



"Sustaining Competitive Advantages in Technology and Operations Management"

December 06, 2016 STML Building, UUM Sintok, KEDAH

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Book of Abstract

Conference on Technology & Operations Management (CTOM) 2016

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Published by:

Universiti Utara Malaysia 06010 UUM Sintok, Kedah MALAYSIA

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ORGANIZATIONAL AMBIDEXTERITY AT INTRA-NPD LEVEL OF ANALYSIS WITH QUALITY – INNOVATION MATRIX

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ABSTRACT

Exploitative and explorative are critical capabilities for new product development (NPD). With limited resources at hands, most firms will have to do a trade-off between them. As a result, while some firms preferred doing the exploitative NPDs, some others have adventured into the explorative NPDs. Although quality is the focus of exploitative NPD, while innovation is the emphasis of explorative NPD, both of them are imperative to any types of NPD (regardless of exploitative or explorative in nature). Thus, it was suggested a firm that is capable of creating the balance between quality and innovation in any single NPD will be more successful than the others at the sustaining competitive advantage. However, creating a balance between quality and innovation in a single NPD is a challenging effort. This article proposed a quality innovation (Q-I) matrix to demonstrate the concept of organisational ambidexterity for creating a balance between quality and innovation in a single NPD. The Q-I matrix will enhance our understanding of the concept of organisational ambidexterity at an intra-NPD level, which is still rarely studied in contrast to the inter-NPD level.

KEYWORDS: dynamic capabilities, exploitative NPD, explorative NPD, sequential ambidexterity, simultaneous ambidexterity, sustainable competitive advantage

MANAGING TECHNOLOGY WITH DYNAMIC CAPABILITIES: A PROPOSITION FOR SUSTAINABLE COMPETITIVE ADVANTAGE

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ABSTRACT

Management can be seen as a form of technology. It has been described as a "soft" technology in term of a managerial behaviour that deals with the nontechnical aspect of technology. As such, management can be treated as a technology to coordinate the application of scientific knowledge. This implies that management is not just an art, but also a technology to some extent. Therefore, despites technology is commonly taking the shapes of processes, methods, techniques, procedures, models, and systems, these terms were also widely referred to as the management tools for the effective management of technology (MOT). This article treats MOT as a source of sustainable competitive advantage from a strategic management perspective. Mated with a concept of dynamic capabilities (DCs), this article characterises MOT as a firm's internal and intangible resources that are specific and identifiable with common features, but idiosyncratic in details. Since MOT is more critical under technological change, a framework is presented to shows the impacts of technological change on sustainable competitive advantage mediated by the firm's ability to sense, seize, and transform technological capabilities. This article contributes to further understanding of MOT as a form of DCs and proposes possible relationships for empirical research.

KEYWORDS: dynamic capabilities, management of technology, sustainable competitive advantage, technological capabilities, technological change

DEVELOPMENT OF LEAN TACIT KNOWLEDGE IN AN ORGANIZATION: THE CASE OF AUTOMOTIVE INDUSTRY IN MALAYSIA

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ABSTRACT

Nowadays, the implementation of lean management has been on the rise globally especially for automotive industry. However, there are several organisations still failed to apply lean management effectively and continuously. Each failure can be attributed to two different causes, which are lack understanding the concept of waste, and the fundamental issues of lean culture. To be successful of lean management implementation is not easy. In order to create the foundation for lean to take hold, a significant organisational change must occur within the organisation. The organisation was having difficulties to change when the knowledge about lean management was not sufficient. The organisation should not only pay attention to the tools but must fully understand the knowledge of lean management system. The purpose of this paper is to investigate the development of tacit knowledge during Lean implementation. This study used a qualitative method. A single case study was conducted in one automotive company in Malaysia. Based on the interview conducted, the sources of lean tacit knowledge were developed from the training, database sharing, factory visit, case studies and internet resources. Therefore, lean tacit knowledge is essential to the development of the organisation to be successful.

KEYWORDS: lean management; tacit knowledge; case study.

FACTORS AFFECTING ON MUSLIM CLOTH PURCHASE DECISION IN NARATHIWAT, THAILAND.

