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Chair's Message

The committees of the International Conference on Innovation and Management (IAM2019 Winter) are pleased to welcome you to this meeting held at Seoul, Korea on Jan. 22-25, 2019. On behalf of the organizers, I express my delight in sharing the time with the delegates from all around the world and hope you will have good stay here.

With the rapid development in e-business and technology, enterprises are now facing escalating competitions and vague opportunities. How to assist enterprises in gaining competitive advantages through technological and managerial innovations has become a crucial issue for both academicians and practitioners. The main objective of IAM International Conference is to provide a venue where business stakeholders, researchers and experts worldwide can share cutting-edge innovative technologies and managerial theories, exchange valuable experience and form collaborative relationships to promote business innovation and management. We believe it is of immense significance to have an opportunity to share the knowledge from all participants.

Among 38 excellent manuscript submissions from 5 countries, 30 of them come from 4 countries have been further selected for presentation in the conference. These papers provide unique insights and are regarded as the research forefront of the key areas including applications of innovation and management in selected industries, innovative systems and knowledge management, contemporary business behavior and data. We would like to express our gratitude to all those who contributed in helping deliver quality content of IAM2019W.

Looking forward for your participation again in our next event.



Conference Chair

Schedule

Jan. 22, 2019 (Tuesday)	
15:30-16:30	Registration (B1 Floor)

Jan. 23, 2019 (Wednesday) 08:30-11:30 Registration	
Room	Conference B (B1 Floor)
08:50-12:00	Session A
12:00-13:30	Lunch

Jan. 24, 2019 (Thursday) 08:30-11:30 Registration	
Room	Conference B (B1 Floor)
08:50-12:00	Session B
12:00-13:30	Lunch

Jan. 25, 2019 (Friday) 08:30-11:30 Registration	
Room	Conference B (B1 Floor)
08:50-12:00	Session C
12:00-13:30	Lunch

Schedule

Agenda

Jan. 23, 2019 (Wednesday)

Session A

08:50-12:00

Room: Conference B

Session Chair: Muh-Cherng Wu

National Chiao Tung University, Taiwan

Hedonic, Utilitarian, and Social Motivations for Consumers Purchase Mobile in-App Content Behavior

Tsung-Sheng Chang	Da-Yeh University
Wei-Hung Hsiao	National Taichung University of Science and Technology
Tzu-Chien Chen	ParaLux Technology Company
Enkhzul Ganbold	Da-Yeh University

Study on Roughly Estimation of Calorie with Area

Chiung San Lee	Oriental Institute of Technology
Shao Lun Lee	Oriental Institute of Technology
Yi-jing Lee	Reliance International Corp.

A Cloud Computing Approach Implements on the Mobile Health Care and Management

Shu-hsien Liao	Tamkang University
Li-Ching Chen	Tamkang University

A Case Study of Stock Investment Based on Data Mining Techniques

Muh-Cherng Wu	National Chiao Tung University
Pei-Chun Liu	National Chiao Tung University
Hui-Chih Hung	National Chiao Tung University

The Antecedents and Intermediary of the Negative Comments of Military Issues on the Internet Forum Based on Spiral of Silence

Yao-Chung Yu	National Defense University
Ta-Chih Chin	National Defense University
Yu-Tung Chuang	National Defense University

Agenda

Jan. 23, 2019 (Wednesday)

Session A

08:50-12:00

Room: Conference B

Session Chair: Muh-Cherng Wu

National Chiao Tung University, Taiwan

The Antecedents and Moderation of the Negative Comments of Military Issues on the Internet Forum based on Frustration-Aggression Hypothesis

Yao-Chung Yu	National Defense University
Ding-Chyu Liu	National Defense University
Yu-Hsuan Lin	National Defense University

Explaining Pro-environmental Behavior With Institution Theory

Pei Yi CHEN	Hsin Sheng Junior College of Medical Care and Management
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An Empirical Analysis of Taiwan's Long-Term Care Service Quality Improvement

Shun-Hsing Chen	Oriental Institute of Technology
Cheng-Wen Lin	Oriental Institute of Technology
Yang-Ju Chen	Chihlee University of Technology

The Sense of Presence on HMD Virtual Reality Learning System

Kuo-Liang Ou	National Tsing Hua University
Yao-Hui Liu	National Tsing Hua University

Apply Social Network Analysis and Co-author Network in Ranking Interdisciplinary Authors

Yi-Ning Tu	Fu Jen Catholic University
Chi-Hao Lin	Fu Jen Catholic University

Hedonic, Utilitarian, and Social Motivations for Consumers Purchase Mobile in-App Content Behavior

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Abstract

The mobile game is a popular issue in e-commerce. A number of studies have drawn attention to playing a mobile game, but less to talk in-App content (items). The in-App content belongs to the digital content extend, it could sale to the player for more fun in play digital game. This study based on the hedonic, utilitarian, and social motivations to investigate purchase behavior. The findings have important implications for researchers and game designer and managers, particularly when designing mobile in-App content needs as a digital product. Furthermore, this study forms an essential reference for future gamer behavior processes research.

