

The Current State of the Implementation of Mechanisation and Automation (M&A) in Industrialised Building System (IBS) in Construction Industry

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Abstract: Integrating Mechanisation and Automation (M&A) in the construction process is necessary to less dependency on labour, reduce production time and costs, improve working conditions, avoiding dangerous works, allow work to be performed where people cannot do, and eventually will increase performance, and product quality. This paper discusses the current state in the implementation of M&A in the Industrialised Building System (IBS) approach. Qualitative and quantitative research was conducted in this research. G7 at Klang Valley was been respondent in this research. A questionnaire (80 respondents) and a semi-structures interview (10 respondents) had participated in this research. Descriptive analysis (SPSS) and the thematic analysis using in this research to analysed data have been collected from questionnaire form and interview form. From the data analysis result, the reduction in depending on foreign labour are the most significant driving factors in the implementation of M&A. Furthermore, the high capital cost can be reduced after a long-term construction in the implementation of M&A. Also, the government support and promoting is important in term of fund and tax incentive in the IBS project among the G7 construction company in Klang Valley. This research can provide an insight into the implementation of M&A on the ways of looking forwards to industrialisation in order to create sustainability in IBS construction.

Keywords: Mechanisation and Automation (M&A), Industrialised Building System (IBS), Construction Industry

1. Introduction