

CURRENT SITUATION OF PROJECT REVIVAL IN MALAYSIA

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Abstract

The number of abandoned projects has caused dissatisfaction and distress to parties involved in a contract, such as the end users or buyers, developers and contractors. Due to this, the Construction Industry Master Plan (CIMP) roadmap has indicated one of its' Key Performance Indicator (KPI) as reviving the abandoned projects in Malaysia. There has been some projects in Malaysia that has been revived successfully, and there are some underway and expected to be completed soon as according to the new contract. Reviving a construction project has its' own system and stages that has to be endured by the Government in order to start the revival process, which is not a simple task to start off with. When a project that has been abandoned is targeted for the purpose of revival, there is a possibility on non-revival of the project, which leads to the economy loss for the country. This paper looks into the current situation on project revival in Malaysia, where this paper discusses the process and as well as the barriers in reviving a project. There are also some example of abandoned projects that has been completed and occupied by civilians. To complete this paper, a review on past studies and researches was referred, and some data was obtained from Ministry of Housing and Local Government (MHLG). In order to understand the process of project revival, an outlook and proper understanding on the causes and effects of project abandonment was also established. The certain part of difficulties and obstacles, as well as the risks that has to be endured in reviving an abandoned project was also able to be conveyed through this paper. Through this paper, the total of abandoned housing projects has been identified, where up to 2009 there are 156 projects that has been abandoned, which comprises of 53, 195 units. Whereas, the data that was obtained up to 2012, shows a total of abandonment for 95 projects, which has 37, 316 units. Since there are some research on the issue of abandoned projects in Malaysia, there should also be a study on the factors for the continuation and discontinuation of an abandoned project, and its' impact to the industry.

Keywords: Delayed, Sick, Abandoned, Revival, Construction projects, Barriers, Continuation, Discontinuation.

THE PROCEDURES FOR REVIEWING THE ISSUES CONCERNING THE APPLICATION OF THE BQ

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Abstract

Literature review is required to familiarise a researcher with the subject of research. It is a process that acquaints a researcher with the existing knowledge in specific research areas and help to set the base for a research to take shape. In all instances, thorough review of the literature sources is a prerequisite in assessing the existing intellectual territory, hence an indispensable component in every scholarly undertaking. Although the process is important, it appears that there are no common procedures to follow and this was often characterised by the subject being reviewed. This implores that any effort to document the procedures would be advantageous and would benefit researchers pursuing interest in a subject. Drawing from the author's recent research in identifying issues that impeded the use of the bills of quantities (BQ), this paper aims to document the procedures involved in the process of reviewing literatures concerning the research. Accordingly, a nuts-and-bolts approach to literature review has been put forward in the background and it strives to describe the procedures following the review processes carried out in the research which underpin this paper. Hence, this paper reflects that the procedures of reviewing the literature involved a critical task of searching, mapping, analysing and synthesising. In this regard, the use of NVivo had assisted greatly in the process and adds a significant value to the explanation presented throughout this paper.

Keywords: Bills of Quantities (BQ); Issues; Literature review; Methodology; NVivo; Process; Quantity Surveying (QS)

THE GOODS AND SERVICES TAX (GST) IN THE MALAYSIAN CONSTRUCTION INDUSTRY: A LITERATURE SYNTHESIS

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Abstract

The introduction of Goods and Services Tax (GST) will be commenced by Malaysian government starting on April 2015. In recent months, the media and government have focused on the consumer's knowledge of the GST in order to prepare people ready for its implementation. In this preparation, it is important for the players in the construction industry to understand the potential implication of GST on the construction sector and its supply chain. This paper presents a literature synthesis on understanding the GST within the Malaysian construction industry; the potential impacts and challenges in implementing GST in the construction industry. This is to provide a broad overview on GST and assessments on the industry's readiness to face the GST. This paper contributes to the body of knowledge of the GST system by providing a relevant literature synthesis and because of the gaps found in the literature, this paper raises questions for further research.

Keywords: Goods and Services tax (GST), Malaysian construction industry, industry readiness

A PROBLEM-BASED LEARNING APPROACH FOR VALUE MANAGEMENT COURSE IN QUANTITY SURVEYING UNDERGRADUATE PROGRAMME

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Abstract

Value management over the past sixty years has proven to provide a structured approach towards defining project function and bringing the best value to a project. The underlining success of VM liaises upon the application of a structured job plan, FAST diagram and multi-disciplinary team involvement. Acknowledging the benefit VM brings towards construction project, the uptake of VM within Quantity Surveying profession has steadily increasing with various Universities in Malaysia has introduced VM in their undergraduate programme. The Department of Quantity Surveying in the International Islamic University Malaysia (IIUM) has been offering VM course to their undergraduate students since 2003. The course itself has progressively mature overtime and taking different approach from the traditional style of learning, shifting towards problem-based learning approach with aim to enhance students' understanding and appreciation of the course. This paper attempt to report on a student's learning process in VM workshop based on a real-life project using PBL approach. Several key areas findings were made based on observation and document analysis of student's workshop that includes function analysis and FAST diagram appreciation, problem-solving techniques and creative thinking process. The outcomes from this findings is expected to contribute to pools of Universities offering VM courses on potential strategies in employing PBL in teaching VM course.