Keywords: Mobile in-App content, hedonic motivation, utilitarian motivation, social motivation, perceived value

Study on Roughly Estimation of Calorie with Area

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Abstract

Purpose: When estimating the calories of food, non-scientific tools and units, such as a tablet of, a stick of, a bowl of, a piece of, a handful of, a spoon of, and a glassful of, are often employed to measure the size and weight of the food. However, it is very difficult to learn and remember the basic unit calorie of these tools, and the calorie of certain food. Moreover, one has a different size; for example, apples may differ with size. This paper proposes the concept of “estimation of calorie with area” and accordingly develops a program to make it easier to determine the calories of foods, which will help manage personal health. **Method:** Using the program “roughly estimation of calorie with area,” the user uploads a photo of the food with a reference ruler, and then selects the type, name, and shape of the food from the menu. After uploading, using the ruler in the image, the program calculates the area of the food. Calories can also be calculated for a combination of types of food. After completing all the calculations, the area and calorie of the food will be displayed. **Result:** This program helps users understand the calories of food and thus help preventing childhood obesity.

Keywords: Roughly estimation of calorie with area, obesity, calories of food

A Cloud Computing Approach Implements on the Mobile Health Care and Management

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Abstract

Health care involves the maintenance or improvement of health via diagnosis, treatment, and prevention of disease, illness, injury, or other physical and mental impairments. During the past decade, there has been a proliferation of research on health information technology (HIT), which shows that HIT is essential for improving the quality of health care. Depending on the characteristics of the variable content, these data formats are defined as category data variable and numerical data variable. These health evaluation factors also have a threshold value for each factor, which determines the health status. Thus, this study gives theoretical and practical insights into a cloud computing approach in the mobile health care context. Thus, cloud computing is not only a HIT, but also a platform for health care and management. This study increases the creation of valuable alternative using a cloud computing approach and opens new paths for the development of a management mechanism for health care providers.

Keywords: Health status, health evaluation, cloud computing, health information technology, mobile health care and management

A Case Study of Stock Investment Based on Data Mining Techniques

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Abstract

Data mining techniques have been widely applied to predict stock prices. This study intends to predict whether a particular day is a “buy-day” or a “not-buy-day”. A day is called a buy-day if the stock closing price is expected to rise over 10% in a coming period (say, 80 days); otherwise, it is called a not-buy-day. We applied to 12 data mining (DM) techniques to make the buy-day decision, which is essentially a binary classification problem. For each DM technique, 13 economic and stock trading variables are selected as input features and the output involves two states (buy-day or not-buy-day). The stock price of a Taiwanese company (TSMC) in 10 years (Jan. 2007 - Dec. 2016) is used as a case study. Data of the first 8 years are used in training and the last 2 years are used in testing. Numerical experiments reveal that average annual rate of return ranges from 15%-25% for the 12 DM techniques; and the one (k-Nearest Neighbors) outperforms the others.

Keywords: Binary classification, data mining, stock price prediction, stock investment

The Antecedents and Intermediary of the Negative Comments of Military Issues on the Internet Forum Based on Spiral of Silence

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Abstract

In recent years, the ROC armed forces has been continuously subject to negative news, and heated discussion in online forums has led to a lower social status of military personnel, which not only indirectly affects the military recruitment policy, but also makes the ROC armed forces face massive challenges in military recruitment. Therefore, the ROC armed forces must face the influence of the mainstream media in conjunction with the social networking sites, and try to understand reasons why the ROC armed forces has been subject to negative news. Based on the theory of Spiral of Silence, this study employs the two major constructs of “social anxiety” and “community identification,” and the attributes of the Internet such as anonymity as the antecedent causes to discuss the intent of Internet users to leave negative comments against the ROC armed forces. Meanwhile, this study also employs the big data techniques to collect discussion topics and materials about the ROC armed forces in online forums and extract research samples for questionnaire surveys and verification of the research framework. Then, this study further uses the positive and negative semantic analysis results from text mining to verify whether real behaviors that express positive or negative comments are put into action. This study is expected to expand the research of negative comments on the Internet, so that provides the benefits for the ROC armed forces on planning the policy of relevant issues.

Keywords: Spiral of silence, social anxiety, community identification, anonymity

The Antecedents and Moderation of the Negative Comments of Military Issues on the Internet Forum based on Frustration-Aggression Hypothesis

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Abstract

This study explores the impact on its background, motivation, or psychological quality of negative comment intentions for members in the Internet community world who often leave negative comments toward News or Articles about Military Issues of Taiwan. Based on theory of Frustration Hypothesis, we aimed at the anti-authority, frustration tolerance and anonymity to discuss. This study tries to understand if personal frustration experience and its self-esteem influences frustration tolerance, and also want to untie the mystery behind whether individual's frustration tolerance, anti-authority perceived and anonymity of the Internet controls its message intent. This study will use text mining techniques to collect relevant samples and verifies the true behaviors of the expression of positive and negative comments.

Keywords: Frustration hypothesis, anti-authoritarian, negative comments, frustration tolerance

Explaining Pro-Environmental Behavior with Institution Theory

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Abstract

In this research, the institutional theory is used to explain personal pro-environmental behavior. There are prior studies explaining why an individual will participate in pro-environmental behavior based on protection motivation theory, and how to promote pro-environmental behavior (Gardner & Stern, 2002). There are also some studies pointing out that the pro-environmental behavior of an individual will be affected by perceptual pressure and coping strategy (Zhao, Cavusgil, & Zhao, 2016). Even though there were relevant arguments proposed in these studies, the analyses on individual pro-environmental behavior were mostly about localized relationship. There was barely any consideration of the impacts of external policy, social regulation or organization on individuals' pro-environmental behavior. Therefore, in this study the institutional theory is used to understand how external pressure affects the individuals' pro-environmental behavior. An integrated model was proposed in this study based on summarization of pro-environmental behavior, coping strategy mode, and institutional theory, and the result reveals that:

- (1) Only enforcement and regulation can affect the coping strategy of individuals' pro-environmental behavior;
- (2) The coping strategy of environmental protection (problem-focused, emotion-focused, self-protection) has a significant impact on individuals' pro-environmental behavior.

