

FACTORS INFLUENCING PROFITABILITY AND  
PAYMENT REGULARITY: A STUDY OF BUILDING  
AND FACILITIES MAINTENANCE SERVICE  
PROVIDERS IN MALAYSIA

SHIRIDHARAN A/L GANESAN MUTHI

MASTER OF BUSINESS ADMINISTRATION  
(BUILDING MANAGEMENT)

UNIVERSITI TUNKU ABDUL RAHMAN

FACULTY OF ACCOUNTANCY AND  
MANAGEMENT

AUGUST 2019

Factors Influencing Profitability and Payment Regularity:  
A Study of Building and Facilities Maintenance Service  
Providers in Malaysia

Shiridharan a/l Ganesan Muthi

A research project submitted in partial fulfilment of the  
requirements for the degree of

Master of Business Administration (Building  
Management)

Universiti Tunku Abdul Rahman

Faculty of Accountancy and Management

August 2019

**Factors Influencing Profitability and Payment Regularity:  
A Study of Building and Facilities Maintenance Service  
Providers in Malaysia**

**By**

**Shiridharan a/l Ganesan Muthi**

**This research project is supervised by:**

**Dr Sheelah Sivanathan**

**Assistant Professor**

**Department of Building and Property Management**

**Faculty of Accountancy and Management**

Copyright @ 2019

ALL RIGHTS RESERVED. No part of this paper may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, graphic, electronic, mechanical, photocopying, recording, scanning, or otherwise, without the prior consent of the authors.

## DECLARATION

I hereby declare that:

- (1) This Research Project is the end result of my own work and that due acknowledgement has been given in the references to all sources of information be they printed, electronic, or personal.
- (2) No portion of this research project has been submitted in support of any application for any other degree or qualification of this or any other university, or other institutes of learning.
- (3) The word count of this research report is 21,936.

Name of Student: SHIRIDHARAN A/L GANESAN MUTHI

Student ID: 15UKM00861

Signature: \_\_\_\_\_

Date: 30/08/2019

## ACKNOWLEDGEMENTS

I would like to express my gratitude to the God Almighty for making this happen. I also like to thank my supervisor, Dr Sheelah Sivanathan for her time and input. I would like to thank my second research supervisor, Sr. Zamharira Binti Sulaiman for her precious advice, guidance and her enormous patience to answer my doubts.

I am thankful to all survey respondents who had offers their precious time and input in making this research a successful one. Lastly, I would also like to dedicate my gratefulness to my beloved parents, family members, friends, clients and working colleagues who have supported me during the project execution period. They have provided me with overwhelming motivation to boost my study performance in the university.

## DEDICATION

My thesis is dedicated to my family, friends, forefathers, all the respondents, my working colleagues, all the contractors, all the souls who has crossed my life and made it happen.

Last but not least the Almighty God.

## TABLE OF CONTENTS

	<b>Page</b>
Copyright @ 2019.....	ii
DECLARATION .....	iii
ACKNOWLEDGEMENTS .....	iv
DEDICATION .....	v
TABLE OF CONTENTS.....	vi
LIST OF TABLES .....	xi
LIST OF FIGURES .....	xiii
PREFACE.....	xvii
ABSTRACT.....	xviii
CHAPTER 1 INTRODUCTION .....	1
1.0 Introduction .....	1
1.1 Background of the study .....	2
1.2 Problem Statement .....	3
1.3 Research Objective .....	5
1.4 Scope of study .....	5
1.5 Significance of study.....	5
1.6 Chapter Layout.....	6
CHAPTER 2 LITERATUREREVIEW .....	7
2.0 Introduction .....	7
2.1 Definition of Micro and Small Medium Enterprise (SME) .....	7
2.2 SME in Malaysia.....	12
2.3 SME Contribution to Economic Development & Growth.....	17
2.4 Construction Industrial Development Board (CIDB) .....	19
2.5 Facilities Management .....	23
2.6 Facilities and Maintenance Service Providers .....	27
2.7 Profitability .....	28
2.8 Factors Affecting Profitability And Payment Regularity .....	29
2.8.1 Non-Payment and Late Payment .....	29



2.8.2	Workforce .....	31
2.8.3	Lack of information .....	31
2.8.4	Unethical.....	33
2.9	Conceptual Framework .....	34
2.10	Summary of literature review .....	35
CHAPTER 3	RESEARCH METHODOLOGY .....	39
3.0	Introduction .....	39
3.1	Research Design.....	39
3.2	Data Collection Method .....	40
3.2.1	Research Instrument .....	41
3.3	Pilot Test .....	42
3.4	Sampling Design .....	43
3.4.1	Target Population .....	45
3.4.2	Sampling Technique .....	45
3.4.3	Sampling Size .....	46
3.5	Data Analysis .....	46
3.5.1	Descriptive Analysis.....	47
3.5.2	Relative Importance Index (RII) method.....	47
3.6	Conclusion .....	48
CHAPTER 4	RESULTS .....	49
4.0	Introduction .....	49
4.1	Background of Respondents .....	49
4.2	Payment.....	54
4.2.1	Payment term .....	54
4.2.2	Payment Frequency by Client .....	55
4.2.3	Follow up with customer .....	56
4.2.4	Non-payment invoice .....	57
4.2.5	Non-payment or late payments are due to: .....	58
4.2.5.1	Issues with regard to documentation error .....	58
4.2.5.2	Breach of contract term by parties involved in the project .....	59

4.2.5.3	Paymaster's poor financial management .....	60
4.2.5.4	Conflict among the Parties Involved in the Project .....	61
4.2.5.5	The use of "pay when paid" clause in the contract .....	62
4.2.5.6	Delay in certification by consultant.....	63
4.2.5.7	Paymaster's Wrongly Withholding of Payment ..	64
4.2.5.8	Local Culture/ Attitude.....	65
4.2.5.9	Disagreement of the valuation of work done .....	66
4.3	Workforce .....	67
4.3.1	Minimum Wage Afforded .....	67
4.3.2	Equals Salary Requested by Staff.....	68
4.3.3	Attract Highly Motivated Workers.....	69
4.3.4	Keeping highly motivated and skilled labour for long time .....	70
4.3.5	Hiring Foreign Labour.....	71
4.3.6	Cost increased due to raids on foreign labour .....	72
4.3.7	Providing Worker Benefits.....	73
4.3.8	Worker Issue.....	74
4.3.9	Problem encountered from worker by service provider	75
4.4	Lack of Information .....	76
4.4.1	Customers employ Building Information Modelling Systems.....	76
4.4.2	Customers give sufficient information regarding the job scope .....	77
4.4.3	Customer explain regarding the work scope clearly and completely .....	78
4.4.4	Customer knows the requirement and specification of the work.....	79
4.4.5	Customer gives enough time to check the problem and prepare the quotation .....	80
4.4.6	Customer purposely or deliberately hides information .	81
4.4.7	Problem encountered by customer usually inherited from design or construction stage of the structure .....	82
4.5	Unethical .....	83

4.5.1	Customers ask for bribery or kickbacks .....	83
4.5.2	Customer purposely delays the payment to receive gift .....	84
4.5.3	Threatened to accept a job or refuse a job .....	85
4.5.4	Customer treat the contractor fairly and with respect in work/projects .....	86
4.5.5	Customer offers a contract or agreement.....	87
4.5.6	Contract offered by customer is fair .....	88
4.5.7	Customer force contractor to accept the contract .....	89
4.5.8	Customer forces contractor to accept the price set by them .....	90
4.5.9	Contractors is being push to corner where they have no choice but to cut down on material and work quality to make end meet.....	91
4.5.10	Government has introduce open tender to have fair tender process and thinks it will be materialize and work in reality .....	92
4.5.11	Customer have a very conservative approach to maintenance and not giving as much importance as design or construction of the building .....	93
4.5.12	Low price mentality by customer, fierce competition among contractor and paper-thin margin leads to corruption....	94
4.6	General .....	95
4.6.1	Too many government agencies to register with to obtain licenses to do business.....	95
4.6.2	Registration with government agencies increases your initial cost to open business or company .....	96
4.6.3	New application or of licenses or permits from government agencies is a burden to business organization .....	97
4.6.4	This government agencies contribute to the success of your organization/business .....	98
4.6.5	Customer/Client can be allowed to charge a fee on the contractor/vendor to register them in their contractor/vendor database .....	99
4.6.6	Profit is important for growth of business .....	100
4.6.7	Heard or read about Construction Industry Payment and Adjudication Act (CIPAA) 2012.....	101

4.6.8	Construction Industry Payment and Adjudication Act (CIPAA) 2012 is created to tackle the late and non-payment issue in Malaysia and it will be effective and efficient .....	102
4.7	Level of Importance of Factor Affecting Profitability .....	103
4.7.1	Relative Importance Index.....	103
4.7.1.1	Payment Analysis .....	103
4.7.1.2	Workforce Analysis.....	105
4.7.1.3	Lack of Information Analysis.....	106
4.7.1.4	Unethical Analysis.....	107
4.8	Discussion .....	109
CHAPTER 5	CONCLUSION .....	112
5.1	Introduction.....	112
5.2	Achievement of Research Objective.....	112
5.3	Limitation of the Research Study.....	115
5.4	Recommendation .....	115
5.3	Conclusion .....	117
REFERENCE.....		118
APPENDICES .....		124

## LIST OF TABLES

	Page
Table 2.1    Malaysian Standard Industry Code 2008 (MSIC 2008)	13
Table 2.2    SME's definition in Construction Sector (CREAM, 2014)	21
Table 2.3    Facility Management classifies facilities products (IFMA)	23
Table 2.4    Hard and Soft service (British Standards EN15221-1: 2006)	24
Table 2.5    Facility Management range of activity (RICS, 2018)	25
Table 2.6    Non-Payment and Late Payment Factor's Group	29
Table 2.7    Summary of literature review	35
Table 3.0    Differences of Quantitative and Qualitative Research Methods	40
Table 3.1    Five-point Likert Scale	41
Table 3.2    Five-point Likert Scale and Weight Range for RII Method	48
Table 4.0    Respondent based on survey language taken	50
Table 4.1    Respondent based on CIDB grade	50
Table 4.2    Respondent based on specialization	51
Table 4.3    Respondent based on state	51
Table 4.4    Respondent based on business size	52
Table 4.5    Respondent based on experience	53
Table 4.6    Relative Importance Index of Payment	103

Table 4.7	Relative Importance Index of Workforce	105
Table 4.8	Relative Importance Index of Lack of Information	106
Table 4.9	Relative Importance Index of Unethical	107
Table 4.10	Average Relative Importance Index (RII)	109
Table 5.0	Factors affecting profitability	112
Table 5.1	Rank of importance of factor affecting profitability	114

## LIST OF FIGURES

	PAGE
Figure 2.1 SME Corp Malaysia Timeline	9
Figure 2.2 SME Corp Malaysia Definition	11
Figure 2.3 Overview of SMEs in Malaysia by state	12
Figure 2.4 Percentage Share of SMEs by Sector and Size (%)	13
Figure 2.5 SMEs are the backbone of the economy	17
Figure 2.6 Percentage Share of SME's GDP and Malaysia GDP for 2016 at Constant 2010 Prices	18
Figure 2.7 Percentage Share of SMEs in Services Sector by Sub-sector (%)	19
Figure 2.8 CIDB Contractors based on CIDB Grading Systems	21
Figure 2.9 CIDB Contractors Based on SME Malaysia Corp. Classification	22
Figure 2.10 Conceptual Framework	34
Figure 3.1 Relative Importance Index (RII)	47
Figure 4.1 Payment Term	54
Figure 4.2 Payment Frequency by Client	55
Figure 4.3 Follow up with customer	56
Figure 4.4 Non-payment invoice	57
Figure 4.5 Issues with regard to documentation error	58
Figure 4.6 Breach of contract term by parties involved in the project	59
Figure 4.7 Paymaster's poor financial management	60

Figure 4.8	Conflict among the Parties Involved in the Project	61
Figure 4.9	The use of "pay when paid" clause in the contract	62
Figure 4.10	Delay in certification by consultant	63
Figure 4.11	Paymaster's Wrongly Withholding of Payment	64
Figure 4.12	Local Culture/ Attitude	65
Figure 4.13	Disagreement of the valuation of work done	66
Figure 4.14	Minimum Wage Afforded	67
Figure 4.15	Equals Salary Requested by Staff	68
Figure 4.16	Attract Highly Motivated Workers	69
Figure 4.17	Keeping highly motivated and skilled labour for long time	70
Figure 4.18	Hiring Foreign Labour	71
Figure 4.19	Cost increased due to raids on foreign labour	72
Figure 4.20	Providing Worker Benefits	73
Figure 4.21	Worker Issue	74
Figure 4.22	Customers employ Building Information Modelling Systems	76
Figure 4.23	Customers give sufficient information regarding the job scope	77
Figure 4.24	Customer explain regarding the work scope clearly and completely	78
Figure 4.25	Customer knows the requirement and specification of the work	79
Figure 4.26	Customer gives enough time to check the problem and prepare the quotation	80
Figure 4.27	Customer purposely or deliberately hides information	81
Figure 4.28	Problem encountered by customer usually inherited from design or construction stage of the	82



## structure

Figure 4.29	Customers ask for bribery or kickbacks	83
Figure 4.30	Customer purposely delays the payment to receive gift	84
Figure 4.31	Threatened to accept a job or refuse a job	85
Figure 4.32	Customer treat the contractor fairly and with respect in work/projects	86
Figure 4.33	Customer offers a contract or agreement	87
Figure 4.34	Contract offered by customer is fair	88
Figure 4.35	Customer force contractor to accept the contract	89
Figure 4.36	Customer forces contractor to accept the price set by them	90
Figure 4.37	Contractors is being push to corner where they have no choice but to cut down on material and work quality to make end meet.	91
Figure 4.38	Government has introduce open tender to have fair tender process and thinks it will be materialize and work in reality	92
Figure 4.39	Customer have a very conservative approach to maintenance and not giving as much importance as design or construction of the building	93
Figure 4.40	Low price mentality by customer, fierce competition among contractor and paper-thin margin leads to corruption	94
Figure 4.41	Too many government agencies to register with to obtain licenses to do business.	95
Figure 4.42	Registration with government agencies increases your initial cost to open business or company	96
Figure 4.43	New application or of licenses or permits from government agencies is a burden to business organization	97
Figure 4.44	This government agencies contribute to the success of your organization/business	98

Figure 4.45	Customer/Client can be allowed to charge a fee on the contractor/vendor to register them in their contractor/vendor database	99
Figure 4.46	Profit is important for growth of business	100
Figure 4.47	Heard or read about Construction Industry Payment and Adjudication Act (CIPAA) 2012	101
Figure 4.48	Construction Industry Payment and Adjudication Act (CIPAA) 2012 is created to tackle the late and non-payment issue in Malaysia and it will be effective and efficient	102

## PREFACE

The basis of this research stemmed from my passion and experience as facility and maintenance service provider and contractor. As co-owner of micro business organization with more than 10 years of exposure in this field, lot of challenges has crossed my path and many issues was faced together with my team on daily basis. This raise a question whether other contractor or service provider is facing same issues and challenges.

As the search continues it opens up on more question on whether there are enough research and studies done, policies, law to protect Micro and SME companies from this challenges and issues. The search has produced this thesis. In this thesis, the reader will find main factors effecting Micro and SME companies' profitability, how many contractors facing the issue and challenges, and how frequently they faced this issue.

Due to limitation of time and resources the research couldn't go in depth, but I hope this will be starting point for more research this field by other researchers. I believe I have answered the main questions and achieved the objective of this research.

## ABSTRACT

Micro and SME business is seen as backbone of a developing nation's economy. As a nation is developing more infrastructure is built to accommodate this growth. This infrastructure and its facilities need to be maintained and serviced regularly. This research aspires to find the factor effecting profitability and payment regularity of Micro and SME companies involved in building and facilities maintenance. The objective of this research is to determine the level of importance of factor affecting profitability and payment regularity of building and facilities maintenance service provider. The literature review has narrowed the factors to main four which are payment, workforce, lack of information and unethical. It is also revealed during literature review that most of research is done on large enterprises. It is also found that lot research and solution suggested is based on large enterprise. The research method chosen for study is explanatory method and the data is collected by distributing questionnaire to all the service provider and contractor involved in this facility and building maintenance industry where the collected data is analysed using descriptive analysis and Relative Importance Index method. Total of 199 participant take part in the survey. The factors are ranked base respond received. It is found that Workforce is ranked first followed by Payment, Lack of information and Unethical. As recommendation, more research to be conducted on Micro contractors or service provider. Current research focused more on Payment issue while neglecting other matter hence variety of research and from other point of view is needed. The conclusion of research is the main factor effecting the profitability and payment regularity and their ranked as followed Workforce, Payment, Lack of information and Unethical. Government shouldn't burden these contractors with fees and make sure the policies and act are helpful and friendly to them.

# **CHAPTER 1**

## **INTRODUCTION**

### **1.0 Introduction**

A growth of an organization depends on its profit. Nina (2016) said that without profitability an organization will find difficulty to attract investor and it rarely sustain in long run. Profitability is made of two words which is ability and profit. Tulsian (2014) define profitability as the capability of a given venture to receive a return from its utilisation. Ability of organization to make profit make it attractive to investor and it also ensure the growth of the organization itself.

An organization need to develop strategies to distribute their resources efficiently based on their industry and market. Some organization diversify their income source while some reduce their operating cost. Multiple factor can affect the profit of a organization such as economy, demand, chance, expenses and pricing. Other factors could be kickbacks, bribery, less experienced client and abuse by client. The business owner must absorb these losses so that they can sustain the client and try to keep the business afloat by covering the cost without profit.

An organization which do profiting activity is referred as enterprise. As enterprise is seen as back bone of a countries' economy, government have taken incentive to help these enterprises. The enterprise is usually categorized as Micro, Small, Medium and Large based on variety of parameter determined by each countries' government agencies.

Growing economy has encouraged variety of enterprises to flourish in Malaysia. Lately Malaysian has becoming familiar with terms such as facility maintenance and management. The Malaysian government has even gazette Uniform Building By Law, Strata Act, Strata Management Act and others related to building and facility maintenance and management. This is creating new market of enterprise which is known as facilities and maintenance service providers.

## **1.1 Background of the study**

As Malaysia has become developing nation, lot of infrastructure is being built to accommodate the ever-growing demand. A life cycle of infrastructure or building consists of construction, operation, maintenance, demolition and removal, with expected life span of 100 years for commercial building (Eric Chan, 2014). According to Sivanathan, Jibril, Jivasangeeta, Thanaraju, Dodo, and Shika, (2012) rapid development of construction industry has increase the importance of building maintenance role to ensure the long-life cycle of the building. This indirectly creates a new market which concentrates on upkeep and maintenance of these physical assets. Lot of maintenance organization has formed, and the industry has become very competitive.

The word contractor refers to a person or company that accept a contract to deliver materials or labour to perform a specific service or work at mutually consented upon price and within a fixed timeframe. The word contractor is originated from Late Latin from 1540's which means "one who enters into a contract".

In a study by Johnston (1999) showed that construction industry is vulnerable to late-payment culture. According Suhaini (2005), it is estimated 16,000 contractors ranked by Construction Industry Development Board (CIDB) as G1 contractor were at the verge of bankruptcy after some of umbrella contractors didn't pay them for a government project even after government has fully

reimburse the umbrella contractor. G1 contractor is the lowest ranked contractor where their project value doesn't exceed RM 200,000.00.

Currently all the maintenance and facilities business and expertise need to be registered with CIDB as it is considered as part of construction and life cycle of a building. Maintenance is part of activity to sustain efficiency and value of the property hence it is a cost incurring department. The management has a very conservative approach towards maintenance according to Daud (2011) in one of his articles. The importance given to design and construction of an asset is not given to maintenance of asset and it is confirmed by Sivanathan et al (2012) where it is found that vast of maintenance problem are due to design deficiencies. Failure to include maintenance plan in design stage is the major contributor.

Cost management is used in maintenance field to the extreme where an issue is solved by using the cheapest way possible after complained piled up or after intervention of authority where the latter is seldom occurs. Proton Holdings Bhd has instructed its vendor to reduce their price by 20% while ringgit is depreciating where this increase the cost of material and product. Government has imposed Good and Service tax in 2015 and increased the minimum salary in July 2016 hence increasing cost for company. The vendor is forced to reduce their price if they want to be awarded the job or tender hence this vendor will reduce the quality of the material or product they use. This combined with design deficiencies contributes to rapid depreciation and devaluation of the asset or the property.

## **1.2 Problem Statement**

It is a great challenge for an organization especially smaller one to manage their cash flow. According to government agency, SME Corp, sales turnover of less than RM300,000 or employees of less than 5 is considered as micro enterprise. They divided into three category which is manufacturing, service and another sector. Customer makes payment via cash or cheque for good or service

rendered by an organization which creates the cash flow. It will create profound effects on the organization when the cash flow is slow or diminishing.

Stymied growth is caused by bad cash flow. Positive cash flow is important for the business to be viable in long term. Late and non-payment is one of main reason for bad cash flow faced by business owner. It is more important for small business owner as they have limited funds to run their business. Neveling, (2005) has mentioned that credit manager has warned that greatest risk from late payment culture is faced by small companies.

This will create a vicious cycle in a particular industry as it will create a domino effect. According to Mohd Danuri (2006) the failure to pay can be accredit to an attitudinal problem which, if commonly accepted by the industry or society in general, can become a culture of a particular industry.

According to FMI/CMAA (2004) ethical dilemma fuelled by fierce competition, paper-thin margins and low-price mentality. Adnan et al (2012) has disclosed in his review based on his findings that unethical *modus operandi* can be found in each stage of construction from during planning, designing, pre-qualification, tender, project execution, operation and maintenance. Some evidence from the article on this unethical practice are cover pricing, inadequate documentation, bid cutting, late and short payments, unfair treatment of contractors in tender/final account negotiations, competitors' exaggeration of capacity and qualifications to secure work, subcontractors' lack of safety ethics, competitors' falsification of experience and qualifications and bureaucratic government policy.

Through this study we hope to find how actually the maintenance contractor being treated by customer, client, suppliers and government, what challenges they facing, what kind of regulations or assistance they need, how this affect their personal life, how it affect their growth, is the policy of client is one sided which is misused by their staff and all this from contractor perspective.



### **1.3 Research Objectives**

- a) To identify the factors affecting profitability and payment regularity of building and facilities maintenance service provider.
- b) To determine the level of importance of factors affecting profitability and payment regularity of building and facilities maintenance service provider.

### **1.4 Scope of study**

This research is restricted to Micro and SME organization in Malaysia. The organization interviewed must be registered with Suruhanjaya Syarikat Malaysia (SSM) and Construction Industrial Development Board (CIDB). This study is concentrated in Facilities and Maintenance Service Providers industry in Malaysia.

### **1.5 Significance of study**

This research is conducted to understand the current environment of service providers facility and maintenance. The key factor affecting their profitability and payment regularity is expected to be identified and reviewed in this study. The finding from this research is anticipated to provide the experiential and actual proof on identifying the factor of profitability and payment regularity of the Facility Service providers in order to improve the organization's profitability by observing the determinants variables and improve the factors in future. Improving organization profitability helps the growth of the organization itself which will help the growth of nation economy and also create more job opportunity. The findings will assist government to create better policy concerning Micro and SME organization while preventing loopholes for corruption. Government agency such as CIDB and SME Corp have better understanding of latest factor which drives profitability of Micro and SME organization in facility service field.

## **1.6 Chapter Layout**

The Chapter 1 proceed with the introduction of profit, organization, construction industry, contractors and facility maintenance in Malaysia. The statement of problem, objective of research, scope of study and chapter layout is part of the chapter 1.

The Chapter 2 pursue with the review of theories and previous academician studies which is associated to Small and Medium Enterprise in Malaysia, its contribution to economy, regarding Construction Industrial Development Board (CIDB), about Facility Management, its service provider and identify the factor of organization's profitability of Facilities and Maintenance Service Providers in Malaysia. Previous research from researchers have been disclosed in this chapter and act as inspiration in order to perform the current study. Theories and findings from previous research will be incorporate in this chapter to assist the future argument as well.

The chapter 3 will describe the methodology that has been utilized in which it explains the resources of data, sampling method, data collection techniques, and data analysis method.

The chapter 4 will describe and discuss the findings and analysis results towards the importance factors. Two type of analysis have been utilized to test the importance of variables and result towards the analysis has been discussed.

Finally, Chapter 5 explain the conclusion and summary emerging from this research together with recommendation for future research provided.

## **CHAPTER 2**

### **LITERATURE REVIEW**

#### **2.0 Introduction**

In this chapter, all the journals and article related to research is went through and summarized. The chapter have 9 sections where it introduces Small Medium Enterprise in Malaysia, related agency, facilities maintenance service provider and studies on relevant factors and variables. Last section describes a conceptual framework based on understanding from literature review conducted.