Keywords: Value management, problem-based learning, job plan, workshop

GREEN BUILDINGS ACTUAL LIFE CYCLE COST CONTROL: A FRAMEWORK FOR INVESTIGATION

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Abstract

Green buildings and sustainable construction operate as a subset of sustainable development. A growing body of literature suggests that green buildings outperform conventional (non-green) buildings in all performance areas, particularly in term of economic benefits which are typically assessed using life cycle costing as an economic appraisal technique. However, reports and studies show a performance gap once buildings are occupied. Therefore, merely relying on performance simulation and modeled design is not satisfactory to convince building owners and real estate investors that green building is a rational economic decision and a cost effective long-term strategy. While unprecedented consensus about several life cycle benefits of green building exists, no standard methods were proposed or developed to monitor and control the actual life cycle cost of green buildings. This paper addresses the issue of green buildings actual life cycle cost performance and suggests a conceptual framework to extend the functionality of Earned Value Management (EVM) Approach to be applied throughout building operating phase. Comparative analysis has been conducted to investigate validity of Earned Value Management (EVM) parameters in building operating phase, as well as to investigate the cost patterns and characteristics in both building construction and operating phase. The results suggest that it is possible to extend the functionality of the Earned Value Management (EVM) technique to be applied during building operating phase, but different criteria and procedures are required to calculate the cost variances and cost performance indices due to significant dissimilarities in the cost control parameters.

Keywords: Green buildings; Actual performance; Life cycle cost; Performance measurement; Earned Value Management.

TECHNICAL STUDY ON CONSERVATION AND RESTORATION OF NIAVARAN PALACE'S EMBROIDERED PATEH

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Abstract

A historical and scientific analysis was carried out on a historical textile from Sahebgharanieh Niavaran Palace's collection. The examination shows that the sample under study is embroidered in *Pateh* technique. It belongs to Iran, dated around late 18th Century, from Qajar dynasty period. To conserve and restore the textile sample under study, the material technology on its fiber, weave and motif were identified. The scientific analysis shows that the fiber is made of wool, with Twill weave technique, decorated with embroidered fiber made of silk. With the help of SEM-EDX method of analysis it is detected that the fabric contains a great value of silver and gilt scythes using metallic thread with delicate silk yarns. Motifs used in the fabric are of paisley leaf with decorative motifs of plant and animal embroidered beautifully. The Fabric was graphically documented by microscopic and macroscopic methods and its degree of damage was assessed. This leads to the implementation of conservation, restoration and display techniques, which was carried out in the textile division of Sahebgharanieh Niavaran Palace Museum. It will be discussed in detail later in the paper. The paper employs scientific analysis and SEM-EDX method to analyze the historical textile. The major aim and objective of the study is to know the materials and contents from which the textile is made in order to know the best restoration and preservation method that may be applied in preserving and conserving the historical textile and the likes of it.

Keywords: embroidery, Pateh, Qajar Dynasty, Metal Thread, SEM-EDX.

A REVIEW ON NON-PHYSICAL WASTES IN CONSTRUCTION INDUSTRY

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Abstract

Studies on waste management in the field of construction have been done over the years from various countries. Some researchers have proven that by eliminating wastes, a lot of benefits especially in terms of cost, quality of work, and time can be achieved. However, it has been found that there is less awareness and understanding by the parties involved on wastes especially on non-physical wastes. This paper analyses the researches done by previous researchers on the issues related non-physical wastes in the construction industry. For this purpose, literature review previous researches on the related topic carried out. Only papers related to the topic are selected and analysed. This review paper intends to contribute to the understanding of the concept, types, causes of waste and the management in the construction industry. Wastes in construction are not only debris, but also activities that do not add value to the product such as defect, rework, inventory, overproduction, unnecessary processing, transportation, motion of employees with no purpose, waiting, lack of value, and making-do. People, management, design and documentation, material, drawings, and external causes are among the causes of non-physical waste. Lean thinking and just in time concept are the most management method used to manage non-physical waste.

Keywords

Non-physical wastes, types of wastes, incidence of wastes, management of wastes

RECREATIONAL PARK: FACILITIES MANAGEMENT AT BOTANICAL PERDANA LAKE GARDEN, KUALA LUMPUR, MALAYSIA

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and Khairusy Syakirin Has Yun Hashim**

