value was in which class, it was filled with mean value of that class. For datasets of this work, the water levels were preprocessed in two formats. The first dataset was the whole water level observation stations data of country. The second one was the only water level observation station that both datasets were the sequence of observations recorded at time intervals. The time series of these datasets were analyzed in hourly period. As above mentioned, the mean of K-Nearest Neighbor method was applied to impute the missing water level observations. Therefore, the other weather variables such as rainfall, temperature, or humidity in each station were applied to predict the missing values in this work.

In this paper, the example dataset was the records of hourly water level, temperature, pressure, and rainfall amounts from 369 weather stations in Thailand of May 2019. Then, the mean squared error of example dataset with K value of 8 was measured for the imputation performance and its result was 0.0. Moreover, the five-year datasets has been used to be the datasets in this work. Also, the mean errors for the predicted missing values of test datasets for different K values have been measured.

Keyword: Missing value, Imputation, Machine learning, Time series analysis, K-Nearest Neighbor

A Comparison Study of Response Surface Designs for the Full Second Order Model and a Set of Reduced Models in a Spherical Region by Variance Dispersion Graph

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Abstract

Response surface designs are widely use in industrial engineering, food science etc. In selecting a design of experiment to perform, it will be useful if an experimenter knows which design is the best before running it. Hence, the objective of the research aims to compare the 6 response surface designs: central composite designs (CCDs), small composite designs (SCDs), Box-Behnken designs (BBDs), uniform shell designs (USDs), Plackett-Burman composite designs (PBCDs) and hybrid designs over the full second order model and a set of reduced models when the designs are in a spherical region for three, four and five design variables (k = 3, 4, 5). The criterion comparison was variance dispersion graph (VDG) which for the best efficient response surface design, its prediction variance should be lowest in the 0 to $\sqrt{k}$ radius. For a set of reduced models, weak heredity principle is used to reduce the full second order model. For each design, scaled prediction variance (SPV) is calculated to measure the quality of prediction : $SPV = (N V(\hat{y}(x)))/\sigma^2 = N x' [(X'X)]^{(-1)} x$, where $V(\hat{y}(x))$ is the variance of estimated response at location of interest x, N is the number of design points, σ^2 is variance of the model, x is a vector corresponding to model term and X is a design matrix. In the research, the behavior of SPV values for response surface designs throughout the design region is shown by using VDG. VDG is a 2-dimensional plot which plots the minimum, average and maximum SPV on the spheres against the radii (r). A good design should have small and stable SPV values within the experimental region of interest as well as in the interval 0 to $\sqrt{k}$ radius.

The results based on VDG were as follows: across the full second order model and a set of reduced models, the H311B (N = 13, 15), the H416C (N = 18, 20), and the SCD (N = 31) were the best designs for k = 3, 4, and 5, respectively.

Keywords: Response surface designs, Spherical region, Reduced models, Variance dispersion graph

Internet of Things –IoT- and Agnostic Blockchain Technology: Opportunities in the Food Supply Chain

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Abstract

Recent technological developments representing the foundation of Internet of Things (IoT) and the adoption of blockchain technology promise to impact the way supply chains are managed all over the world. In IoT large volumes of unstructured data are generated by all kinds of mobile devices and sensors. This gives the possibility that selected data could be entered into the blockchain for the purpose of control and visibility across the supply chain including activities such as transportation, handling storage, tamper proof checks, product history and provenance tracking. This works explores the principles of agnostic blockchains and the feasibility to be implemented in the supply chain of seafood products. As different species are captured and destined for different markets hence some players in the supply chain will have to make use of different blockchains. A case of live seafood in Atlantic Canada is used for that purpose. The study of IoT and blockchain technology in the supply chain is a new field and therefore there is an opportunity to develop new conceptual approaches and frameworks that will result in increasing benefits to all parties.

Keyword: Internet of Things -IoT-, Blockchain, Supply Chain, Sensor network, Food/perishable goods

Data Science Skills Development: Understanding from the Point of Views of Employers and Job Seekers in Thailand

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Abstract

We are now in the era of a data-driven world where data is realized as a valuable frontier for productivity, competition, and innovation. The amount of digital data that exists today is massive and is growing at a rapid rate. Big data's potential just keeps growing and data science skills are in demand not only now but also in many years to come. Therefore, it is a critical issue of how each country, such as Thailand, would overcome the big challenge of developing the necessary skills of data science to cope with the high demand of the data science workforce. This study aims to investigate the current state of the data science skills development in Thailand and understand the point of views of both employers and job seekers in data science-related jobs. This study conducted data collection using a survey research method. The results reveal some interesting insights from both employers and job seekers in data science-related jobs in Thailand that will be useful for data science skills development in Thailand and also to other developing countries.