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ABSTRACT

The purpose of this research is to study the marketing mix (product, price, place and promotion) factors influencing on Muslim cloth purchasing decision, Narathiwat. The respondents of this study were 400 consumers in Narathiwat province. Descriptive statistics such as percentage, frequency, and means are used to describe the demographic features of the respondents. Furthermore, inferential statistics namely; Pearson's Correlation Coefficient is used to examine the effect of marketing factors (product, price, place and promotion) on Muslim cloth purchasing decision. The results of the findings reported in this study show that product, price, place and promotion are significant factors affecting the Muslim cloth purchasing decision. Discussions, conclusions and implications of the study are inferred in details.

KEYWORDS: marketing mix, purchase decision, Thailand, muslim cloth, consumer

INCREASE THE OXYGEN LEVEL BY USING SINGLE CYLINDER COMPRESSED AIR FOR SHRIMP FARMING

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ABSTRACT

This research aims the experiment to compressed air into the tank before flow to shrimp farm by the power in this experiment is the motor that connected with an axle of compressed air for compressing. The compressing at steady velocity has shown in experiment pressure at 2 bars. The pressure in the tank has increased when to taking more compressing time. The result found that this experiment can be development by the increased power of the motor to high-speed velocity and then the pressure in the tank will increase so that the pressure from the tank will use to increase oxygen in shrimp farm. This experiment is a part of the whole experiment.

KEYWORDS: compressed air, shrimp farming, oxygen

FACTORS CONTRIBUTING TO THE ACHIEVEMENTS OF HEALTY COMMUNITY PROJECT IN SONGKHLA PROVINCE

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ABSTRACT

This study aimed to investigate factors contributing to the achievements of a healthy community project in Songkhla Province and to explore the prioritisation of indicators which are conducive to the achievements of the project. The study revealed that the factors contributing to the achievements of the project considered in each aspect can be illustrated as follows: the factor contributing to the achievements' mean is at 3.76. This means the factor contributing to the achievements is at a high level. This level is not agreeably congruent with what Phimainok's study (Factors' contributing to the accomplishment of community development based on the philosophy of the sufficient economy of Baan Namsub, Wang Nam Khiao Subdistrict, Wang Nam Khiao District of Nakhon Ratchasima) showing that one of the factors contributing to the accomplishment of the community development based on the philosophy of sufficient economy of Baan Namsub was in the aspect of supporting the government so that training regarding the philosophy could be organised, financially supported, and so on. This study also disclosed that due to the difference in the context where the project was held and the project itself, the factors contributing the achievement were various. With regard to the prioritisation of the indicators contributing to the healthy community project, the study showed that the project was supported by community leaders as well as by within community organisations whose mean was at 4.0. This can signify that these supports were significant for the achievements of the project, which was at a high level. This result was in accordance with Phimainok's study reporting that the factors which were conducive to the accomplishment of the project were that the project was both supported and sponsored by government sectors so that the training regarding the sufficient economic philosophy was organised.

KEYWORDS: factors, achievement, healthy community

THE APPLICATION OF SOLAR DRYING WITH POLYCARBONATE TUNNEL FOR FISH CRACKERS

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ABSTRACT

From the experiment of baked fish cracker, there will be changes in earliest stage of cracker fish's humidity will drop rapidly and slow down gradually, it is because there is quite high humidity at the surface as a result that there are a heat and mass transfer at the fish cracker itself which a heat and mass can transfer. Furthermore, the experiment found that the used temperature for drying that also affected to a decrease in humidity. It is the use of high temperature at 63 degrees Celsius in drying which will be up to 38% rapid more than using a low-temperature drying and the potential of solar energy is at the 18.5-19 MJ / m2 - day.

