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ACULTY OF ARCHITECTURE, PLANNING & SURVEYING UNIVERSITI TEKNOLOGI MARA PERAK BRANCH SERI ISKANDAR CAMPUS

organised by

CONTRIBUTION RISK TOWARDS HISTORICAL CONSERVATION PROJECT

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Abstract

Heritage building contribute in our economic through the tourism industry and it is challenging to preserve and converse our cultural heritage that have high significance value that reflect our nation. The purpose of this paper is to identify the challenges and risk could happen in building conservation that would affect the successfulness of the project and recommend the best risk management approach can be implemented in heritage building conservation. Risk management in conservation projects had been poorly implemented and practiced in our industry. Conservation projects involve complex process and method where it cannot accurately determine the risk and uncertainty could happen without any experience or knowledge within this field. The methodology applied in this paper by refer the secondary data from articles, journal, and book. Based on the secondary data is to identified contribution factors in building conservation practitioners to implement the risk management approach to manage the risk occur during conservation projects.

Keywords:

Building conservation; heritage building; risk management

1.0 INTRODUCTION

Based on Eleventh Malaysia Plan 2016-2020 in chapter 10 highlighted about artistic innovation and preservation. Malaysian create, appreciate and promote artistic vibrancy and celebrate their diverse heritage. The heritage sites and local arts and culture are well preserved, highly valued and renowned globally. To align with Malaysia Plan, government has done various initiative to educate and give awareness to public about the heritage and there are numerous non-government organization has been formed to support the initiative taken by the government. Inscription received by our country from UNESCO for Georgetown and Malacca as World Heritage Cities has influence the growth conservation of heritage building and it became a phenomenon to the industry.

Conservation is a process to understand, protect and as essential to maintain, repair, restore and adapting the historic property to preserve its cultural significance. The value in cultural generally related with historic, architectural, aesthetic, rarity or archaeological values (Orbasli, 2008). The building that have its significance in conservation underlies based on the architectural and cultural values. The architectural value contributed from the design that shows from the period of architectural style influenced and method or techniques used in construction. The culture value based on the environment where the building located because it will reflect and influence on certain part of the architecture styles.

Based on Harun (2011) stated that conservation is a technical action taken to historical building for the main purpose to prevent decay and prolong the building lifespan. In addition, historical building conservation is an approach to preserve the structures and fabrics to the original known state includes the maintenance process (R. Abdul-Rashid & Ahmad, 2011). In Article 1, Clause 1.4 outline about the conservation means all the processes of looking after a place so as to retain its cultural significance ("The Burra Charter: The Australia ICOMOS Charter for Places of Cultural Significance ", 2013).

2.0 LITERATURE REVIEW

In conservation projects, the contingency provision need be allocate approximately 60-70 percent higher compare the new build projects (Reyers John & John, 2001). It is due to the complexity of the

conservation that required a proper plan and depth knowledges that comprises multidiscipline practitioners.

Based on Reyers (2003) stated that conservation consultant expose to risk in conservation project which most of the risk are usually occurred in conservation such as variable quality of materials, technology may be geographically specific, historic technology, difficulty in assessing nature and extent of work, reliance on skill, craft and experience.

	Preliminary Survey						Dilapidation Survey					Tender and Contract					Conservation Work					Heritage Management			
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Table 1: Summary contribution factors risk toward heritage conservation projects

3.0 METHODOLOGY

Based on secondary data, all related and relevant issues within the scope of the studies will be identified to develop the literature mapping which can assist to highlight the most significance factors contribute in risk for conservation projects. Then, a semi-structured interview conducted based on the earlier research on the literature review to the selected expert in conservation field. The main purpose to conduct semi-structured interviews is to test the suitability and improve the questionnaire before the commencement of survey through pilot study. A total number of 30 questionnaires were distributed to all target population consist of registered conservator, registered contractor, building surveyor, quantity surveyor, local authorities and academician.

4.0 ANALYSIS AND FINDINGS

Based on the semi-structured interview, there are four main factors identified which the shows the highest pattern of repeating that has been recognized in literature reviews. The result of semi-structured on the risk contribution in heritage conservation project by R1, R2 and R3 were demonstrates in Table 4.1.The main factors were developed to sub-factor to expand the issues within the studies and the factors as stated:

Factor 1: Lack and missing documents Factor 2: No testing and laboratory

Factor 3: Incomplete drawing and specification Factor 4: lack of knowledge among practitioners

R		Factor 1			Factor 2			Factor 3		Factor 4			
	F1(a)	F1(b)	F1(c)	F2(a)	F2(b)	F2(c)	F3(a)	F3(b)	F3(c)	F4(a)	F4(b)	F4(c)	
R1	\checkmark	×	V		×	\checkmark	\checkmark	V	×	×		×	
R2	\checkmark	\checkmark	×	×		\checkmark	\checkmark	×	×	\checkmark	\checkmark	×	
R3		×		×						×			

Table 2: Semi-structured findings

Respondent 1 : Associate. Prof. Dr. Siti Norlizaiha Harun

Respondent 2 : Dr. Gwynn Jenkins

Respondent 3 : Shaari Bin Mat Saod

Result from the interview conducted, there are four main factors that concern by the expert in heritage conservation which all those identified factors give such a significance risk in conservation projects. The questionnaires design based on the significance factors that identified and were distributed among the heritage conservation practitioners.

5.0 CONCLUSION

In short, heritage conservation started to expand in our industry and increase in demand to conserve our built heritage. Conservation works required in-depth knowledge, skill and passion to ensure the building well preserved and conserved. The contribution factors that lead to risk and uncertainty need to be reduce by implement the appropriate approach. The risk must be addressed as early at preliminary stage either to reduce or control because it may affect the project cost and time even the quality of the conservation works. As a recommendation, a proper guideline need to prepared by the responsible agency to manage the risk and uncertainty occurred in conservation works.

REFERENCES

- The Burra Charter: The Australia ICOMOS Charter for Places of Cultural Significance (2013). Deakin University, Australia: Australia ICOMOS Incorporated.
- Harun, S. N. (2011). *Heritage Building Conservation in Malaysia: Experience and Challenges*. Paper presented at the The 2nd International Building Control Conference 2011.
- Orbasli, A. (2008). Architectural Conservation: Blackwell Publishing.
- R. Abdul-Rashid, & Ahmad, A. G. (2011). *The Implementation of Maintenance Works for Historical Buildings A Review on the Current Scenario*. Paper presented at the The 2nd International Building Control Conference 2011.
- Reyers, J. (2003). Risk and liability for consultants advising on the built heritage. *Structural Survey*, 21(1), 8-15.
- Reyers John, & John, M. (2001). The assessment of risk in conservation refurbishment projects. *Structural Survey*, 19(Number 5), 238-244.