Keyword: Big Data, Data Science, Skills Development

Performance modelling of urban metro systems: Network data envelopment analysis with shared input approaches

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Abstract

This study proposes two-stage network and mixed network data envelopment analysis (DEA) models with shared inputs to measure the performance of metro systems. The non-storable service, joint-product, shared inputs, and multi-mode features of the metro system are considered in the mixed network DEA model, which integrates the two-stage network and parallel structure. However, the non-storable service and shared inputs features are incorporated into the two-stage network DEA model. A case study is conducted with these two models to evaluate performance of a metro transit system. Comparing the mixed network DEA model with the two-stage network DEA model, results indicate the performance measures or ranks significantly differences between these two models when using non-parametrical statistic tests. Transit system operators can gain more insightful performance information from the results of the mixed network DEA model than from the two-stage network model for making improvements to their systems.

Keyword: Two-stage network, Mixed network DEA, Metro, Performance, Shared inputs

A Study on the Assignment of Students to Internship Units

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Abstract

The study uses discrete optimization method to allocate students to various internship units of companies based on the students' preference. The purpose of this study is to find the global optimal solution that meets the maximum utility of overall students' preference and considers efficiency and fairness.

This study utilizes the case of National Taipei University of Technology master degree students to illustrate the usefulness of the presented approach. According to students' preference and the restrictions of minimum and maximum numbers of students in particular internship units, the proposed approach suggests how to allocate students to appropriate internship units.

The presented approach can improve the efficiency of the internship assignment process and maximize the utility of student internship. For the students who are assigned to preferred internships will cultivate their sense of achievement in these fields.

We believe that using discrete optimization method will let students have opportunities to be allocated to ideal internship units. So that students can reach self-actualization during the internship duration and thus feel more confident for their future career development.

Keyword: Student internship, Assignment, Optimization

Performance Evaluation and Development Strategy of Domestic Listed Game Companies

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Abstract

This study evaluates the performance of domestic game companies and discusses the development strategy of the companies. The decision making units include 11 listed companies of game industries and the data period is from 2013 to 2017. The inputs have the number of employees, total assets, operating expenses-research development, and operating expenses-promotion. Net sales and EBIT (Earnings Before Interest and Taxes) are output items. Traditional Data Envelopment Analysis (DEA) CCR model, BCC model and NIRS model are utilized to evaluate the performance of decision making units. For the inefficient decision making units, herein we use the slack analysis to explore the improvement percentage of the inputs and the outputs. According the DEA results, this study intends to derive some constructive development strategies to the game industry. Hopefully, the above analysis results can provide some directions or advices to decision makers to improve their operational performance.

Keyword: Game industry, Operational performance, Data envelopment analysis

An Optimization Approach for the Assort-packing and Distribution Problem of Franchise Clothing Industry

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Abstract

In recent years, influenced by fast fashion, clothing industry has undergone a great transformation. Fast fashion brings more than just foreign fashion brands. In order to attract consumers and increase profits, the styles designed by the clothing industry have become more diverse. The franchise clothing company therefore intends to enhance the operation process and reduce unnecessary costs. In the traditional distribution process, the produced clothes are shipped from manufactures to warehouses, and delivered through their own or outsourced logistics. For the franchise clothing industry, the supply chain system is quite popular and wellconstructed, and the packing and distribution process has been set up according to the operation procedure. However, due to the gap between supply and demand, the company must spend extra cost to replenish and transfer goods in the retail stores. This study intends to solve the assort-packing and distribution problem in the franchise clothing industry by using the deterministic optimization model. The objective is to find an optimal way to pack a set of different items in a box and allocate the boxes to stores to meet the stores' demands. Numerical examples are presented to illustrate the usefulness of the proposed approach that can effectively handles the packing and distribution of products to stores.

Keyword: Franchise clothing industry, Assort-packing and distribution problem, Optimization.

