

THE EFFECT OF ECONOMIC SITUATION ON CONSTRUCTION
BUSINESS IN MALAYSIA

MOHD SHAMSURI SHAMSUDDIN

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Faculty of Engineering
University Teknologi Malaysia

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DEDICATION

I dedicate this thesis to my family especially to my mother and wife.
Thanks for your pray.

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Alhamdulillah, at the end of the tunnel I can see the light with the thousands of sign. The sign that I quiet certain is not a sign for me to stop the journey in searching the knowledge in my life. The knowledge that prepared by Allah to human in lighting up their life.

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ABSTRACT

Malaysian construction industry is one of the economic sector that contribute to Malaysian gross domestic product (GDP). Despite the contribution percentage of Malaysian construction industry to GDP averagely 3 to 5 percent of GDP, and the importance of construction industry is undeniable. In order to extend the knowledge of this economic sector, this research has been done in order to study the effect of economic situation on construction business in Malaysia. Selangor state was selected as a case study. This study used the construction value and changing behavior of construction participants that cause by challenges that exist in current economic situation as dependent variable. Multiple regression analysis has been used along with the Pearson correlation test in order to identify the correlation between variables gathered in this study. The overall result indicated that, the GDP per capita and domestic credit to private sector is significant in explaining Malaysian construction value with the correlation value at 0.828 and 0.006 accordingly. On the other hand, only material issue challenge is significant in explaining changing behavior of construction participants with correlation value is 0.441. Main contribution of this study is that in order to understand construction business, GDP per capita and domestic credit to private sector along material issue is the main factor that need to understand in order to integrate the knowledge of construction business with economic and construction participant's behavior.

ABSTRAK

Sektor pembinaan di Malaysia adalah salah satu sektor ekonomi yang menyumbang kepada pertumbuhan keluaran negara kasar. Walaupun sumbangan sektor ini kepada keluaran negara kasar secara purata adalah sekitar 3 hingga 5 peratus, namun kepentingan sektor ini kepada ekonomi Malaysia tidak boleh dipertikai. Bertujuan untuk mengembangkan lagi pengetahuan berkaitan sektor ini, kajian telah dijalankan bagi mengenalpasti kesan situasi ekonomi terhadap sektor pembinaan di Malaysia. Dalam hal ini negeri Selangor telah dipilih sebagai kajian kes. Kajian yang telah dijalankan ini telah menggunakan jumlah nilai tahunan sektor pembinaan di Malaysia dan perubahan sikap pekerja sektor pembinaan terhadap cabaran semasa sebagai pembolehubah bersandar. Regresi berganda dan korelasi Pearson telah digunakan bagi menentukan regresi dan korelasi antara pembolehubah-pembolehubah yang digunakan dalam kajian. Dapatan kajian telah menunjukkan bahawa keluaran negara kasar perkapita dan hutang domestik kepada sektor swasta adalah signifikan dalam menghuraikan jumlah nilai tahunan sektor pembinaan dan nilai korelasinya adalah 0.828 untuk keluaran negara kasar perkapita dan 0.006 untuk hutang domestik kepada sektor swasta. Selain itu, cabaran berkaitan bahan pembinaan adalah signifikan dalam menjelaskan cabaran dalam sektor pembinaan dengan nilai korelasinya adalah 0.441. Sumbangan utama kajian ini adalah, bagi tujuan untuk memahami sektor pembinaan, keluaran negara kasar perkapita dan hutang domestik kepada sektor swasta bersama juga isu bahan pembinaan adalah faktor utama bagi memahami sektor pembinaan ke arah mengintegrasikan pemahaman sektor pembinaan dalam perspektif ekonomi dan juga sikap pekerja dalam sektor ini.