KEYWORDS: solar drying, polycarbonate, fish crackers

THE ISSUE OF PALM OIL FARMERS IN NARATHIWAT

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ABSTRACT

The purpose of this research was to study on the degree of the issue of Palm Oil Farmers. The internal factors include human, budget, materials and management and external factors include distribution and environment. In this study had a survey the opinion of 302 Palm oil Farmers in Narathiwat. The Data were collected by the questionnaires and analysed the descriptive statistics with SPSS program were frequency, percentage, average and standard deviation . The results of this study found that the internal factors are budget (-3.97, S.D.=0.799) is highest percent of issue and next were materials (-3.97, S.D.=0.799), management (-3.76, S.D.=0.827) and human (-3.08, S.D.=0.981) and the external factors are distribution (-3.50, S.D.=0.807) is highest percent of the issue and next is environment (-2.93, S.D.=0.844)

KEYWORDS: issue palm oil palm oil farmers narathiwat

THE INTERNAL AND EXTERNAL ENVIRONMENTS ANALYSIS OF PRODUCTION AND MARKETING OF THE SALTED KULAO FISH FROM TAK BAI IN NARATHIWAT

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ABSTRACT

The purposes of this study were: 1) To study the production situation marketing of the salted Kulao fish from Tak Bai in Narathiwat 2) To analyse the strengths, weaknesses, opportunities and threats (SWOT Analysis) of production and marketing of the salted Kulao fish from Tak Bai in Narathiwat. The sample is the household of the salted threadfin fish using size was 3 people. The tools for data collection method used in this research was indepth interview and conclusions descriptive research the results showed that: Internal Environment, The strengths of salted Kulao fish is famous product, good quality and acceptable from the customer, this product is in the market oligopoly, the power to negotiate, keeping old customers and expand new customers to the market. For the weakness, the manufacturing process requires meticulous, packaging not standard, unable to retain odours, short maintaining, fewer sales and distribution strategies channels. The external environment, opportunity Salted Kulao fish products in high consumer demand, a popular product to buy as a present for the adult, commander. For obstacles, rely on seasonal material from the sea (fresh Kulao fish), production process to aerate the sunshine and natural wind and other products are difficult to replacement.

KEYWORDS: SWOT analysis, production, marketing, salted kulao fish, narathiwat province

TESTING ABILITY OF THE NATURAL RUBBER LUBRICATE FOR FOOD INDUSTRY

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ABSTRACT

The objective of this research is testing ability of the natural rubber lubricate and compared with mix rubber with the different dried rubber at the percentage 27.9, 20.9, 15.5, 11.6 and 3.9 for developing and using in lubricate work instead of petroleum by using the pin test kit with metal ring at 1,425 rpm in deepening of rubber liquid, the compress forced is 10 N, 30 N for 15, 30 and 45 sec. Then analysed by measure the wear size by using the microscope and compared with other lubricants such as Shellondina15, Palm oil and water. The results have shown that the decreased percentage of dried rubber is effect to the wear by minor value and the average wear size in the case of rubber liquid is smaller than Shellonlina15 and Palm oil about 3 times.

KEYWORDS: lubricate, wear, rubber

MINI BIKES TO DECAY RECYCLE SHEETS

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ABSTRACT

Due to the invention of the mini bicycle to decay the recycle paper that can be used instead of powering electric blender by use the bicycle to connected with a water tank that has a chain as a connector and the blade was shedding paper. The tank contains 12 litres of water that use for spin and decay paper sheet. The result showed that paper 50 sheets take time to decay to small paper for 3 minutes and the paper 100 sheet take time to decay for 7 minutes. From the created of the mini bicycle to decay recycle paper sheets deem that can use the cyclists to spin and decay the paper sheets replace the electrical blender machine and the recycle paper from the cycling be delicate. Also to reduces the electrical power which is good for the environment.

KEYWORDS: mini bicycle, decay, recycle paper sheets

THE PROBLEMS AND NEEDS OF BUSINESS DEVELOPMENT CAPABILITIES IN BATIK IN NARATHIWAT PROVINCE

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ABSTRACT

The purposes of this research are: 1) to study problems of the batik business in Narathiwat province and 2) To study the capabilities of development needs of the batik business in Narathiwat province. Samples in this study are seven groups of the owners of the batik businesses in Narathiwat province with 4 and 5-star national assessments. Data were collected through a series of questionnaire-based interview forms and Data were analysed with statistical percentage basis. The results showed that the majority of Entrepreneurs batik were females ages 41 to 50 of high school graduation, earning the monthly salary of 5,001-30,000 baht. A period of implementation of the batik business was 5-10 years. The number of the batik workers were over 20 people. Twenty-one and four owners expanded their businesses in domestic and international markets, respectively. The operational problems of the batik business were insufficient funds, market behaviour with demand uncertainty, a lack of advertising and public relations, insufficient knowledge of entering a new market, high rates of production losses, high employee turnover, inconstant government support and insufficient government public relations efforts. Business development capability requirements were financial and marketing skills training program, promotional marketing, internal and external markets, raw materials, knowledge providers, modern information services, public relations, and export promotion.