A Study on the Competitive Advantages of Semiconductor Equipment Suppliers

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Abstract

In the semiconductor manufacturing industry, equipment is required in manufacturing, packaging and testing processes. Equipment investments account for a large proportion of total capital expenditure, and the semiconductor equipment suppliers play an important role in the supply chain of semiconductor manufacturing industry. According to a survey of Semiconductor Equipment and Materials International, Taiwan's semiconductor equipment market is the largest in the world due to advanced process technology has been active. This study aims to explore the key factors of the competitive advantages of semiconductor equipment suppliers. This study firstly integrates the key factors of how the semiconductor manufacturing companies to select their equipment suppliers from the literature and utilizes the revised Delphi Method with expert opinions to obtain a set of consistent criteria for further evaluation. Then the DEMATEL-based analytic network process is utilized to find out the key factors that affect the competitive advantages of semiconductor equipment suppliers. According to the obtained key factors, this study derives some competitive advantages and development strategies for semiconductor equipment suppliers.

Keyword: Semiconductor Equipment Suppliers, Revised Delphi Method, DEMATEL-based Analytic Network Process

Performance Evaluation of Industrial Communication Device Industry in Taiwan Using Two-Stage Data Envelopment Analysis

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Abstract

This study utilizes a two-stage data envelopment analysis model to evaluate the performance of the industrial communication device (ICD) industry. The decision making units have 11 listed companies in ICD industry. The study period is from 2014 to 2018. The first stage explores the production efficiency with the inputs, total assets and operating expenses, and the outputs, operating revenue and net profit margin. The second stage considers market efficiency. It takes operating revenue and net profit margin as input variables and earnings per share and return on operating assets as output variables

Keyword: Data envelopment analysis, Two-stage model, Industrial communication device industry

Does Managerial Sbility Improve Financial Constraints?

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Abstract

This study addresses the relation between managerial ability of a CEO and financial constraints. We find that a CEO with high managerial ability can reduce a firm's financial constraints. This effect concentrates in firms with skillful CEOs who have persistently high performance over several years rather than lucky CEOs who only have high performance in one year. Our finding is robust to an instrumental variable regression, different definitions of a skillful CEO, and different measures of financial constraints. Thus, this study contributes to the literature by exploring the potential bright side of managerial ability on improving financial constraints.

Keyword: Managerial ability, Financial constraint, Skillful CEOs, Lucky CEOs

Effects of Tax Incentive Policy in the Investment Decision of Foreign Enterprises in Dong Nai Province, Vietnam

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Abstract

The objective of the article is mainly to analyze the impact of tax incentive policies on investment decisions of foreign investors in Dong Nai province through an investigation of foreign enterprises in Dong Nai province, period 2015-2020. From that, the author gives proposals to policy makers in attracting investment capital in general and foreign direct investment (FDI) capital in particular. This research work was designed descriptively and quantitatively using both primary and secondary data. Methods of data collection: primary data, interviews with 300 foreign-invested enterprises. Secondary data from relevant agencies such as tax, statistics and related industries. The factor analysis method is applied on the basis of analyzing the impact of tax incentives on investment decisions of foreign companies.

The research result shows that the limitations of this FDI inflow in Vietnam's economic growth are not small. In fact, if there is a unified and centralized tax administration mechanism, this can be a major barrier to the shifting plans and upgrading of FDI inflows.

Keyword: Tax incentive policy, FDI, investment capital attraction, Dong Nai

Research on Financial Information Sharing Based on Blockchain Mechanism

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Abstract

The Large-scale operation and globalization of enterprises have prompted companies to establish financial shared service centers, which seek to create conditions for sustainable value creation. However, since the development of Financial Sharing Service Center, it has gradually changed from an efficient department at the beginning to a centralized department with lower efficiency, which hinders the development of enterprises. In order to solve the problems of centralization, overstaffing and weakening trust exposed by current financial information sharing, we put forward an optimization scheme, which is to build financial information sharing database and financial sharing implementation process under blockchain technology. This optimization scheme is realized by means of internal control process reengineering under the mechanism of decentralization and transparency of blockchain.

Keyword: Blockchain, Financial sharing, Internal Control, Process Reengineering

Solving the Least Distance Problem under the VRS Assumption in DEA as a Bilevel Programming Problem

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Abstract

In this paper, we consider a method to solve the least distance problem (LDP) under the variable returns-to-scale (VRS) assumption in data envelopment analysis (DEA). This method aims to find a closest efficient target from the assessed decision making unit (DMU). DEA has been widely applied to evaluating the relative efficiency and providing some efficient targets as goals for the assessed DMU. Because the necessary modifications are minimized, the closest efficient target is usually more practical. Under this consideration, the least distance problem (LDP) has been actively studied.