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LIST OF ABBREVIATIONS

GDP	-	Gross Domestic Product
IR	-	Inflation Rate
UR	-	Unemployment Rate
ASEAN	-	Association of Southeast Asian Nations
CIDB	-	Construction Industry Development Board
CBM	-	Central Bank of Malaysia
DOSM	-	Department of Statistic Malaysia
NEP	-	New Economic Policy
NDP	-	National Development Policy
NVP	-	National Vision Policy
NEM	-	New Economic Model
AEC	-	Architecture Engineering and Construction
SPSS	-	Statistical Package for the Social Science
DV	-	Dependent Variable
IV	-	Independent Variable
CV	-	Construction Value
POP	-	Population
GDPP	-	Gross Domestic Product Per Capita
EC	-	Employment in Construction
DCPS	-	Domestic Credit to Private Sector
I	-	Inflation

LIST OF SYMBOLS

N	-	Population
S	-	Sample
f	-	Function

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CHAPTER 1

INTRODUCTION

1.1 Introduction

This chapter discussing background of the problem that lead to this study. In the section of background of the problem, discussing will be touch on soft discussion relating to Malaysian economic as well as the relationship of construction industry in Malaysia. Problem statement section discussing the main point that drive to this critical thinking of the study by highlighting the research gap. Discussion on this chapter will be continue on discussing regarding research question, research hypothesis, and objective of the study. Research question is one of the vital element in this research that drive to developing research hypothesis and research objective as well as for the purpose to providing direction of the study. Another element in this chapter is scope of study, significance of study and lastly is research methodology section. Scope of study section will be discussing area of the study in order to limit the study area. Significance of the study will be discussing regarding the importance of this study to stakeholders. Lastly, research methodology will be discussing in general the operationalization of the study.

1.2 Background of The Problem

Economic development is one of the key factors that determine the national status of any country in the world and the status of the country either a developing country or a developed country absolutely determined by their economic size. There are several approaches widely used by economists to determine the economic status of any country and its economic performance. In most of the case, gross domestic product (GDP), inflation rate (IR),

unemployment rate (UR) and other economic indicators have been using to measure the economic size and economic performance of any country. Economic data that are being collecting will be using as a measurement item to determine their economic status, as well as to be used as a factor in determining their country's direction through a plan that will eventually boost the economic position of their country by policy makers.

Any country with a positive economic growth will normally have a strong supply and demand in their micro-economy. The existence of demand in market will make it possible for the economic activity to produce goods or services to enter the market and influencing economic activity towards sustainability in economic development. Moreover, the market for any goods or services is not always at a peak in terms of their demand. There is does exist fluctuation in demand and this situation is a great concern to the economic health of the particular country. In this case, Malaysia is no exception to the usual pattern of the economic cycle. The fluctuations of supply and demand in Malaysia in most of the time is unpredictable. Nonetheless, whatever kind of business in Malaysia, every organization should be operate their business as smoothly as it could be. In order to be effective in managing business in a situation of economic instability, every economist, policymaker, and business participants should mastering the pattern of business in any particular economic situation.

In the modern history of Malaysia's economy, this country suffered a recession in 1997-1998 due to the Asian financial crisis and the 2007-2008 global financial crisis. Such crises have had a major impact on Malaysia's economy by slowing down domestic market demand. These two financial crises that have taken place will leave a thousand of lessons to be learned by Malaysian society. Moreover, they need to recognize the consequences of the impact of recession in order to have a solid fundamental in mitigating the effect. Geographically, Malaysia is a country situated in Southeast Asia, just between Thailand and Singapore. Malaysia's status as a developing country is one of the challenges facing the country in terms of economic governance, regardless of the level of its economic governance, either internal economic

governance or global economic governance. Malaysia's economy must perform effectively and play an effective role in achieving a dream of developing nation status (Lai, Aziz and Chan, 2014). Developed nation is one of Malaysia's visions of a prosperous society economy. In order to achieve this, Malaysia needs to be fully understand its economic performance characteristics not only at the top of its economic performance, but also, most importantly, to understand its performance during the recession, particularly after the 2008 global financial crisis.