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Abstract

Facilities Management is a new approach in Malaysia. It covers all output of real estate and property management, maintenance and repairing, office services, space planning and management, employee supports and services. Recreational Park has a wide potential in practicing Facilities Management. Facilities Management for park may give opportunity for local authorities in ensuring the park to be managed systematically and performed with standard level of services. Thus, this study is to understand the application of Facilities Management in maintenance management at Botanical Perdana Lake Garden (BPLG). The objectives of this study are to understand the approach of the maintenance management and to observe the condition of the asset or hardscape component at the recreational area. The Interview with park manager and Landscape observation method has been used to investigate the maintenance management and condition of the asset. BPLG has used a mix approach to out-source maintenance and retain in-house maintenance in order to preserve the asset facilities and as tools for life cycle management. The result indicates that the asset condition and materials for Gazebo/wakaf, picnic tables and pedestrian linkages are in moderate to good condition. However, they are prone to vandalism and whiten by exposure to sunlight as well as being misused by vehicles. Nowadays, the application of facilities management in organization is important to ensure the non-core business could support the core business in organization and to achieve the company's goals and objectives. Hopefully, the facilities management can be established in many disciplines especially in Recreational Park. Moreover, it will be able to support the recreational demand from the community, in future.

Keywords : Facilities Management, Recreational Park, Material in Landscape, Landscape Construction and Botanical Perdana Lake Garden.

ETHICS AND VALUES IN PROJECT MANAGEMENT STAGES IN CONSTRUCTION INDUSTRY

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Abstract

The main aim of this paper is to examine the awareness of the principles of ethics among the professionals in Project Management in construction industry. The objectives of this paper are as follows: Firstly, to compare and review between the concept of ethics from Western and Islamic perspective by evaluating the principles and practice of ethics when the professionals carry out their duty. Secondly, to investigate the wide range of ethical problems faced at project management stages during construction period. Thirdly, to explore solutions that can be utilized and applied among professionals in construction industry. Previous studies showed that ethics and values is the branch of philosophy that investigates morality and the ways of thinking that guide human behavior. Ethics involve examining moral standards of society and asking how these standards are reasonable or unreasonable. In the construction industry there are two main levels to consider in relation to ethics and values in terms of professionals and corporate/organizational ethics. Professional's ethics refer to the behavior expected of individual or industry or a group within the industry that was bound by a set of principles. However, it appears many cases in practice that professionals in the building industry deemed to behave unethical when implementing project management on various stages. This arises negative impact and causes a number of problems to the public. The methodology applied will be table research to professionals for project management stages in construction industry in Malaysia. The outcome of this paper will benefit the professionals in applying good ethics and values in various stages in of project management in construction industry terms of awareness and its application.

Keywords: Ethics, Values, Project Management, Construction Industry and Islamic Perspective

INTERIOR DESIGN CONSTRUCTION MANAGEMENT: PERFORMANCE AND PRODUCTIVITY IN INTERIOR DESIGN CONSTRUCTION INDUSTRY

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Abstract

The practice of Interior Design (ID), Architecture, Mechanical & Electrical and Facilities component drawings such as conceptual design and construction drawings would need to be integrated and coordinated between the consultants and the contractor drawings. All related drawings are required to be resolved and agreed upon, so as not to cause obstacles at the actual construction site and to improve the business performance in terms of time and cost of the project. A further review of the performance measured in the interior design construction industry also indicates that productivity is an inadequate measure for identifying improvement targets and control activities. The use of a more holistic set of measures is recommended in order to ensure more relevant and timely information. The purpose of this study is to explore the integration and coordination of the respective consultants' involvement in the project construction management that will help clients on timing and costing of the projects. The lack of coordination between multidisciplinary scope of work of project construction managements in interior, architecture, and other related fields will increase time and cost of the ID Construction projects (IIDA Report, 1998).

Keywords: Interior Design, Architecture, integrated, consultant and construction management,

THE INFLUENCE OF CONCESSIONAIRE ATTRIBUTES ON SUCCESSFUL FINANCE OF PFI PROJECTS

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Abstract

The concept of Private Finance Initiative (PFI) invites the private sector to collaborate and finance the implementation of public projects. The participation of private sector in PFI will help to save government expenditure and reduce administration burden in which they undertake all aspects of building and running the completed projects including the design, construction, finance, management, maintenance, and operating the projects on a long-term concession period. Some of the risks would transfer to the private sector that is expected to be more efficient in risk management and the private sector involvement in economic activities may boost efficiency and productivity. The highly leveraged capital structure is a crucial aspect of PFI projects. Consequently, a special purpose vehicle or concessionaire company, also known as the project company that is the key stakeholder in PFI, plays an important role in securing financial capability. Any shortage of cash will affect the project progress. The requirements of substantial finance of upfront investment by the project company limit their participation in PFI. In Malaysia, many project companies, particularly contractors are small players; they lack experience and have an unconvincing track record to secure finance. This paper is prepared with the aim to review important attributes of the concessionaire to secure project finance for PFI projects. The literature review indicates that concessionaire attributes can be categorised into six main success attributes: financial, management, technical, experience and performance, organisation, and resources. The findings derived propose a conceptual framework as a basis for further research.