#### **2.1 Definition of Micro and Small Medium Enterprise (SME)**

Micro and Small Medium Enterprise mostly operated and managed by the owner or under partnership which have small market share with an independent business (Margarethe, 2016). According to Wikipedia, the acronym "SME" is used by international organizations such as the World Bank, the United Nations and the World Trade Organization (WTO). Most of countries such as India, Singapore, Indonesia, Singapore, European Union and others have a specific act and agency under governments to overlook the development and welfare of Micro and Small Medium Enterprise in their country as SME important for economic and social goals, given its role in employment.

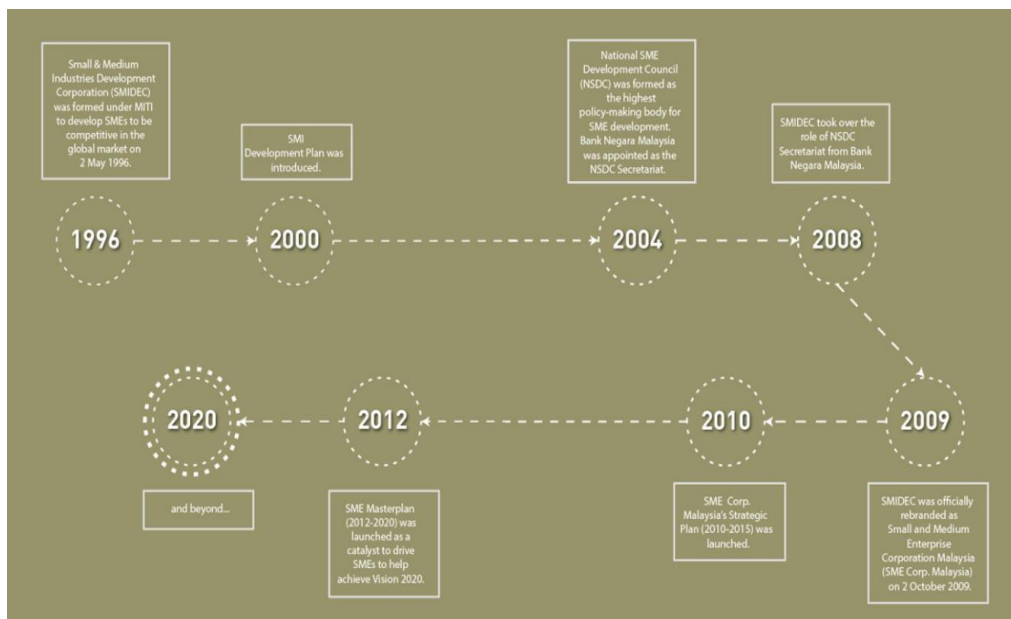
In Malaysia, Small and Medium Industries Development Corporation (SMIDEC) was established in 2 May 1996 under Ministry of International Trade

and Industry (MITI) to encourage the growth of small and medium industries (SMIs) by providing them with infrastructure support, financial support, counselling services, market access, formulate overall policies, strategies, implementation of it and various other support programmed. It also acts as center of reference for research and data distribution on SMEs.

In 2004, National SME Development Council (NSDC) was formed with SME Corp and Bank Negara taken the role of secretariat while lead by Prime Minister of Malaysia. The council functions as the prominent policy-making body for the comprehensive development of SMEs. In 2007, the NSDC decided to nominate a single obligated agency to develop the comprehensive policies and strategies for SMEs and to coordinate program covering all related Ministries and agencies. SMIDEC nominated to that role and it was officially relaunched as SME Corporation Malaysia (SME Corp. Malaysia) on 2 October 2009. SME Corp. Malaysia was gazette as a bureau under the Ministry of Entrepreneur Development Malaysia (MED) in November 2018.

SME Corp Malaysia utilize SME Hub to provide business consultation services and information to entrepreneurs and SMEs. SME Hub also houses other agencies under MED which serve similar purpose as SME Corp Malaysia including SME Bank, TEKUN Nasional, Bank Rakyat, National Institute of Entrepreneurship (INSKEN), UDA Holdings, Cooperative College of Malaysia (CCM) and Malaysia Co-operative Societies Commission (SKM), as well as other agencies; such as Intellectual Property Corporation of Malaysia (MyIPO) and Royal Malaysian Customs Department (RMCD) (SME Corp. Malaysia, 2019).

**Figure 2.1: SME Corp Malaysia Timeline**



Note. From SME Corp. Malaysia, (2019)

Figure 2.1 shows the timeline of SME Corp Malaysia since its establishment in 1996 till future 2020 and beyond. The years shows some of important events took place in the agency which covers re-branding, new vision, new plan and merging with another agency.

The legal boundary of SMEs around the world vary (Kushnir, 2010) based on each country. Mustafa Kamal, et al (2014) found that the definitions and interpretation of SMEs differs in Malaysia also. The annual sales turnover, number of full-time employees or shareholders' funds are some of criteria used by some of agencies to define and interpret the SMEs.

The National SME Development Council (NSDC) officially agreed with general definition and interpretation based on annual revenue and number of full-time employee guideline which was accepted by all government ministries and department involved in SME development and financial institutions in 2005.

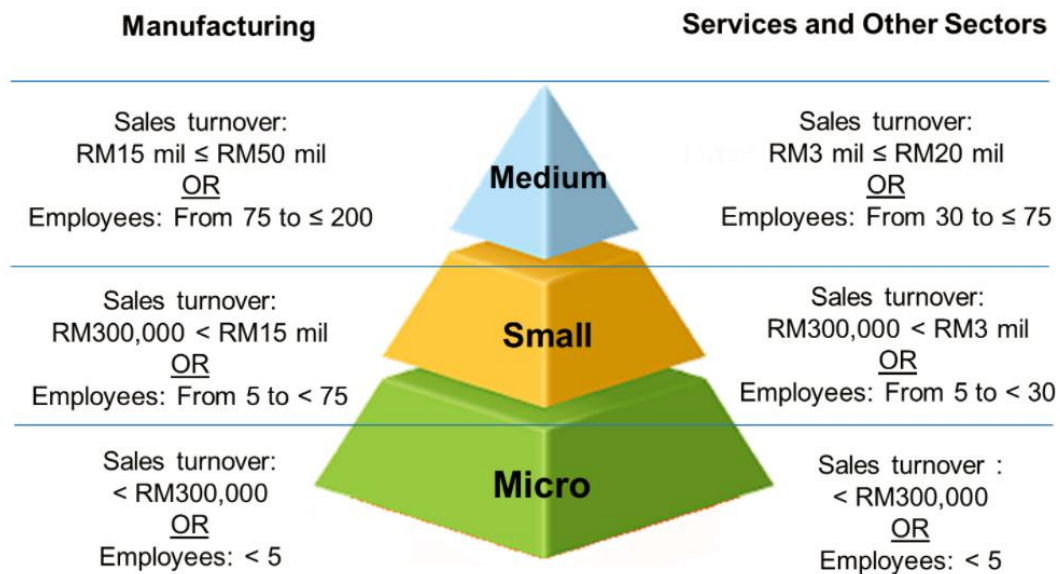
The definition of Micro and Small Medium Enterprise given by National SME Development Council (NSDC) is reviewed, updated and endorsed at the

14th NSDC Meeting in July 2013. It was reviewed due to lot of new development in economy since 2005 has taken place such as price inflation, structural changes and change in business trends.

Micro and Small Medium Enterprise is divided in three group which are Manufacturing, Services and Other Sectors. According to Guideline for New SME Definition issued by SME Corp. Malaysia in October 2013, 'Manufacturing' refers to physical or chemical transformation of materials while 'Services' refer to all services including distributive trade, hotels and restaurants, business, professional and ICT services, private education and health, entertainment, financial intermediation, and manufacturing related services such as research and development (R&D), logistics, warehouse, engineering etc. or components into new products. 'Others' refer to the remaining 3 key economic activities which are Primary Agriculture, Construction and Mining & Quarrying. Primary Agriculture which covers perennial crops (e.g. rubber, oil palm, cocoa, pepper etc.) and cash crops (e.g. vegetables, fruits etc.), Livestock, Forestry & logging, Marine fishing and Aquaculture. Construction activities consists of Infrastructure, Residential & non-residential and Special trade

The figure 2.2 shows the parameters need to be met to be categorized as Micro, Small or Medium Enterprise. For Service and Other Sectors, Micro Enterprise is defined as firms with less than five employees or annual sales turnover less than RM 300,000. Small Enterprise is defined as firms with work force between five and 30 employees or annual sales turnover between RM 300,000 and less than RM 3 million while for Medium Enterprise the work force should be between 30 and 75 employees or annual sales turnover between RM 3 million and RM 20 million.

**Figure 2.2: SME Corp Malaysia Definition**



Note. From SME Corp. Malaysia, (2019)

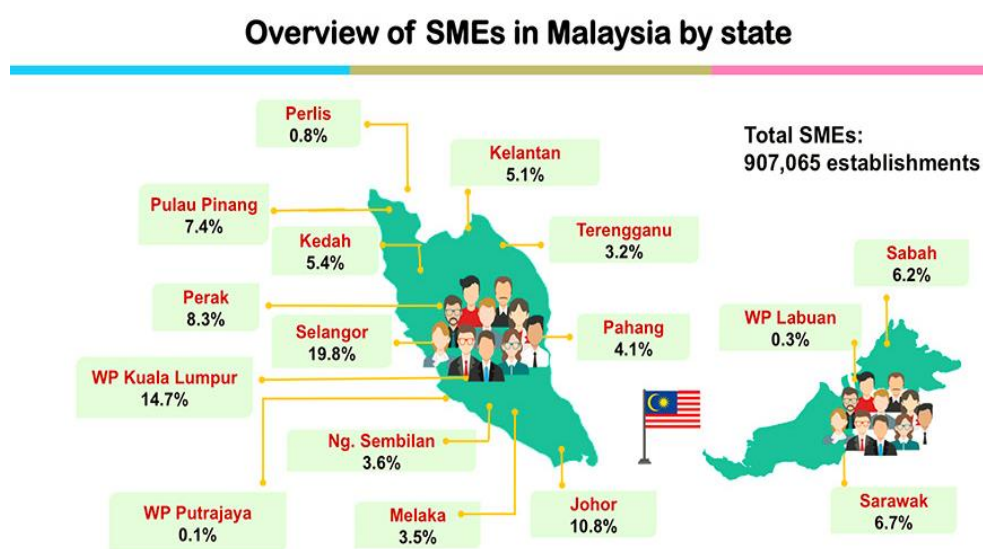
However, the definition for manufacturing sector varies a little for Small and Medium category while Micro Enterprise remain same. For Manufacturing Sector, Small Enterprise is defined as firms with work force between five and 75 employees or annual sales turnover between RM 300,000 and less than RM 15 million while for Medium Enterprise the work force should be between 75 and 200 employees or annual sales turnover between RM 15 million and RM 50 million.

Based on Guideline for New SME Definition issued by SME Corp. Malaysia in October 2013, a business can qualify as an SME if it meets either one of the two specified criteria, namely sales turnover or full-time employees, whichever is lower. If a business satisfies either one criterion across the different sizes of operation, then the smaller size will be selected. For instance, if a business's sales revenue falls under micro enterprise but employment falls under small enterprise, the business will be deemed as a micro enterprise.

## 2.2 SME in Malaysia

According to Suruhanjaya Syarikat Malaysia (SSM, 2018), total registered companies as at 31st December 2017 are 1,251,190 companies with 1,246,423 companies are local while balance 4,767 companies is foreign owned. There are 6,859,080 business registered as at 31<sup>st</sup> December 2017 with 5,536,551 business is Sole Proprietorship while balance 1,322,529 business is Partnership. There are 907,065 SMEs operating in Malaysia in 2015 according to the statistics published by Department of Statistics (DOSM), which represents 98.5 per cent of total enterprises

Figure 2.3: Overview of SMEs in Malaysia by State



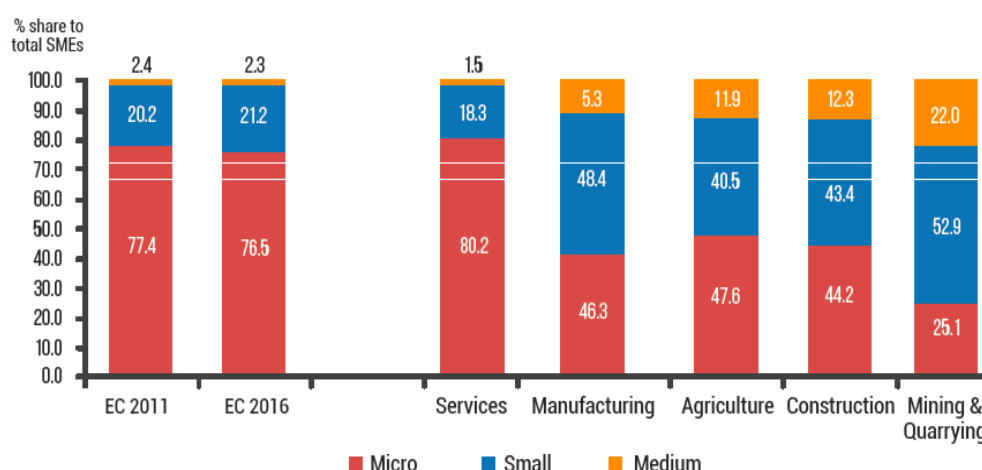
Source: Economic Census 2016, Department of Statistics Malaysia (DOSM)

Note. From SME Corp. Malaysia, (2019)

Figure 2.3 shows the SMEs population by state. As seen in the figure, Selangor having highest percentage followed by WP Kuala Lumpur. Lowest volume is in WP Putrajaya as it is newly formed state and there is no major economic activity in the area. Micro enterprises make up 76.5 % from the total SMEs. Small enterprises are at 21.2 % while medium sized enterprises are at 2.3 % from the total. This proof that micro enterprises is the majority enterprise. Women owned company is 20.6% from the total.



Figure 2.4: Percentage Share of SMEs by Sector and Size (%)



Note. From SME Corp. Malaysia, (2019)

This enterprise is categorized by following Malaysian Standard Industry Code 2008 (MSIC 2008). Malaysian Standard Industry Code 2008 (MSIC 2008) is based on International Standard Industrial Classification of All Economic Activities (ISIC). MSIC 2008 primary objective is to produce categories consists a set of activity which can be utilize for data collection and presentation of statistics based on such activities. Industries are then established by combining units with a similar primary activity, based on specified similarity criteria. MSIC can then be utilize for data collection and analysis based on activity or by industry, for enterprises as well as for establishments or kind of activity units. Based on MSIC, the industry is categorized as below:

Table 2.1: Malaysian Standard Industry Code 2008 (MSIC 2008)

No	Categories	Sub-Categories
1	Agriculture, forestry and fishing	Crops and animal production, hunting and related service activities, Forestry and logging, Fishing and aquaculture
2	Mining and Quarrying	Mining of coal and lignite, Extraction of crude petroleum and natural gas, Mining of metal ores, Other mining and quarrying, Mining support service activities
3	Manufacturing	Manufacture of food products, Manufacture

		of beverages , Manufacture of tobacco products, Manufacture of textiles, Manufacture of wearing apparel, Manufacture of leather and related products, Manufacture of wood and products of wood and cork, except furniture; manufacture of articles of straw and plaiting materials, Manufacture of paper and paper products, Printing and reproduction of recorded media, Manufacture of coke and refined petroleum products, Manufacture of chemicals and chemical products, Manufacture of basic pharmaceutical products and pharmaceutical preparations, Manufacture of rubber and plastics products, Manufacture of other non-metallic mineral products, Manufacture of basic metals, Manufacture of fabricated metal products, except machinery and equipment, Manufacture of computer, electronic and optical products, Manufacture of electrical equipment, Manufacture of machinery and equipment, Manufacture of motor vehicles, trailers and semitrailers , Manufacture of other transport equipment, Manufacture of furniture, Other manufacturing, Repair and installation of machinery and equipment
4	Electricity, Gas, Steam and Air Conditioning Supply	(Not Specified)
5	Water Supply	Water collection, treatment and supply, Sewerage, Waste collection, treatment and disposal activities; materials recovery, Remediation activities and other waste

		management services
6	Construction	Construction of buildings , Civil engineering, Specialized construction activities
7	Wholesale and Retail Trade	a. Wholesale and retail trade and repair of motor vehicles and motorcycles, Wholesale trade, except of motor vehicles and motorcycles, Retail trade, except of motor vehicles and motorcycles
8	Transportation and Storage	Land transport and transport via pipelines, Water transport, Air transport, Warehousing and support activities for transportation, Postal and courier activities
9	Accommodation and Food Services Activities	(Not Specified)
10	Information and Communication	Publishing activities, Motion picture, video and television programmed production, sound recording and music publishing activities , Programming and broadcasting activities, Telecommunications, Computer programming, consultancy and related activities, Information service activities
11	Financial and Insurance/Takaful Activities	Financial service activities, except insurance/takaful and pension funding, Insurance/takaful, reinsurance/retakaful and pension funding, except compulsory social security, Activities auxiliary to financial service and insurance/ takaful activities,
12	Real Estate Activities	(Not Specified)
13	Professional, Scientific and	Legal and accounting activities, Scientific research and development, Advertising and

	Technical Activities	market research, Other professional, scientific and technical activities, Veterinary activities
14	Administrative and Support Service Activities	Rental and leasing activities, Employment activities, Travel agency, tour operator, reservation service and related activities, Security and investigation activities, Services to buildings and landscape activities, Office administrative, office support and other business support activities,
15	Public Administration and Defence; Compulsory Social Security	(Not Specified)
16	Education	(Not Specified)
17	Human Health and Social Work Activities	Human health activities, Residential care activities, Social work activities without accommodation
18	Arts, Entertainment, and Recreation	Creative, arts and entertainment activities, Libraries, archives, museums and other cultural activities, Gambling and betting activities, Sports activities and amusement and recreation activities
19	Other Service Activities	Activities of membership organizations, Repair of computers and personal and household goods, Other personal service activities
20	Activities of Households as Employers; Undifferentiated Goods and Services Producing Activities	Activities of households as employers of domestic personnel, Undifferentiated goods- and services-producing activities of private households for own use

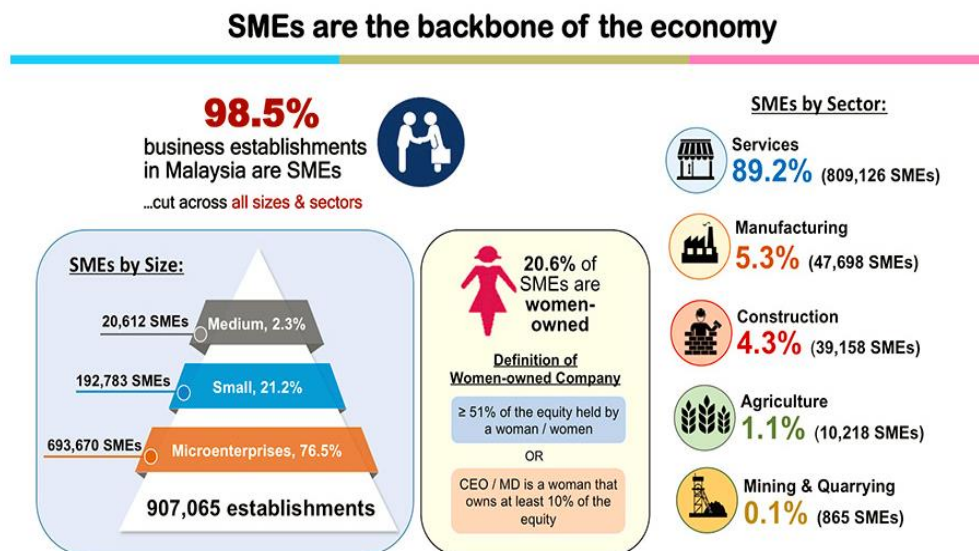
	of Households for Own Use	
21	Activities of Extraterritorial Organizations and Bodies	(Not Specified)

Note. From Malaysian Standard Industry Code (2008)

## 2.3 SME Contribution to Economic Development & Growth

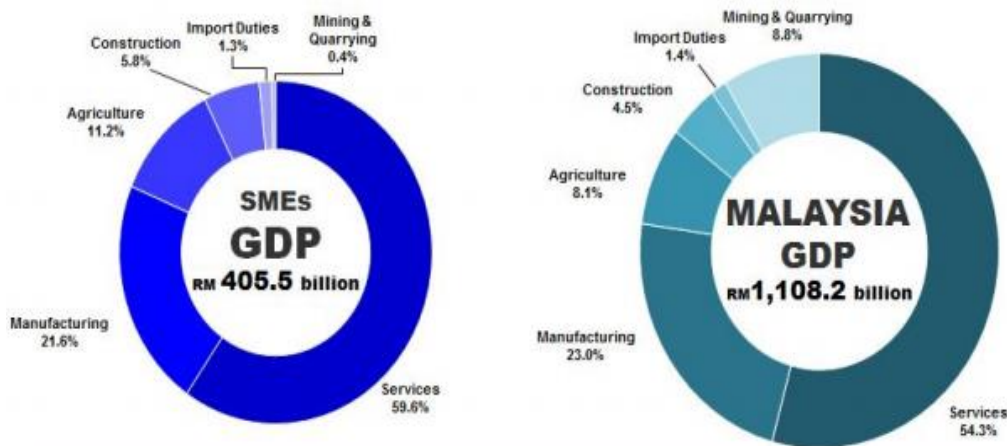
According to SME Corp, 98.5% of business establishment are SMEs, which means they play a significance role in Malaysian economy development and growth. This also means they are the largest contributor in creating new jobs.

Figure 2.5: SMEs are the backbone of the economy



Note. From SME Corp. Malaysia, (2019)

Figure 2.6: Percentage Share of SME's GDP and Malaysia GDP for 2016 at Constant 2010 Prices

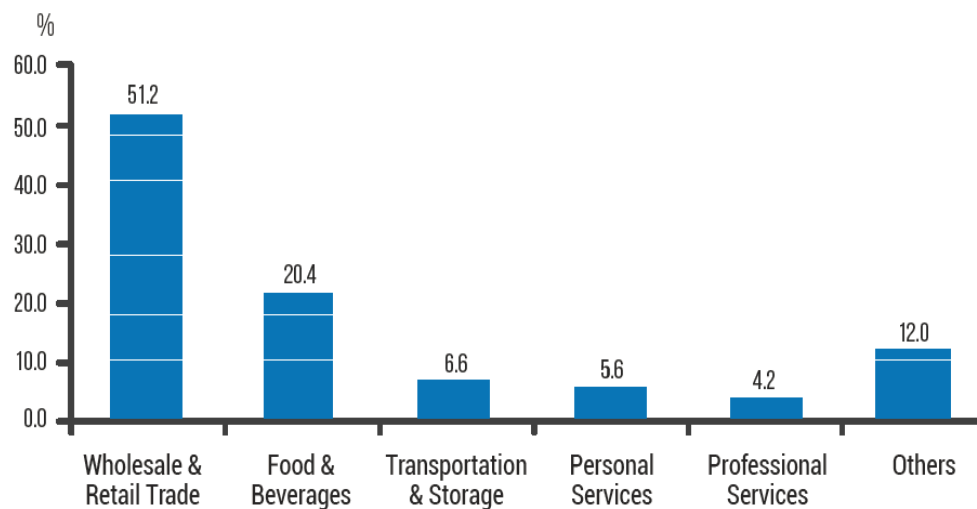


Note. From SME Corp. Malaysia, (2019)

Service sector has the highest SMEs which is at 89.2% or 809,125 SMEs while Mining & Quarrying sector has the least participation of SMEs which is at 0.1%. The contribution of SMEs GDP to the Malaysia GDP is 36.6% from the total of Malaysia GDP in the year of 2016 which is equal to RM 405.5 billion.

SME Corp have grouped the different type industry under 5 main category which are Service, Manufacturing, Construction, Agriculture and Mining and Quarrying. The facilities management and service provider fall under service sector (Zawawi et al, 2009). Below is the Percentage Share of SMEs in Services Sector by Sub-sector.

Figure 2.7: Percentage Share of SMEs in Services Sector by Sub-sector (%)



Note. From SME Corp. Malaysia, (2019)

Facilities management is under the sub-sector of personal services and professional services because the facilities management consist of two service which are hard service and soft service. Professional service includes lawyers, advertising professionals, architects, accountants, financial advisers, engineers, and consultants, among others which require to hold special licenses while personal service include commercial services such as catering and cleaning that supply the personal needs of customers. Referring to table 2.3, hard service can be placed under professional service while soft service can be placed under personal service.

## 2.4 Construction Industrial Development Board (CIDB)

Under the Construction Industry Development Board Act 1994 (Act 520), Construction Industrial Development Board (CIDB) was formed to regulate, develop and facilitate the construction industry towards achieving global competitiveness. CIDB offers advice to stakeholders, Federal and State government on the matter involving construction industry. They have been involved in the industries for 25 years. To register with CIDB, the enterprise must register with SSM, must submit their financial statement, submit information of

technical and qualified person, registration with Energy Commission for electric contractors and other additional requirement for new contractors. The additional requirement is the contractors must have taken Integrity and Code of Ethics Course and Business Management Course. To renew their license and registration they need to have enough Contractor Continuous Development (CCD) Points which is accumulated thru out the years by attending courses or training workshop conducted by CIDB. Most of the course conducted by CIDB is charged certain amount of fee which differs based on course and other condition. License validity period is only up to 3 years and need to be renewed before the license is expires.