We expect that the result of this research can serve as practical environmental protection suggestions for government, schools, and enterprises. In addition, we hope to enhance the overall green awareness of this society, and to continue with our care of sustainable development of environment.

Keywords: Pro-environmental behavior, institutional theory, coping strategy

An Empirical Analysis of Taiwan's Long-Term Care Service Quality Improvement

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Abstract

To meet the elderly needs, it is unwise to construct the elderly aid devices or service needs from the managerial perspective but listen to their voices and customize the relevant service demands. It is also important to lead the healthy elderly to come out and do something for the society, such as volunteering work, community services, guides, etc. to enrich their retirement lives and simultaneously contribute to the society. From the empirical results of statistical analysis, it was found that there are differences on age and living conditions but no differences on population variances. Therefore, the demands of each person vary depending on the age of retired elderly and their living status. It is hoped that the government and service providers would listen to their voices, understand their demands, address their dissatisfactions, and create a comfortable and healthy environment that would allow them to live happily.

Keywords: Long-Term Care (LTC), service demand, service satisfaction

The Sense of Presence on HMD Virtual Reality Learning System

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Abstract

Presence plays an important role when students learn in a virtual reality environment. This research proposes a situated game of wild environment based on two types of virtual reality technologies (MHD-VR and PC-VR) to motivate learners to learn the related knowledge of Taipei frog. The difference in learning outcomes and the presence of virtual reality are analyzed and discussed in this research. There are 81 participants divided into two groups. The experimental group uses an HMD Virtual Reality of 40 people, and the control group uses the Desktop Virtual Reality (PC-VR) of 41 people. The experimental result indicates that the learning outcome of both groups has been improved significantly. The average scores of students with HMD Virtual Reality are better than the average scores of students with Desktop Virtual Reality, and the presence of HMD Virtual Reality is higher than Desktop Virtual Reality. Both VR devices can achieve the learning effect, and the VR simulation learning system in this study can enable the subject to achieve the learning purpose.

Keywords: Virtual reality, presence, acceptance, game-based learning

Apply Social Network Analysis and Co-author Network in Ranking Interdisciplinary Authors

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Abstract

This study tries to exploit the betweenness centrality of social network analysis and co-author network to rank the interdisciplinary authors. The interdisciplinary author is defined as an author who published papers at least in more than one research domain. This study discovers the interdisciplinary authors should have higher betweenness centrality than others. The interdisciplinary topics will apply in the “text mining” and “library and information science” that are the techniques used in this work. Finally, this study plan to compared the Spearman's rank correlation coefficient between h-index, total citation frequency and betweenness centrality with the proposed method.

Keywords: Betweenness centrality, Ranking interdisciplinary author, Social network analysis, Co-authors Network

Agenda

Jan. 24, 2019 (Thursday)

Session B

08:50-12:00

Room: Conference B

Session Chair: Hawjeng Chiou

National Taiwan Normal University, Taiwan

The Relationship between Prior Loss/Profit and Later Loss Aversion Measured based on Disposition Effect

Syouching Lai	Chang Jung Christian University
Hungchih Li	National Cheng Kung University
Chien-I Chen	PricewaterhouseCoopers

Case Study in Innovative Lean Management within Waste Disposal and Recycling Industry - Take Company A as Example

Shun-An Teng	Chung Yuan Christian University
Chin-Jung Chao	Chung Yuan Christian University
Michelle-Ngo Teng	Profi-Serv Innovations International, Inc.

Influencer Marketing on Instagram

Rong-Ho Lin	National Taipei University of Technology
Christine Jan	National Taipei University of Technology
Chun-Ling Chuang	Kainan University

A Study for Relative Efficiency of Taiwan Water Corporation's Branches

Ming Te Liu	China University of Technology
Chun Ju Lee	Third Branch, Taiwan Water Corporation

Contract Design in Digital Media Production and Distribution

Robert Chiang	Gabelli School of Business, Fordham University
Jih-Hua JHANG-LI	Hsing Wu University

The Impact of Knowledge Workers' Learning Goal Orientation on Feedback Seeking Behavior and Organizational Learning Culture

Chun-Yu Lin	National Taipei University
Yan-Wei Lin	National Taipei University
Chung-Kai Huang	National Taipei University of Business

Agenda

Jan. 24, 2019 (Thursday)

Session B

08:50-12:00

Room: Conference B

Session Chair: Hawjeng Chiou

National Taiwan Normal University, Taiwan

Examining the Relationship between Knowledge Workers' Learning Goal Orientation, Organizational Commitment, and Organizational Learning Culture

Chun-Yu Lin

National Taipei University

Ya-Ting Lu

National Taipei University

Chung-Kai Huang

National Taipei University of Business

Examining the Mediating Effect of Innovative Work Behavior on Learning Goal Orientation and Organizational Learning Culture