KEYWORDS: the problems, need, capabilities, business batik

STUDY OF DRIED GARCINIA BY SOLAR DRYING PRINCIPLE FOR OTOP PRODUCT OF NARATHIWAT

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ABSTRACT

The experimental drying Garcinia will change the humidity of garcinia which at the first period the humidity will drop gradually and then slow down again because the skin of garcinia got high humidity. Therefore, the heat and mass transfer occurred at the surface area of garcinia, so the surface area of garcinia have the heat transfer and mass transfer easily but heat transfer and mass transfer inside garcinia were slowly. Thus resulting in reduced surface moisture of garcinia is slow and the result was found that the temperature used in the drying effect to a decreased in humidity was the use of high drying temperature can reduce moisture more quickly than the low drying temperature.

KEYWORDS: solar drying, garcinia, solar energy

RISK MANAGEMENT AND ORGANIZATIONAL PERFORMANCE: NEW REVISION OF QMS ISO 9001:2015

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ABSTRACT

Quality management system (QMS) ISO 9000 is a major contribution to achieving local and global competition in the industry. Applying the principles of quality management system and adoption of risk management strategies can help the organisation sustainable in their business. Moreover, identifying at the early stage the potential risk can have consequential results such as eliminating defects, reducing cost, meeting customer satisfaction and also promoting organisation sustainability. In this study, a model that has the tendency on how the risk management in the new revision of quality management system (QMS) ISO 9001:2015 can influence the organisational performance is conceptually proposed.

KEYWORDS: risk management, organizational performance, MS ISO 9001:2015

THE IMPACT OF TECHNICALLY-ORIENTED LEAN PRODUCTION PRACTICES ON OPERATIONAL PERFORMANCES IN MALAYSIAN MANUFACTURING INDUSTRIES

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ABSTRACT

The primary purpose of this paper is to investigate the relationships between technicallyoriented lean production practices and operational performance in Malaysian manufacturing industries. Grounded by the Socio-technical System Theory and the Program Theory, this study formulates and examines a conceptual model that links technicallyoriented lean production practices and operational performance. This study utilises two hundred and five manufacturing companies, selected randomly from the Federation of Malaysian Manufacturers Directory. The study measures senior production or lean managers' perception of the lean production practices and the level of operational performances in their companies. This study applies SPSS package for data analysis. The result indicates that technically-oriented lean production practices namely quality at the source, just-in-time, flow system and technology & innovation are significantly associated with the operational performance of the companies. This study presents empirical evidence in the field of management, particularly in the context of operations management. The findings would further enrich the existing knowledge in this field. Finally, this study would provide useful guidance for the managers to plan and maintain lean production in the organisation as well as to generate new measures of lean production in order to enhance operational performance at the company level.

KEYWORDS: lean production practices, operational performance, quality at source, just-in time, flow system, technology & innovation

IMPACTS OF MANUFACTURING FLEXIBILITY ON PROFITABILITY: MALAYSIAN PERSPECTIVES

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ABSTRACT

The aim of this research was to investigate the impact of manufacturing flexibility on profitability in the context of manufacturing industry in Malaysia. The dimensions of manufacturing flexibility were mix flexibility, new product flexibility, labour flexibility, machine flexibility, material handling flexibility, routeing flexibility and volume flexibility. Impacts of manufacturing flexibility on profitability have been tested using cross-sectional study employing survey methodology conducted within five manufacturing industries in Malaysia. Data obtained from returned questionnaires were analysed using regression analyses. Findings of regression analyses provided support that manufacturing flexibility has the positive and significant impact on profitability. In other words, manufacturing flexibility improves profitability. In conclusion, this research contributes to knowledge gaining regarding the concept of manufacturing flexibility and its impacts.