CIDB have their own grading system of the contractors which has registered with them. The contractors will be ranked from G1 to G7 and is in ascending manner with G1 being the smallest while G7 being the biggest which reflects their tendering capacity, financial capabilities and size of the company. The table 2.2 shows the link between SME classification synchronized with CIDB grading system including the description of CIDB grading parameter. The table shows that G1 contractor is considered as Micro Enterprise. G2 till G3 is considered as Small Enterprise while G4 till G5 is considered as Medium Enterprise. Any grading of G6 and G7 is classified as Large Enterprise. The table 2.2 is based on Construction Research Institute of Malaysia (CREAM)'s published report in 2014 regarding "Issues and Challenges in Implementing Building Information Modelling (BIM) by SME's in the Construction Industry" but there another table publish by Mustafa Kamal, Ernawati & Flanagan, Roger, (2014) in their journal based on the information they obtained from CIDB however they also made a claim that these CIDB recommended definitions remain at the proposal stage and have not been endorsed by the National SME Development Council. For this research the table is based on the earlier report publish by CREAM as it covers Micro Enterprise. To avoid confusion in this table the G1 contractor will be considered as Micro Enterprise only. In report by CREAM, G1 is considered as Micro and Small Enterprise.

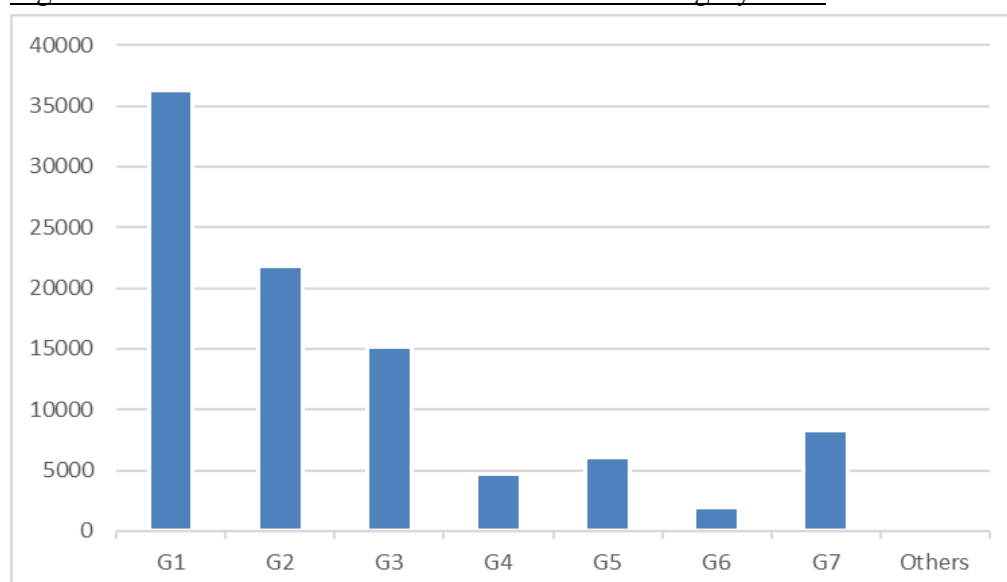


Table 2.2: SME's definition in Construction Sector (CREAM, 2014)

CIDB Grade	Tendering Capacity	Paid-Up Capital	Size of Enterprise
G1	Not exceeding RM200,000	RM 5,000.00	MICRO
G2	Not exceeding RM500,000	RM 25,000.00	SMALL
G3	Not exceeding RM 1 million	RM 50,000.00	
G4	Not exceeding RM 3 million	RM 150,000.00	MEDIUM
G5	Not exceeding RM 5 million	RM 250,000.00	
G6	Not exceeding RM10 million	RM 500,000.00	LARGE
G7	No limit	RM 750,000.00	

Note. Adapted from “Issues and Challenges in Implementing Building Information Modelling (BIM)” by Construction Research Institute of Malaysia (CREAM) in 2014

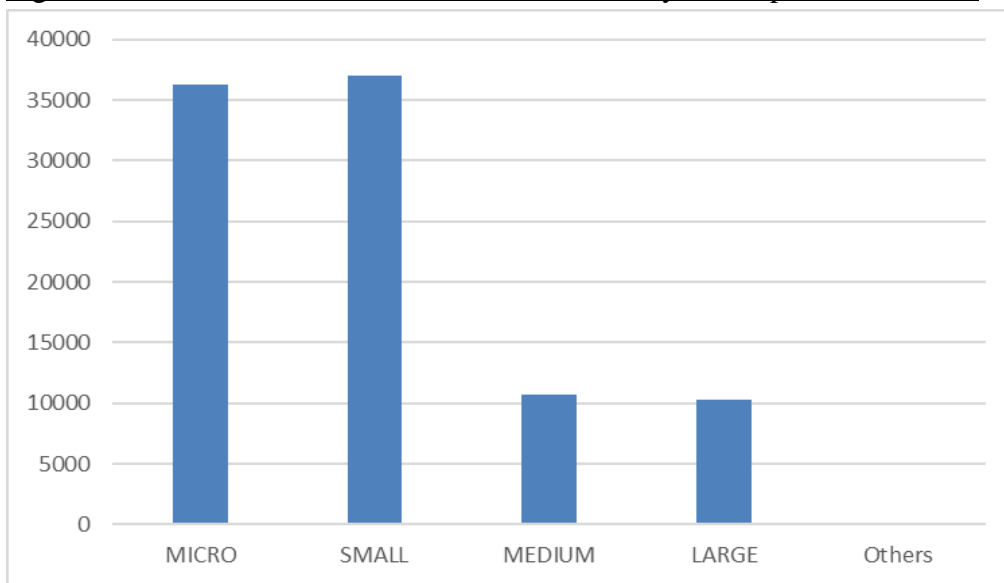
Figure 2.8: CIDB Contractors based on CIDB Grading Systems



Note. Adapted from Construction Industry Development Board Database, (2018)

Overall, there are 94, 324 contractors registered with CIDB. Based on Figure 2.8, most of the contractors are from G1 which stands at 36,266 contractors. The lowest ranking is from Others category which recorded at 15 only while there is no explanation by CIDB about their status. The G6 contractor will be the lowest graded contractor who stands a 1,992. There are total of 21,830 G2 contractors, 15,719 G3 contractors, 4,705 G4 contractors, 6,055 G5 contractors and 8,282 G7 contractors. The data is given by Puan Nur Liza from CIDB via e-mail.

**Figure 2.9: CIDB Contractors Based on SME Malaysia Corp. Classification**



Note. Adapted from Construction Industry Development Board, (2018)

Based on the data obtained from CIDB and Table 2.2, graph in Figure 2.9 was plotted. There are 36,266 Micro Enterprise, 37,009 Small Enterprise, 10,760 Medium Enterprise and 10,274 Large Enterprise registered with CIDB. The Small Enterprise slightly outnumbers Micro Enterprise by 743 while the lowest number of Enterprise is Large Enterprise. In total there are 84,035 Micro and SME contractors. The contractors register their specialization and sub specialization with CIDB. There are three main specialization which are Civil Engineering construction, Construction of Buildings, and Mechanical & Electrical. The data based on specialization couldn't be retrieved from CIDB.

## 2.5 Facilities Management

Word facility originated from late Middle English and Middle French “facilite” and also from Latin word “facilitās” during the period of 1375-1425. Facilities means something that designed, built, installed, etc., to serve a specific function affording a convenience or service or something that permits the easier performance of an action or course of conduct. International Facility Management Association (IFMA) claim that Facility Management is developed from Property Management and the two are basically linked. However, Facility Management has a much wider definition than traditional Property Management services.

Table 2.3: Facility Management classifies facilities products

Category	Space and Infrastructure:	People and Organization:
Definition	<ul style="list-style-type: none"><li>● Design,</li><li>● Construction,</li><li>● Occupancy management,</li><li>● Building operations,</li><li>● Maintenance,</li><li>● Furniture,</li><li>● Equipment,</li><li>● Cleaning.</li></ul>	<ul style="list-style-type: none"><li>● Health services,</li><li>● Catering,</li><li>● Event management,</li><li>● Hospitality,</li><li>● Security,</li><li>● Safety,</li><li>● Human resources,</li><li>● Logistics,</li><li>● Office supplies,</li><li>● Document management,</li><li>● Accounting.</li></ul>

Note. Adapted from International Facility Management Association, (2018)

British Standards EN15221-1: 2006 define Facility Management as following: “Facilities management is the integration of processes within an organization to maintain and develop the agreed services which support and improve the effectiveness of its primary activities.”. European Committee for Standardization gives definition of Facility Management classifies facilities products into two categories as Table 2.2. British Institute of Facilities Management (BIFM) and European Facility Management Network (EuroFM) have adopted this

classification.

IFMA said there is various definition about facility management and most of them is correct but the IFMA have come out with its' own definition which as following, "A profession that encompasses multiple disciplines to ensure functionality of the built environment by integrating people, place, process and technology."

Facilities can be divided into 2 category which are hard service and soft service according to IFMA. Hard service normally related to fabric and system of building which is considered as traditional Property Management.

Table 2.4: Hard and Soft service

Categories	Hard Service	Soft Service
Service	<ul style="list-style-type: none"><li>◆ Building fabric maintenance</li><li>◆ Air conditioning maintenance</li><li>◆ Decoration &amp; refurbishment</li><li>◆ Lift &amp; escalator maintenance</li><li>◆ M&amp;E plant maintenance</li><li>◆ Fire safety system maintenance</li><li>◆ Plumbing &amp; drainage</li><li>◆ Minor project management</li></ul>	<ul style="list-style-type: none"><li>◆ Cleaning</li><li>◆ Recycling</li><li>◆ Security</li><li>◆ Pest control</li><li>◆ Handyman services</li><li>◆ Grounds maintenance</li><li>◆ Waste disposal</li><li>◆ Internal plants</li></ul>

Note. Adapted from British Standards EN15221-1: 2006

Most of buildings or infrastructure have a separate department to manage their facilities. According to IFMA there is typically five models for delivering Facility Management services. They are In-house Facility Management, Out-tasked service contracts, Outsourced managing agent Facility Management contract, Outsourced managing contractor Facility Management contract and Total Facility Management (TFM) contract. Its common objective is to ensure the efficiency and effective delivery of facilities and tangible assets to organization.

The Royal Institution of Chartered Surveyors (RICS) simplified the range of

activities defined in the standard British Standards EN 15221-4 in Table 2.5.

Table 2.5: Facility Management range of activity

Catergories	Services	Management	Real Estates
Activity	<ul style="list-style-type: none"> <li>● Catering;</li> <li>● Cleaning: internal and external, pest control;</li> <li>● Document management;</li> <li>● Front of house;</li> <li>● Maintenance: internal and external;</li> <li>● M&amp;E: air conditioning, fire alarms, lifts, lighting, UPS systems;</li> <li>● Security;</li> <li>● Staff welfare &amp; facilities;</li> <li>● Telecoms;</li> <li>● Utilities;</li> <li>● Waste management;</li> <li>● Workplace management.</li> </ul>	<ul style="list-style-type: none"> <li>● Administration, asset registers, records, archives;</li> <li>● Business continuity and risk management;</li> <li>● Compliance;</li> <li>● Contract management;</li> <li>● Corporate social responsibility;</li> <li>● Sustainability;</li> <li>● Customer management;</li> <li>● Financial services;</li> <li>● FM Team;</li> <li>● ICT;</li> <li>● Networking;</li> <li>● Performance management;</li> <li>● Procurement;</li> <li>● Strategy;</li> <li>● Workplace</li> </ul>	<ul style="list-style-type: none"> <li>● Occupational and financial strategy;</li> <li>● Asset strategy and management;</li> <li>● Transactions;</li> <li>● Capital projects;</li> <li>● Business agility;</li> <li>● Leasehold management;</li> <li>● Operating cost management.</li> </ul>

Note. Adapted from Royal Institution of Chartered Surveyors (RICS), (2018)

Facilities can cost large amount of capital for the property owner to be able to install it in their property which could increase their value and fulfil the basic necessity and requirement by government agency hence facilities need to be efficiently and effectively managed. It represents nearly 50% of the total income of construction industry in most countries and investment in building maintenance is large all over the world (Lateef, 2009). Property plays same important role as how human, financial resource and information resource to the success of an organization (Zailan, 2001) and for this reason a quality facility plays crucial part in it.

Facility Management is an interdisciplinary management. Since it is a interdisciplinary management and each disciplinary have its own specialist and special tool to carry out the work, repair, installation, overhaul, related task or diagnosis, it is economically unviable for the property owner to hire all the specialist or purchase all the tools hence it is viable to outsource some of it. Outsourcing strategy helps organizations in increase the access to functional expertise, improve quality and efficiency, improving competitive pressures and to elevate the potential for creating strategic business alliances and reduce internal administrative problems (Fill and Visser, 2000). This has created an industry on its own to assists the facilities management team and property owners.

Facility maintenance is often seen as an annoyance or as a “necessary evil.” This is partly due to the presumption that facility maintenance is cost incurring department and does not give much in return (Lepkova and Žūkaitė-Jefimovienė, 2012). Building owners and user organizations fail to be understood that high-quality maintenance has many positive, mostly indirect, effects on the business performance of all the parties involved and not only for the companies providing facility maintenance services (Rasila and Gelsberg, 2007)

This industry falls under service category according to Zawawi et al (2009) and based on Malaysian Standard Industry Code 2008 (MSIC 2008).

## **2.6 Facilities and Maintenance Service Providers**

Some of the oldest company in the world is ISS A/S (Integrated Service Solutions) which is a facility services company founded in Copenhagen, Denmark in 1901. It was started as small security company. This shows that facilities service provider has existed more than a century. International Facility Management Association (IFMA) claim the trend start in 1980's and was led by the US with Europe lagging approximately 5 to 10 years.

Facilities and maintenance service providers are under category of Service sector and grouped under Professional and Personal Service as the core services needs professional certificated workers. It is approximately about 8.74% of total SME in Malaysia which equals to 70,717 SMEs involved in professional and personal service

British Institute of Facilities Management, International Facility Management Association, Malaysian Association of Professional Property Managers, Building Management Association of Malaysia and Chartered Institute of Building Service Engineer are some of professional association for the facility management sector.

This service provider need to be registered with multiple government agency such as Suruhanjaya Syarikat Malaysia (SSM), Suruhanjaya Tenaga (ST), Suruhanjaya Perkhidmatan Air Negara (SPAN), Jabatan Keselamatan dan Kesihatan Pekerjaan (DOSH), Lembaga Pembangunan Industri Pembinaan Malaysia (CIDB), local municipality and other in order to get license or permit to do their trade.

This Facilities and Maintenance Service Providers outsource the work to sub-contractor who is specialist in the discipline such as plumbing, heating, ventilation and air condition, electrical, firefighting, security, cctv and etc. This helps reduce their operating cost as they can hire the specialist when they need and no need to worry about licenses which might need to do certain jobs. The benefits of outsourcing seem to give value for money to the company by having more time to

focus on core business and having the access to professional, expert and high-quality services while reducing building life-cycle costs and maximize profits. (Kurdia et al 2011)

## **2.7 Profitability**

Profitability is an important aspect in business as it determines the survivability of an organization. The size of organization, growth, lagged profitability, productivity and industrial affiliation has significant influence on profitability of an organization (Margaretha and Supartika, 2016). This factor is internal

External factor such as government policy, environment, social demand, exchange rates, politics, economics, legal and technologies do affect the business activity. However, the factor's influences vary over the time (Agnieszka Parkitna and Beata Sadowska, 2011)

The key decision maker should be aware of internal and external specific condition in which the organization is operating to develop, implement and maintain strategies, policies, and goals which is needed to ensure long term performance of the company (Burja 2011). There is various relative profitability indicator which can be computed from an organization financial statement. Regression analysis involves numerous indicator which help to model the functional form between various economic and financial indicators.

Type of indicator looked in micro economic level are such as liquid ratio, receivables turnover ratio, and working capital to total asset according to Singh and Pandey (2008). This indicator is affected by factor such as payment by client, efficient workforce, financial aid, ethics in business, competition, and government policies. This factor directly affects the earning of a company which directly affects the financial ratio of the company that is referred to by investor.



## 2.8 Factors Affecting Profitability and Payment Regularity

SME companies which has business interest in Facilities Maintenance Services facing issues such as non-payment (Abdul Rahman et al, 2006), difficulty in securing financial aid (Wang, 2016), recruiting and retaining workforce (Abor et al, 2014), lack of information from client, unethical issue, and intense competition which affects their profitability which can be seen in the financial ratio.

### 2.8.1 Non-Payment and Late Payment

Payment issue has been old age problems which has spread all over construction industry of Malaysia because it has knock-on effect on the entire construction industry (Azman et al 2014). Non-payment or Late payment by client will increase the woes of contractor. This has affected many companies and categorized a financial problem by the victim (Abdul Rahman et al 2006). According to Suhaini (2005) due to non-payment by umbrella contractor, nearly 16,000 of the F class contractors was in the edge of bankruptcy. Azman et al (2014) has categorized the factor of this issue in a table form as below in his research

Table 2.6: Non-Payment and Late Payment Factor's Group

Factor	Name of Factor	Causes of Late and Non-Payment
Factor 1	Management and Documentation	1. Issues with regards to documentation error 2. Breach of contract term by parties involved in the project 3. Paymaster's poor financial management
Factor 2	Communication and Contract	4. Conflict among the Parties

		<p>Involved in the Project</p> <p>5. The use of "pay when paid" clause in the contract</p> <p>6. Delay in certification by consultant</p> <p>7. Paymaster's Wrongly Withholding of Payment</p>
Factor 3	Culture/Attitude	<p>1. Local Culture/ Attitude</p> <p>2. Disagreement of the valuation of work done</p>

Note. Adapted from Payment Issue in Malaysian Construction Industry: Contractors' Perspective by Azman et al 2014, Jurnal Teknologi, 70(1)

Construction Industry and Payment Adjudication Act (CIPAA 2012) was introduced and has come into effect on 15 April 2014. The intention of this act is to reduce the payment issue in the construction industry through the initiation of a statutory adjudication process. Supardi, Adnan and Mohammad (2011) has divided three type of payment structure to sub-contractors which are payment upon certification, direct payment from the employer, and contingent payment or conditional payment while Ansah, S. (2011) mention there are four type of payment which is interim or progress payment, stage payment, advance payment, and payment after completion. The explanation for both authors doesn't differ much such as payment upon certification is similar to payment after completion.

According to Supardi, and Adnan, (2011) even though small sized subcontractors, particularly benefit from this Act, they still lack the knowledge of security of payment regime to benefits from the Act. The question is whether this act can be used in facilities management by the service provider and whether the service provider or contractor aware of this act and payment structure type.

This factor affects a company's receivables turnover ratio. The high ratio means that cash is collected more quickly for use in the company and vice versa.

### **2.8.2 Workforce**

SMEs generally have difficulty engaging highly motivated labors because of the aggressive competition with large organization on the labor market for such skilled and talented personnel (Abor et al, 2014). Local labor is demanding high salary and other additional amenities which increase the operation cost of a company and can't be provided by Micro or SME companies due to the cost which encourage them to turn to immigrant workers.

Sivanandam, (2017) wrote that during a raid by Immigration Department to catch illegal immigrant worker, the contractors overhead cost increase drastically and they also hit by liquidated ascertained damages (LAD) for compensation of late delivery. Both legal and illegal workers went into hiding during this raid period which has affected the productivity of the contractors which cause delay in their work. It is also found by Sivanandam, (2017) that most of contractors use agent to hire the workers. According to Master Builders Association Malaysia president Foo Chek Lee, some of contractor reluctant to send their worker to E-Card registration due to non-refundable process fee if the application failed and they need to send back the worker using their money. Datuk Seri Tan Thian Poh of the Associated Chinese Chambers of Commerce and Industry of Malaysia said Micro and SME businesses would be most affected by the recent crackdown. This statement is echoed by SME Association of Malaysia president Datuk Michael Kang

### **2.8.3 Lack of information**

According to Ismail and Kasim (2013) during their interview with maintenance management it is found that the assistant engineer of a property had found it difficult to describe the defect explanation based on the actual inspection by their own technician. It gives wrong picture of defect which will be explained to contractor who end up giving wrong solution due to the difficulty of the assistant engineer to describe the defect explanation by own technician.

Whitfield, (2012a) in his book *Conflict in Construction and Conflicts in Construction: Avoiding, Managing, Resolving*, has elaborate in length regarding how the clients are deliberately withhold the information needed by the contractors to fully identify the risk and price the work properly. He also has included example case study. In one of case the client asked the designer of the project to go ahead with tendering process even-though the designer has multiple times told the client that the design is not ready. The client forcefully demanded the design to be submit within original time frame, but the designer pointed out the design is far from complete because the client refuse to give adequate details. The designer complained this method of procurement will cause problems later, but the client's representative instructs the designer to send out the tender in the manner the contractor doesn't realize the design issue. The designer followed the order as instructed by client. Soon the client is rained with enquiry which is passed to designer to be answered. When designer sent the fee note, the client refused to pay the excess fee and maintained that the technical inquiry was an inherent part of agreed design fee. The designers denied this claim, stop the work and commence an action for the fee while the client dismissed the designer and take up the project with their own procurement. The client had issues with main contractor and sub-contractor. The project now in arbitration process according to Whitfield, (2012a). This case study shows how client being dishonest and unfair towards vendors and contractors.

The Building Information Modelling is designed to minimize information losses which traditionally arise especially when a new team takes over a project. It also provides extensive information of complex structures (Eastman, 2009). This statement proof that there is loss of information when there is handover of responsibility.

#### **2.8.4 Unethical**

Hasmori et al. (2012) stated that client's employees are illegally holding the payment and usually they practice this to receive some kind of "gift" from contractors once they pay out the payment. Hence, contractors have to endure this action to get their payments. Zakaria et al (2013) say there are cases where customer's employees wrongfully hold the final payment to receive some kind of "gift" from contractors to quicken the process of payment

Suhaini (2005) further explained that government has taken a measure in late 2003 to introduce open tender to have fair tender process but these measures was scuttled by realities on the ground – long-institutionalized crony system, friendships, kinship and discreet "palm ships". The measure failed to be practise on the ground level.

Contractors is being push to corner where they have no choice but to cut down on material quality to make end meet. Clients are giving job to the lowest bidder or to the cronies. Suhaini (2005) said that JKR Subang opened tender for a Royal Malaysian Air Force project, more than 70 turned up for four jobs while at JKR Petaling, more than 150 turned up for eight jobs. This shows that number of job are way too low compare to number of contractors. Low-price mentality, fierce competition and paper-thin margins creates perfect environment for ethical dilemmas (FMI, 2004) and this leads to most common ethical dilemma, corruption.

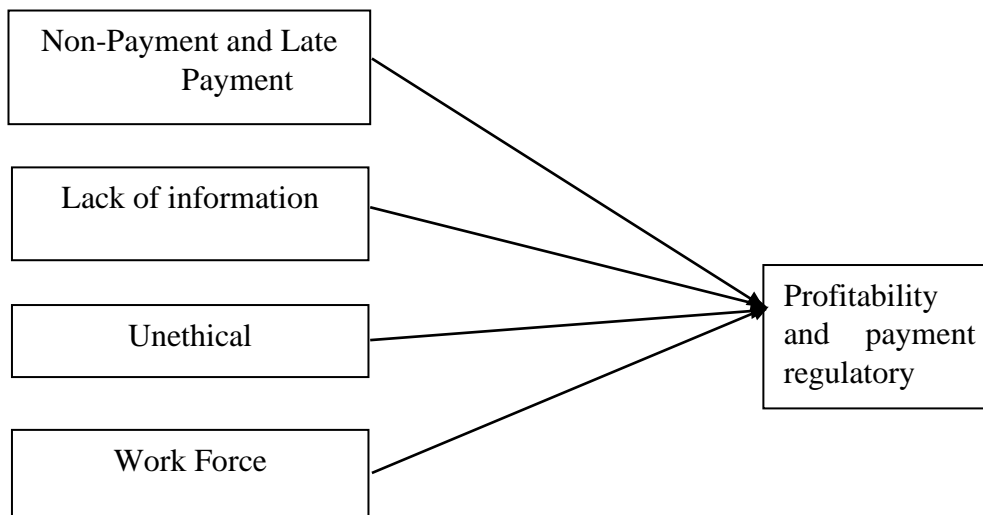
Whitfield, (2012a) has wrote in his book, *Conflict in Construction* that clients are not practicing fairness where client knowingly amended the contract terms to increase contractor's risk and intentionally maintained a tight tender period which will prevent the contractors from investigating the scope of the problem to deeply. The client also intentionally withholding information from contractor which is needed to fully identify the risk and price the work properly. The client is doing this to reduce the initial price of the project, if he or she needs it to go ahead. The client's dishonesty and unfairness are causing the contractors profitability and may lead them to bankrupt.

The management has a very conservative approach towards maintenance according to Daud (2011) in one of his articles. The importance given to design and construction of an asset is not given to maintenance of the asset. This was supported by study done by Sivanathan et al (2012) where it is found that vast of maintenance problem are due to design deficiencies. Failure to include maintenance plan in design stage is the major contributor.