Keywords: private sector, public sector, finance, bankability, concessionaire

AN EXPLORATION INTO COST INFLUENCING FACTORS ON BUILDING SECURITY

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Abstract

Security is increasingly having importance attached to it worldwide. The historical background of housing cannot be separated from criminal activities committed within houses which often follow a forceful entry by perpetrators. The objective of this research is to establish the cost influencing factors with the new concept and methods to help in the control of expenditure and forecasting of probable future cost of building security. This study used qualitative phase of mixed methods research for the exploration of the cost influencing factors. Phenomenological design was employed for data collection and analysis. Three main categories were identified to sort responses to the questions, out of which only two categories were directly related and under the scope of this study with 11 factors emerged from these two categories. The Severity index analysis (S.I) was performed to rank these key cost influencing factors. The result shows no significant gap between the factors with intruder detection, location of building, and use of building ranked above 87%. Therefore, all the factors generated from this study will positively influence the building security cost.

Keywords: building security, building characteristics, cost influencing factors, mixed methods sequential exploratory design, phenomenology design, severity index.

Management Factors In Building Maintenance Projects

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Abstract

Building maintenance is becoming an increasingly important field of study especially in the developing countries. Like many other countries, Libya is facing some challenges in building maintenance projects. As such hardly do buildings withstand the attacks of weather and other related pressures. Few studies have been conducted on the success of building maintenance project rather than construction project. To this end, this paper aims to identify the key management factors affecting the project success of building maintenance in Libya and these factors were gathered through the literature review. This paper is limited to the management factors influencing the project success of building maintenance during maintenance work. Other factors affecting the success of projects, such as project participant's related factors, environment factors, site related factors, time factors, quality factors, financial factors, health and safety factors can be discussed in future researches. In addition, this paper has identified 21 management factors and identified conceptual model/framework for management factors that affect the project success of building maintenance. For future research, questionnaire survey and factor analysis method could be used to investigate and assess the relationship among the identified variables and project success.

Keywords: Building Maintenance Project, Management Factors, Project Success, Conceptual model

FURNITURE PROCUREMENT IN HIGHER EDUCATION INSTITUTION CASE STUDY: KOLEJ 9 AND 10, UNIVERSITI TEKNOLOGI MALAYSIA

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ABSTRACT

Furniture is one of the basic amenities provided by Higher Education Institutions (HEIs) in Malaysia to support and ease the activities done by their students, lecturers and staffs either to facilitate the teaching and learning process or to assist in the business's objectives. Despite its significance, limited scientific and economic research has been undertaken to examine the best method in procuring the furniture which resulted in significant increase in the university's operating costs. Therefore, this study aims to conduct content analysis and analyse previous literatures to identify the costs elements in the management of furniture in UTM's hostel. Through the data gathered, LCCA are carried out to identify the whole life cycle costs for the furniture in UTM's hostels to answer the second objectives in this study. Subsequent to that, sensitivity analysis are carried out in an effort to identify the most beneficial procurement method which is either buy-in or leasing option that is suitable for furniture procurement. Through the analysis, it is discovered that in parallel to the previous literatures, the whole life cycle costs for buy-in furniture are more economical than leasing. Although the initial costs for buy-in furniture are higher which contributes up to 97% of its total life cycle costing however the other costs through its life span is much more lower than furniture that is procure through leasing. Hence, this study concludes that the most beneficial option for furniture procurement is buy-in option.

Keywords: *Furniture, Procurement, Life Cycle Costing Analysis (LCCA), Sensitivity Analysis*

IMPROVING CO-LEARNER INTERACTIONS THROUGH WEB-BASED ONLINE ASSESSMENTS WITHIN DISTANCE LEARNING SETTINGS: CASE STUDIES FINDINGS FROM THE BUILT ENVIRONMENT

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Abstract

Distance Learning (DL) is an educational model in which the student and instructor are separated by time and space is currently the fastest growing model of domestic and international education which has come into prominence during the last two decades of the 20th century. One of the major influencing factors for achieving intended learning outcomes in a programme is the assessment strategy adopted. Tutors in DL programmes have adopted various methods of assessments that could broadly be described as formative and summative assessments. A well documented formative and summative feedback for learners, especially early on in a course, will facilitate in their learning and provides opportunities for students to gain insight into their understanding of the course content. However, learners often express their need for a more empowerment within their modules to enhance their active involvement and interactions within the programmes. Thus, this is the main focus of this research which was funded under the Teaching Learning Quality Improvement Scheme (TLQIS) of the University of Salford.

This paper firstly looks into the literature; with respect to assessments within DL settings and set out the overall methodology of the paper. Then, through a survey of eight construction courses offering DL within five identified universities in the UK, the currently used web-based online assessment tools within the DL settings were identified. This paper also includes other issues within the area in improving the co-learner interactions within the DL, i.e. factors and barriers in improving co-learner interactions, gaps and flaws within the available tools, etc. The result and conclusion derived from this paper will recommend guidelines in improving co-learner interactions within DL settings through ‘effective’ use of web-based online assessment tools.