Chun-Yu Lin

National Taipei University

JING CHEN

National Taipei University

Entrepreneurial Process of Social Entrepreneurs of Fair Trade Coffee Business in Taiwan: A Case Study

Hawjeng Chiou

National Taiwan Normal University

Wee Yek Chee

National Taiwan Normal University

CUSUM for Monitoring the Short-Term S-Type Process Capability

Mou-Yuan Liao

Providence University

The Relationship between Prior Loss/Profit and Later Loss Aversion Measured based on Disposition Effect

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Abstract

This study aims to discover the relationship between prior loss/profit and later loss aversion measured by degree of disposition effect. Based on the index futures (TX) records from TAIEX (Taiwan future exchange) in the year 2006, we choose 376 individual traders. We define the prior and later period by three type of cutting point. First, we use time 11:15 a.m. as cutting point to separate the data into morning and afternoon two periods. Second, we use the maximum realized losses (MRL) and the median maximum realized losses (M-MRL) as the cutting point to separate the prior and later period. We also categorize the data based on gender and age. Results show that male and elder traders keep more unrealized losses than female and young traders when facing increasing losses, which means male and elder traders are relatively risk taking than female and young traders when there is losses in prior period.

Keywords: Disposition effect, loss aversion, risk aversion

Case Study in Innovative Lean Management within Waste Disposal and Recycling Industry - Take Company A as Example

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Abstract

Waste disposal and recycling industry is an important parts of Taiwan green industry and a major industry in the era of green industry. In the past few decades, the development of waste disposal mainly focusses on recycling processes. However, for the recent years, due to the impact of industrial chain integration, it has the trend of pathway integration.

The main purpose of the thesis is to explore the driving force for the growth of the waste disposal industry. The CLMS cycle management system proposed in this study, combine with the company's development histories, business strategies, operation policies, competitive situations, is to analyze the revenue, profit, as well as the challenges and opportunities faced by different value chain links. The proposed approach of CLMS (Cycle Lean Management system), as a reference for the future growth model of waste disposal and recycling industry in Taiwan.

Keywords: Waste disposal and recycling, circular economy, lean management

Influencer Marketing on Instagram

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Abstract

Whether it is for the brand or the consumers, marketers are always looking into the future to anticipate the upcoming trends in the market. With the rise of Web 2.0, more and more activities shift from offline to online; it has become critical for brands to differentiate themselves from competitors. Social media has fundamentally changed the balance of power between consumers and brands. Influencer marketing in its current digital form took hold in the early 2000s alongside the blogosphere. Over the years, the internet has changed the traditional ways of conducting business and establishing customer relationships.

One of the ways companies are using in social media marketing is to pay for influencers to promote their products or services on their social media platform, in our research, the Instagram app. The pressure of being able to measure the success accurately comes to attention as companies invest more money in influencer marketing. In the context of brand messaging and brand awareness, researchers investigate the influencers' credibility and authenticity. At the same time, the connection between popularity and influential power of the influencers has also been an interest for researchers.

This research studied the impact of the ratio number of followers to the number of followees (F/f-ratio), or the popularity threshold of an Instagram influencer, on the perceived influencer credibility and the attitude toward user-generated content (UGC), attitude toward the brand, viral intentions and purchase intention of the consumer. Moreover, the researcher tested if different product categories with varying levels of purchase decision involvement had a moderating effect on the relationship between the F/f-ratio and influencer credibility. This approach would provide a better insight into the impact of the popularity threshold of Instagram influencers on consumer behavior. These insights will add knowledge to the literature of influencer marketing, and more specifically to Instagram influencer campaigns.

Keywords: Influencer marketing, influencers, Instagram, social media, user generated content

A Study for Relative Efficiency of Taiwan Water Corporation's Branches

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Abstract

This study applied data envelopment analysis (DEA) models to conduct a comparative analysis of various Taiwan Water Corporation (TWC) branches in terms of pure technical efficiency, scale efficiency, and cross-efficiency using operational data on 12 TWC branches for 2015–2016. The four DEA models comprise different combinations of five inputs (water supply consumers, distributed water quantity, personnel expense, cost of water delivery, and cost of water sold) and three outputs (percentage of revenue water, quantity of water sold per employee, and water sales revenue). To the best of the authors' knowledge, studies are yet to use the costs of water delivery and water sold as inputs to examine branch-level efficiency.

Given the challenges of data deficiencies, we conducted the comparative analysis by compiling data on the costs of water delivery and water sold at the branch level. Further, we conducted analyses with and without the two inputs. In addition, to evaluate the effects of changes in outputs, we used the quantity of water sold per employee as an output since TWC, a state-owned enterprise, is relatively constant in its organizational structure, and more importantly, in its staffing. The models comprising different combinations of inputs and outputs were used to analyze the relative efficiency and efficiency ranking of different TWC branches.

This study's empirical results indicate that both adding the costs of water delivery and water sold as inputs and changing outputs influence branches' relative efficiency across different models. We further analyzed each branch's efficiency level using CEM and found that the efficiency rankings in all the models for both years were affected. For 2015, the intersection among branches with relatively high efficiency (PTE and SE=1) suggests that the top-five branches (2, 3, 6, 8, and 12) could be clustered. These branches report relatively high efficiency in terms of pure technical efficiency, scale efficiency, and cross-efficiency. For 2016, the intersection among branches with relatively high efficiency indicates that the top-three branches (3, 8, and 12) could be clustered. These branches also show relatively high efficiency in terms of pure technical efficiency, scale efficiency, and cross-efficiency. In general, regularity in the influence of the inputs on outputs could not be confirmed.