KEYWORDS: manufacturing flexibility, profitability, Malaysia

GREEN BUILDING TOWARD CONSTRUCTION SUSTAINABILITY: ENERGY EFFICIENCY WITH MATERIAL AND DESIGN ASPECTS

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ABSTRACT

In this globalisation era, sustainable constructions turn the key to stimulating green building practice. Green building criteria basis are energy efficiency, conservation of materials and resources and sustainable design of the building itself. Energy efficiency still hard to achieve, due to some barriers to put into practice energy efficiency. And, materials and design that are originally used have given rise to problems related to the environment and human's health. In Malaysia, people are less aware of green building and they have minimum understanding and know-how about green materials and sustainable design. According to Klufallah, Nuruddin, Khamidi and Jamaludin (2014), 24% of the total of carbon dioxide (CO2) appears from the construction sector in the Malaysia. Therefore, this study aims to explore building energy efficiency and materials and design employed in green buildings to achieve constructive sustainability and to identify the benefits of utilising energy efficiency, green materials and sustainable design. This study will be carried out using a case of the construction sector in Malaysia. The data will be collected via an interview with numbers of property Development Company or projects that apply the green building criteria. It is recommended that more property development companies should be interviewed in order to obtain more comprehensive results.

KEYWORDS: sustainable constructions, green building, energy efficiency, green building materials, sustainable building design, Green Building Index (GBI)

THE INFLUENCES OF GREEN INNOVATION ON GREEN MANAGEMENT PERFORMANCE – CONCEPTUAL OVERVIEW

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ABSTRACT

As the increase of awareness on human health and environment, consumers are now looking for Green products compliance (especially electrical and electronic equipment). This has created more demand for Green products which has led an organisation to invest in innovation. However, the successful of the innovation activities will be dependent on how the organisation manage the internal factors (readiness on its process capabilities, resources, supply chain and etc) and also external forces (environmental regulations, customer requirements, etc) - Green Management. This paper is aiming at the linkage of this relationship: Green management, Green innovation and Organisational performance. The study will be conducted to the electrical and electronic supply chain companies in Malaysia; which are globally known as electrical and electronic manufacturing hub in the world. The researcher believes that the findings from this study will soon bring benefits to the practitioners and academia. As the practitioners (specifically refers to the electrical and electronic organisations) the study will help them to understand how the influences of Green innovation can affect Green management performance. While for academia, this study is believed to explore another area of Green innovation which previously many past studies concentrated on definitional issues and theoretical explanation.

KEYWORDS: green management, green innovation, organizational performance, electrical and electronic

HIGHWAY MAINTENANCE MANAGEMENT: A REVIEW OF SOME PRACTICES IN MALAYSIA

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ABSTRACT

Highway maintenance is becoming a very popular topic in recent years. The relationship between the growth of the nation and welfare of the society has highlighted the importance of the subject. Without the proper maintenance system, highways can rapidly tumble into depreciation which in the end will affect the highways patron in term of vehicle operation, time, reliability and safety. With the alarming number of accidents happened due to highway condition, the effectiveness of the highway maintenance management system in Malaysia has raised a concerned. A study conducted to address this issue with related government agencies, highway operators and highway personnel using the qualitative approach.

KEYWORDS: highway maintenance management, qualitative approach

THE EFFECT OF PREVENTIVE MAINTENCE PRACTICESS ON FIRM PERFORMANCE: SOME INSIGHTS FROM LITURATURE

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ABSTRACT

This paper aim to explain how the preventive maintenance practice that effect on firm performance that direct lead to the industrial success. The firm basically operates in manufacturing the products by innovating and adding services to the core product. This study was the construct based on latest literature findings that give in-depth information on the effect of preventive maintenance on firm performance that create sustainable competitive advantage. The finding reveals that the implementation of preventive maintenance practices in a firm was lead to an increase of firm profitability for long-term due to the extended machine life and ensure the safety of workers without involving in an accident.