## 2.9 Conceptual Framework

Based on the literature review, the diagram below was produced. The independent variable is non-payment, late payment, lack of information, unethical and workforce. This independent variable affects the mediating variable which is the receivables ratio, revenue and operating profit margin.

Figure 2.10: Conceptual Framework



(Source: Developed for the research)

## 2.10 Summary of literature review

The summary of literature review is as below where the factors affecting profitability and payment regularity of facilities and maintenance service provider was identified based on available literatures and journals.

Table 2.7: Summary of literature review

No	Factors	References	Points
1	Payment	Azman et al (2014)	Payment issue has been old age problems which has spread all over construction industry of Malaysia because it has knock-on effect on the entire construction industry
		Ansah, (2011)	four type of payment which is interim or progress payment, stage payment, advance payment, and payment after completion
		Abdul Rahman et al (2006)	affected many companies and categorized a financial problem by the victim
		Suhaini (2005)	due to non-payment by umbrella contractor, nearly 16,000 of the F class contractors was in the brink of bankruptcy
		Supardi, Adnan and Mohammad (2011)	divided type of payment structure to sub-contractors into three which are payment upon certification, direct payment from the employer, and contingent payment or

			conditional payment
		Supardi, and Adnan, (2011)	even though small sized subcontractors, particularly benefit from this Act, they still lack the knowledge of security of payment regime to benefits from the Act.
2	Workforce	Abor et al, 2014	SMEs normally have difficulty attracting highly motivated labors because of the fierce competition with large companies on the labor market for such skilled and talented personnel
		Sivanandam, (2017)	during a raid by Immigration Department to catch illegal immigrant worker, the contractors overhead cost increase drastically and they also hit by liquidated ascertained damages (LAD) for compensation of late delivery  that most of contractors use agent to hire the workers.
3	Lack of information	Ismail and Hamzah, (2013)	during their interview with maintenance management it is found that the assistant engineer of a property had found it difficult to describe the defect explanation based on the actual inspection by



			their own technician
		Whitfield, (2012a)	elaborate in length regarding how the clients are deliberately withhold the information needed by the contractors to fully identify the risk and price the work properly
		Eastman, (2009).	The Business Information Modelling is designed to reduce information losses that traditionally occur especially when a new team takes over a project. It also provides extensive information of complex structures
4	Unethical	Hasmori et al. (2012)	client's employees are wrongfully holding the payment and most of the time they do this to obtain some kind of "gift" from contractors
		Suhaini (2005)	introduce open tender to have fair tender process but this measures was scuttled by realities on the ground – long-institutionalized crony system , friendships, kinship and discreet "palm ships"

			more than 70 turned up for four jobs while at JKR Petaling, more than 150 turned up for eight jobs
		Whitfield, (2012a)	that clients are not practicing fairness where client knowingly altered the contract terms to increase Contractor's risk and deliberately maintained a tight tender period which will prevent the contractors from investigating the scope of the problem to deeply.
		Daud (2011)	The importance given to design and construction of an asset is not given to maintenance of the asset.
		Sivanathan et al (2012)	found that vast of maintenance problem are due to design deficiencies
		Zakaria et al (2013)	there are cases where customer's employees unethically hold the final payment to obtain some kind of "gift" from contractors to quicken the process of payment.

(Source: Developed by Researcher)

## **CHAPTER 3**

### **RESEARCH METHODOLOGY**

#### **3.0 Introduction**

In this chapter, the methodology and procedure used in the research will be discussed. The chosen sample and method of data collection will be elaborated in this chapter. Research design, type of data and analysis method is also described in this chapter. The study should be able to identify and analyse the factors discussed in the previous chapter which covers payment, workforce, lack of information, unethical and general

#### **3.1 Research Design**

The research implementation method can be categorized as exploratory, descriptive, explanatory also referred to as casual research. Exploratory is used to explore new ideas or knowledge while explanatory is more to test cause and effect relationship. Descriptive approach is used as followed up research after an idea or knowledge is explored. It is to describe characteristic and functions.

Empirical work is practical validation of the hypothesis formed before. This is done by collecting data, organizing and verifying, interpreting and connecting to existing knowledge. Qualitative and quantitative are two types of method used in research. According to Shields and Twycross (2003), qualitative method is used when the answer needs to be narrated while quantitative research methods are

used when answer needs to be evaluate. For this research, explanatory approach together with quantitative method is utilize. Quantitative research is normally applied in conditions that can be represented in terms of quantity upon measuring the amount or quantity (Kothari, 2004). Qualitative research is normally applied with the intention to ascertain the underlying motives of individuals' conduct such as investigating the numerous aspects that causes individuals to perform in a certain manner (Kothari, 2004). The differences of quantitative and qualitative research method are described in Table 3.1.

**Table 3.0: Differences of Quantitative and Qualitative Research Methods**

Quantitative Research Method	Qualitative Research Method
i. Data in terms of numbers	i. Data in terms of words
ii. Hypothetico-deductive approach	ii. Inductive approach
iii. Site and study context is controlled	iii. Naturally occurring context
iv. Operationally defined variables are isolated	iv. Holistic view of phenomena
v. Objectivity	v. Subjectivity
vi. Stress on prediction, control and explanation	vi. Stress on description, exploration and search for meaning
vii. Scholar directs, manipulates, and control	vii. Scholar participates and collaborates
viii. Statistical Analysis	viii. Text Analysis

Note. Adapted from Rudestam and Newton (2014) *Surviving Your Dissertation: A Comprehensive Guide to Content and Process* (4th ed.). SAGE Publications

### **3.2 Data Collection Method**

The nature of survey research is the accumulation of information using a standardized questionnaire (Oksenberg L, Channel C, and Kalton G.,1991) The research is covering whole Malaysia as the Micro and SME organization spread

throughout the nation and most cost-effective way to reach them is through online survey. The questions survey is distributed through Google Form. The mail is provided by the Construction Industry Development Board (CIDB). The first set of question is distributed to 9,983 respondents. The questionnaire is made into 2 languages which is English and Malay.

The second set of question is sent to the respondent with adjustment based on earlier feedback from the pilot test. Out of these emails, the number of working emails can't be identified hence all the email will be assumed in working condition and questionnaire will be sent. Number of emails sent to G1 is 7,000, G2 is 7,000, G3 is 7,000, G4 is 3,161 and G5 is 4,280. Total email sent is 28,441. The feedback from second set is measured and analyse. Number of respondents was at 199 in second test which equals to 0.7% of total emailed sent to. It is representing 52.09 % of required sample of 382 which is based on Krejcie and Morgan (1970) table.

### 3.2.1 Research Instrument

In this research, explanatory type research which utilizes a questionnaire to collect data is used. The questions in the questionnaire are based on literature review. The questionnaire which will be consists of close-ended questions "Yes" or "No" and 5-point Likert scale ranging from 'strongly disagreed' to 'strongly agreed' and 'never' to 'always' applied while interview question will have no multiple-choice answer as the reply will be written down.

Table 3.1: Five-point Likert Scale

Scale	1	2	3	4	5
Likert Scale 1	Never	Rarely	Sometimes	Very Often	Always
Likert Scale 2	Strongly Disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree

(Source: Developed by Researcher)

The questionnaire is divided into 7 parts. In the first topic, it will explain the purpose of the questionnaire. Topic 2 will be on the “Demographics” of the respondents. Topic 3 will tackle the issue on "Payment" while topic 4 is on "Workforce". Topic 5 is on "Lack of Information" and topic 6 is on the “Unethical”. Part 7 is on "General" questions regarding the industry. There are a total of 46 questions. The questionnaire is distributed via e-mail as it is cost efficient and faster to reach the respondent. Kim Bartel Sheehan (2001) stated that E-mail surveys have demonstrated advantage over postal surveys in terms of response speed and cost efficiency. It is also found that the average response rate from 31 studies report was 36.38%. According to online survey website, Survey Anyplace, average response rate for email survey is at 30% for year 2018.

The Likert Scale 1 is used in Topic 3 for question 3 and 4 while Likert Scale 2 is used for question 5. In Topic 4, Likert Scale 1 is used from question 2 to 7. Topic 5 utilize Likert Scale 1 for all of the question which 1 to 7. Likert Scale 1 is used for question 1 to 8 in topic 6 while remaining question from 9 to 12 uses Likert Scale 2. Topic 7 use Likert Scale 2 for question 1 to 6 and 8.

### **3.3 Pilot Test**

A pilot test is a small-sample, quantitative study conducted as a preliminary to a wider scale test or clinical trial (Polit, Beck, and Hungler, 2001). Pilot test is often used in research as pre-test or as try out because even though pilot test does not guarantee success of main research, but it greatly reduces the possibility of it fails (Baker, 1994). Baker (1994) suggest a sample size of 10 - 20% of the sample size for actual study is a reasonable number of respondents to engage in a pilot test.

The question is develop based on factor and variable found in journals, articles and newspaper. The questionnaire is divided into 7 section starting with introduction to explain the objective of this questionnaire to respondents and followed by demographics of respondent. The four section to follow up is

Payment, Workforce, Lack of Information, and Unethical which are the factors identified in this study. The last section is on general questions which will be used as supporting data to the study. The question is then proofread before sent to respondents. Each section has a set of questions for the respondents to answer.

The test was done in January 2019. The respondents are the facility service provider known to researcher, member of Facebook group known as Geng Air Cond 1 Malaysia K.A.E, Chargeman and Wireman, and Kontraktor Malaysia. The question is also sent to service provider who has registered with CIDB as well via email. The questionnaire's Google Form link is shared to them.

It is estimated about 10,000 emails sent not including the respondent in Facebook group, but the response was very poor where only 22 respondents participated with some of the respondent gave feedback that the question is too detailed, too many questions and not available in Bahasa Malaysia. The emails were sent to 10,000 respondents as the response was very low. The main issue here was availability of the question in Malay language based on number of feedbacks received via email, Facebook Messenger, Facebook Comments and Whatsapp chat application. As response to the feedback, the question is reduced and revamped while maintaining the same amount of sections. The questionnaire is translated to Bahasa Malaysia which gives option to respondent to choose between English and Malay language.

### **3.4 Sampling Design**

Population is defined as total of items about which information is desired by Kabir (2016). In this study the items will be contractors. Sampling is the process of selecting the sample from this population. It is the procedure of selecting the sample for determining the population characteristics. In other words, it is the procedure of securing information about an entire population by investigating only a part of it.

Taherdoost, (2016) says a sampling frame is a list of the actual cases from which sample will be extract. The sampling frame must be representative of the population. Frame for this research is contractor needs to be registered with Suruhanjaya Syarikat Malaysia (SSM) and Construction Industry Development Board (CIDB) while their business involves facility maintenance services.

With the frame is establish, the technique to do sampling is divide mainly to two approach which is Non-Probability and Probability sampling technique. Non-Probability sampling is commonly related with case study, research design and qualitative research. With regards to the latter, case studies tend to concentrate on small samples and are intended to examine a real-life phenomenon, not to make statistical inferences in relation to the wider population (Yin, 2003). A sample of participants or cases does not need to be representative, or random, but a clear rationale is needed for the inclusion of some cases or individuals rather than others.

Probability sampling provide equal chance to the population to be included as sample without prejudice but may represent the costliest sample in terms of time and energy for a given level of sampling error (Brown, 1947). Hence in this study probability sampling techniques is chosen to give equal opportunity to the respondents which are classified with their tendering capability, sales turnover and number of employees by government agency such as CIDB, SME Corp and construction Research Institute of Malaysia (CREAM).

Using Krejcie and Morgan's sample size determination table which same as using the Krejcie and Morgan's sample size calculation the sample size is determine. The Krejcie and Morgan's sample size calculation was based on confidence level of 95% where the margin error is set at 5 %.



### **3.4.1 Target Population**

According to Joseph F. Hair (2003), population refer to all people or item that one wishes to understand while sampling is a procedure of choosing a segment of the population for analysis. It is a process of selecting a sample of units from a data set in order to measure the characteristics, beliefs and attitudes of the people.

The population for this research is all the contractor who had first registered with Suruhanjaya Syarikat Malaysia (SSM) and second requirement is registered with CIDB. As it is known that to be registered with CIDB the company should have registered with SSM first hence it is safe to assume the list of contractors given by CIDB is already registered with SSM and not required to check with SSM. Total population size is 94,324 registered contractors.

### **3.4.2 Sampling Technique**

This research uses Stratified Random Sampling. According to Rahi (2017), it is a process of sampling in which each subgroup called strata is given an equal chance to be selected randomly. It gives equal proportionate representation to each stratum. Shi (2015) says the sample for stratified sampling is more representative than that for random sampling, thereby improving the accuracy of the parameter estimation

As the contractor registered with CIDB is categorized by a grading system from G1 to G5 hence this method fits as the grading systems has created subgroup. SME Corp have categorized the business based on sales turnover and number of workers. For this study, Table 2.2 from Chapter is referred. This table is based on report published by Construction Research Institute of Malaysia (CREAM) in 2014

### **3.4.3 Sampling Size**

The information and data of contractor have been shared by CIDB through email. There is a total of 94,324 registered contractors in CIDB database. After isolating the Large Enterprise which is under category of G6 and G7 from the total, there are 84,035 Micro and SME contractors. Out of these numbers' contractors, only 24,194 of Micro Enterprise, 27,102 of Small Enterprise and 7,441 of Medium Enterprise have an email registered with CIDB. The total stands at 58,737.

From a total of 58,737, G1 represents 41.19% while G2 is 26.27%, G3 is 19.87%, G4 is 5.38% and G5 is at 7.29%. Using Krejcie and Morgan (1970) Table, the number of sample size for population size of 58, 737 is not determined. The table shows sample size for population of 50,000 at 381 while the next population size is 75,000 with sample size of 382 with confidence level is at 95% and margin of error at 5%. Since the population size for this research is 58, 737 which is more than 50,000 the sample size is set at 382.

Out of this 382-sample size, number of respondents from each grade should be at G1 is 157, G2 is 100, G3 is 76, G4 is 21, and G5 is 28. By taking into consideration of the email average response rate which stands at 30%, minimum number of emails to be sent will be at 1,274 emails. The number of emails to be sent to G1 is 523, G2 is 333, G3 is 253, G4 is 71 and G5 is 94 at minimum.

## **3.5 Data Analysis**

Data analysis is the next step after collecting data and information from respondents. The raw data need to be processed to extract relevant and useful information contained in the data for further interpretation according to Ibrahim (2015). For this research, two approach is utilized which is descriptive analysis and Relative Importance Index (RII) method to analysis the outcome from questionnaire.

### 3.5.1 Descriptive Analysis

Descriptive analysis is method to describe the data collected and their definition to findings in a logical and effective way. Based to Vetter, T. R. (2017) descriptive statistics are particular methods basically used to calculate, describe, and summarize collected research data in a logical, meaningful, and efficient way. Grimes and Schulz (2002) said “Descriptive studies often represent the first scientific toe in the water in new areas of inquiry. A fundamental element of descriptive reporting is a clear, specific, and measurable definition of the disease or condition in question”.

According to Kaur et al (2018) descriptive analysis are used to summarize data in a systematic manner by explaining the relationship between variables in a sample or population. The data collected will be presented in chart pie form for easy understanding with description below it.

### 3.5.2 Relative Importance Index (RII) method

Relative Importance Index (RII) method is used to determine the importance of various factor by ranking them. Bari et al (2012), Sambasivan, and Soon, (2007), Chan, and Kumaraswamy, (1997), and Kometa et al (1994) have used this method to rank their findings. This same method will be used to analyse the data collected from current questionnaire survey.

Figure 3.1: Relative Importance Index (RII)

$$\text{Relative Importance Index} = \frac{\sum W}{(A \times N)}, (0 \leq \text{index} \leq 1)$$

W = weights given to each factor significant.

A= highest weight

N=total number of respondents

The range of weight given to answer is 1 to 5. Five important levels are transformed from RI values: high (H) ( $0.8 \leq RI \leq 1$ ), high-medium (H-M) ( $0.6 \leq RI \leq 0.8$ ), medium (M) ( $0.4 \leq RI \leq 0.6$ ), medium-low (M-L) ( $0.2 \leq RI \leq 0.4$ ) and low (L) ( $0 \leq RI \leq 0.2$ ) based on study by Akadiri (2011). The highest RII indicates the most critical and important factor with rank 1 and the next indicates the second-most critical factor with rank 2, and so forth. Using Microsoft Excel, the value is derived.

**Table 3.2: Five-point Likert Scale and Weight Range for RII Method**

Weight	1	2	3	4	5
Likert Scale 1	Never	Rarely	Sometimes	Very Often	Always
Likert Scale 2	Strongly Disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree

(Source: Developed by researcher)

### 3.6 Conclusion

This chapter had been arranged to include introduction, research design, population and determination of sample size, data collection method, and data analysis. Explanation of the choices of research methodology and data collection methods has been mentioned. Details of the analysis from quantitative method, results and discussion were presented in Chapter 4.

## **CHAPTER 4**

### **RESULTS**

#### **4.0 Introduction**

This chapter explained the findings on the data collected from the questionnaire survey answered by the respondents who were currently working as contractor or service provider in facilities and maintenance of property in Malaysia. The data collected from survey is represented in table and chart pie form. In survey questionnaire, the four main factor which is Payment, Workforce, Lack of Information and Unethical affecting the contractor profitability in Malaysia will be analysed and ranked by using the relative important index. The General section data is used as supportive findings. In addition, this chapter will also discuss about the factors and main issue affecting them.

#### **4.1 Background of Respondents**

Number of respondents was 199. Out of this number, 132 of respondents chosen to answer in Malay language which is at 66.33% of the total respondent while balance of respondent 67 or 33.67% of total preferred to reply in English language. This might be due to lack of English proficiency among the respondent.

Table 4.0: Respondent based on survey language taken.

No	Language	Respondent	Percentage (%)
1	Malay	132	66.33
2	English	67	33.67
	Total	199	100

Source: Developed by researcher

CIDB have categorize the contractor based on grading system which is from G1 to G7. This grade refers to their maximum value of tender they intent to participate with G1 referring to lowest while G7 referring to highest tender value. For this survey we limited the participant from G1 to G5 only. Highest number of respondents is from G1 category which is at 56 respondent or 28.14% from the total respondent. It is followed by G3 at 50 respondent which is 25.13% of total respondent while followed closed by G2 with 46 respondent which is 23.12% from total respondent. Number of respondents from G5 and G4 is at 24 and 23 respondent which equals to 12.06% and 11.56% of total respondent.

Table 4.1: Respondent based on CIDB grade.

No	Grade	Respondent	Percentage (%)
1	G1	56	28.14
2	G2	46	23.12
3	G3	50	25.13
4	G4	23	11.56
5	G5	24	12.06
	Total	199	100

Source: Developed by researcher

Specialization category was separated into two part. One is referred as hard service while other is called soft service and it covers wider services provided by contractors. Out of 199 respondents, 166 of them is under hard services while the remaining 33 respondent or 16.58% of total respondent falls under soft services.

Table 4.2: Respondent based on specialization.

No	Specialization	Respondent	Percentage (%)
1	Hard Service	166	83.42
2	Soft Service	33	16.58
	Total	199	100

Source: Developed by researcher

Number of respondents based on their operation base. The highest participant is from Selangor which stand at 60 respondent or 30.15% from total respondent. Second highest responds came from Johor. The number of respondents was at 27 or 13.57% from the total respond receive. Sarawak and Johor have same number of respondents at 14 participants. Lowest responds is from W.P Putrajaya where the number of participant is just 1. There are no responds from state of Perlis and W.P. Labuan. This could due to Perlis is being the smallest state in Malaysia where there is lack of development of construction industry as it depends largely on forestry, agriculture and fishing industries while Labuan is being port and hub for oil and gas activity. Perlis is only hosting 0.8% of total SME companies. Selangor have highest respondent as there are variety of business is using it as base as the state have its own port, proper transportation systems, roads, international airports and infrastructure to business hence it has more facility to be maintained. Selangor hosting highest number of SME in Malaysia which is at 19.8% of total SME establishment in Malaysia based on figure 2.3.

Table 4.3: Respondent based on state.

No	State	Respondent	Percentage (%)
1	Perlis	0	0
2	Kedah	6	3.02
3	Penang	8	4.02
4	Perak	9	4.52
5	Selangor	60	30.15
6	Negeri Sembilan	4	2.01
7	Melaka	6	3.02

8	Johor	27	13.57
9	Pahang	12	6.03
10	Terengganu	7	3.52
11	Kelantan	2	1.01
12	Sabah	13	6.53
13	Sarawak	21	10.55
14	W.P. K.L	23	11.56
15	W.P. Putrajaya	1	0.50
16	W.P. Labuan	0	0
	TOTAL	199	100

Source: Developed by researcher

The number of Micro business which participated in the survey is 89 which equals to 44.72% of total respondents. Small business participant is 84 or 42.21% from total participant while medium business is at 26 or 13.07% of total participant. Table 4.1 stating number of respondents from G1 is just 56 respondents, but 89 respondents claim their size is Micro. Referring to Table 2.2, only G1 contractor is assumed as Micro size enterprise. Hence it can be conclude that some respondent who are not ranked as G1 is assuming themselves as Micro business entity

Table 4.4: Respondent based on business size.

No	Size	Respondent	Percentage (%)
1	Micro	89	44.72
2	Small	84	42.21
3	Medium	26	13.07
	Total	199	100

Source: Developed by researcher

47.24% of respondent has more than 10-year experience in the field which equals to 94 respondents. 23.12% of respondent has 5 to 10-year experience while respondent with 2 to 4-year experience is at 45 respondents or 22.61% of total respondent. 12 participant or 6.03% has experience less than 1 year while 2



participant or 1.01% has no experience at all. Lot of experience respondents participated in the questionnaire hence it carries weight since their respond influenced by their experience.

Table 4.5: Respondent based on experience.

No	Experience	Respondent	Percentage (%)
1	None	2	1.01
2	Less than 1 year	12	6.03
3	2-4 year	45	22.61
4	5-10 year	46	23.12
5	More than 10 year	94	47.24
	Total	199	100

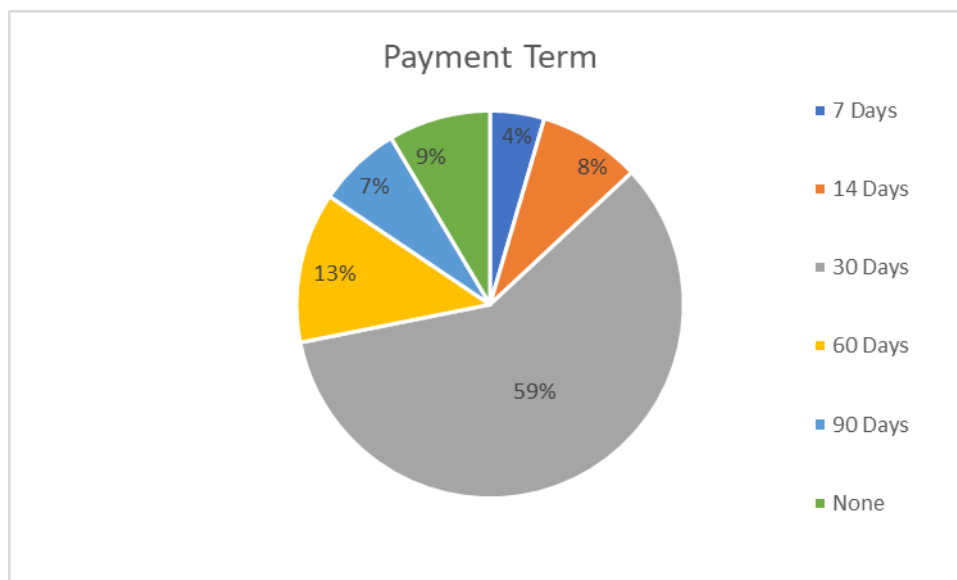
Source: Developed by researcher

## 4.2 Payment

In this section question's is on payment terms, payment frequency or issues related to non or late payment by customers. There 5 main questions with the last question is divided in 9 sections hence total is 14 questions the respondent need to answer.