Malaysia is a nation that is vulnerable to a global economic crisis. No matter how good the economic fundamentals of their nation are, their economy will be affecting by external factors. The impact of the external factor will be spreading to the micro-economic sector in Malaysia. One of the risks to their economy is inflation, which reduces their nation's purchasing power. Although the topic of inflation is addressing internally, the cause of national inflation is, in most cases, caused by the external factor that Malaysia needs to identify in order to mitigate this situation. According to Cheng and Tan (2002), the empiric results of the study shows that external factors, such as the exchange rate and the rest of ASEAN inflation, are comparatively more important than domestic factors to explain Malaysia's inflation.

There are numerous uncertainties during the recession and market demand is one of the issue that highly regards to recession. For the case of Malaysia, market demands fluctuation during economic crisis need to be properly disclose in order to have a credible plan in order to move the country away from a bad economic situation. According to Wu, Shao and Wang (2019) the economic recession has a significant and negative impact on domestic material consumption at 1%, demonstrating its role as a determining factor in material mitigation. In order to have an integrated plan in the event of uncertainty, especially during the recession, Malaysia should have a comprehensive statistical report on its economic demand. Nonetheless, in order to ensure that the economic report is useful to the country, the most important issue of the report is that it should include information on how to

minimize the negative situation by observing the changing behavior of participant in particular economic activity.

Malaysia is one of the developing countries in Southeast Asia. In this regard, it is essential for Malaysia to have a strategic plan for their micro-economic. There are five leading sectors that drive Malaysia's economy namely services, manufacturing, mining, agriculture and construction. In order to have a detailed report on Malaysia's economic performance, one of the sectors that drives Malaysia's economy, namely construction sector need to be exploring in detail. Hussin, Rahman, and Memom (2013) states the construction industry is one of the most important industries that contribute to socio-economic growth, especially in developing countries. Khan, Liew and Ghazali (2014) states there is a strong correlation between the construction sector and Malaysia's economic growth. In this case, by knowing in depth both the characteristics and the actions of the construction sector during the crisis, Malaysia's economic awareness can be improve and, at the same time, knowledge can be used to develop the construction sector in Malaysia.

According to Waris, Liew and Khamidi (2014) Malaysia's construction industry is important to the country economy and has always played a key role in the growth of national infrastructure. Khan et al, (2014) states the construction sector has played a significant role in the country's aggregate economy in terms of its contribution to income generation, capital formation and job creation, which ultimately promotes Malaysia's GDP and socio-economic development. It is undeniably true that an in-depth analysis of the potential of the construction industry from an economic point of view makes it possible to enhance Malaysia's understanding of the economy in general. More importantly, the positive economic growth in the domestic market that exists in any country will increase demand for construction, and this kind of situation will lead construction business players to have a good foundation in their business sector, both in terms of making profits and in terms of their business sustainability. On the other hand, the economy of any

nation that unable to performing well without proper infrastructure, such as rail, highway and other construction-related things.

In order to ensure that the output of the construction business in Malaysia is always on the right track towards the country's sustainable economic growth, it is important to obtain scientific information on the construction business. The record shows that the construction industry in Malaysia is not always on the right track. The performance of construction industry in Malaysia certainly in a position of up and down, depending on the economic situation. In fact, there is a great deal of uncertainty about the construction market in Malaysia. Before global financial crisis in 2008, Jarad, Yusof and Shafiei (2010) states the output of housing developers in the period 2006-2008 increased in terms of profit margin, financial growth and number of employees. Essentially, the construction business activity in Malaysia is very closely linked to the country's economic performance. During and after the 2008 global financial crisis, most countries in the world have experienced a decline in their economic growth. Malaysia is not the only nation to feel the impact of the 2008 global financial crisis. Construction business in Malaysia is likely to follow the trend of the global economic cycle that has been causing by many reasons.

