

THE APPLICATION OF SOFTWARES IN COST ESTIMATION FOR QUANTITY SURVEYOR

Ting How Ann¹, Nurulhuda Ahamad²

¹⁻²INTI International University

¹tinghowann.klt@gmail.com

²nurulhuda.ahamad@newinti.edu.my

ABSTRACT The construction industry in Malaysia has been seen as the most problematic industry such as over budget, delay, the production of low quality product, intensive labour as well as still using yesteryears technology. The aim of this research was to investigate the utilization or application of softwares in cost estimation for quantity surveyor. The study shows that method of estimation process and experience of quantity surveyor help to obtain accurate results. In conclusion, the used of software helps to solve most of the problem occur in construction industry.

Keywords: Cost estimation, Softwares, Technology, Quantity Surveyor.

1. INTRODUCTION

Cost estimation is an estimate or prediction process to arrive at an approximate cost for the project. It considers the cost, experiences, time constraints, risks, schedules, resources and other elements which are related to the cost estimation[1] . By using software, it is advantageous for quantity surveyor to be more efficient in cost estimation from estimating. Software helps quantity surveyor to speed up the estimating work. Hence, this research will approached technology into the cost estimation software utilization among Malaysian quantity surveying firms. A total of 130 quantity surveying firms were targeted as the respondents, which is equivalent to 41.01% of the total 317 quantity surveying firms in Malaysia. The reasons for the lack of use of software are that the installation cost is high and it requires learning and remembering many steps in order to use the software [2]. In the industry, there are various types of software, such as CostX, Binalink, Buildsoft and Glodon used to carry out cost estimation. This research will determine and investigate the utilization of these softwares.

2. RESEARCH METHODOLOGY

A random survey was conducted in order to get an overview of current practice in cost estimation process among quantity surveyors. A set of questionnaire has been developed and distributed to 130 companies in Klang Valley to get responses.

3. FINDINGS AND DISCUSSION

As shown in Figure 1, the most common used software for cost estimation is Glodon at 49%. The second highest is 46%, which is referred to CostX. CAD measure ranks the third at 34%. Atlespro, standing at the forth consist of 14%. Then followed by Buildsoft, 11%; Binalink, 9%; Vico, 6% for cost estimation. CostX and Glodon are the most common used softwares in Malaysia, because they are user friendly and easy to carry out the cost estimation.

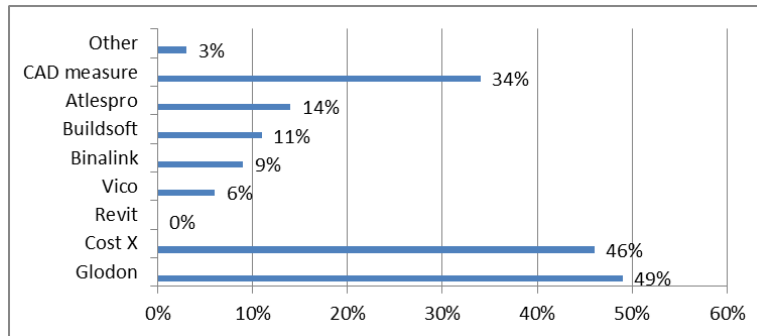


Figure 1.Type of softwares using currently for cost estimation

Figure 2 shows the benefits of using software in cost estimation. The main reason software is used is because of the speed, 80% of respondents agreed with it. Second highest is accuracy consist of 77% of respondents. Then consistency consist of 46% of respondents. Follow by project management 23% of respondents. Lastly, 14% of respondents is agreed with procurement.

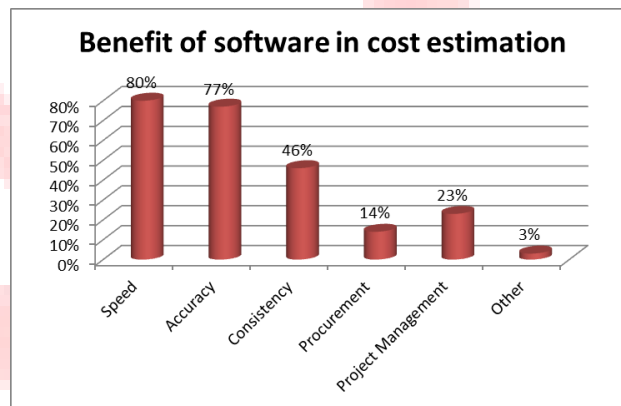


Figure 2. Benefit of software in cost estimation

4. CONCLUSION

From the collected data, 54% of respondents used softwares for cost estimation in company at 81%-100%. With this result, it shows that the software application in Malaysia's construction industry is common and they apply it well in their works. From the analysis, the foremost benefit of using software for cost estimation is speed. Besides that, most of the consultant firms agreed software is easy in term of user friendly and accurate for cost estimation. By having this knowledge and applying it may enable them to connect with the latest information in faster way, thus enhancing their quality of works.

REFERENCES

1. C. Paul, "IT Project Estimation: A Practical Guide to the Costing Software," 2003.
2. Y. K. C. Tan Chin Keng, "A study on the use of measurement software in the preparation of bills of quantities among Malaysian quantity surveying firms.," 2011 Ninth International Conference on ICT and Knowledge Engineering, 2012.
3. Hergunsel, M. "Benefit of Building Information Modeling For Construction Managers and BIM Based Scheduling", 2011.
4. Kaner, I., Sacks, R., Kassian, W. and Quitt, T. "Case studies of BIM adoption for precast concrete design By mid-sized structural engineering firms", ITCON, Vol. 13, pp.303-323, 2008.

5. Khanzode, A.; Fischer, Martin; and Reed, Dean, “Benefits and Lessons Learned of Implementing Building Virtual Design and Construction (VDC) Technologies for Coordination of Mechanical, Electrical, and Plumbing (MEP) Systems on a Large Healthcare Project”, ITCO, Vol. 13, Special Issue Case studies of BIM use , pg. 324-342, 2008.