Keywords: Taiwan Water Corporation, data envelopment analysis, water delivery cost, water sale cost, relative efficiency

Contract Design in Digital Media Production and Distribution

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Abstract

The meteoric rise of online media streaming has created a distribution channel that complements and competes with the cable ecosystem. While both cable and streaming providers license titles from content owners, they have increasingly relied on in-house productions. One interesting development has been the collaboration between cable and streaming outlets to spread risk and defray cost. Unlike in other industries where products become simultaneously available among partners, coproduced movie titles and TV series often incur “windowing” delays to achieve a temporal exclusivity between cable and streaming runs. We evaluate take-it-or-leave-it and menu-based contracting mechanisms to stipulate the windowing delay and incentive compatible cost sharing ratios by factoring in providers’ outside options. Our equilibrium results show that information asymmetry on project valuation greatly protects the streaming provider from cable’s exploitive cost sharing mandate. We also find a “participation fee” may be needed for the cable to properly screen potential streaming partner.

Keywords: Digital content distribution, take-it-or-leave-it contract, mechanism design, windowing, cost sharing, outside option

The Impact of Knowledge Workers' Learning Goal Orientation on Feedback Seeking Behavior and Organizational Learning Culture

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Abstract

In today's fast-changing situation of business environment, organizational learning culture has become a critical issue in the field of human resource development. Previous studies suggest that learning goal orientation and feedback seeking behavior might be the two most important factors to organizational learning culture. This study focuses on Taiwanese knowledge workers' viewpoints and investigates the relationships among their perceptions about learning goal orientation, feedback seeking behavior and organizational learning culture. The research findings contribute to construct a better workplace environment and provide insights to transform the organizational culture in order to adapt to the dynamic market needs. Managerial implications to human resource management are also provided.

Keywords: Learning goal orientation, feedback seeking behavior, organizational learning culture

Examining the Relationship between Knowledge Workers' Learning Goal Orientation, Organizational Commitment, and Organizational Learning Culture

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Abstract

In order to face today's rapid-changing and unstable environment, business organizations have begun to realize the importance of organizational learning culture in maintaining competitive advantages. This study examined the relationship between knowledge workers' learning goal orientation, organizational commitment, and organizational learning culture. The survey was distributed to 453 knowledge workers in private companies in Taiwan. We used structural equation modeling (SEM) with bootstrapping estimation to test the hypothetical model. According to our research results, this study found that if Taiwanese companies want to promote their organizational learning culture, their knowledge workers' learning goal orientation can be critical. By recruiting, training, placing, and retaining employees who have learning goal orientation, organizations can have more loyal employees, and enhance their organizational learning culture.

Keywords: Learning goal orientation, organizational commitment, organizational learning culture

Examining the Mediating Effect of Innovative Work Behavior on Learning Goal Orientation and Organizational Learning Culture

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Abstract

Due to today's fast-changing environment, the ability and motivation to learn is an important factor for organizations and internal employees in adapting to change and challenges. The purpose of this study is to investigate the relationship among learning goal orientation, innovative work behavior, and organizational learning culture. We collected 430 knowledge workers' responses and used the structural equation modeling (SEM) with bootstrapping estimation in order to test the hypotheses. The results indicate that learning goal orientation is positively related to organizational learning culture. Innovative work behavior is positively related to learning goal orientation and organizational learning culture. In addition, innovative work behavior has a partial mediating effect on the relationship between employees' learning goal orientation and organizational learning culture. In practice, if an organization has more employees with learning goal orientation, this can promote innovative work behavior and create an organizational learning culture, so we recommend that organizations recruit more employees with learning goal orientation and assign challenging tasks to them.

Keywords: Learning goal orientation, innovative work behavior and organizational learning culture

Entrepreneurial Process of Social Entrepreneurs of Fair Trade Coffee Business in Taiwan: A Case Study

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Abstract

Social entrepreneurs are entrepreneurs with a social mission. Social entrepreneurs use mission-related impact as their central criterion instead of wealth creation. Even though social enterprise and social entrepreneurship had already been developed and studied for more than 40 years, they are still relatively under explored in the academic field. Especially in the Fair Trade Social Enterprises (FTSEs) sector, the discussions around the FTSEs are still mainly focus on the organizations instead of entrepreneurs themselves. The main purpose of this study is to identify the main start-up motivators of FT social entrepreneur, and to establish the similarities and differences of these start-up motivators between commercial entrepreneur and FT social entrepreneurs.

By using purposeful sampling strategy, this study selected 6 FT participants who mainly dealing focus on FT coffee business cases. Beside conduct in-depth interview with some of the selected participants, we also conduct case studies for deeper discussion. Through the cross-examination and analysis of data, this study identified the themes of motivation from six FT coffee social entrepreneurs. In addition, we not only found the differences and similarities of the motivation between commercial and social entrepreneurs, we also built up a new comprehensive social entrepreneurial motivation framework. Suggestions for future research and limitations of this study were discussed at the end of the paper.

