DEPARTMENT OF BUILT ENVIRONMENT STUDIES AND TECHNOLOGY
COLLEGE OF BUILT ENVIRONMENT STUDIES
UNIVERSITI TEKNOLOGI MARA
SERI ISKANDAR

EFFECTIVENESS OF SAFETY ELEMENTS IN BILL OF QUANTITIES FOR MALAYSIAN CONSTRUCTION PROJECTS

Dissertation submitted in partial fulfilment
of the requirement for the award of
Bachelor of Quantity Surveying (Honours)

PREPARED BY: MIZA ARYANIE BINTI MAZLAN (2022643078)

SEMESTER: MARCH 2024 - AUGUST 2024

DECLARATION

"I declare that this dissertation is the result of my own research and that all resources are acknowledged in the references"

Student's signature :…… ……

Student's name : Miza Aryanie binti Mazlan

Date : 24 June 2024

ABSTRACT

The construction industry in Malaysia has been known for its complex and risky environment, which requires the implementation of safety regulations. It is essential to incorporate safety elements in BQ, an important document that outlines the materials, plant equipment, and costs associated with a project. This is crucial for minimizing hazards and offering safety to workers. This study can resolve issues such as inadequate safety elements in BQ, insufficient information about safety requirements and responsibilities, and inadequate safety provisions. Hence, this research aimed to determine the contractor's perspective on the effectiveness of safety elements in the BQ for Malaysian construction projects. The objectives of this research study are to identify the safety elements in the BQ, review the effectiveness of safety elements in the BQ, and analyze the barriers to compliance with safety elements in the BQ for Malaysian construction projects. The research methodology for this study involves a quantitative method, the questionnaire form. The questionnaires were distributed online to 178 Grade 7 contractors in Timur Laut, Pulau Pinang. The raw data was analyzed using Statistical Package for Social Science (SPSS) Version 29 software and Microsoft Excel. The results obtained from the data analysis were stated by ranking, in which most respondents strongly agreed that traffic management is the most critical part of safety elements in BQ and reducing accidents and injuries is the most contributing factor for the effectiveness of safety elements in BQ. However, the respondents agreed upon a few barriers to compliance with safety elements in BQ, such as inadequate training on safety procedures, resource limitations, and lack of safety awareness. To sum up, future research is recommended to focus on various construction projects in Malaysia, evaluate the impact of safety features on the outcome, and develop a standardized framework for incorporating safety elements in the Bill of Quantities.

ACKNOWLEDGEMENT

In the name of Allah, the Most Gracious, the Most Merciful, Alhamdulillah. All praises be to Allah S.W.T. for granting me the mental and physical strength to complete this dissertation. I would like to convey my greatest thanks to all those who helped me throughout the preparation of this dissertation.

Firstly, I would like to express my gratitude to my supervisor, Sr Dr Syed Abdul Haris bin Syed Mustapa, for his exceptional guidance, invaluable advice, and continuous support from the beginning to the completion of this dissertation. His insightful supervision and encouragement have been a compass that guided me through the preparation of this dissertation.

I extend my deep appreciation to all respondents who participated in this research. Your contributions have been significant to the accomplishment of this research. This dissertation was only completed with your cooperation and support, for which I am truly grateful. I would also like to thank everyone who shared their knowledge and showed the greatest moral support along this journey.

Finally, a big thank you to my beloved family members and friends who always give encouragement and constant reassurance throughout the journey despite their busy schedules. Their endless moral support has been my pillar of strength, physically and mentally.

TABLE OF CONTENT