### 4.2.1 Payment term

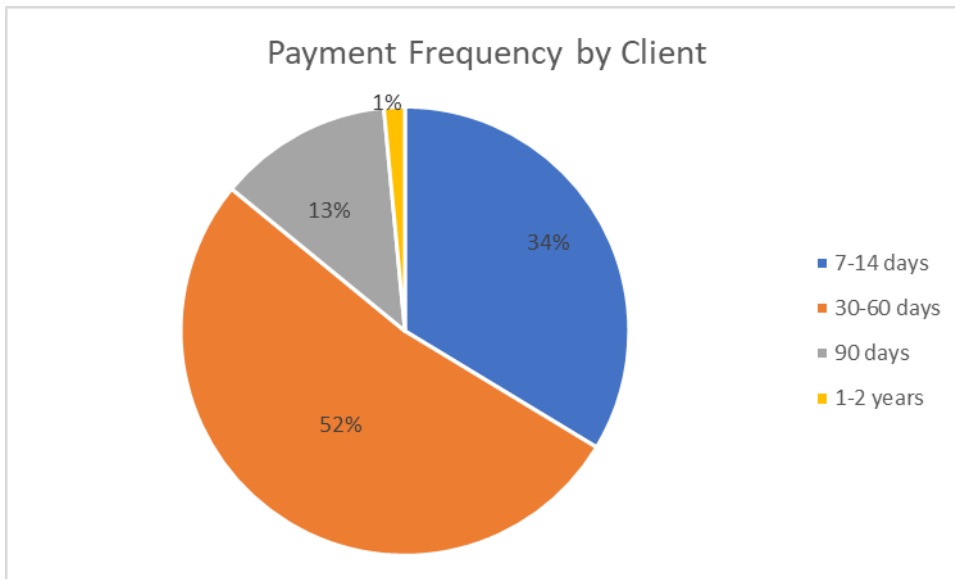
Figure 4.1: Payment Term



Payment term refers to number of days given by contractor to the customer to make their payment to the contractor for the work done from the date of invoice. Figure 4.1 shows, out of 199 respondent, 117 respondent or 58.79% of total respondent have 30 days payment term. The second highest is 60 days payment term which was chosen by 12.56% or 25 respondents. 8.54% of respondent doesn't have any payment term while 7.04% of respondent set their payment term at 90 days. 8.54% of participant have 14 days payment term and 4.52% of respondent have 7 days payment term. Majority respondents has 30 days payment term.

#### 4.2.2 Payment Frequency by Client

Figure 4.2: Payment Frequency by Client



The Figure 4.2 showing how fast respondents customer pays their invoice. 52.26% of respondents says their client pays between 30 to 60 days. 33.67% of respondents say their customer pays between 7-14 days while 12.56% states that their client take 90 days to settle their payment. The last 1.51% respondents state their client take 1 to 2 years to settle their payment. Majority of responded receive their payment between 30-60 days. Referring to Figure 4.1 where the majority of contractor given the client's 30 days payment term and comparing with figure above, assumption can be made that the contractor having cash flow issue because they receive their payment after their agreed term. It is important that there are 1% of respondent only receive their payment between 1 to 2 years from invoiced date. Delay in payment for contractor will cause delay in their payment to sub-contractor, supplier, worker, agencies and other service providers.

### 4.2.3 Follow up with customer

Figure 4.3: Follow up with customer

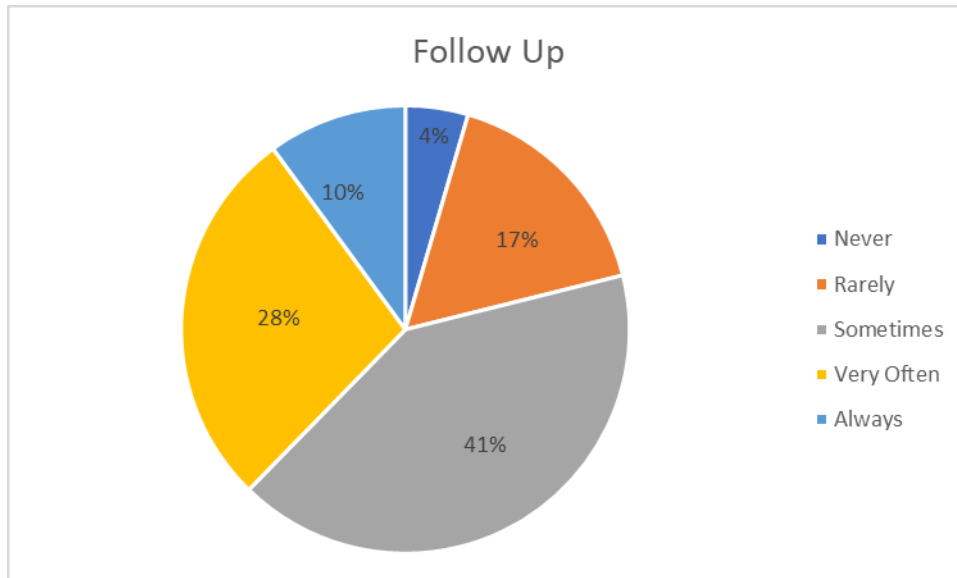
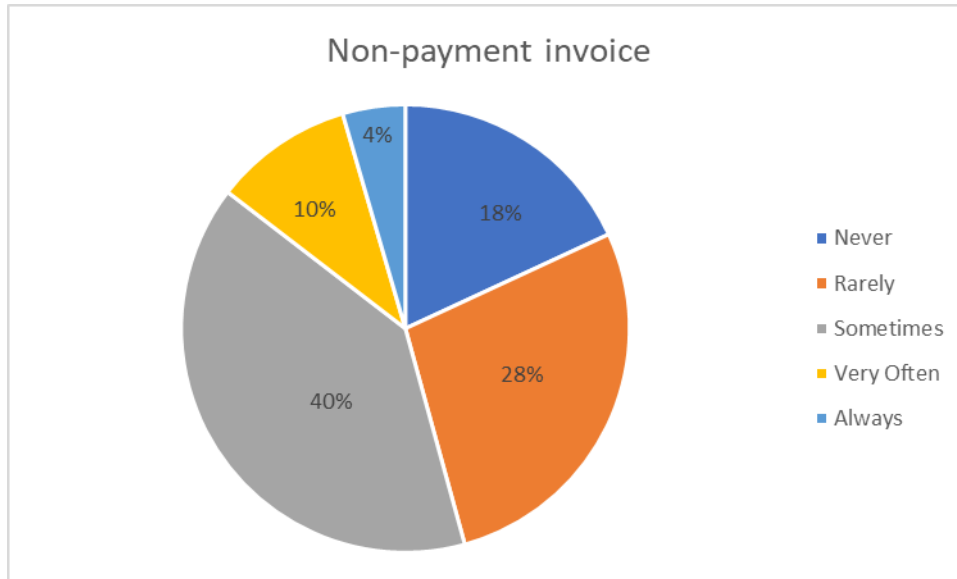


Figure 4.3 shows how frequent respondents need to follow up with their customers regarding their payment. 41.21% of respondent chose “sometimes” followed by “Very Often”, 27.64% then “Rarely” at 16.58%. while 10.05% of respondent chose “Always”. 4.52% of the respondent chose “Never”. Follow up with customer is actually a courtesy service and part of their customer service provided by contractor to customer.

#### 4.2.4 Non-payment invoice

Figure 4.4: Non-payment invoice



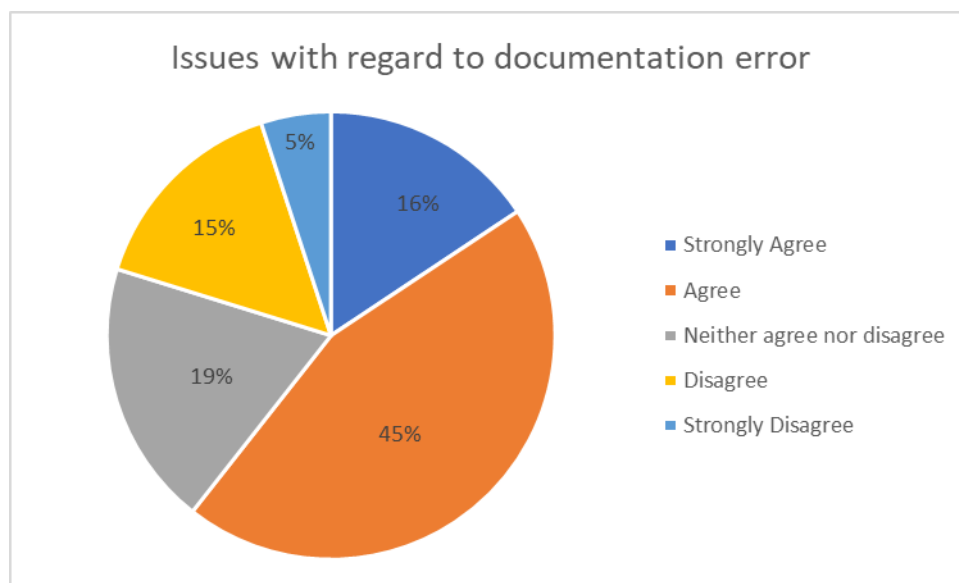
Non-payment invoice refer to invoiced which yet to be paid. Ansah, S. (2011) says delayed or non-payment can lead to critical cash flow issue to contractors and will have disastrous domino effect down the contractual payment chain. Figure 4.4 show 40% of respondent chose “Sometimes”. 27.64% of respondent chose they “Rarely” have non-payment invoice. 18.09% of respondent chose “Never” had non-payment invoice. 10.05% of respondent chose “Very Often” they have non-payment invoice while 4.52% of respondents chose “Always” have non-payment invoice. Out of this result it can be assumed that total of 82% is facing non-payment invoice issue even though the frequency varies. This is a serious issue due to the payment chain will be affected down the line ultimately causing economy of country to take damage as 95.8% of business establishment in Malaysia is SME and they are also the largest creator of jobs.

#### 4.2.5 Non-payment or late payments are due to:

This question is divided further in to 9 section based on scenario based on Azman et al (2014) findings where the respondent has to choose one answer from 5 choice between “strongly agree”, “agree”, “neither agree nor disagree”, “disagree” and “strongly disagree” based on Likert Scale

##### 4.2.5.1 Issues with regard to documentation error

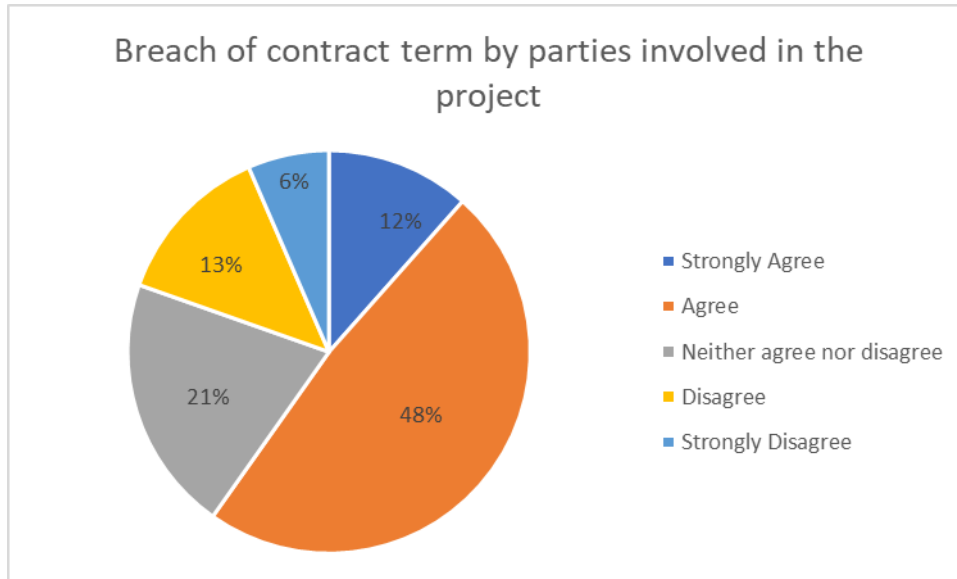
Figure 4.5: Issues with regard to documentation error



This scenario is where the customer uses the issue with regard to documentation error to delay the payment or not to make payment to the contractors. Reeves, K. (2003) mentioned that one of the primary reasons for delayed payment is when there are errors in submitting claims which includes claims without sufficient supporting documents, wrongly calculated claims and those submitted without using the correct procedures. Figure 4.5 show 44.72% of respondent selected “Agree” while 19.1% respondent chose “Neither Agree Nor Disagree”. 15.58% of respondent chosen “Strongly Agree”. 15.08 % of respondent selected “Disagree” while balance 5.03% respondent select “Strongly Disagree”. Majority of responded have non-payment invoice due to issues with regard of documentation error

#### 4.2.5.2 Breach of contract term by parties involved in the project

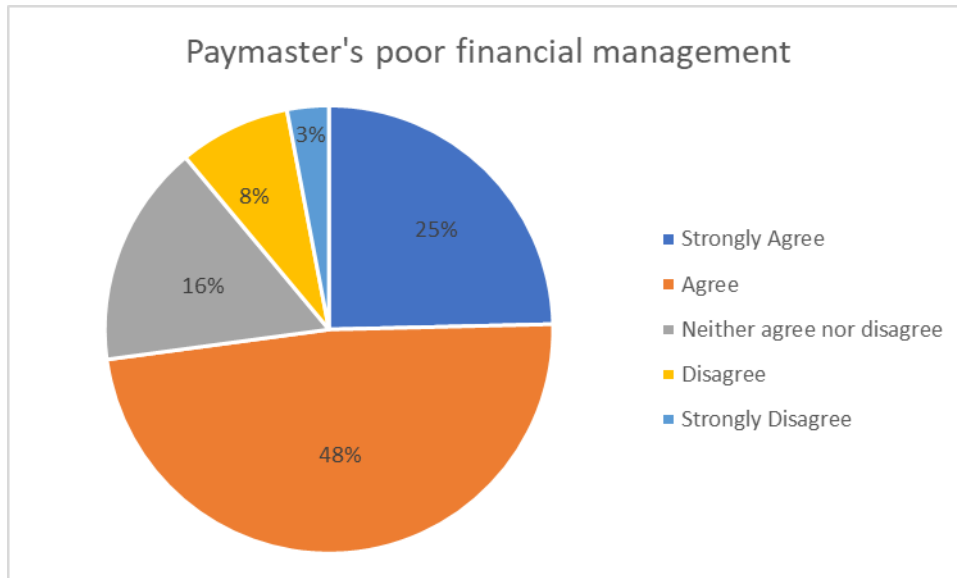
Figure 4.6: Breach of contract term by parties involved in the project



This scenario is where breach of contract term by parties involved in the project is used to delay the payment or not to make payment to the contractors. Breach of contract term refer to where one of the parties involved doesn't follow the term agreed when the contract was signed. Figure 4.6 show 48.24% of respondent selected "Agree" while 20.6% respondent chose "Neither Agree Nor Disagree". 11.56% of respondent chosen "Strongly Agree". 13.07 % of respondent selected "Disagree" while balance 6.53% respondent select "Strongly Disagree". Majority of responded have non-payment invoice due to breach of contract term by parties involved in the project

#### 4.2.5.3 Paymaster's poor financial management

Figure 4.7: Paymaster's poor financial management

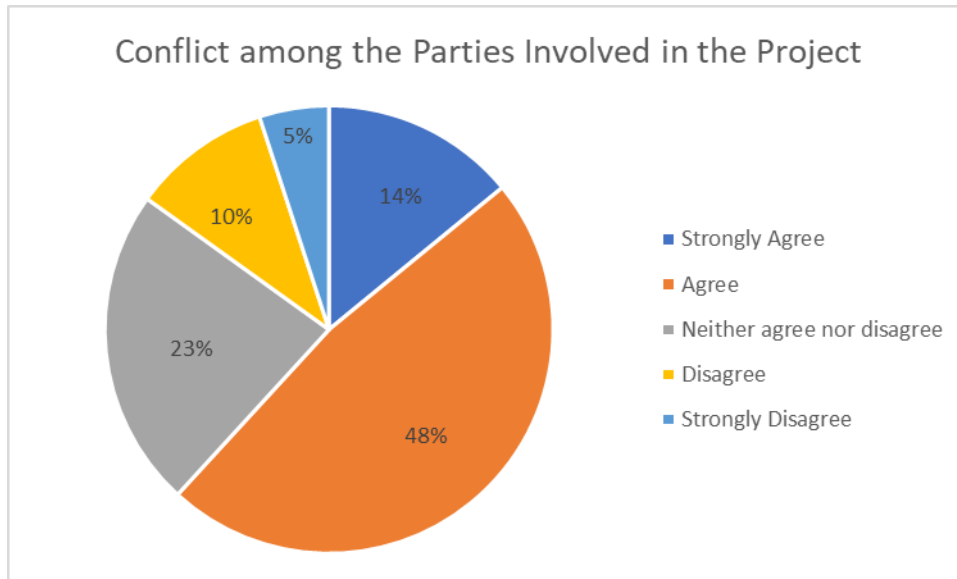


This scenario is where delay the payment or not to make payment to the contractors is because of Paymaster's poor financial management. According Ansah, (2011) in his findings it is expected that paymaster' poor financial management could cause them to have inadequate operating funds when they are obliged to pay the payees. Figure 4.7 show 48.24% of respondent selected "Agree" while 24.62% of respondent chosen "Strongly Agree". 16.08% chose "Neither Agree Nor Disagree". 8.04% of respondent selected "Disagree" while balance 3.02% respondent select "Strongly Disagree". Majority of responded have non-payment invoice due to Paymaster's poor financial management.



#### 4.2.5.4 Conflict among the Parties Involved in the Project

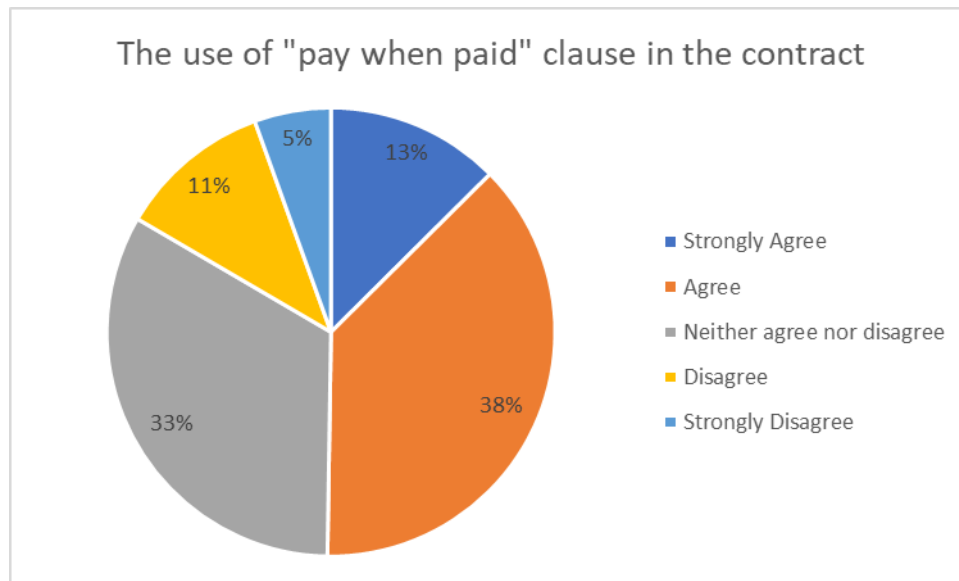
Figure 4.8: Conflict among the Parties Involved in the Project



In this scenario the delay of payment or not to make payment to the contractors is due to conflict among the parties involved in the project. Payment always been source of dispute (Adballa and Hussein, 2002) between customer and contractor. Figure 4.8 show 47.74% of respondent selected “Agree” while 23.12% respondent chose “Neither Agree Nor Disagree”. 14.07% of respondent chosen “Strongly Agree”. 10.05% of respondent selected “Disagree” while balance 5.03% respondent select “Strongly Disagree”. Majority of responded have non-payment invoice due to conflict among the parties involved in the project.

#### 4.2.5.5 The use of "pay when paid" clause in the contract

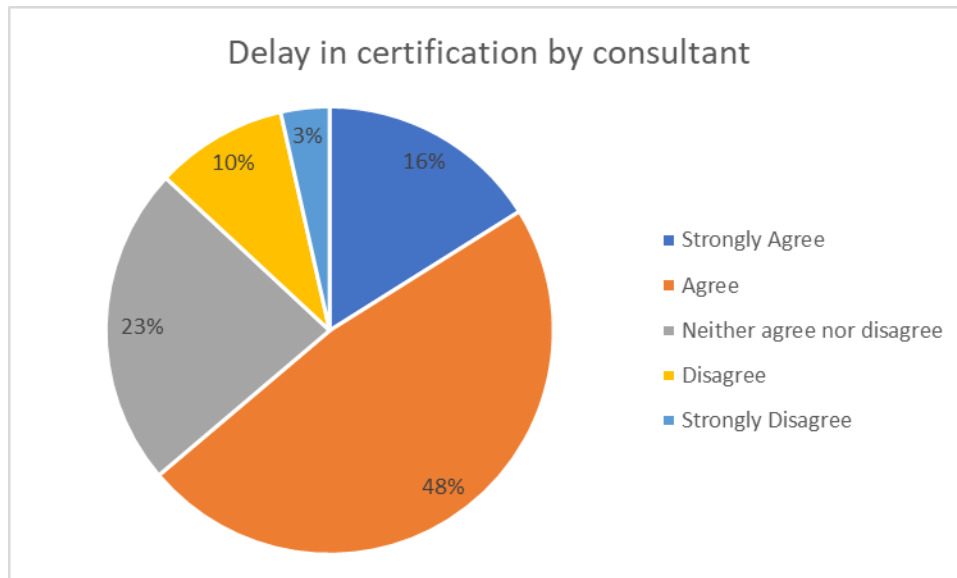
Figure 4.9: The use of "pay when paid" clause in the contract



In this scenario the delay of payment or not to make payment to the contractors is due to use of "pay when paid" clause in the contract. Ameer Ali, (2005) mention this clause in contract can cause delay in payment especially to subcontractors. According to Artidi and Chotibongs (2005) this one of the examples of unjust contract clause to contractor or subcontractors. Figure 4.9 show 37.69% of respondent selected "Agree" while 33.17% respondent chose "Neither Agree Nor Disagree". 12.56% of respondent chosen "Strongly Agree". 11.06% of respondent selected "Disagree" while balance 5.53% respondent select "Strongly Disagree". 51% of responded have non-payment invoice due to the use of "pay when paid" clause in the contract. This might be due to less contract had included the clause since the policy of 'pay-when-paid' was also rejected during the drafting of Construction Industry Development Board in 2002 in Malaysia which might be experienced by 16% of other respondent.

#### 4.2.5.6 Delay in certification by consultant

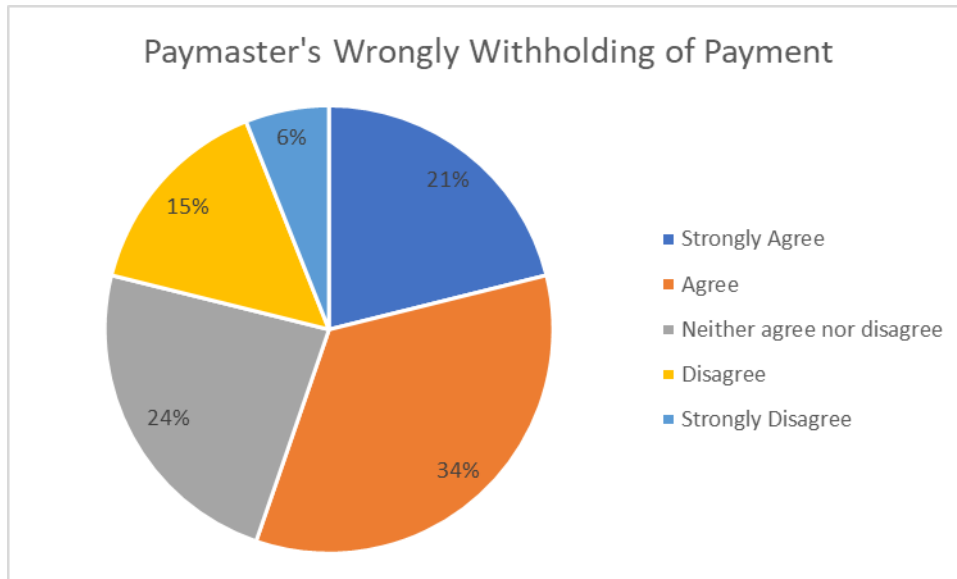
Figure 4.10: Delay in certification by consultant



Ansah (2011) agreed in his journal that delay in certification by consultant one of factor causes delay in payment. In this scenario the delay of payment or not to make payment to the contractors is caused by delay in certification by consultant. Figure 4.10 show 47.74% of respondent selected “Agree” while 23.12% respondent chose “Neither Agree Nor Disagree”. 16.08% of respondent chosen “Strongly Agree”. 9.55% of respondent selected “Disagree” while balance 3.52% respondent select “Strongly Disagree”. Majority of responded have non-payment invoice due to delay in certification by consultant.