Keywords: Distance Learning (DL), co-learner interactions, web-based online assessments

CONTRACTORS' STRATEGIES IN JOINT VENTURE FOR CONSTRUCTION WORKS IN MALAYSIA

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Abstract

The Malaysian economy nowadays registers positive growth after it recovers from the global recession occurred in 2008-2009. Since then, more construction projects were proposed by the government in order to facilitate the needs of the nation. Along with the rapid growth in construction technology, joint venture can be seen as an option for contractors to share their resources and risks with other contractors. This paper aims to report on a study on the contractors' strategies in joint venture for construction works during economic growth. Through desk study, it was found that the strategies include cost control, partner selection, marketing, etc. Consequently, questionnaire survey was conducted to validate the initial findings. The paper concludes that not all of the strategies highlighted in literatures are significant to be considered during the time when the economy is registering positive economic growth.

Keywords: joint venture, contractors' strategies, economic growth

DEVELOPMENT OF COST MODELLING PREDICTION TOOL FOR GREEN HOME: A REVIEW

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Abstract

The awareness on sustainable development has increased in Malaysia, leading to the implementation of an energy rating guideline; which serves to assess environmental and energy performance of buildings. Nonetheless, the movement towards sustainability has become insufficient as the economic factor does not devote the housing development during constructing, operating, and equipping the built environment due to the absence of a cost model and standard method of measurement for green home design; hence, causing additional cost towards the construction of green homes as compared to the traditional housing development. Therefore, it causes difficulties for designers in optimising their green design, as well as to prepare cost planning and cost control for green homes. This paper introduces the concepts and issues surrounding the development of a cost model to be used as a predictor tool for designers in order to estimate building cost for their green home design. This prediction tool is also to relieve the burden of “re-designing” the works of the designers as they would be able to keep their green home design within the budget agreed through the cost model. The findings from this paper, leading to determine the gap in developing cost modelling prediction tool for green homes.

Keywords: Cost Modelling, Cost Prediction Tool, Green Homes

LIFE CYCLE COST AND PERFORMANCE EVALUATION BETWEEN CIPR AND RECONSTRUCTION METHOD

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Abstract

Many commentators pointed out that large amount of money had been spent in maintaining and sustaining the road pavement every year in Malaysia. The rapid road deterioration and eventual failure from both climatic and vehicle loads impacts have significantly incurred the total cost of road maintenance works. Functional and structural failures of the pavement need to be rehabilitated. Reconstruction work is the conventional method usually used to rehabilitate the structural failures of flexible pavement; meanwhile cold-in place recycling (CIPR) is an alternative method that has been employed in many countries worldwide, including Malaysia. This paper reports part of a two-year programme of research to determine the most-cost effectiveness and best performance of road rehabilitation method in Malaysia. The aim of this paper is to present the outcomes of life cycle cost and performance analysis of mutually exclusive pavement rehabilitation method, i.e. cold-in place recycling (CIPR) and reconstruction method. The life cycle cost and performance of these two pavement rehabilitation methods were evaluated to identify the correlation between the costs incurred against the performance gained. Theoretically a high strength pavement should be able to sustain longer life. From the findings, the CIPR is found to be more cost-effective with superior performance comparing to the reconstruction method. The results also have established that the initial and overall capital cost of reconstruction method is cheaper; however, CIPR is more cost-effective and better performance over two designed life spans, i.e. 5 years and 10 years.

Keywords: LCC, structural performance, CIPR, reconstruction, road rehabilitation

MIXED RESEARCH TOOLS FOR THERMAL COMFORT STUDIES OF MEDIUM DENSITY MASS HOUSING

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Abstract

This paper describes the methodology used in the investigation of thermal comfort studies with the notion that energy efficient design adapted to double-storey terraced houses in Malaysia can increase thermal comfort and decrease energy consumption. The study requires a method of exploring the thermal performance of existing and hypothetical dwellings. Hence, the paper aims to determine that, if from the outset, houses are designed by taking into consideration energy efficient design strategies; in this case, orientation studies and the utilisation of passive design features, the result will be dwellings with lower internal temperatures and thus, lower energy consumption. Utilising three different methods of investigations: the questionnaire survey, temperature survey and computer simulation to corroborate findings from each, this paper describes the process undertaken. The triangulation of the mixed methods validated the findings to the problems identified in this study indicating increment of thermal comfort and reduction of energy consumption.

Keywords: thermal comfort, terraced-houses, questionnaire survey, data monitoring, computer simulation.

HERITAGE CRITERIA AND ASSESSMENT METHOD IN RELATION TO ART AND CULTURE FOR A DISTRICT OF KUALA KANGSAR, PERAK

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Sulaiman**

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Abstract

The importance of cultural heritage and its sustainability were the major focus on the different types of studies on heritage conservation and preservation. Most of the studies are exploratory in nature which requires appropriate research techniques involving qualitative and quantitative methods. A combination of these methods has been used for many researches on this area especially with respect to investigation on tangible and intangible cultural heritage, for example, assessment of heritage buildings and sites and historical artifacts. This paper discusses the assessment methods employed to collect data and examine the level of heritage significance for a district of Kuala Kangsar, Perak in relation to art and cultural context. For this reason and satisfactory qualitative measure, series of investigations were developed in different phases: (i) background research and formulation a set of heritage components and criteria based on local and international standards, (ii) site survey and observation, photographic documentation and interview, and (iii) analysis of textual and pictorial data. The content analysis which is complemented with GIS analysis process was designed to assess the full range of the heritage components and criteria of traditional art and culture of Kuala Kangsar, Perak. This also facilitates the scoring output of the heritage district components that determine the level of heritage significance for the district. The assessment methods used in this research are significant in the development of an appropriate framework to evaluate heritage district in Malaysia.