KEYWORDS: preventive maintenance, firm performance, manufacturing

ANIMATED FABLES DEVELOPMENT FOR STUDENTS WITH SPECIAL NEEDS AT SPECIAL EDUCATION CENTER, NARATHIWAT PROVINCE

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ABSTRACT

The purpose of this study is to increase moral skill of disabled children at Special Education Center in Narathiwat province via fables. The fables were made in animation for disabled children. The efficiency of the animation was investigated in order to compare the change in the daily life of disabled children after watching the animation. The satisfaction of disabled children on the animation was assessed. The sample groups were divided into two groups. The first group consists of 80 disabled children. The second group was the personnel of the Special Education Center. The questionnaire used in this study was divided into three parts which were the general information of the sample groups, the story sequences of the fables and suggestions. The results of the study conclude that satisfaction on animated fables was at high level. Those disabled children have developed good behaviours. However, the children must watch the animation at least 2-3 times per week for a month. In conclusion, the teachers of disabled children can use animated fables as a tool to improve learning outcomes through the subconscious of the children effectively.

KEYWORDS: animated fable, disabled children, special education center in narathiwat province

MYMIS: AN APPOINTMENT SYSTEM FOR OUTPATIENT DEPARTMENT

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ABSTRACT

This report had discussed on the development of MyMIS, which is an appointment system for the outpatient department. The main objective of the system is to manage the flow of patients at the department. The system was developed based on the patients and staffs requirement. MyMIS is generated in the format of PreHypertext (PHP) and Apache application server was used to run and read the system. MySQL database was selected to store all the patients and appointment information. The system effectiveness was verified through ARENA simulation model. Results show the system can reduce significantly waiting time at the outpatient department. Even though the system is developed for UUM Health Center, it can also be used by other medical centres as well. It is hoped that the system will help the government to meet their target of serving patients within 30 minutes.

KEYWORDS: appointment system, outpatient department, waiting time

MEASURING ASSURANCE OF LEARNING (AOL) THROUGH SIX-SIGMA PROCESS CAPABILITY METHODOLOGY

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ABSTRACT

The UUM has earned AACSB (Association to Advance Collegiate Schools of Business) accreditation, the highest achievement for an educational institution that awards business degrees in 2016. AACSB mission is to advance quality management education worldwide through accreditation, through leadership and value-added services. According to this mission, having AACSB accreditation means UUM has to focus in the high quality academic program. This paper aims to explore and propose the application of six-sigma (62) process capability methodology in measuring course learning outcome (CLO). 62 is a highly disciplined process that helps the organization on developing and delivering value-added products and services. This preliminary study also attempts to enhance the understanding and suggests the application of 62 in measuring teaching-learning outcomes. In addition, it tries to predict the process variation, productivity and process capability of three assessment methods, namely quiz, assignment and the final examination. This study examines first-year undergraduate students for Quality Management System course at School of Technology Management and Logistics. A total of 50 students involve.

KEYWORDS: six sigma, process capability, Assurance of Learning (AoL), AACSB, OBE

SOLVING FUEL DISTRIBUTION OF UE PETROL USING GENETIC ALGORITHM: A TRAVELING SALESMAN APPROACH

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ABSTRACT

Petrol or fuel is the product that people use daily and have a high demand. Therefore, the delivery of petrol from origin to each petrol station is done daily. This distribution process concerns the management as they have to minimise the cost while maximising the profit. Hence, this paper aims to develop a model that is able to determine the shortest path for delivery this petrol in UE Company in Selangor. The problem is solved using Traveling Salesman Problem (TSP) approach, where the data were collected using Google Maps application. The shortest distance was attained using Genetic Algorithm (GA) technique. The solution obtained from GA was then compared with Hill Climbing technique. The results show that GA produces a better solution and could cut the distance up to 23 km. The finding of this research would help the UE Company to reduce the cost of distributing refined fuel around Selangor.

KEYWORDS: fuel distribution, travelling salesman problem, genetic algorithm, hill climbing

ACADEMIC RESEARCHERS MOTIVATION FACTORS: A CONCEPTUAL FRAMEWORK

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ABSTRACT

The Malaysian government has been striving to provide an environment conducive to research commercialisation in the country. Despite the efforts, the targeted research commercialisation rate has yet to be achieved. This paper explores the motivation of the academic researchers who had successfully commercialised their research. Literature classifies motivation factors as extrinsic, intrinsic, and prosocial, which might exist independently or in a combination (mixed-motivation). Within the academic research commercialisation context, a considerable number of existing studies have discussed the role of extrinsic motivation factors, while the issues of intrinsic and prosocial factors have not been much studied. Thus, this study proposed a conceptual framework to further understand the role of each motivation factor as well as the role of mixed-motivation factors among academic researchers who had successfully commercialised their research results.