To find the closest target, we reformulate the LDP into an equivalent bilevel programming (BP) problem by defining the efficient frontier with a proposed auxiliary problem. The well-researched BP problem can be solved by a mixed integer programming solver. The closest efficient target can be obtained over the whole efficient frontier instead of part of the frontier under the VRS assumption with a theoretical guarantee.

Keyword: Data Envelopment Analysis, Least Distance Problem, Closest Efficient Target, Bilevel

Inclusive Economic Development Strategy Based on Tourism Industry

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Abstract

The purpose of this research is to formulate a tourism-based inclusive economic pilot area that can develop competitive and sustainable destinations so that they become the points of growth spreading the economic growth of the surrounding areas. In addition, it also creates a tourism business development strategy involving the community. Considering the local community and their low income, the management and development will be more directed in accordance with the characteristics and superiority of tourism in the area, which will have an impact on improving the economy of the community. The inclusive economic development is basically an economic development that can contribute to the majority of the people of Indonesia including alleviating the community poverty (pro poor). In this case, the inclusive economic growth must be built with three main pillars, namely maximizing economic opportunities, providing social safety nets, and ensuring equal access to all economic opportunities (pro growth). Furthermore, the inclusive economic growth must take place in the field of economic activity that absorbs large jobs (pro-jobs) and has a negative impact on changes in the natural resource environment to a minimum (pro environment). The inclusive tourism is an approach to the local economic empowerment by integrating resources owned by local communities and their environment with the tourism industry value chain in order to realize the community health, especially the poor, increase the appreciation of the tourism industry to local potential, and strengthen the competitiveness of the tourism industry, take the religious norms and cultural values, diversity of social characteristics of society, and preservation and protection of natural and environmental resources into account (Faisal, 2015). Therefore, the direction of inclusive economic development in the tourism sector must be able to contribute to society at large, especially to the surrounding communities by encouraging the growth of tourism centers, tourism business units, small businesses, and absorb labors in tourism destinations with various capabilities in order reduce the income inequality and poverty alleviation (pro poor tourism). This research was conducted in Kepulauan Seribu .Data were collected by interviewing SMEs actors using questionnaires while qualitative data were collected by FGD gained from key

informants who were the regional government, local government, Non-Government Organization (NGO), SMEs actors, and tourism sectors. The result of this research is faced by the community in tourism industry-based business and the strategic development that needs to be accomplished. Problems that are faced by the tourism Service provider society such as Transportation, Home stay, Restaurants, Tour guide, Support Services (snorkeling, diving, banana boat), and souvenirs at destination. Generally, the provided tourism business has some problems. The specific problems include the unavailability of organization for the owners/service providers, unavailability of standardization of prices for transportation for tourism transportation, inability to serve foreign tourists, capital, lack of skill (tour guide), low creativity and innovation for products, lack of information and support integrated with providers of tourism activity support services.Development strategy of the tourism industry based on SWOT Analysis divided two factor namely external and internal industry based on SWOT Analysis divided two factor namely external and internal factor.The strength of small businesses is that there is a private sector, NGOs, a community of tourist activities that play a role in tourism activities but this tourism business also has a weakness that is not yet coordinated tourism marketing activities carried out between local government and private sector. Besides that there is a threat that arises namely the community has not moved to partner with the government and there are regulations that violate cultural heritage.But there are opportunities that can be utilized by these business, namely partnership local and private sector.Consider external factor we make development strategy : 1.Strategy S-O: establish partnership between local government and private sector 2.Strategy W-O:Coordinating tourism marketing activities with the private sector 3.Strategy (S-T): Increasing public and private partnership learning activities 4.Strategy (W-T) Attract the public to cooperate Based on internal factor analysis, the strategy that can be developed for the tourism business namely: 1.Strategy S-O: Enhancing partnerships with the private sector in promoting tourism 2.Strategy W-O: Coordinating tourism marketing activities with the private sector 3.Strategy S-T: Improve tourism promotion and marketing. Cooperate with a travel agency 4.Strategy W-T: Optimizing tourism promotion activities .Optimizing the management of tourism websites

Keyword: Data Envelopment Analysis, Least Distance Problem, Closest Efficient Target, Bilevel

A Knowledge Based Fuzzy Analytic Network Process for Sustainable Manufacturing Indicator