#### 4.2.5.7 Paymaster's Wrongly Withholding of Payment

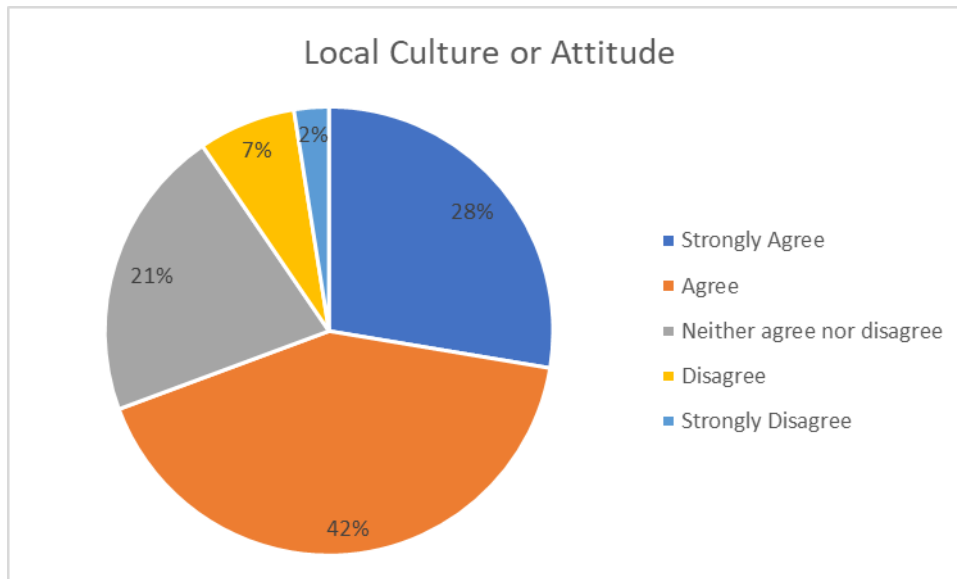
Figure 4.11: Paymaster's Wrongly Withholding of Payment



The delay of payment or not to make payment to the contractors is purposely caused paymaster's wrongly withholding of payment. Ansah (2011) mentioned that paymaster can withhold payment for various reason as provided in many standard forms of contract but Azman et al., (2014) finds paymaster wrongly withholding payment. Figure 4.11 show 34.17% of respondent selected "Agree" while 23.62% respondent chose "Neither Agree Nor Disagree". 21.11% of respondent chosen "Strongly Agree". 15.08% of responded by selecting "Disagree" while balance 6.03% respondent select "Strongly Disagree". Majority of respondent have non-payment invoice due to paymaster's wrongly withholding of payment.

#### 4.2.5.8 Local Culture/ Attitude

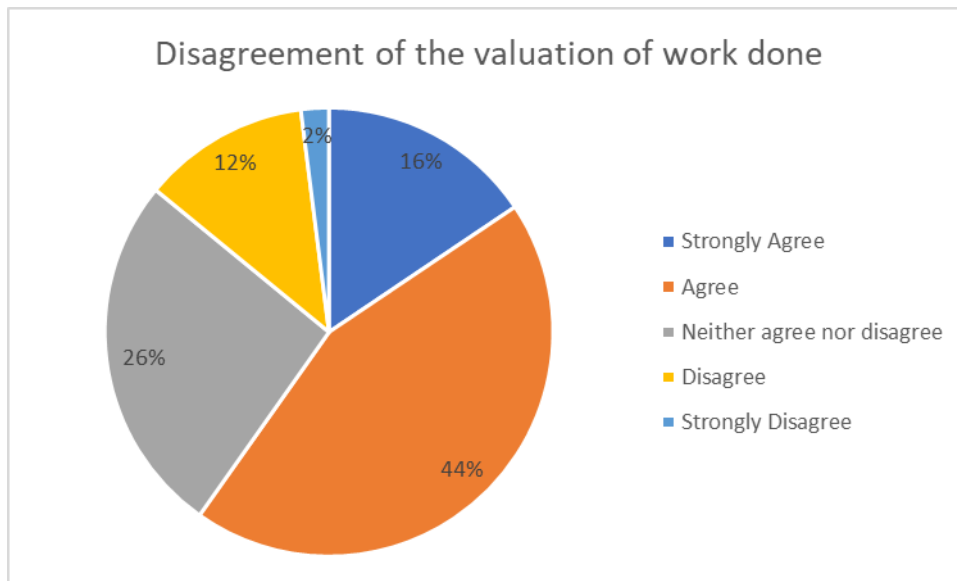
Figure 4.12: Local Culture/ Attitude



In this situation the delay of payment or not to make payment to the contractors is because it is local culture or attitude. Johnston (1999) mentioned that in United Kingdom, a first world country has this late payment culture in construction industry where it is common for payment to be delayed by 53 days after the receipt of invoice prior to introduction and enforcement of Housing Grants, Construction and Regeneration Act 1996 (HGCRA). Figure 4.12 show 41.71% of respondent selected “Agree” while 27.64% of respondent chosen “Strongly Agree”. 21.11% respondent chose “Neither Agree Nor Disagree”. 7.04% of responded selected “Disagree” while balance 2.51% responded select “Strongly Disagree”.

#### 4.2.5.9 Disagreement of the valuation of work done

**Figure 4.13: Disagreement of the valuation of work done**



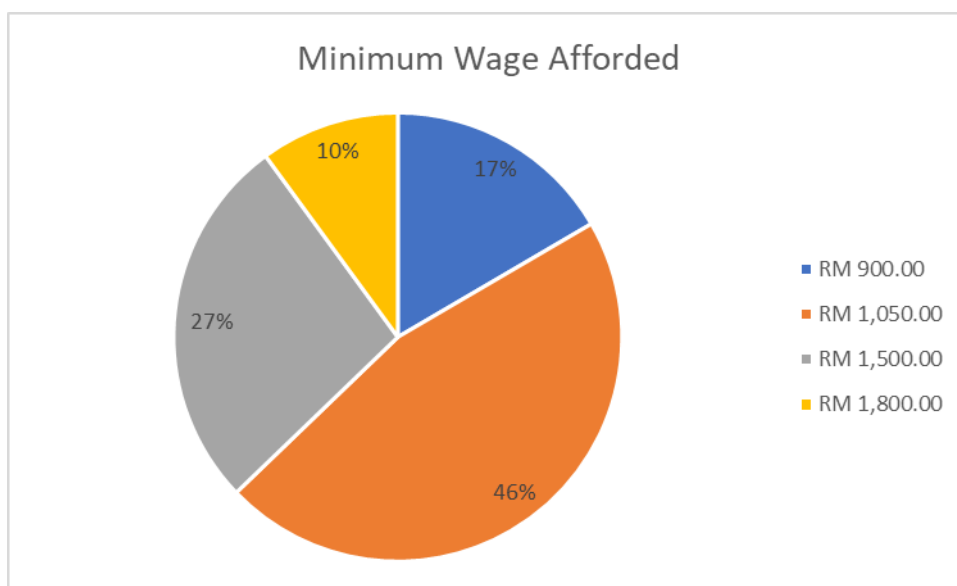
The delay of payment or not to make payment to the contractors is due to disagreement of the valuation of work done. Figure 4.13 show 44.22% of respondent selected “Agree” while 26.13% respondent chose “Neither Agree Nor Disagree”. 15.58% of respondent chosen “Strongly Agree”. 12.06% of responded by selecting “Disagree” while balance 2.01% respondent select “Strongly Disagree”. Majority of responded have non-payment invoice due to Disagreement of the valuation of work done which something agreed by Ansah (2011).

### 4.3 Workforce

In this section, the worker factor based on salary, benefit, and problems towards the operation cost is evaluated.

#### 4.3.1 Minimum Wage Afforded

Figure 4.14: Minimum Wage Afforded

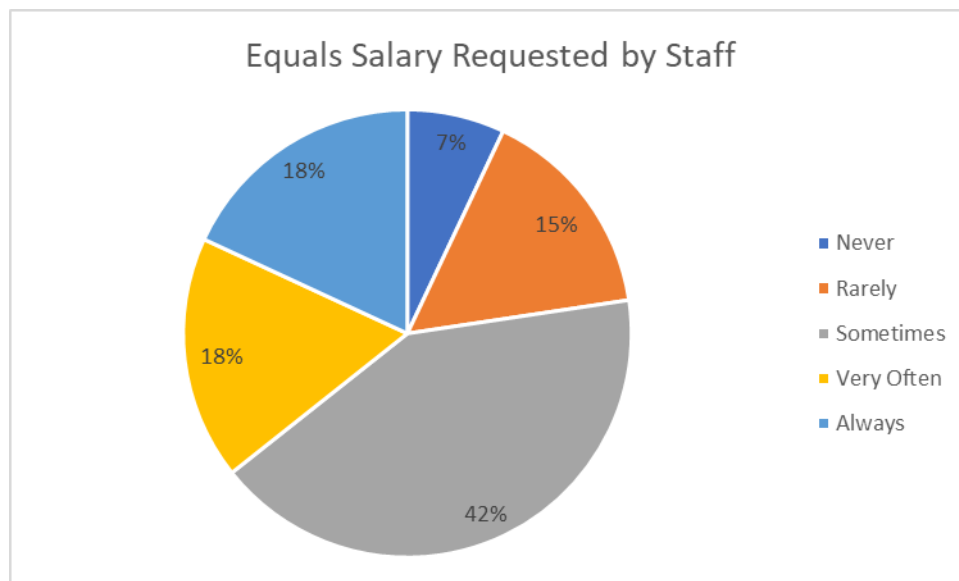


This question is about what minimum wage afforded by Micro or SME business to pay their employee. Figure 4.14 shows 46.23% respondent afford RM 1,050.00 per month while 27.14% of respondent afford to pay RM 1,500.00 per month. 16.58% of respondent could hire employee for RM 900.00 while the balance 10.05% able to contribute RM 1,800.00 per month as salary. Mărginean and Chenic (2013) mention effects of minimum wage raise are not about the employment, but on the austerity and budgetary effect of this raise hence Micro and SME business must alter their budgetary when there is increase in minimum wage by government. Budgetary is based on income of a business organization. Vally and Samihah (2015) mention employer welcomes minimum wage policy despite the effects of minimum wage on their profit margin. Majority of respondent able to give minimum wage of RM 1,050.00 which is the wage limit set by government but the government has intention to further increase the limit to

RM 1,500.00 in next five years from 2018 according to Eusoff (2018) which means only 37% of business organization able to match the limit based on figure above.

#### 4.3.2 Equals Salary Requested by Staff

Figure 4.15: Equals Salary Requested by Staff

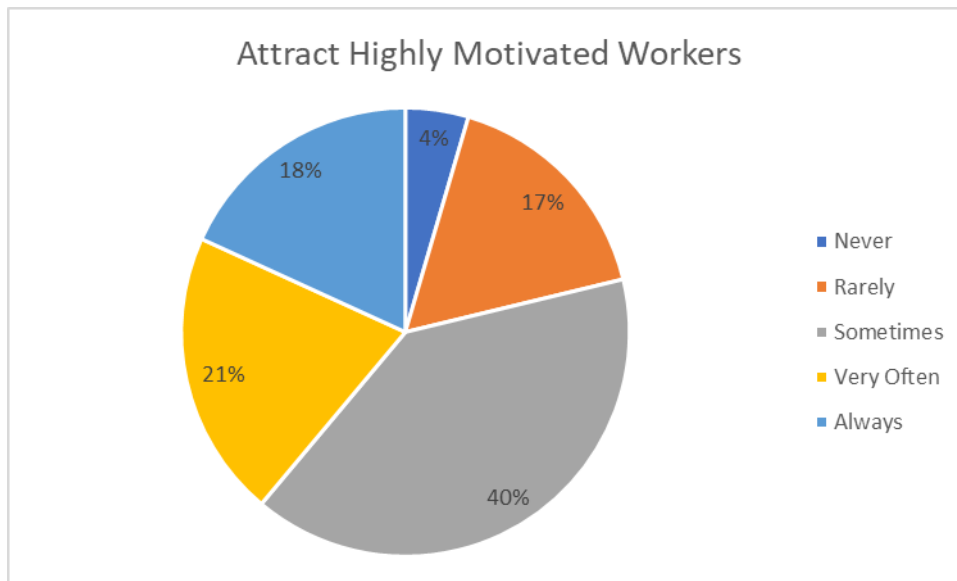


This question is about whether Micro and SME business owner could match the salary requested by staff. Figure 4.15 show 41.71% respondent afford to match “Sometimes” while 18.09% of respondent can “Always” equals the salary requested. 17.59% of respondent could “Very Often” hire employee while equalling their requested salary 15.58% of respondent “Rarely” can and 7.04% of respondent “Never” able to pay the salary requested by staff. Referring to Figure 4.14, while 37% respondent are able to give RM 1,500.00 and above as minimum salary, only 36% of respondents able to much salary requested by employee as salary have effect on profit margin. Higher salary means lesser profit margin unless business organization increase their service or product price to maintain their profit margin while equalling salary request by employee, but this will put them in disadvantage with competition who has lower price. Vally and Samihah (2015) mentioned that wage which is in line with above conclusion.



### 4.3.3 Attract Highly Motivated Workers

Figure 4.16: Attract Highly Motivated Workers



This question is about whether of Micro and SME business owner able to attract highly motivated worker. It is found that 39.7% respondent able to attract “Sometimes” while 20.6% of respondent can attract “Very Often”. 18.09% of respondent could “Always” attract highly motivated employee while 16.58% of respondent “Rarely” can and 4.52% of respondent “Never” able to attract highly motivated employee. With findings from Figure 4.14 and 4.15 shows only 37% respondent afford minimum wage planned by government while 36% of respondent able to equal salary requested by employee, only 39% of respondent able to attract highly motivated worker which usually request high salary. The three figures above show only minority respondents able to fulfil the requirements.

#### 4.3.4 Keeping highly motivated and skilled labour for long time

Figure 4.17: Keeping highly motivated and skilled labour for long time

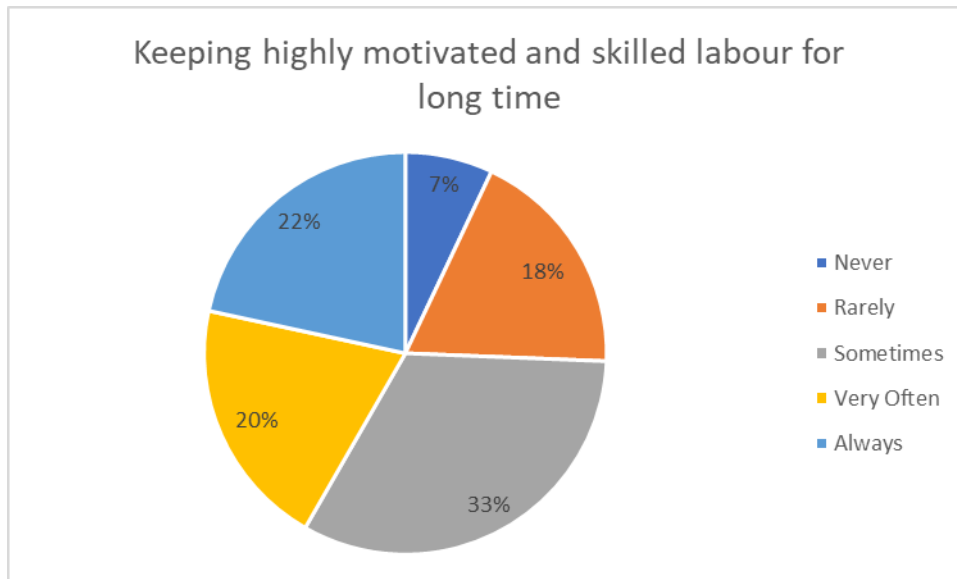
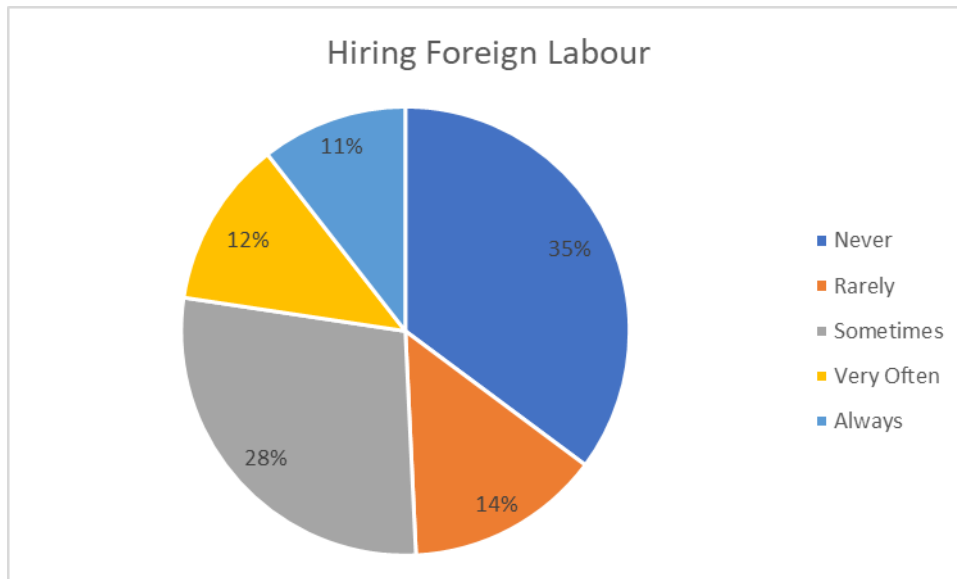


Figure 4.17 show 32.66% respondent able to keep “Sometimes” while 21.61% of respondent can “Always” keep them. 20.1% of respondent could “Very Often” keep highly motivated employee while 18.59% of respondent “Rarely” can and 7.04% of respondent “Never” able to keep highly motivated employee for long time. The figure showing 42% of respondent manage to keep the labour once they join them which can be due to the labours own professional attitude and their motivation keeping them longer because respondents in in previous question shows they are struggling to meet minimum wage requirement, to match salary request and attract motivated labour.

#### 4.3.5 Hiring Foreign Labour

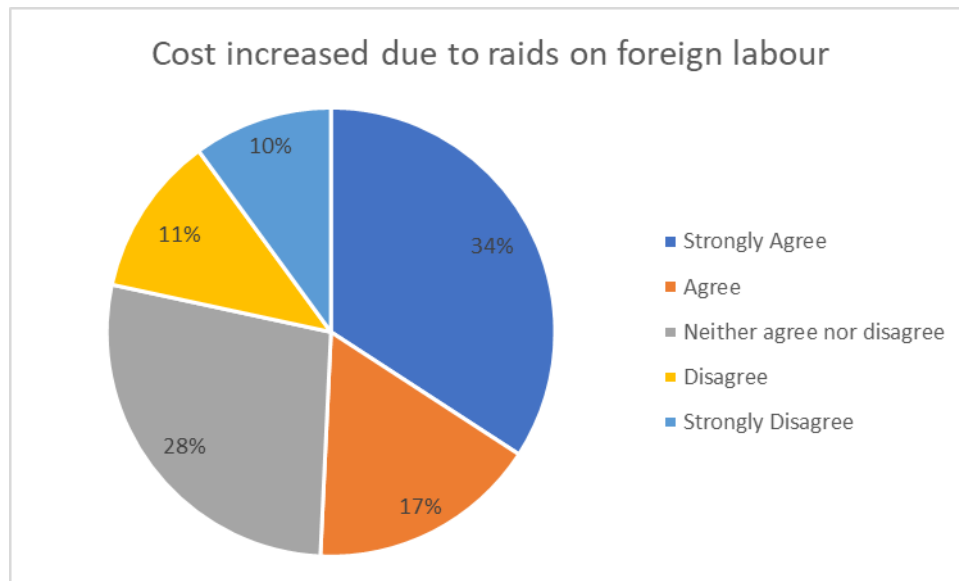
Figure 4.18: Hiring Foreign Labour



The question is about whether business owner hire foreign labour. Mohamed et al., (2012) stated that foreign labour has contributed economy growth of Malaysia. Figure 4.18 show 35.18% respondent “Never” hire foreign labour while 28.14% of respondent “Sometimes” hire foreign labour. 14.07% of respondent “Rarely” foreign employee while 12.06% of respondent “Very Often” hire foreign workforce. 10.05% of respondent “Always” hire foreign workers. The figure shows only 23% of respondent is hiring foreign labour while balance only hire “Sometimes” or “Rarely”. This could be due to constraint in hiring of foreign labour where the policy is kept changing and changes in the hiring process. There also availability of part time foreign labour which might contribute the respondents to choose Sometimes only they hire as the respondent might not have facility and financial capability to hire them for long term.

#### 4.3.6 Cost increased due to raids on foreign labour

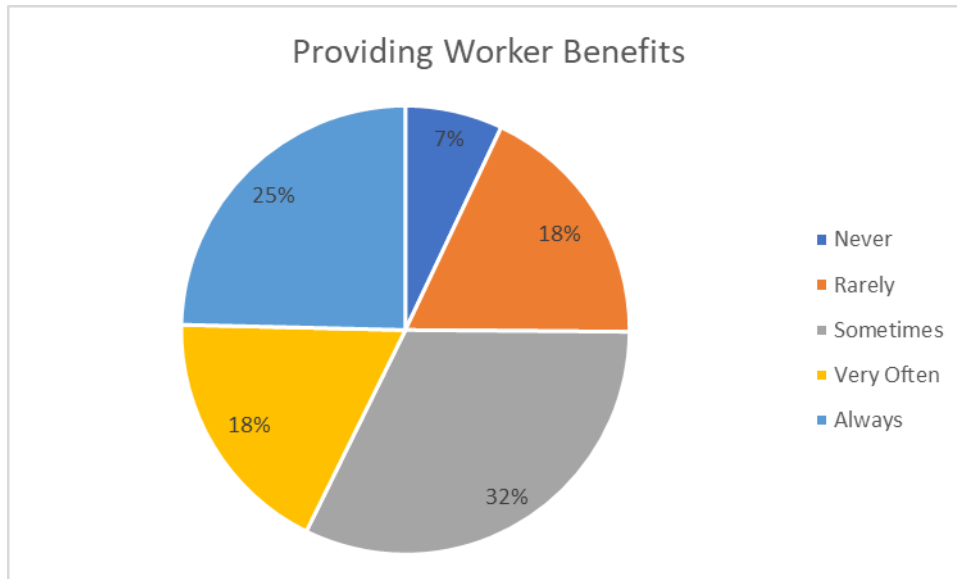
Figure 4.19: Cost increased due to raids on foreign labour



Since some companies hire foreign labour, this question is to evaluate whether their operating cost increased due to raids by government agency on foreign labour. Figure 4.19 show 34.17% respondent “Strongly Agree” while 27.64% of respondent chose “Neither agree nor disagree”. 16.58% of respondent “Agree” that cost increased due to raids on foreign labour while 11.56% of respondent “Disagree” and 10.05% of respondent “Strongly Disagree” regarding cost hike due to raid. Even though in Figure 4.18, only 23% respondent say they hire foreign labour but when there is raid by authority to catch illegal foreign labour, only 21% of respondent have not supported the claim. Majority of respondent support the claim that their cost is increasing during raids by authority. This is due to the business organization not hiring them for long term but use them as part time worker on and off hence this might be the reason for different outcome between Figure 4.18 and Figure 4.19.

#### 4.3.7 Providing Worker Benefits

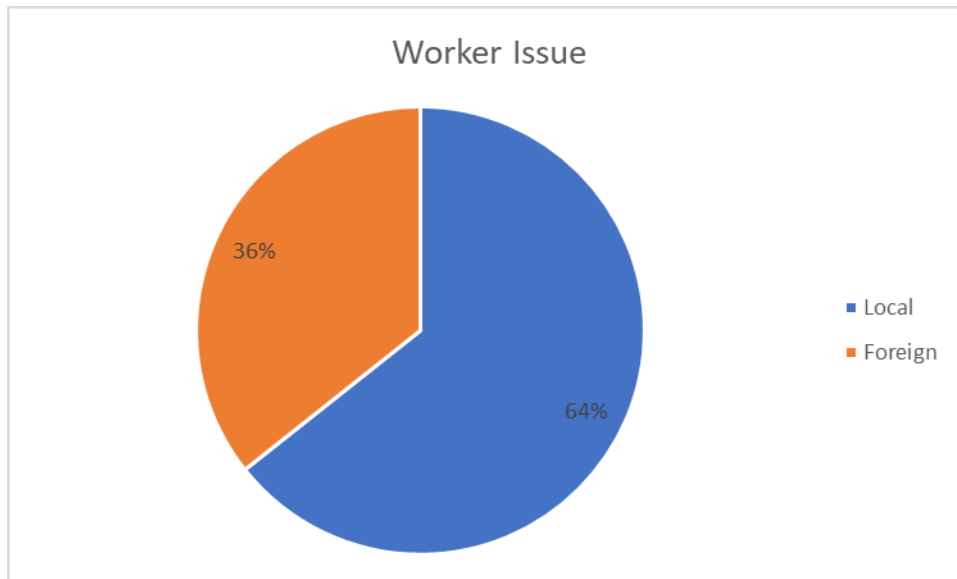
Figure 4.20: Providing Worker Benefits



The question is about whether Micro and SME business owner provide worker benefits such as bonus, employee provident fund, insurance, medical benefits and etc given by larger fee companies to the worker. Vally and Samihah (2015) found that there are continuous efforts to improve the fringe benefits by Malaysian companies, but it still depends to the organization themselves whether they have the capability. Figure 4.20 show 32.16% respondent “Sometimes” can match the benefits while 24.62% of respondent can “Always” match the benefits. 18.09% of respondent “Rarely” can equal employee benefit while 18.09% of respondent “Very Often” can match worker benefits. 7.04% of respondent “Never” can provide worker benefits. The outcome is close since 43% of respondent say they capable of providing worker benefits while rest having difficulty. This could be responds from G4 and G5 companies who represents 23.62% of total respondent while the balance could be from G3 respondents who might have the necessary resource to give the benefit.