Keywords: Social enterprise, social entrepreneur, social entrepreneurship, start-up motivation, entrepreneurial process, fair trade coffee

CUSUM for Monitoring the Short-Term S-Type Process Capability

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Abstract

For processes with an S-type (smaller-is-better) quality characteristic, the process capability can be properly measured by the one-sided capability index C_{pu} . In the present study, the short-term one-sided capability index is monitored by cumulative-sum (CUSUM) control chart. Using the proposed methods, engineers can realize a variety of the short-term process capability, and implement control measures against a poor long-term capability.

Keywords: CUSUM, Process capability

Agenda

Jan. 25, 2019 (Friday)

Session C

08:50-12:00

Room: Conference B

Session Chair: Chia-Pao Chang

National Chin-Yi University of Technology, Taiwan

A Study of Reducing Solidification Rate of Chronic Patients Needing Hemodialysis by Using Big Data

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Chia-Pao Chang	National Chin-Yi University of Technology
Yu-Sheng Chen	National Chin-Yi University of Technology
Chi-Wen Juan	Kuang Tien General Hospital
Yuan-du Hsiao	Chungyu University of flim and arts

The Application of Taguchi Methods to Research of Reducing Pollution Rate of Chronic Patients Needing Hemodialysis

Wen-Tsann Lin	National Taichung University of Science and Technology
Yuan-du Hsiao	Chungyu University of Film and Arts
Sheng-Yi Peng	National Chin-Yi University of Technology
Chi-Wen Juan	Kuang Tien General Hospital
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Exploring the Learning Process and Brain Wave of Reading Specific Edited Article for Low-achieving Elementary School Students

Shu-Hui Yeh	Chung Yuan Christian University
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Proposing an Open-Innovation Based Entrepreneurship Education Model for Taiwan's Universities Students: A Conceptual Study

Kuang-Li Yang	Chung-Yuan Christian University
D. Y. Sha	Chung-Yuan Christian University
Yung-Tsan Jou	Chung-Yuan Christian University

Agenda

Jan. 25, 2019 (Friday)

Session C

08:50-12:00

Room: Conference B

Session Chair: Chia-Pao Chang

National Chin-Yi University of Technology, Taiwan

A Discussion on the Trend of Service Innovation in Food Industry

Wan-Jung Teng	Chung Yuan Christian University
Yuan-Tsan Jou	Chung Yuan Christian University
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A Study on Innovation Strategy for Sustainable Value Creation

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How Can Managerial Optimism Affect the Long-term Valuation of High-tech Young Startups?

Jung-Ho Lai	National Taipei University of Business
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Using Human-Centered Design to Implement Service: The National Mall and Memorial Parks as Examples

Lin-Chien Chien	Central Police University
Hung-Ho Chen	National Police Agency

A Study of Reducing Solidification Rate of Chronic Patients Needing Hemodialysis by Using Big Data

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Abstract

Due to the improvement of people's life quality, patient satisfaction and medical service quality have become one of the main forces to improve the competitiveness of hospitals. This paper used hemodialysis in the medical industry as a case. As the number of hemodialysis patients was climbing, hemodialysis patients have become high-risk groups for blood coagulation. The rate of death due to coagulation ranks only second to cardiovascular diseases. And the pipeline coagulation problem caused by the use of dialysis pipelines not only leads to the loss of pipeline function, but also threatens the life safety of patients. In addition to observing the patient's vital signs at any time, nursing and medical personnel also need to closely observe whether there is any pipeline coagulation during the hemodialysis treatment. In particular, when nursing and medical personnel fail to pay attention to dosage, blood flow velocity, etc., they all cause the hemodialysis pipeline coagulation, which will block the continuous operation of the analysis process in severe cases.

In this study, data mining was used to find the key parameters and Two-Stage Clustering (k-means +SOM) was carried out. Then, the neural algorithm was used to verify what is the parameters that affect hemodialysis and the influence of discussing parameter values under the economic principle. Furthermore, the optimal reference basis can be obtained to effectively reduce medical cost, improve patient safety, reduce coagulation rate, and improve hemodialysis quality.

The parameters obtained through data mining and Two-Stage Clustering can predict the combination factors of not using anti-coagulant, insufficient anticoagulant dose, pipeline obstruction, poor puncture technology and air leakage of drip medicine, and reduce the coagulation rate of long-term dialysis pipelines of patients with hemodialysis.

Keywords: Hemodialysis, Pipeline Coagulation, Data Mining, Two-Stage Clustering, Neural Networks

The Application of Taguchi Methods to Research of Reducing Pollution Rate of Chronic Patients Needing Hemodialysis

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Abstract

This study focused on the hemodialysis industry and the quality of care they provide. The increase in the number of patients requiring hemodialysis resulted in higher risk for hemodialysis pipeline infection. Contamination in the catheter or in any tubing or pipeline mechanism involved in the process of hemodialysis could lead to serious consequences including hindered dialysis process, and loss of catheter or tube function, which can threaten the safety of patients. Establishing different methods and protocols to improve the quality of hemodialysis as a medical treatment has become an important issue for major hospital institutions.

