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**LABOUR PRODUCTIVITY BASED ON  
CONSTRUCTION INDUSTRY PERFORMANCE:  
SECTORIAL ANALYSIS**

Dissertation submitted in partial fulfilment  
of the requirement for the award of  
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## **ABSTRACT**

The Malaysian construction industry is known to have lack of a productivity improvement over the years. Also, the industry suffers a lack of productivity level if compared to other industries. The lack of productivity can hinder the industry's sustainable growth, especially in terms of wage growth over the long term. However, there is an increase in the growth in the construction industry after 2010, which needs to be considered. Still, the changes in labour productivity and its level are yet to be identified in detail. In response, the aims to 1) identify the level of trend of labour productivity based on construction output data in Malaysia, 2) to determine factors affecting the labour productivity according to industry characteristics and sub sector, and 3) to determine industry characteristics and sub-sector that need to improve its labour productivity in the industry. The objective can be achieved by using data collected from the Department of Statistic's Malaysia Economic Census in 2010, 2012, 2013 and 2015 of the construction industry. The data are analysed by using the labour productivity formula and comparisons are made using the geometric mean, geometric standard deviation and graphical charts. The findings identify that labour productivity is improving; however, the trend level according to sub-industry and industry characteristics can be different. Also, the factors affecting the industry characteristic and sub-sector are determined where the results are discussed with the current literature review. In this case, there are industry characteristics and sub-sectors that suffer below-average performance in labour productivity. In the end, this study identified which sector and industry characteristics need to be improved. Therefore, the research result can be used to improve their labour productivity for policymakers and players in the industry.

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# **CHAPTER 1: INTRODUCTION**

## **1.1 INTRODUCTION**

Productivity is an important measure of industry performance. It can be defined in several different ways depending on the context. Productivity in construction has been widely defined as the sector's ability to generate output by utilizing inputs, men, materials, and machinery (Oyeranti, 2000; Durdyev, 2011) or a quantification of the ratio between outputs to inputs (Han et al., 2017). In other words, how effectively resources are utilized to achieve construction project objectives can be determined by measure of productivity (Ma et al., 2017; Durdyev et al., 2018). However, measure of productivity can be defined in several different ways depending on the context such total factor productivity and labour productivity. These measures of productivity benchmarking are deployed to measure the level of productivity of the construction industry (Presley and Meade, 2010).

The goal of every industrial sector in the nation including construction is to increase productivity (Aramveekul, 2002). Labour productivity or the output over number of labours is considered one of the measures of production efficiency. Labour productivity becomes one of the key factors to a successfully project implementation because high levels of labour productivity at construction companies makes them more competitive, enabling them to achieve defined objectives by meeting the stakeholders' valued propositions and more capable of maintaining the strategic and financial health of their business (Ghodduousi, 2014). Hence, productivity has been creating remarkable interest in both the construction industry and academia. However,