Keywords: Heritage criteria, assessment method, district, Kuala Kangsar

PROJECT LEADERSHIP FROM AN ISLAMIC PERSPECTIVE - A MODEL

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Abstract

The interest in leadership research has been increasing in construction and project management literature recently as the importance of the people side of project management is now recognised other than the technical skills. Researchers call for more project leadership research, as managing project are becoming more challenging and complex, resulting in increasing pressure and challenges faced by project leaders and project managers nowadays. In addition, researchers argue that projects continuously fail despite advances in project management tools and techniques and ethical issues also continue to tarnish the industry. This phenomena demands for much higher and robust leadership skills from construction professionals particularly the project manager as the key person in any construction projects. Recent project management literature suggests that a project manager in today's project environment must not only be technically sound and competent, but possess positive and authentic leadership that is a resilient, moral and ethical form of leadership. However, modern leadership theories and approaches reveals the shortcomings and inadequacies of the religious, spiritual, moral and ethical dimensions as most leadership theories did not address the role of religion or spirituality because the western views religion a personal or private matter. Islam provides the most comprehensive leadership through its highly developed and modern ethical system that seeks guidelines from the Qur'an and Sunnah of the Prophet S.A.W. The uniqueness of Islam is that it does not separate religion and other aspects of human life activities. Construction and project activities are part of the whole economic and social transactions of a nation and thus it is part of Islam. Project management in particular leadership awaits divine intervention that is tied to God consciousness and accords with values and principles prescribed in the Qur'an and Sunnah. This paper seeks to highlight and discuss the spiritual and religious shortcomings of the present leadership models by proposing an Islamic perspective model of leadership for project manager. It is suggested that project performance can be enhanced by imbuing Islamic perspective of leadership.

Keywords: *Project Management, Project Manager, Leadership, Islamic Perspective.*

FUNCTION OF *SHARĪ'AH* IN MITIGATING DISPUTES IN THE CONSTRUCTION INDUSTRY THROUGH *MUHTASIB*

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Abstract

Sharī'ah is a word that has always been related to Islam. Some have largely interpret it as the law of Islam, while others have a deeper perspective that it is not just a law but also a moral code. And in mitigating disputes, *Sharī'ah* has embodied this method in the role of *hisbah* and *muhtasīb*. The function of *muhtasib* in the past is as the superintendent to record and take the responsibility of direct weight checking as well as measurement, the qualities of the items, as well as of the assessment on the honesty of the dealing, its modesty and the general behaviour of people.

Therefore, this paper intends to discover the application of *muhtasib* in the construction industry as instantaneous dispute resolver, and at another juncture, to mitigate the risk of dispute from happening on-site, hence to offer a better mechanism of ADR in the construction industry.

Keywords: *Sharī'ah*, ADR, *Hisbah*, *Muhtasib*, Dispute

FACTORS AFFECTING THE PERFORMANCE OF BUILDING MAINTENANCE CONTRACTORS: A CASE STUDY OF PERKESO BUILDING IN KLANG VALLEY

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Abstract

The aim of the research is to identify and rank the measurement criteria affecting the performance of building maintenance contractors at PERKESO buildings. The performance of building maintenance contractors will be measured through these criteria. Three high-rise PERKESO office buildings in Klang Valley are selected, whereby the PERKESO technical teams involve in managing the buildings are participated as the focus groups in the study. The effectiveness, efficiency, quality, timeliness, productivity and safety are generally identified as the criteria or characteristics for the evaluation of building maintenance contractor. These criteria are used as the key measurements tool to indicate the factors affecting the performance of building maintenance contractor in the study. Qualitative and quantitative methods are employed in gathering and analysing the data. This include review field document such as contract agreements, monthly reports and structured interviews. Interviews were conducted specifically to PERKESO property managers, engineers and technical assistants who involve in the supervision of building maintenance contractors. Face-to-face interview technique was carried out by the researcher to the selected respondents. Sets of questionnaires with structured questions were presented to the respective personal and answered to the same set of questions. Results of the interviews were then analysed quantitatively. The findings of the study are derived from the analysis of the responses based on the semi-structured questionnaires survey and interview and presented in the form of tables and graphs.

Keywords: Building Maintenance, Performance, Office Buildings, Contractors, Malaysia

A STUDY OF PASSIVE (NATURAL) SMOKE VENTILATION SYSTEM FOR LIFE SAFETY IN PUBLIC HOSPITAL BUILDINGS IN MALAYSIA.