This study focused on addressing the medical standards required for improving hemodialysis quality and on reducing the rate of hemodialysis pipeline contamination. The goal of this study is to determine the adjustment parameters for hemodialysis, in order to reduce hemodialysis pipeline pollution rate. Inappropriate control parameter design used during hemodialysis may result in increased risk for contamination in the pipeline, endangering patient's safety and the quality of hemodialysis. Under this consideration, this study used the Taguchi method to obtain the key factors needed for developing and designing the most appropriate control parameters for hemodialysis. These are: (1) improper hand-washing by the nursing staff; (2) poor nursing staff compliance in wearing a mask prior to pipeline disinfection; (3) hemodialysis time; and (4) incomplete disinfection. After the OMEGA transformation and L8 (2⁴) design, the most appropriate combination of parameters were obtained, which can be effective in reducing medical costs, and improving the quality of hemodialysis.

Keywords: Hemodialysis, pipeline contamination, Taguchi methods, omega conversion

Exploring the Learning Process and Brain Wave of Reading Specific Edited Article for Low-achieving Elementary School Students

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Abstract

In the “Program for International Students Assessment (PISA)”, the index of “Reading Literacy” on the testing subjects: 15 years old Taiwanese students, was declining from 8th (year 2012) to 23rd (year 2015). The low achievement of learning shows the effect in the primary school, which results the students’ assessment at school presenting in polarization and getting worse in Taiwan. From the past research, students could understand specific edited article better than text only in the article. However the past research focused on the aspect of eye movement trajectory, not on the changing of brain waves while reading. Hence, the study uses eye tracking and electroencephalography (EEG) to observe the eye movement trajectory and brain waves while reading specific edited article, between the low achievement students and high achievement students.

The population of the research is from the Grade 5 and 6 of an elementary school in Taoyuan, Taiwan, and the subjects are 26 students from among. Taking the grade of Chinese Course as a standard, subjects are divided into two groups - the low achievement group and high achievement group. In three different textbooks’ editing modes, including text only in the article, front size of keywords upgrading in the article, having an illustration in the article, the study uses eye tracking to track the eye movement trajectory, fixation time and fixation frequency from the subjects, meanwhile the study uses EEG to observe the changing of brain waves. The results show that reading the front size of keywords upgrading in the article and having an illustration in the article can upgrade the fixation ability (activate the alpha and beta band power), and can effectively improve the reading comprehension of low achievement students. The research expects the findings can be a critical reference for textbook developers and publishers, and can enhance the reading effectiveness of the low achievement students.

Keywords: Eye tracking, electroencephalography, reading comprehension, low achievement

Proposing an Open-Innovation Based Entrepreneurship Education Model for Taiwan's Universities Students: A Conceptual Study

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Abstract

Entrepreneurship Education (EE) is a comprehensive application of learning, the way in which education is implemented might be changed due to the evolution of technology and increasing social expectations to strengthen the effectiveness of teaching. The trend of technology entrepreneurship started in the 1980s led to the popularization of EE in Taiwan. The entrepreneurship courses offered by the university is to foster the entrepreneurial spirit of the students, cultivate ability and develop their potential as a entrepreneur. Entrepreneurial competition to emphasize the business model as the main theme is held every year since 1998, so a students' start-up team can have a chance to elaborate and realize their own ideas, and then engaging in creating a new business.

To understand the implementation status of EE, the curriculum and program provided by university and college on Internet was collected and analyzed, totally eight common existing modes of EE have been summarized as Entrepreneurship Education V1.0.

At present, academic entrepreneurship is still a sensitive and controversial issue, there is a considerable role gap between research, teaching and establishing a business, and even if the university is facing the need for a transition, it is still difficult to reach a better consensus. To better meet the expectations and needs of students and potential entrepreneurs, an open-innovation based Entrepreneurship Education V2.0 mode and supporting systems are proposed to create an optimized entrepreneurial ecological environment. The new proposed mode of EE would relax the existing regulation about curriculum and admissions requirement might be better fit the need of student and encourage people to start a new business.

Keywords: Open innovation, entrepreneurship, Entrepreneurship Education (EE), entrepreneurship program

A Discussion on the Trend of Service Innovation in Food Industry

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Abstract

Because of the change of consumption pattern, the business model to market needs to be transformed. Transitional management tools constrain the optimal efforts. The evolution of information and communication technology (ICT) brings companies to a smart and accurate innovative model. Food scandals depressed the faith of people in food safety; thus, the food safety issues gain more and more attention from the society. It is urgent on how to achieve management cost, efficiency and food safety simultaneously in the Food industry. To develop an innovative model for optimizing the management effects and meeting customer demand, the study attempts to redesign the supply chain structure for Case Company A. Suggestion to optimized management is proposed for the Food industry.

Keywords: Business model, food safety, service innovation, management optimization

A Study on Innovation Strategy for Sustainable Value Creation

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Abstract

In recent years, various market environments changes such as maturity, commoditization, and globalization are occurring. As a result, many companies are difficult to provide sustainability value in the current method. This research constructs and examines service methods to respond to the situations for providing the value. Specifically, this paper developed based on recent researches of Service-Dominant Logic, Open Innovation, and Destructive Innovation. Introduced marketing methods focused on services for providing value continuously that is different from current selling out marketing models.

Keywords: Innovation, Service model, Service-Dominant Logic, Destructive Innovation, Open Innovation

Organization and Strategy of Ecosystem for Value Co-creation

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Abstract

Recently, product life cycle is shorter and customer needs become more diverse. Many companies have to manufacture new products more promptly because many companies could not acquire customers with only one series of products. Because, it needs to introduce products one after another to the market. In addition, in order to correspond to customer needs, the necessary knowledge of companies becomes wider and deeper. In other words, it is difficult to create new value with sustainably. This research focuses on “Value co-creation” and “Ecosystem”, and considers ecosystem included users in order to correspond to these problems. This research presents models of ecosystem included both companies and users, and considers methods to create new value.