KEYWORDS: academic research commercialisation, extrinsic motivation factors, intrinsic motivation factors, prosocial motivation factors

FACTORS INFLUENCING INTENTION TO USE E-LEARNING BY AGRICULTURAL EXTENSION AGENTS IN MALAYSIA

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ABSTRACT

Widely utilized in educational institutions, the use of e-learning has extended to numerous other areas including agricultural sector for training, education and learning. In the agricultural sector, the potential e-learning beneficiaries include those who provide extension services. Hence the objective of this study is to investigate the relationship between attitude, subjective norm, perceived behavioral control, management support and training; and the intention to use e-learning technology among agricultural extension agents in Malaysian agricultural sector. This quantitative study is based on Theory of Planned Behavior with management support and training as additional constructs. While there are many studies that investigate factors of intention to use e-learning in the education sector, there are limited studies of the same in the context of extension agents in the agriculture setting. The results show that with the exception of subjective norm, all of the hypotheses developed by the previous authors were supported by the study and further reveal that attitude is the most important determinant of extension agent's intention to use e-learning, followed by perceived behavioral control. Finally, the implications of this study are discussed, and further research directions are proposed.

KEYWORDS: acceptance, agriculture, e-learning, extension agent, theory of planned behavior

POTENTIAL UTILISATION OF WOOD RESIDUE IN KEDAH: A REVIEW

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ABSTRACT

Being an important resource-based industry in Malaysia, the wood industry plays a crucial role in the socio-economic development of the country. In consequences, wood wastes generated exponentially increase annually. This paper views the current utilization of wood waste production in the northern wood-based mills in Malaysia. The types of wood residue, as well as the users of wood residue, are identified. The result shows that 100% of wood residue are being used or sold for this population. However, the wood residue available in Kedah is able to potentially offer 0.005% of electricity generation in Malaysia. As a conclusion, this type of wood residue cannot create the opportunity for it to be used as fuel in electricity generation in the northern region of Malaysia since the fuel supply is already limited and is being used for other purposes.

KEYWORDS: wood residue, potential utilisation, Kedah

GREEN INNOVATION AND FIRM PERFORMANCE: THE ECOLOGICAL MODERNIZATION PERSPECTIVE

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ABSTRACT

Green innovation is becoming an essential business strategy in the 21st century as it brings sustainable environment and economic prosperity hand in hand. Consequently, the impact of green innovation on firm performance has drawn enormous attention among the scholars for the past few decades, aiming at empirically justify the positive implications of being green in business. However, the analysis from the ecological modernization perspective remains limited, although the focus on the preventive approach to achieve environment and economic improvement is the central argument of this theoretical lens. This study tackles the above issue by examining the performance outcomes of green innovation adoption in view of ecological modernization perspective. A quantitative, survey-based study collected data from 130 Malaysian manufacturing firms, which was subsequently analyzed using SmartPLS 2.0. The findings generally corroborate the positive implications of green innovation on firm performance in the aspects of the environment, economic and competitive advantage. Likewise, EM perspective fits in offering plausible insights of the findings, hence entails the alternative ground to be employed in other studies of the like.

KEYWORDS: green innovation, ecological modernization, sustainability, PLS, Malaysian manufacturing firms, firm performance

THE MEDIATING EFFECT OF INNOVATION PERFORMANCE ON EXTERNAL SUSTAINABLE MANUFACTURING PRACTICE AND SOCIAL SUSTAINABILITY LINKAGE

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ABSTRACT

This paper analyzes the mediating effect of four dimensions of innovation performance (IP) namely product innovation, process innovation, organizational innovation and marketing innovation on the relationship between external sustainable manufacturing practice (external SMP) and social sustainability. Employing partial least squares-structural equation modeling (PLS-SEM) approach, the survey data collected via mailed questionnaire were analyzed. In total, 150 responses were obtained from manufacturing firms in Malaysia with the diverse range of industries. Out of four dimensions of IP, the empirical results indicate that organizational innovation performance is the single significant mediator on the causal linkage between external SMP and social sustainability. While providing a clearer picture of the interrelationship among external SMP, IP and social sustainability, the results of this study could help owners and managers in assessing their firm performance particularly related to social sustainability and innovation performance as well as identify the strength and weaknesses of their current practices. In addition, the findings of this study could provide an important source of information for government and other policy makers in promoting social sustainability awareness and external SMP implementation particularly among firms in manufacturing industries.