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Abstract

Sustainable manufacturing is a relatively new but a very complex manufacturing paradigm as it encompasses three interdependent sustainability dimensions of economic, environmental and society. To implement sustainable manufacturing practice, the development of sustainability indicators needs to be prioritized. Regrettably, there are only a few standardized indicator mechanisms which can suit specific requirements of various manufacturing organizations. Hence, this research proposes a novel Knowledge-Based Fuzzy Analytic Network Process (KBFANP) system which are intended to assist the decision-making process of sustainable manufacturing by the development of an indicator mechanism. The KBFANP system consists of four major phases, namely Initialization, Selection, Evaluation and Prioritization. The system integrates the advantages of Knowledge-Based System (KBS) and Fuzzy Analytic Network Process (FANP) into a single unified standardized indicator, which is applicable to all types of manufacturing settings. The system is developed, implemented and analyzed on two manufacturing companies. The proposed KBFANP system can be made as the advisory Decision Support System (DSS) which is able to provide solutions on the areas that need improvement, with different levels of priority.

Keyword: Sustainable manufacturing indicator, Knowledge-based system, Fuzzy analytic network process

Enrollment Intention in an International Business Administration Master's Program

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Abstract

The purpose of this research is to study the perception of students concerning information affecting attitudes, subjective norms, and intention to enroll in the international Master's degree program of business administration at Srinakharinwirot University. Quantitative research was utilized in this study through the use of questionnaires. A total of three hundred and twenty-one students was interviewed. This study employed proportional stratified random sampling. The findings of this study are as follows:

The structural equation model of enrollment intentions in the international Master's degree programs of business administration at Srinakharinwirot University was consistent with the empirical data criterion as follows: (Chi-square = 88.535, df = 70, GFI = .964, AGFI = .946, RMSEA = .029, RMR = .019, CFI = .993). The factors affecting attitudes about business administration were as follows: the subjective norm showed the highest level of direct influence equal to .628 with a statistical significance at the level of .001, followed by the perceptions of students regarding information with direct influence equal to .141 with a statistical significance at the level of .05. Additionally, the perceptions of students concerning information had an indirect influence equal to .326. The perceptions of students regarding information and attitudes toward business administration had a direct effect on enrollment intentions on international Master's degree programs of business administration at Srinakharinwirot University with a direct influence equal to .318 and .263 and with a statistical significance at the .001 and .01 levels, respectively. The implication of this study is that the faculty should provide the information to the students to enhance their attitudes. The reason is that the perception of information reinforces attitudes which is the main factor to increase enrollment intention. Srinakharinwirot University established PR SWU under the International relations and communications department under the Vice President for international relations and communications. This department is the public relations center that provides complete information about the university. Therefore, this department should update the communication channel to reach and draw the attention of students. If the students are aware of updated information, especially concerning new programs that meet their needs, their attitudes will be strengthened along with subjective norms and enrollment intentions for the new university programs.

Keyword: Enrollment Intention, Attitudes, Subjective Norms, Perception on Information.

Investigating the Interaction Effects of Country of Manufacture and Country of Design on Brand Equity

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Abstract

In recent decades, competition among international firms has increased enormously. Thus, many organisations are looking for ways to leverage their competitive advantages. Some firms have found ways to gain a cost advantage through delocalisation of their companies or by moving manufacturing operations to developing countries. Hence, many Western companies have migrated their operations to countries with cheaper labour and lower taxes. As a result, there has been a proliferation of "bi-national" or hybrid products, and it is not unusual for a product to originate in one country but be manufactured in another. A large body of research has examined the significance of country of origin (COO) influence on customers' perspectives. Many studies have found that customers often use the COO as one of the most important cues in their decision-making process. Extensive research has also examined how the COO relates to brand equity, with the brand name also being a significant variable in a customer's purchasing choice.

This research intends to investigate the influence of the COO on customers' perspectives. Some researchers argue that the COO can be decomposed into many constructs such as the country of parts (COP), country of design (COD), country of manufacture (COM), country of assembly (COA) and country of brand (COB). The purpose of this research is to investigate the roles of country of manufacture (COM) and country of brand (COB) on customer perception and brand attitudes. Therefore, this research provides a full examination of the COM and COB constructs, as well as the role of brand equity associated with the country effect.

An experimental research design using a quantitative approach is employed in Bangkok, Thailand. Data are collected in order to understand whether the levels (high/low) of COM and COB play an important role in the purchasing choices of Thai customers. Thus, the experiment is designed to investigate the relationship between the COM and COD constructs. Data analysis techniques such as analysis of variance (ANOVA) and multivariate analysis of variance (MANOVA) are employed for this research.