Statistical information on economic performance is meaningless if it only includes statistical data. To be more effective in assessing the impact of the crisis on any business area, such as construction, additional information should be come together on how to take any corrective action during recession in order to stabilize the construction related organization towards stabilizing the nation's economy. Corrective action that needs to be taken by both party namely business player and the government in order to implement new measures, in particular to minimize damage during recession, can only be taken if the opinion of the construction industry players in the construction industry is scientifically correct.

1.3 Problem Statement

Economics and construction are interrelating each other. In order to be more competitive in construction business, the supply and demand of construction business needs to be properly understand. On the other hand, the impact of the country's economic output also needs to be understand. Both side either government as a policy-maker and construction business player must be unify in order to ensure that both party already in the similar path towards sustainable economic development of a country in the construction business, especially in Malaysia. The issue of construction business practice, whether it can be sustain or not, is highly relevant to how it could be carrying out during recession. Economic recession would certainly bring construction business together into the south. This is a kind of unwanted situation for the construction business. However, in order to be more realistic, this fact needs to be chew either by a policy maker or by construction business player. What they can do is to be prepared for the worst during recession in order to ensure that the effect of economic downturn in Malaysia to construction business in Malaysia is as minimal as possible.

There is a great deal of research that has been done to address the effect of construction business on the economic situation. Previous study focuses only on the effect of the economy on the construction business in terms of profit. There is a gap that scholar needs to further expanding the research, which is they need to assess the challenge faced by the construction organization, as well as they need to study changing behavior of the construction organization that cause by economic situation. An effort to identifying the problem and changing behavior of the construction business participants due to the economic situation is essential in order to have a comprehensive plan to mitigate the negative impact of the construction business, especially during recession. In order to conducting this study, some method must is using during conducting the study. Malaysian time series economic data and Malaysian construction value is using in order to assess the impact of the economic situation on construction business in Malaysia.

On the other hand, questionnaire survey is using in order to meet another research objective, which is to identify the challenges and behavior of construction participants that caused by the economic situation.

1.4 Research Question

Construction industry is one of the economic activity sector that contribute to Malaysian GDP. The contribution of construction industry to Malaysian economic could be able to enhance Malaysian economic in general. In the other way, Malaysian economic should be performing well in order to make sure that construction industry is sustainable in Malaysia. At this point, it clearly shows that the relationship of construction and economy is such kind of two ways relationship. The study for this knowledge area should be studying into two ways, which is economy perspective and behavior of construction participants in order the come up with the result of the study that could be using to improve construction sector. There are many research conducted by scholars that studying the relationship of construction and economy in the field of economic perspective. This kind of study unable to understand the economic implication in construction industry towards changing behavior of construction participants. However, for the purpose of further understand the relationship of construction and economy, the challenges that exist in construction industry that cause by economic situation should be well identify. In theory, construction participants will change their behavior in order to suit their needs in order to overcome the challenges.

1.5 Research Hypothesis

For the purpose to ensure that the direction of the research is in correct path, there are five hypothesis that was developed. The list of the null hypothesis as per stated below:

- H1: Economic indicators does not exist as an important influence on Malaysia's construction value.
- H2: In current economic situation, construction schedule is not an element that cause changing behavior of construction participants.
- H3: In construction business, quality of construction project is not an element that cause changing behavior of construction participants.
- H4: In current economic situation especially in uncertainty of economic situation, construction material issue is not an element that cause changing behavior of construction participants.
- H5: In construction business, labor issue is not an element that cause changing behavior of construction participants.

1.6 Objective of Study

This study extending by outlining the research objective for the purposes of answering research question that highlighted in the previous section. In addition, these research objectives is the main element in this study that drive the direction of the research. In order to answer all of these questions, research that has been carrying out is focusing on to achieve these three objective. First research objective is focus on economic sense that influencing construction business and following by second objective that focus on to study the changing behavior of construction participants that cause by construction challenges and the last research objective is to describe relationship between economic sense and changing behavior of construction

participants in regards of construction business. The research objective as per stated below:

1. To identify the relationship of economic indicator that explain Malaysian construction value.
2. To assess the impact of challenges in construction industry towards changing behavior of construction participants.
3. To understand the relationship between the significant influencer of economic indicators that explain construction value and changing behavior of construction participants.