KEYWORDS: social sustainability, sustainable manufacturing, sustainable manufacturing practice, innovation performance, manufacturing firms

APLIKASI TEKNOLOGI KELESTARIAN (HYBRID) PADA PENGANGKUTAN

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ABSTRACT

Perubahan iklim cuaca dunia yang disebabkan oleh pencemaran alam sekitar telah memberikan impak kepada dunia pengangkutan termasuklah pengangkutan awam. Pengangkutan awam yang menjadi nadi pengangkutan terutamanya di kawasan bandar kini diberikan fokus kerana menjadi salah satu penyumbang kepada pembebasan gas Karbon Monoksida. Oleh yang demikian wujud tekanan supaya kenderaan awam untuk menggunakan kenderaan yang berteknologi hijau sama ada Hybrid, elektrik dan juga gas. Penggunaan kenderaan awam yang berteknologi hijau masih lagi pada peringkat yang baru dan tahap penerimaan pengguna masih lagi berada pada tahap yang sederhana. Oleh yang demikian, kajian ini dijalankan adalah bertujuan untuk melihat tahap kesedaran pengguna mengenai kenderaan awam yang berteknologi hijau dan juga melihat tahap penerimaan oleh penggunaan. Selain daripada itu, kajian ini juga akan melihat faktor – faktor yang menyumbang kepada penerimaan pengguna untuk menggunakan kenderaan awam yang menggunakan teknologi hijau serta melihat kos dan faedah terhadap pengguna. Kajian ini menggunakan kaedah kualitatif di mana data diperoleh daripada soalan kaji selidik yang telah disediakan. Pakej Statistik untuk Sains Social (SPSS) telah digunakan bag menganalisis data yang diperoleh daripada soalan kajian selidik. Hasil dapatan menunjukkan tahap kesedaran pengguna mengenai kenderaan berteknologi hijau adalah sangat baik namun begitu terdapat kadar pemilikan kenderaan berteknologi hijau masih lagi berada pada tahap yang rendah. Kos juga dilihat menjadi salah satu faktor yang penting kerana kebanyakan responden masih lagi menganggap kos untuk menggunakan kenderaan awam masih lagi berada pada tahap yang agak tinggi dan mereka menjangkakan kenaikan kos akan lebih meningkat jika pengusaha menggunakan kenderaan yang menggunakan teknologi hijau. Batasan utama kajian ini adalah kawasan kajian yang tidak menyeluruh kerana kajian ini hanya tertumpu hanya di beberapa bandar utama sahaja di Malaysia. Penyelidikan akan datang perlu menggunakan jumlah responden yang lebih besar dan juga kawasan kajian yang lebih meluas bagi meningkatkan tahap generalisasi hasil penyelidikan.

KEYWORDS: Pengangkutan Awam, Teknologi Hijau, Kos

THE IMPACT OF TRUST ON VENDOR MANAGED INVENTORY (VMI) PERFORMANCE

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ABSTRACT

Trust is believed can contribute significant impact in buyer-supplier relationship. However, there is still lack of study on to what extend trust can influence VMI performance. The aim of this paper is to examine the impact of trust towards VMI performance. Questionnaire was the main instrument for the study and it was gathered from 101 of suppliers in manufacturing companies. The findings show that trust contributes to service and cost performance of VMI program. Although, literature suggest that trust has significant impact on both cost reduction and service improvement in VMI program, this study shows that there is a limited effect on cost and service performance. This study recommends that trust should be cultivated trough sharing demand information to increase benefits of VMI program.

KEYWORDS: Trust, VMI performance, manufacturing companies