Mohd Zaid Bin Ab Ghani and Srazali Aripin

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ABSTRACT

Most of the smoke ventilation systems in buildings are largely rely on the existence of natural means of ventilation such as windows, doors, opening on the floors and roofs and others. For hospital buildings in Malaysia, providing these venting facilities will prevent accumulation of noxious smokes in indoor spaces and ensure the end-users (in-patients, doctors and nurses) are given an adequate Available Safe Egress Time (ASET) to be evacuated to the place of safety. Malaysian Building Codes and Regulations allow designers and engineers not from using mechanical means of ventilation system for windows served as ventilators in the event of fire. It is believed that, in fire emergency the windows can be opened by occupants to let smokes ventilated out of the building, broken by fire itself or by fire fighters. However, its efficiency is in question. Literature reviews show that fatalities in building fire (in sleepy risk building) are due to asphyxia or inhalation of toxic gases produced by smoke. The victims were trapped in smoky enclosures and did not manage to escape themselves before the spaces became untenable. This paper aims to highlight the background study of natural smoke ventilation effects in building taking hospital as the basis for discussion with the proposed research methodology to adopt qualitative and quantitative approaches. The Computational Fluid Dynamics (CFD) is applied to study smoke filling and exhaust in hazard assessment and the software Fire Dynamics Simulator (FDS) is used to study the natural smoke venting system.

Keywords: Smoke Ventilation, Fire Fighting System, Windows Design, Hospital Building

IDENTIFYING THE PRESENCE OF INCOMPLETE CONTRACT IN PFI CONTRACTS

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Abstract

The subject of incomplete contract has been discussed for quite some time. Contract can be incomplete due to long duration of contract, high risk and uncertainty, high transaction cost, bounded rationality, asymmetric information and others. In theory, complete contracts cannot be achieved and many contracts remain inefficiently incomplete. Private Finance Initiative (PFI) contract also cannot avoid being incomplete. PFI is the most common procurement use among Public-Private Partnership (PPP) procurement. Most PFI projects are complex and mega scale project. Thus, contract design is inevitable complicated. Contract design plays a crucial role for a successful implementation of PFI project. However, it is almost impossible for the parties to specify all potential contingencies that might occur throughout the 20-30 years duration of the contract. Therefore, most contracts are incomplete to some degree. Most literatures identify incompleteness of contract as in general and did not specify on which areas in the contract that is deem incomplete. This paper attempts to identify the presence of incomplete contract in PFI contract through content analysis from various literatures. The current study is limited to analysis of what had been said about incomplete contract in PFI based on work done by other researchers and does not however include analyzing standard form of contract. From the findings, seven key areas have been identified as incomplete and they match with one or more characteristics of incomplete contract.

Keywords: contract, standard contract, incomplete contract, Public-Private Partnership (PPP), Private Finance Initiative (PFI)

Sharī‘ah-Compliant Home Financing in Malaysia: A Case Study of Legal Issues in *Bai Bithaman Ājil* Contract

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Abstract

Purpose – This paper provides a case study on a Sharī‘ah-compliant house loan contract based on the *Bai Bitham Ajil* (BBA) contract generally used by Islamic banks in Malaysia. The study emphasises the need to comply with the existing legal framework and execute relevant contracts in line with the Sharī‘ah resolutions of the Sharī‘ah Advisory Council of Bank Negara Malaysia without causing harm (*darar*) to the customers or introducing uncertain elements or procedures (*gharar*) in the execution of the agreements.

Design/methodology/approach – This paper is based on doctrinal analysis of the relevant issues as well as a qualitative legal research through content analysis of relevant BBA agreements, case law, as well as statutory provisions. The case study used in this paper is completely anonymised.

Findings – The study finds that the execution of BBA agreements in Malaysia leaves much to be desired. Even though the regulatory framework for Sharī‘ah-compliant housing loans in Malaysia is robust, there are some legal and Sharī‘ah considerations which the stakeholders need to look into in order to project Malaysia as the main global hub of Islamic finance.

Research limitations/implications – The study focuses only on Sharī‘ah and legal issues and does not touch on economic, financial or accounting aspects of the BBA housing loan contract.

Practical implications – This study demonstrates the need for proper Sharī‘ah auditing of the practical execution of BBA agreements to avoid an incorporated element of *gharar* at the time of execution of the agreements which might ultimately lead to unforeseen reputation risks for the bank.

Originality/value – Though there are several studies on the Sharī‘ah, financing, and accounting aspects of the BBA housing loan agreement, this study focuses on both Sharī‘ah and legal issues using the case study approach. The recommendations are expected to provide a good policy framework for the stakeholders in the Islamic banking industry in Malaysia.