The results show that country image (COM and COB) has a great influence on customers' evaluation. Customers tend to look out for country information on products. The findings suggest that customers favour highly developed countries over less-developed countries for both COM and COB constructs. Moreover, the study also shows that strong brand equity can alleviate less-favourable country information. The findings of this research are useful for international firms planning to relocate their operations..

Keyword: Country of manufacture, Brand equity, Country of design, Country image

Exploring what influences people to use mobile payment services by using the extended TRAM model

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Abstract

With the progress on wireless communication technologies and devices (particular in smart phone and 4G/5G broadband) as well as the increasing penetration of a variety of mobile service applications (called apps) and mobile Internet-enabled services, academics and industries have spotted the light on mobile commerce and services in last decade. Particularly, progress in wireless communication technologies and the proliferation of mobile devices and apps have converged to drive numerous mobile services. Therefore, attracted by tremendous market opportunities for business, many firms have offered mobile payment services. However, until today the mobile payment services via mobile devices are still not essential part of people's daily lives in Taiwan, especially comparing to Mainland China. Accordingly, this study tries to explore what factors affect the decision of using mobile payment services in Taiwan.

By defining technology readiness as "people accept using new technology-enabled services to complete daily needs", this study used technology readiness and acceptance model (TRAM) to present 13 hypotheses. Through collecting 680 valid respondents this study identified that "technology readiness" in Optimism significantly affects people perceived usefulness, "technology readiness" in Optimism and Innovation significantly affects people perceived use easiness, "technology readiness" in Unsafe significantly affects people perceived risk, and "technology readiness" in Optimism, Innovation, incompatibility, and Unsafe significantly affects people perceived trust. In turn, people perceived easy-of-use remarkedly affects people usage of mobile payment services, and people perceived trust remarkedly affects people usage of mobile payment services. Meanwhile, people perceived trust is significantly moderated by current commercial environment. Some implications derived from this study are also discussed.

Keywords: Mobile Services, Payment Services, Technology Readiness, TRAM.

Social Innovation in Public Institutions - Its Drivers and Challenges: A Case Study of Social Innovation in Turkey

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Abstract

Social innovation and social entrepreneurship are common denominators in the field of social welfare which received increasing attention recently. Attention in this area focuses on non-profit corporate social responsibility (CRR), but the concept of profit-oriented social innovation for sustainability and its separation from corporate social responsibility is still "blurred". In other words, the attention is concentrated to CRR, however the concept social innovation is still fuzzy. Especially in public institutions, social innovation is an area that has not been sufficiently studied. However, public institutions are becoming more competitive day by day and this competitiveness can be possible only via sustainability and profit-oriented activities. This study presents comprehensive research on the concept of social innovation and social entrepreneurship and discusses the characteristics of these concepts that are different from the concept of "pure" technological innovation and corporate social responsibility. This study also discusses the ways in which social innovation contributes to social welfare on a regional, country and global scale. In short, it aims to identify and explore the understanding and measuring social innovation, why it is important, and what the challenges are with social innovation and social entrepreneurship in Turkey. In this study, interviews were conducted with participants from central national authorities and ministries in Turkey to analyse the case. Additionally, the results that are filtered from the interviews were deeply analysed in order to clarify the institutions' level of legitimacy and the three pillars of institutions that are regulative, normative, and cultural-cognitive according to institutionalism theory. The qualifications and constraints of public institutions in the field of social innovation will be analysed and compared with abductive qualitative research methods. The study contributes to a clear understanding of social innovation that will facilitate the dissemination of knowledge and the development of research.

Keyword: Social innovation, Social entrepreneurship, Social value creation, Social innovation in public institutions

An Optimal Task Scheduling Strategy in Cloud-Fog Computing Environment

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Abstract

With the advent of the Internet of Things era, more and more emerging applications need to provide real time interactive services. Although cloud computing has many advantages, the massive expansion of the Internet of Things devices and the explosive growth of data may induce network congestion and add network latency. Edge computing is a decentralized architecture that distributes processing tasks on the edge in the network to reduce the network delay. This study investigates the optimal task scheduling strategy considering execution time and operating costs in cloud-fog computing environment. A mathematical programming model is constructed to solve the task scheduling problem in cloud-fog computing for the Internet of Things. The proposed method can determine the appropriate nodes for the tasks to be processed based on the requirements of the tasks and the processing speed and resource usage cost of cloud nodes and fog nodes. A numerical example is used to demonstrate the effectiveness of the proposed method.

Keyword: Task scheduling strategy, Mathematical programming model, Cloud-fog computing

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Tallinn University of Technology

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