Keywords: Value co-creation, open innovation, ecosystem, innovation strategy, organization management

Factors Influencing Service Quality of IT Outsourcing at School

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Abstract

Schools always look for external specialized contractors and suppliers while the incapability of IT service, the availability of human resource and organizational issue are being considered. Therefore, IT service outsourcing has been becoming a significant lesson to learn by schools to meet and balance the scarcity of school's IT operational capabilities. Based on the service quality model of Parasuraman, Zeithaml & Berry proposed, the study examined Gap 5 and five perceptions of the service quality model about IT service outsourcing at school. The research result showed that there were significantly differences between expectations and perceptions of IT service outsourcing at school. Reliability is the most important construct of service quality expectation. Empathy is the least important factor of service quality expectation. Assurance is the most satisfaction of service quality perception. Tangibles is the least satisfaction of service quality perception. As a consequence, regarding to the total satisfaction of service quality, the average value can reach the level of satisfaction. Perceived tangibles, reliability, responsiveness, assurance and empathy are positively related to the total satisfaction. Through the assessment of service quality, it will be good understanding of the service quality in IT outsourcing and the improvement direction.

Keywords: Service quality, IT outsourcing, customer satisfaction, expected service, perceived service

How Can Managerial Optimism Affect the Long-term Valuation of High-tech Young Startups?

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Abstract

This study investigates the influence of managerial optimism on the long-term valuation of young startups that have recently completed initial public offerings (IPOs) in the high-tech settings. We find that the valuation effect of managerial optimism is context-dependent, where externally driven uncertainties induced by a high level of out-of-country or out-of-industry investment augment the adverse aspect of managerial optimism, such that geographic/business diversifying firms led by optimistic CEOs underperform otherwise similar firms led by moderate CEOs post IPOs. On the other hand, internally driven uncertainties, including uncertainty arising from a firm's internal growth opportunity and R&D activities, augment the positive aspect of managerial optimism thereby creating positive interaction effect; Specifically, IPO-firms characterized by high R&D intensity or high internal growth opportunities perform better in the long run when led by optimistic CEOs relative to moderate CEOs.

Keywords: Managerial optimism, long-term valuation, high-technology, IPOs, behavior finance

Using Human-Centered Design to Implement Service: The National Mall and Memorial Parks as Examples

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Abstract

This paper illustrates the possibility of arriving at an innovative solution by using a human-centered design (UCD) method to enhance visitor experiences on the National Mall in Washington. The park area in the capital city of the US draws local and international visitors on a daily basis. The mall's structure, appearance, and services have remained largely unchanged since its construction. The Innovation Lab, a division of the US Office of Personnel Management, supports US federal agencies with innovative solutions for serving the American people. Improved facilities and services that can meet contemporary visitors' expectations and needs are necessary.

The solution was designed using a UCD work kit. Visitors to the National Mall were interviewed to find out their experiences at the mall and to gather their suggestions. The collected data were sorted into categories-transportation, information, services, etc.—by using a domain map. A 2x2 matrix, or importance/difficulty matrix, was used as a tool for establishing research priorities. Brainstorming generated patterns that led to possible solutions. An index was employed to compare the solutions regarding their amount of information, data update frequency, and practicality. The best solution, an augmented reality (AR) app, was prototyped using a concept poster. The AR app provided multi-language selections, weather forecasts, historical information, transportation details, and directions to the memorials on the National Mall.

Keywords: Human-centered design (HCD), prototype, prototyping, innovation, national mall

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2. Session chair should divide the available time equally among all papers to be presented and announce the same to the paper authors and audience. Each paper should be presented within allotted sparing five minutes for discussion.
3. The papers having more than one author will not get any extra time for making their presentations.
4. Session chair should remind the speakers about the time limit three minute before the time he or she is expected to finish the presentation. If a speaker goes beyond the allotted time, session chair should remind her or him to close the presentation.

Certificate

The certificate of attendance will be presented by session chair after finishing the presentation in the meeting room.

Best Paper Award

About five to ten percent (5-10%) accepted papers will be select as Best Papers. The Best Paper Award will be presented at the end of each session in the meeting room. But the premise is that the session has the best paper award.

Voucher

After finishing the presentation, the attendee/presenter will get a US\$100 voucher on site. The voucher can be redeemed for US\$100 cash, in one of our next two events at the conference on-site registration desk.

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During the conference, an LCD projector, screen and laptop (notebook) computer will be provided for each meeting room. Any additional equipment needed is at the discretion of the presenter, and it will be his or her responsibility to provide the extra equipment.

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Pre-conference registration desk will be open from 15:30 to 16:30 Jan. 22, 2019 on B1 Floor.
The conference registration desk will be open from 08:30 to 11:30 Jan. 23-25, 2019 on B1 Floor.

Lunch

Refreshments and three lunches are included in the conference registration fee. Lunch would be provided for registered (paid) participants only.

The venue restaurant cannot provide lunch for some reason. Please use the lunch ticket to redeem the meal fee at the service desk. The redeem time is 10:30 to 12:00 Jan. 23-25, 2019. And please note that Each lunch ticket is only valid for the current day.

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