1.7 Scope of Study

The study that has been carrying out is focusing to study the effect of economic on construction business in Malaysia. In order to conduct the study, economic data is using for the purpose to understand the relationship of construction industry and economic indicator. In this case, the economic data that has been using is construction value and other five economic indicators namely, Malaysian population, GDP per capita, employment in construction, domestic credit to private sector, and inflation. For the purpose to realize this study, 23 years of time series data are using from 1996 to 2018. These time series data are gathering from numerous sources namely, construction industry development board (CIDB), central bank of Malaysia (CBM), and department of statistic Malaysia (DOSM).

This study is dividing into two section namely section for economic data and section for questionnaire survey data. As per mentioning earlier, economic data that involve in this study is secondary data and the data that are using is straightforward. However, in order to complete this study, primary data that is using is the data from questionnaire survey that distributing to targeted respondent. In this study, the respondent that

participate in this survey is construction participants in Selangor. The participants of the survey is people that represent G7 building contractor in Selangor. The selection of respondent strictly follow the rules of determining sample number and determination of sample numbers strictly follow Sekaran table.

1.8 Significance of the Study

The study that has been conducting does exist several numbers of benefit to various parties such as government, economist, and construction business participants. The significance of the study will also give benefit to scholars in order to understanding further the interrelationship of economy and construction especially in Malaysian economic landscape. For the government of Malaysia, the benefit that they will get from this study is that they will get useable information in order to enhance their idea in decision making especially during policy making related to nation's economy. The policy that outlining by government in terms of economic will be in-line with construction industry in order to make sure that construction industry always have a competitiveness towards sustainability of the industry.

Another party that will benefit from this study is construction industry participants and they will have a solid fundamental in understanding the fundamental of construction industry market during recession in order to make sure that they have a preventative plan in mitigating any issue of their organization in the event of economic downturn. The event of economic downturn is something that beyond construction participants hand. However, by identifying construction participants changing behavior, initial steps of mitigating the negative effect of recession to construction business already applied. Surely, construction industry participants are able to provide emergency exit plan to their business organization during recession. A comprehensive plan that they able to develop base on idea that come from

this study will make sure that they are always competitive during recession towards maximizing their organization profit.

This study involving two category of data namely economic data and questionnaire survey data that purposely to study the changing behavior of construction participants that cause by challenges in construction business in economic perspective. Although the contents in the questionnaire survey form that distributing to respondent are the contents that related to challenges in construction, however, all of the challenges factor is related to economic perspective. So that, the result of the study from questionnaire survey is valid in interpreting the challenges into economic perspective. Furthermore, the importance of construction industry to Malaysian economic is something that undoubtable, hence the importance of this study undeniable in order to improve construction industry in Malaysia by understanding this economic sector in various perspective namely economic and changing behavior of construction participants.

1.9 Research Methodology

The study that has been conducting was using two type of data namely primary and secondary data. As per discussing earlier in this chapter, economic data and questionnaire data is using in operationalize the study. Economic data that has been using is 23 years of time series economic data and the data that are using was gathering from numerous resources. In the meantime, the questionnaire survey form that was using in this study is the questionnaire survey sets that was designing purposely to gathering respondent's opinion of how they perceived challenges in construction industry as well as how they react on construction challenges. The determination of time series data and designing work for questionnaire survey was made by referring to the existence knowledge from previous study that discussing economic and construction industry. In terms of analysis, multiple regression along Pearson correlation method is using in order to analyze the

relationship of construction and economy. Similar to economic data related, multiple regression and Pearson correlation is using in order to analyze questionnaire survey data. Finally, result of economic data related and result of questionnaire survey related are plot using line chart and bar chart for the purpose to understand their relationship.

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