#### 4.3.8 Worker Issue

Figure 4.21: Worker Issue



The question is about which worker causing lot of issue, problem, nuisance or discipline problem to Micro and SME business owner. Figure 4.21 shows 64.32% agrees that Local worker is causing lot of problem while the balance 35.68% of respondent select Foreign worker. The outcome show local worker is causing problem to the owners maybe because they have the confidence being in own country and have freedom to quit work at will while foreign worker came from third world nation to earn and send money back to family. They also have difficulty to change job at will as their permit state the name of company who applied permit for them which prevents them to work for other company unless the company name matches with then one in the permit. Hence, they are more disciplined and give less headache to the owners.

#### **4.3.9 Problem encountered from worker by service provider**

Most common problem encountered by employer is workers attitude based on comments by respondent. Some of keyword used is attitude issue, absentee, late, not a team player, no focus, no discipline, asking high salary without any improvement, communication issue and not being professional.

The business organization facing this issue might due to the company doesn't have proper management, penalty system, or due to small size firm which the employee feel they are important to company hence the owner or management won't penalize them if they not following rules. Mustafa Elqadri et al., (2015) mentioned that an effective disciplinary action should be centred on employee behaviour that is wrong which the business organization not implementing properly.

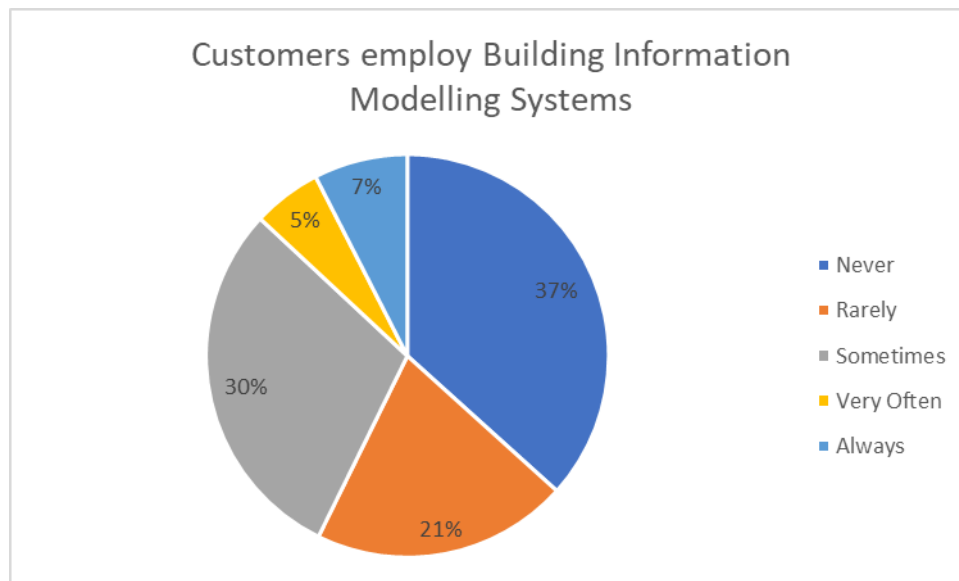
Lack of motivation among the employee might also contribute to this issue. As human has two types of need which is Basic needs and Growth need according to Maslow (1943) in his Theory of Human Motivation. Even though Basic needs such as safety need, need to sustain life and need of employment is fulfilled in Micro and SME companies but when it comes to Growth Need, the companies might have the edge. The Growth Need such as self-actualization which are the need for growth, development and utilization of potential, to become all that one can be and self-fulfilment according to Yahaya, Azizi (2008). If Micro and SME organization able to give their employee this need, then the employee is more motivated to work with discipline. It also might be the employee themselves just problematic.

## 4.4 Lack of Information

In this section the question evaluates how well customer provide information regarding work/project.

### 4.4.1 Customers employ Building Information Modelling Systems

Figure 4.22: Customers employ Building Information Modelling Systems (BIMS)



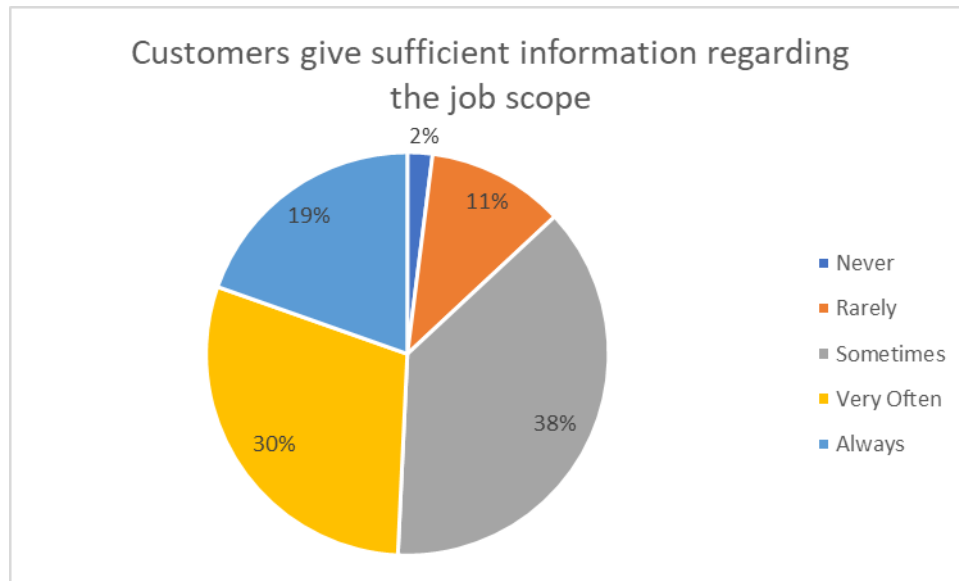
Koutamanis (2017) mention Building Information Modelling (BIM) integrates information and information processing for Architecture, Engineering, Construction and Operation (AECO) and it unites all AECO process which cover all stages in the lifecycle of a building and support transitions between stages. This question is whether customers employ Building Information Modelling Systems (BIMS). BIMS is used to record information regarding the building material, machines, work done, repair done, and everything related to it. This help to ease the responsibility of maintenance or engineering department. Figure 4.22 shows 36.68% of respondent select customer “Never” employ the system while 29.65% of respondent select “Sometimes” customer use it. 20.6% of respondent select it is “Rarely” being used while 5.53% of respondent select it is used “Very Often”. Only 7.54% of respondent select customer “Always” use Building Information Modelling Systems (BIMS). Only about 13.07% of respondent select



their customer utilise this system which could prevent loss of information or misinformation.

#### 4.4.2 Customers give sufficient information regarding the job scope

Figure 4.23: Customers give sufficient information regarding the job scope

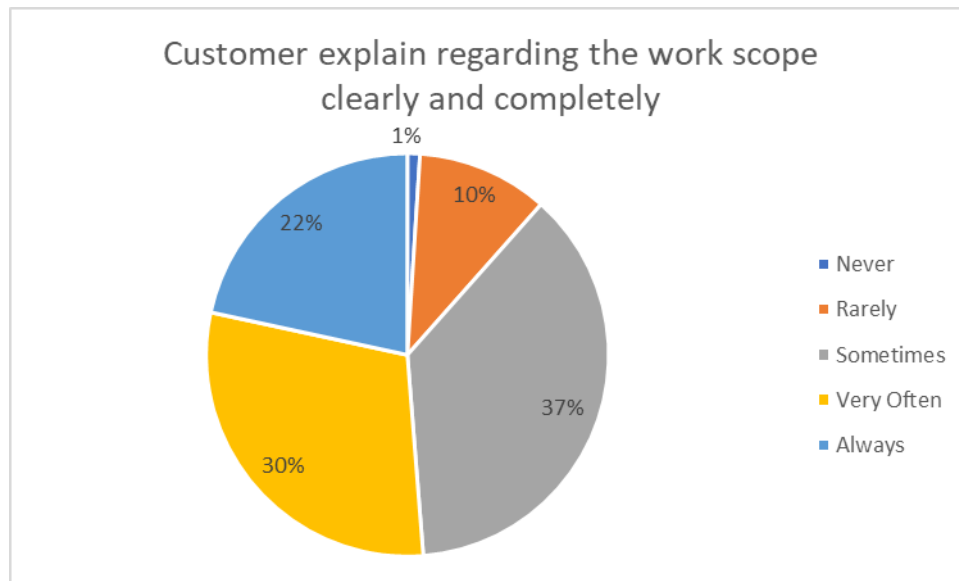


Ismail and Hamzah, (2013) says in their finding that customer have problem to explain the defect reported by their own technician. This means the customer themselves don't have proper information on defect. Here contractor is asked whether customer give sufficient information regarding the job scope. Figure 4.23 shows 37.69% of respondent says only "Sometimes" is given while 29.65% of respondent select "Very Often". 19.6% of respondent select customer "Always" give information while 11.06% of respondent select "Rarely" given. 2.01% of respondent select customer "Never" give information related to the job scope. The outcome is almost half of respondents agree that customer don't give sufficient information while other half say vice versa but the first half of respondent face a situation where they misquote the work and get the job done at loss due customers lack information. With figure 4.22 showing only 13.07% of respondent says their customer use BIMS and with outcome of figure 4.23, there is high probability contractor is not getting sufficient information. Whitfield, (2012b) says in one of design project which end up in court, the customer's

representative has requested the designer to tender out the project even though they are aware of existing design issues and instructs the designer to send out the tender in the manner the contractor doesn't realize the design issue.

#### 4.4.3 Customer explain regarding the work scope clearly and completely

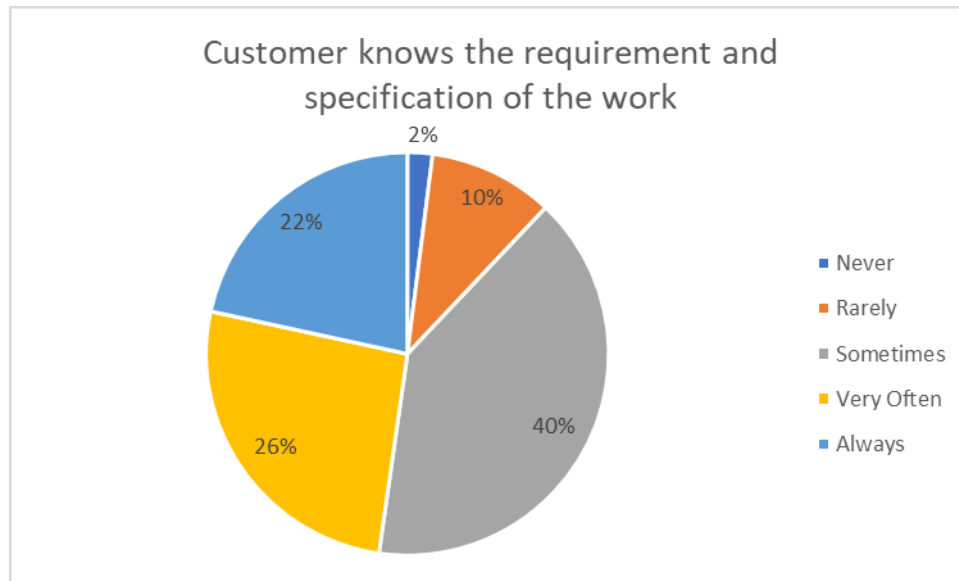
Figure 4.24: Customer explain regarding the work scope clearly and completely



Whitfield, (2012b) says in one of his case study, the customer hasn't given sufficient information to the designer when asked to explain requirement and refuse to pay excess fee to rectify a defect occurred due to customer earlier refusal to explain the requested information which cause defect in design. The contractor is asked whether customer explain regarding the work scope clearly and completely. Figure 4.24 shows 37.19% of respondent select only "Sometimes" is explained while 29.65% of respondent select "Very Often". 21.61% of respondent select customer "Always" explain regarding the work scope clearly and completely while 10.55% of respondent select "Rarely" explained. 1.01% of respondent select customer "Never" explain regarding the work scope clearly and completely.

#### 4.4.4 Customer knows the requirement and specification of the work

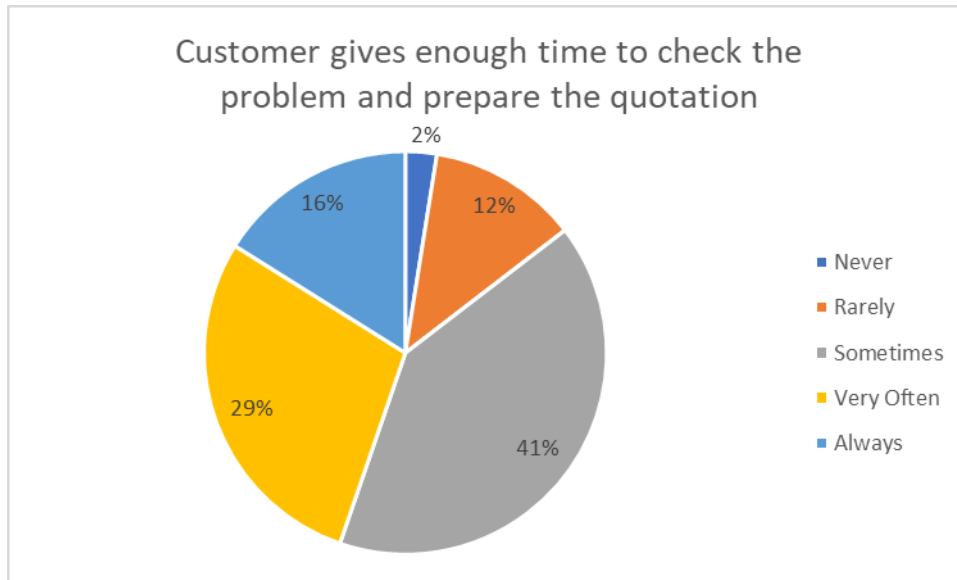
Figure 4.25: Customer knows the requirement and specification of the work



This question is to see whether customer knows the requirement and specification of the work based on contractor experience. 40.2% of respondent vote only “Sometimes” customer knows while 26.13% of respondent select “Very Often”. 21.61% of respondent vote customer “Always” knows the requirement and specification while 10.05% of respondent select “Rarely” customer knows the requirement and specification. 2.01% of respondent select customer “Never” knows the requirement and specification of the work. Again, the outcome is nearly equalling between knows and not where half of respondent’s customer never, rarely or sometimes only knows the requirement and specification of work. Its then falls to each contractor to decide the specification and requirement of work to price it and it will cause huge different in price as each individual contractor will have their method hence will have different specification and requirement. The customer usually will go for cheap price as they themselves not sure what they want which will cause the contractor who quoted the proper requirement and specification end up at higher price and loss the job.

#### 4.4.5 Customer gives enough time to check the problem and prepare the quotation

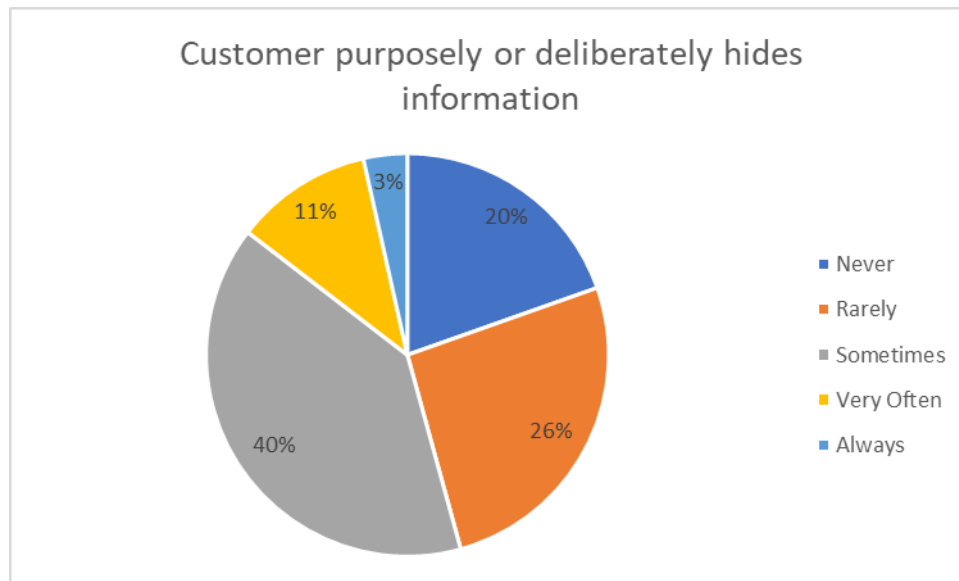
Figure 4.26: Customer gives enough time to check the problem and prepare the quotation



According Whitfield, (2012a) the found that customer deliberately maintained a tight tender period to prevent the contractors from investigating the scope of the problem to deeply and quote the actual price which will be higher. This stunt usually employed by customer who want to reduce the cost of project. In some tender process due to urgency of the work, contractor isn't given sufficient time to inspect hence this question asked them whether customer gives enough time to check the problem and prepare the quotation. 40.7% of respondent says only "Sometimes" customer gives while 28.64% of respondent select "Very Often". 16.08% of respondent select customer "Always" gives enough time while 12.06% of respondent select "Rarely" customer gives enough time. 2.51% of respondent select customer "Never" gives enough time to check the problem and prepare the quotation. Only 45% of respondents say they given sufficient time that means other respondent don't have sufficient time, end up quote wrongly and make loss.

#### 4.4.6 Customer purposely or deliberately hides information

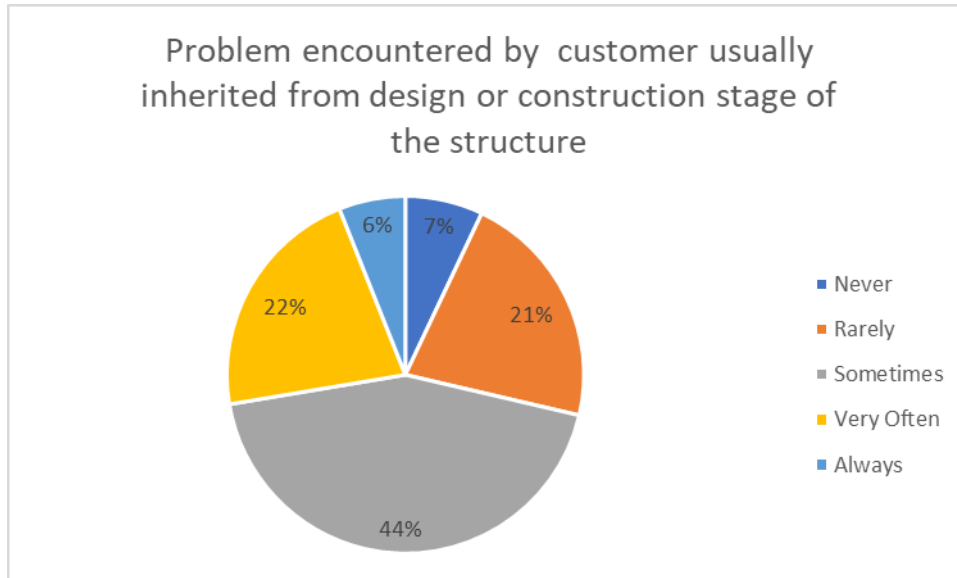
Figure 4.27: Customer purposely or deliberately hides information



Whitfield, (2012a) found that the customer had deliberately hide information from contractor to prevent them to evaluate actual problem and risk so that they can't price the work properly. This question to asked whether contractor have faced situation where customer purposely or deliberately hides information. 39.7% of respondent says only "Sometimes" customer hides information while 26.13% of respondent select "Rarely". 19.6% of respondent select customer "Never" hides information while 11.06% of respondent select "Very Often" customer hides information. 3.52% of respondent select customer "Always" purposely or deliberately hides information. Large portion of respondents do face the situation where customer purposely hides information with 40% of them faces this situation Sometimes. This is the proof where the service provider is being victimize by the customer for their selfish reason and cause losses to the service provider. Almost half of respondent faced this situation during their time.

#### 4.4.7 Problem encountered by customer usually inherited from design or construction stage of the structure

Figure 4.28: Problem encountered by customer usually inherited from design or construction stage of the structure



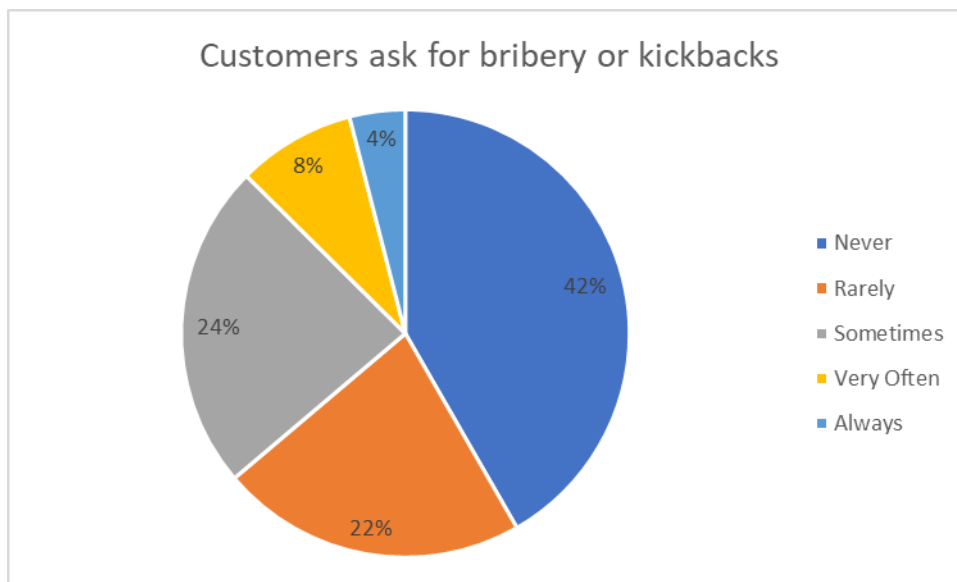
Eastman, (2009) mention Building Information Modelling helps to minimize information losses which usually occur when new team take over a project but in figure 4.22, it shows about 13.07% of respondent says their client have the system hence there is high probability problem to be inherited from construction stage to operation stage. This question to asked whether problem encountered by customer usually inherited from design or construction stage of the structure. 43.72% of respondent select only “Sometimes” problem inherited while 21.61% of respondent select “Rarely”. 21.61% of respondent select customer “Very Often” inherited problem while 7.04% of respondent select “Never” inherited problem. 6.03% of respondent select customer “Always” inherit problem from design or construction stage of the structure. Only 7.04% of respondent say they never had problem which is inherited while majority say the problem is from design or construction stage.

## 4.5 Unethical

In this section question is regarding customer's representative, staff or customer themselves on the level of integrity and fairness shown towards contractor.

### 4.5.1 Customers ask for bribery or kickbacks

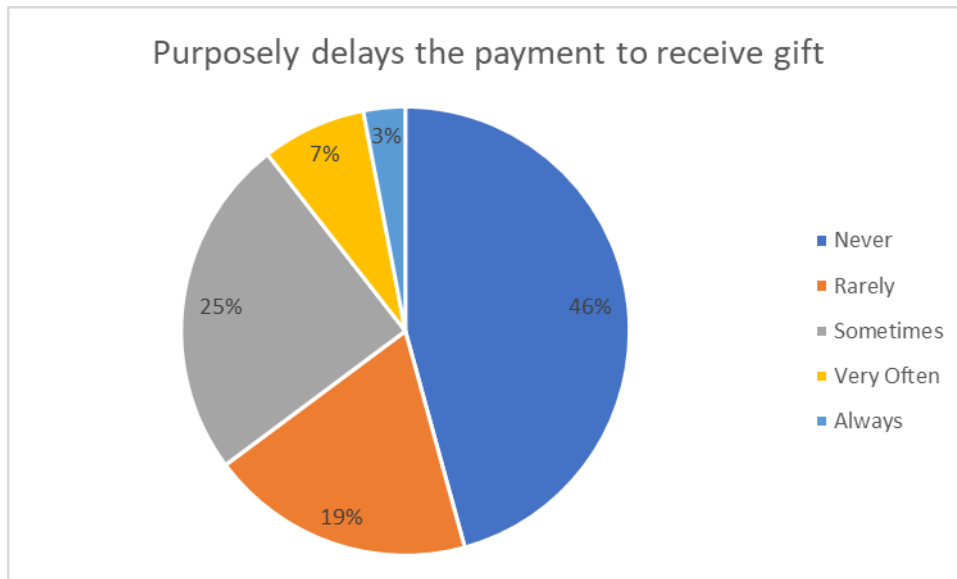
Figure 4.29: Customers ask for bribery or kickbacks



Based on Figure 4.29, 41.71% of respondent have said customers “Never” ask for bribery. 23.62% of respondent select “Sometimes” while 22.11% of respondent select “Rarely” customers ask bribery or kickbacks. 8.54% of respondents select customer “Very Often” ask bribery or kickbacks while 4.02% of respondent select customer “Always” ask bribery or kickbacks. Majority of respondent have encountered the situation where customer is the one who asking the bribery or kickbacks which mean contractor is forced to give in or they might lose the job. This bribery is also won’t project in their actual sales and show as if they make more sales then actual. Contractor end up pay more tax then actual.