Keywords – Islamic banking, house loans, *Bai Bitham Ajil*, Islamic law, Malaysia

ESTIMATING REMITTANCES FROM FOREIGN WORKERS IN THE MALAYSIAN CONSTRUCTION INDUSTRY – PROPOSED METHODS

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Abstract

The Malaysian construction industry today is much acquainted with the employment of foreign workers in construction sites. Thus, it is directly correlated with the series of remittance transfers since remittances have become a prominent source of income to many labour exporting countries. Remittance has been discussed by many and various studies have been done in regards to the issue. However, the study on sectoral contribution of remittance in particularly to the construction sector is still lacking. This paper reported on a study focusing on the issue of remittance outflow by the foreign workers employed in the Malaysian construction industry. The objective is (i) to understand the issue of remittance, (ii) to propose methods to estimate the amount of remittance from foreign workers in the construction industry in Malaysia, and (iii) to estimate the amount of remittance based on proposed methods. Through published data, particularly the daily wages and number of foreign workers in general and in the construction sector, the sectoral distribution of remittance outflow focusing on the Malaysian construction industry is estimated. Data was collected through desk research and published data was gathered and analysed. The paper concluded with the comparison between proposed methods and its results, and suggestion for other methods such as Computable General Equilibrium (CGE) Modeling.

Keywords: Construction, foreign workers, remittance, balance of payment, CGE, Malaysia

DOMINANT PROCUREMENT SYSTEMS IN USE IN MALAYSIA

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ABSTRACT

This paper reports on a study on the dominant systems of construction procurement in use in Malaysia. Data for the study was obtained from records and interviews with project team members from twenty on-going and completed construction projects and analyzed using descriptive statistics. Findings from the study suggest that: the traditional design-bid-build (DBB) system of procurement remained Malaysia's most dominant system of procurement, the system used appears to match the system as proposed by the theory on procurement system, Clients top priority in procurement is time or speed of completion; and in terms of meeting the Clients' overall objectives on time, cost and quality, these objectives, combined together and in most projects they were not met. In addition, problems that caused delays and constraining the processes of procurement were identified i.e. problems arising from and/or related to the Clients, Contractors, and Consultants and constraints in the availability and timely supply of materials and in obtaining statutory approvals. The paper concludes with ideas as way forward in effort to increase the chances of Clients achieving their objectives when they procure construction projects.

Keywords: Building, client, contractor, consultant, construction, project, procurement, statutory approvals

COMPETENCIES IN THE PROVISION OF PFI SERVICES: A PROFESSION'S DILEMMA

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Abstract

Malaysia began adopting the Public Private Partnership (PPP) approach, as a compliment to the conventional procurement approach, in the provision of public infrastructure and services initially in 1983 via Privatization, and subsequently in 2006 via the Private Finance Initiative or PFI. Among the key reasons why the government adopted the PPP approach include constraints in the public purse and to meet the demand for higher level quality in public infrastructure and services. Generally, Quantity Surveyors (QS) are engaged to provide key professional services including procurement, costing and contractual advisory services. However, past studies suggested that key Malaysian professionals including QSs do not adequately possess the appropriate skills and expertise to provide PFI services. In an attempt to better understand the competency level of QSs in relation to PFI services a content analysis of two past studies was conducted. A total of seven (7) core competencies and their respective forty six (46) sub competencies were listed and crucially a 'competency gap' was identified. A review of literature discovered the similarities of QSs professional services and PFI services. Thus, in furthering the discussion a new perspective is presented herein whereby the profession in actuality suffers a 'multi-dimension deficiency' with the majority of core competencies recording a 'poor' deficiency i.e. five competencies. Interestingly, no core competencies had a 'minor' deficiency.

Keywords: Construction, Competency, Infrastructure, PPP, PFI, Quantity Surveyors,

A PROBABILISTIC REPRODUCTION FOR MULTI-DIMENSIONAL ASSESSMENT OF STRUCTURAL BEHAVIOR AND UNDERSTANDING PROFESSIONAL ETHICS: A SUSTAINABLE APPROACH.

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Abstract

It is desirable to verify the structural performance (SP) based on a multi-dimensional approach, considering the significant actions the structure in issue could be subjected to during its lifecycle assessment. The whole lifetime principle has been familiarized keen to analysis, design and management of structures. The professional have to regenerate and study novel skills in order to achieve a capability for life sequence on design and predictive or service life management of any type of structure from low rise to high rise and short span to long span. The novel skills include new approach for analysis, design and management process, durability, performance, service life of materials and structures, reliable methods of computation for control the safety over the service life of structures. Although this reliable method is time dependent and treated as time dependent parameters. For this reason safety margin should maintain effectiveness for total life cycle in order to depend the cost of maintenance works and capitalize the performance and serviceability of the structures.

Structural failures occur on the basis of time, professionals are not made any aware of this failure in their analysis, design and management process. The authors are approaching to include all provisions include reporting system of failures, causes of failures, detailing of failures- illustrated with free body diagrams, detailing through analytical advancement in their new reliable methods. Our hypothesis is that studying specific structural failures has a positive impact on professional's wisdom and experiences. Which is, in turn shows the ethical endorsement of professionalism.

This study has reproduced a proposal for the assessment of structural behavior in multi-dimensional approach with emerge professional ethics leading to the sustainable approach in application and implantation area.

Keywords: Multi-dimensional approach, life cycle design and management, maintenance performance, limit state design, reliable method, safety margin, variability of structural concept.