DEPARTMENT OF QUANTITY SURVEYING
FACULTY ARCHITECTURE PLANNING AND SURVEYING
UNIVERSITI TEKNOLOGI MARA
SARAWAK

CONSTRUCTION PROJECT COST ESTIMATION

SOFTWARE UTILIZATION IN CONSTRUCTION

INDUSTRY

Final Project submitted in partial fulfillment

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DECLARATION

"I declare that this Final Project is the result of my own research and that all sources are acknowledged in the references"

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Date : 15 September 2020

ABSTRACT

Software is widely used in all industries all over the world and it made the job easier. It also helps to increase the output of work and significantly boost the productivity of the industry. In the modern days, most of the companies in construction industry apply the usage of software for cost estimating, measurement and other related works. There are three problems have been identified as the problem statement for this research which is training and learning many procedure, the cost of software installation and the cost of hardware installation. The aim of this research is to identify the barrier in the application of cost estimation software for QS firm.

Three objectives have been identified for the research which is to determine the level of usage of cost estimation software in QS firm, to identify the barrier in the application of cost estimation software in QS firm and to recommend the strategies in promoting application of cost estimation software. The methodology adopted for this research was quantitative method which is questionnaire survey and the data was analysed by using SPSS software. The findings are a percentage of 34.7% of Malaysia construction organization implement usage of software while 65.3% does not implement usage of software. For the barriers in software implementation, high software installation, high hardware installation cost and learning and remembering many procedures are one of the barriers in the software implementation. As for the strategies, government plays an important role by giving incentive and subsidizing the cost estimating software.

The selected respondent for this research are QS firm in Sarawak and the data will be gathered and collected through a questionnaire survey which will be handed out to 29 selected QS firm. The aim and objectives of this research have been achieved through data analysis and literature review.

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1.0 BACKGROUND OF STUDY

The term software is used to describe software used by end users that is real people such as email applications, word processing, or spreadsheet applications. The advantages of using any of these types of applications are that they aim to improve the life of the end user. Email enables us to send messages over long distances almost immediately, word processors enable us to write good looking documents much faster and easier than we could with a typewriter or by hand, and spreadsheets allow us to build spreadsheets that recalculate themselves easily and automatically. Used in this way, software makes available to the end user the power of the computer to accomplish his or her task by saving time, money and effort for the user.

Building cost estimating software is computer software designed for contractors to estimate the cost of construction for a particular project. Typically, a cost estimator will use estimating software to estimate their bid price for a project, which ultimately becomes part of a resulting contract. Any architects, engineers, building managers and others can also use cost estimation tools to produce cost estimates for other than bidding purposes.

Malaysia introduced the Fourth Industrial Revolution in 2018 and since its introduction, many industry and economic sectors in Malaysia started to implement IT and automation in their industry. Construction industry also plays a role in this revolution by utilising the cost estimating software which has low rate of implementation in the industry. In Sarawak construction industry, there rate of the implementation of cost estimating software is still low. Thus, the purpose of this research is to study the utilization of cost estimating software in Sarawak after the introduction of Fourth Industrial Revolution in 2018.