#### 4.5.2 Customer purposely delays the payment to receive gift

Figure 4.30: Customer purposely delays the payment to receive gift

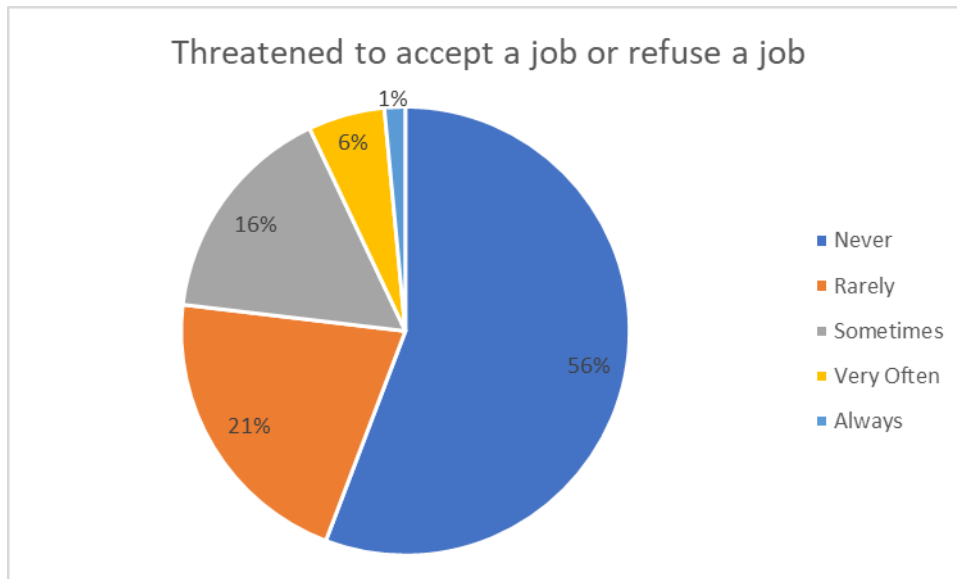


Hasmori et al. (2012) mention most of customer employee wrongfully withhold payment is exchange of receiving some gift. Based on Figure 4.30, 45.73% of respondent have said customers “Never” delays the payment to receive gift. 24.62% of respondent select “Sometimes” while 19.1% of respondent select “Rarely” customers delays the payment to receive gift. 7.54% of respondents select customer “Very Often” delays the payment to receive gift while 3.02% of respondent select customer “Always” delays the payment to receive gift. Even though 45.73% of respondent say they Never experience this kind of situation the other 64.27% of respondent have experience this situation which show customer employ try to enforce corruption in the dealing and it costing the contractor to have bad cash flow which cascade down the payment line of contractor.



#### 4.5.3 Threatened to accept a job or refuse a job

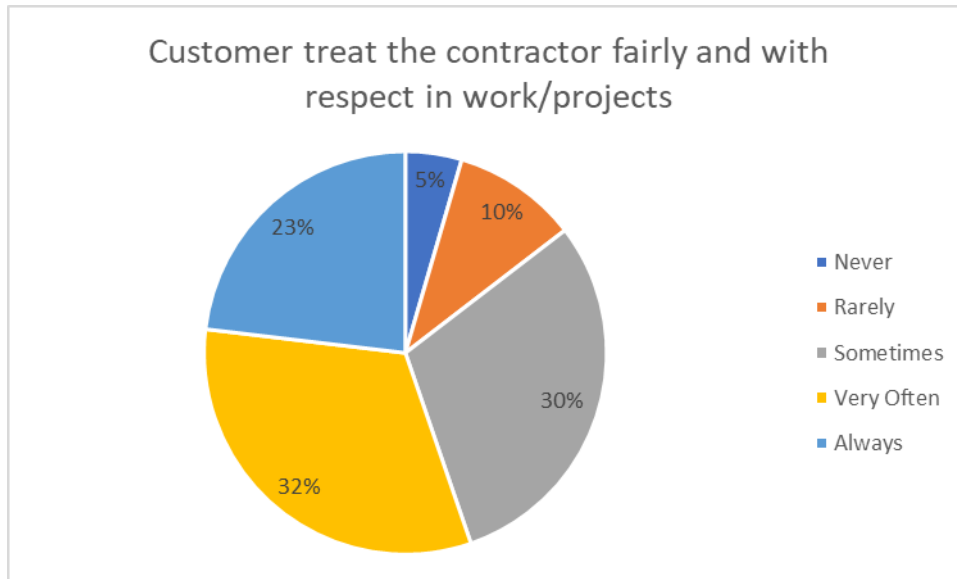
Figure 4.31: Threatened to accept a job or refuse a job



Based on Figure 4.31, 55.78% of respondent have said customers “Never” threaten to accept a job or refuse a job. 21.11% of respondent select “Rarely” while 16.08% of respondent select “Sometimes” customers threaten to accept a job or refuse a job. 5.53% of respondents select customer “Very Often” threaten to accept a job or refuse a job while 1.51% of respondent select customer “Always” threaten to accept a job or refuse a job. About 44.22% of respondents is facing a threat from their customer which can be consider as a criminal case but yet contractors have bear all this make meet end. A proper Act and policy need to protect contractors from this kind of customers.

#### 4.5.4 Customer treat the contractor fairly and with respect in work/projects

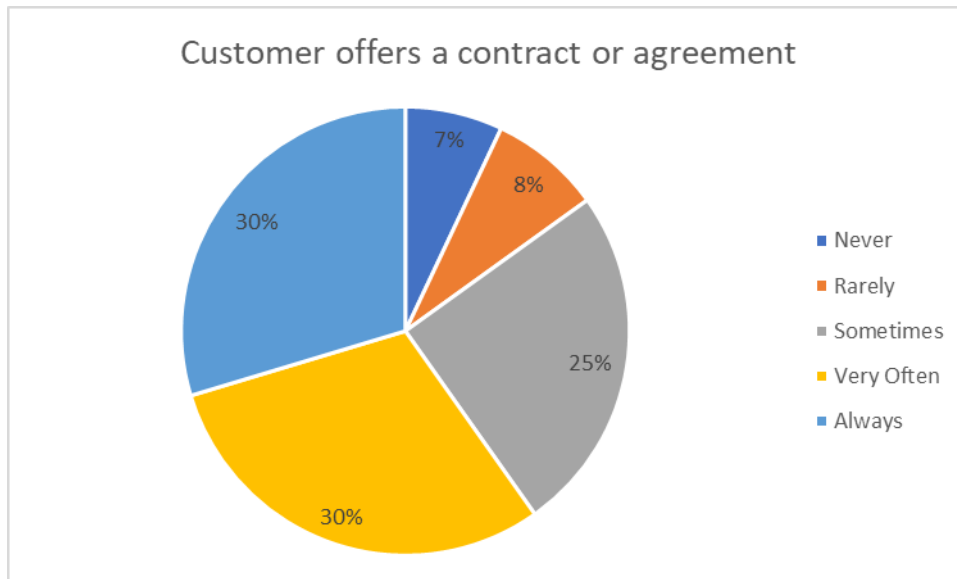
Figure 4.32: Customer treat the contractor fairly and with respect in work/projects



Whitfield, (2012a) said customer's unfairness treatment are causing the contractors profitability and may lead them to bankrupt. According to chart above, 32.16% of respondent have said customers "Very Often" customer treat the contractor fairly and with respect in work/projects. 30.15% of respondent select "Sometimes" while 23.12% of respondent select "Always" customer treats the contractor fairly and with respect in work/projects. 10.05% of respondents select customer "Rarely" treat the contractor fairly and with respect in work/projects while 4.52% of respondent select customer "Never" treat the contractor fairly and with respect in work/projects. 44.72% of respondent is not being treated fairly and with respect.

#### 4.5.5 Customer offers a contract or agreement

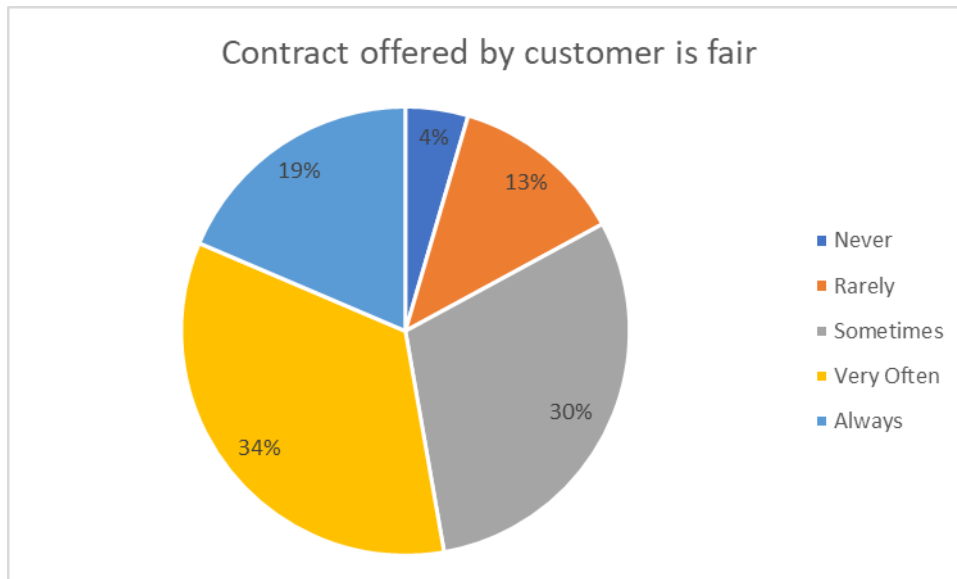
Figure 4.33: Customer offers a contract or agreement



According to chart above, 30.15% of respondent have said customers “Very Often” offer contracts. 29.65% of respondent select “Always” while 25.13% of respondent select “Sometimes” customer offers a contract or agreement. 8.04% of respondents select customer “Rarely” offers a contract or agreement while 7.04% of respondent select customer “Never” offers a contract or agreement. 40.21% of respondent have to do work without contracts which have clause and terms agreed by both parties which opens the contractor to abuse.

#### 4.5.6 Contract offered by customer is fair

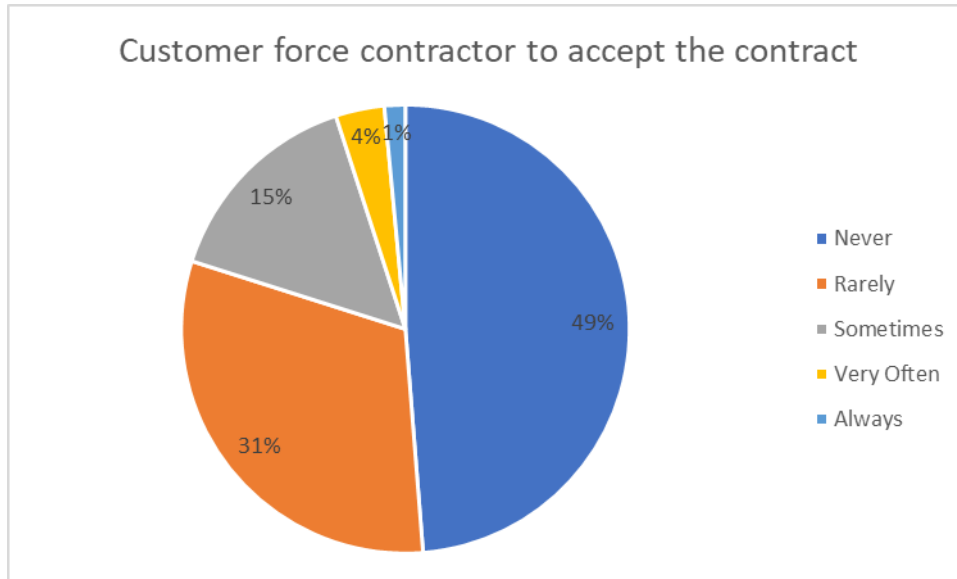
Figure 4.34: Contract offered by customer is fair



From Figure 4.34, 34.17% of respondent have said “Very Often” the contract offered by customer is fair. 30.15% of respondent select “Sometimes” while 18.59% of respondent select “Always” the contract offered by customer is fair. 12.56% of respondents select “Rarely” the contract offered by customer is fair while 4.52% of respondent select the contract offered “Never” fair. Even though customer offer contract or agreement as in figure 4.33 and it is fair as in figure 4.34, Whitfield, (2012a) said there are case where the customer knowingly amended the contract or agreement terms to increase Contractor’s risk. This means after contract is signed, customer has dishonestly changed the terms to benefit them hence even though fair contract is offered, customer still can alter it after it is signed.

#### 4.5.7 Customer force contractor to accept the contract

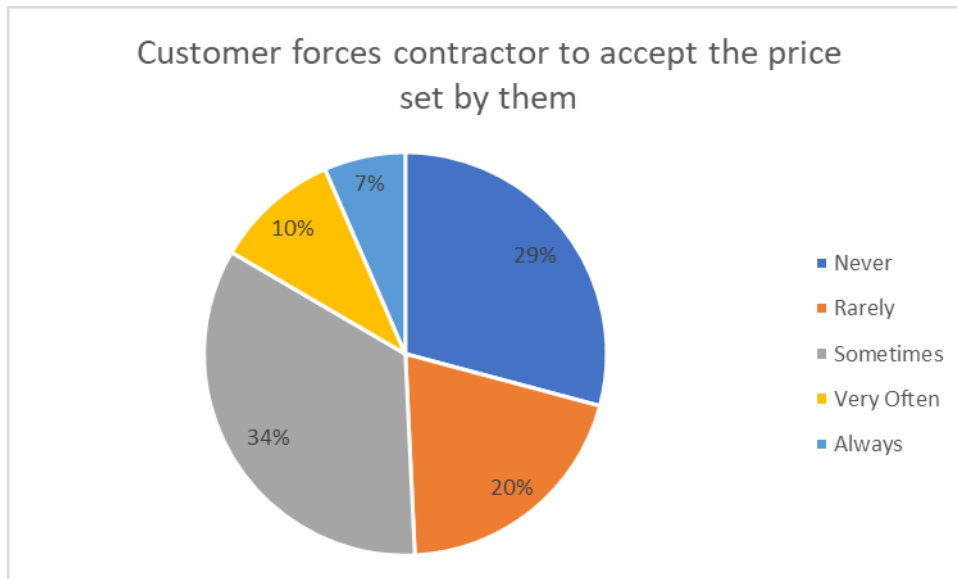
Figure 4.35: Customer force contractor to accept the contract



Based on chart above, 48.74% of respondent have said customers “Never” force contractor to accept the contract. 31.16% of respondent select “Rarely” while 15.08% of respondent select “Sometimes” customers force contractor to accept the contract. 3.52% of respondents select customer “Very Often” force contractor to accept the contract while 1.51% of respondent select customer “Always” force contractor to accept the contract. Majority of respondents have experienced of being forced to accept contract, which is not rare as Whitfield, (2012a) have multiple times in his book have describe the dishonesty and unfairness of customer.

#### 4.5.8 Customer forces contractor to accept the price set by them

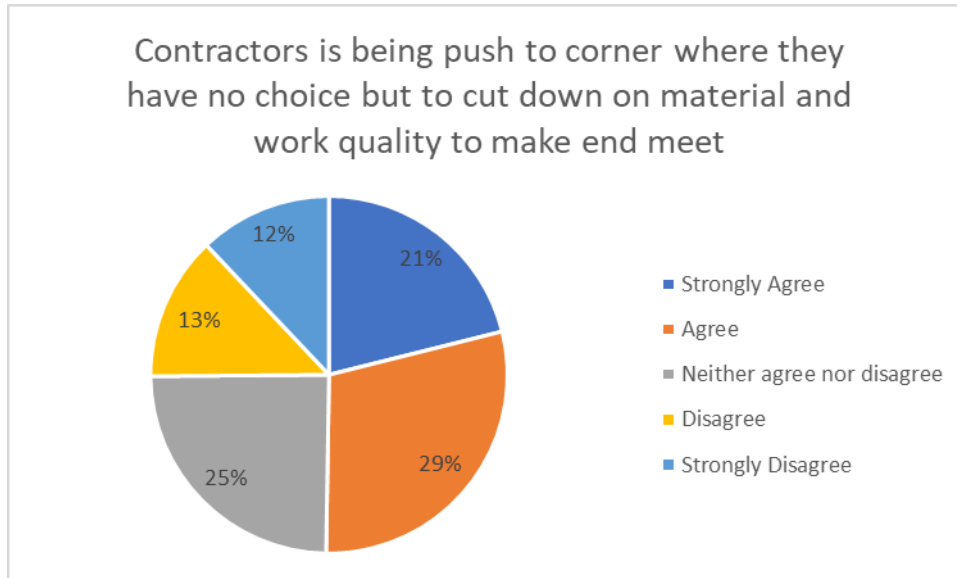
Figure 4.36: Customer force contractor to accept the price set by them



Based on chart above, 34.17% of respondent have said customers “Sometimes” force contractor to accept the price set by them. 29.15% of respondent select “Never” while 20.1% of respondent select “Rarely” customers force contractor to accept the price set by them. 10.05% of respondents select customer “Very Often” force contractor to accept the price set by them while 6.53% of respondent select customer “Always” force contractor to accept the price set by them. 80.85% of respondents is forced to accept to the price set by customer which most probably is lower than actual price and contractor have to bear the loss of profit or customer will just withhold information so contractor will misquote the price (Whitfield, 2012a)

#### 4.5.9 Contractors is being push to corner where they have no choice but to cut down on material and work quality to make end meet.

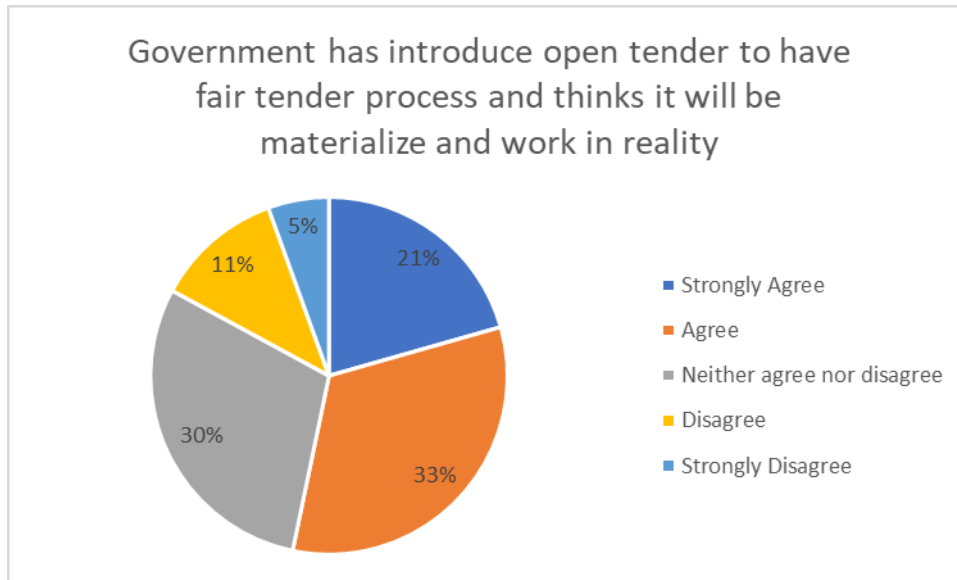
Figure 4.37: Contractors is being push to corner where they have no choice but to cut down on material and work quality to make end meet.



Suhaini (2005) explained how the number of works is very less while number of contractors is far more than the number of job available and also involvement crony systems which all this is pushing contractor to corner. Based on chart above, 29.15% of respondent have “Agree” that contractor is being pushed to corner. 24.62% of respondent select “Neither agree nor disagree” while 21.1% of respondent “Strongly Agree” with the above statement. 13.07% of respondents “Disagree” that contractor is being push to corner while 12.06% of respondent “Strongly Disagree” that contractor is being push to corner. Half of respondent agreed that they are being pushed to corner which leaves them no choice but cut down on material and work quality to make profit.

#### 4.5.10 Government has introduce open tender to have fair tender process and thinks it will be materialize and work in reality

Figure 4.38: Government has introduced open tender to have fair tender process and thinks it will be materialize and work in reality

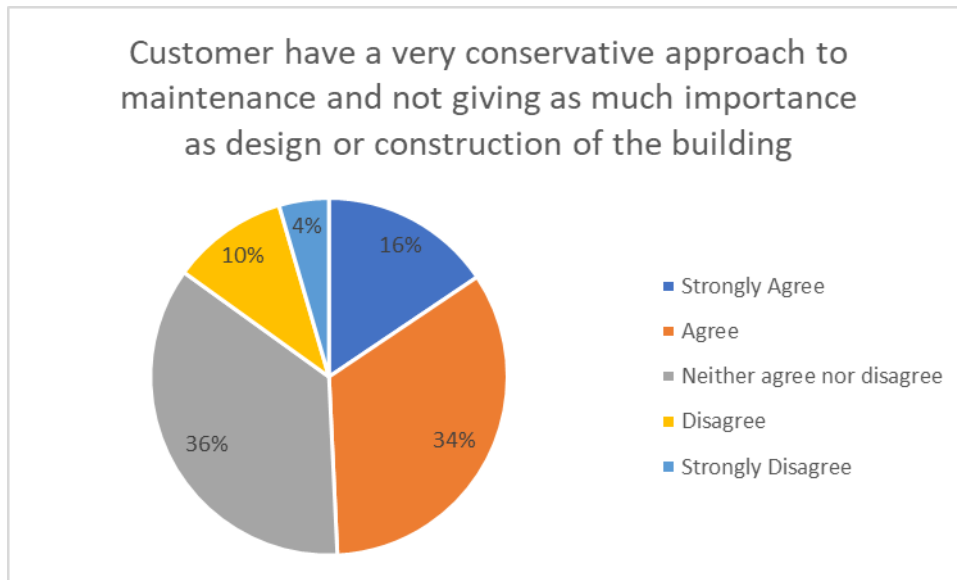


Suhaini (2005) mention even though government is taking steps to prevent cronyism or palm ship by introducing open tender, but it is actual failed to be practice on the ground level. According to chart above, 32.66% of respondent have “Agree” that it will be materialize and work in reality. 29.65% of respondent select “Neither agree nor disagree” while 20.6% of respondent “Strongly Agree” with the above statement. 11.56% of respondents “Disagree” that it will be materialize and work in reality while 5.53% of respondent “Strongly Disagree” that it will be materialize and work in reality. Majority of respondents believe step taken by government will materialize and work in reality to prevent cronyism, palm ship and corruption.



#### 4.5.11 Customer have a very conservative approach to maintenance and not giving as much importance as design or construction of the building

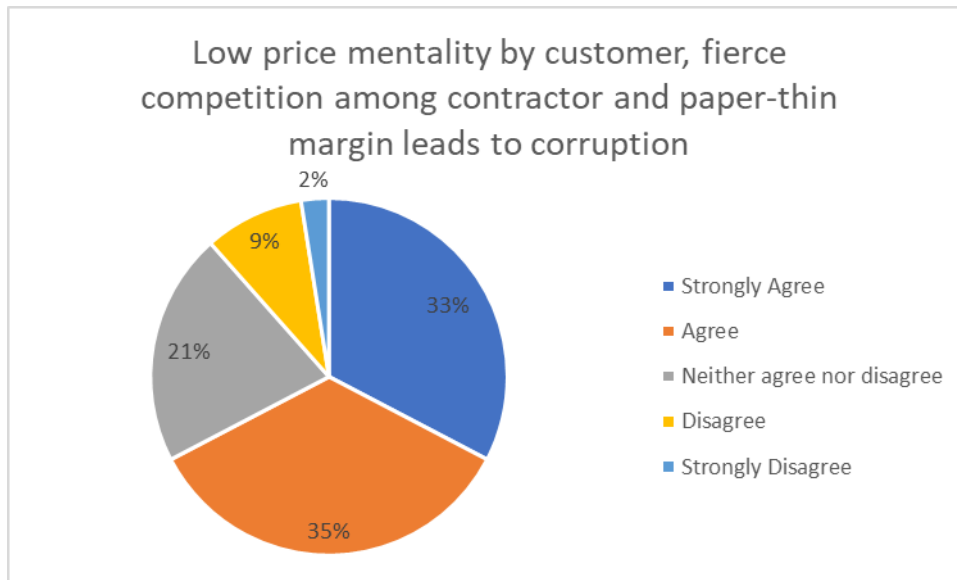
Figure 4.39: Customer have a very conservative approach to maintenance and not giving as much importance as design or construction of the building



According to Figure 4.39, 35.68% of respondent have “Neither agree nor disagree” that customer have a very conservative approach. 33.67% of respondent select “Agree” while 15.58% of respondent “Strongly Agree” with the above statement. 10.55% of respondents “Disagree” that customer have a very conservative approach while 4.52% of respondent “Strongly Disagree” that customer have a very conservative approach. When customer have conservative approach, they tend to find cheap or low price to get the job done and could indirectly encourage them to be dishonest with contractor which effects contractor profit. Majority of respondent is supporting that customer is being conservative when it comes to maintenance.

#### 4.5.12 Low price mentality by customer, fierce competition among contractor and paper-thin margin leads to corruption

Figure 4.40: Low price mentality by customer, fierce competition among contractor and paper-thin margin leads to corruption



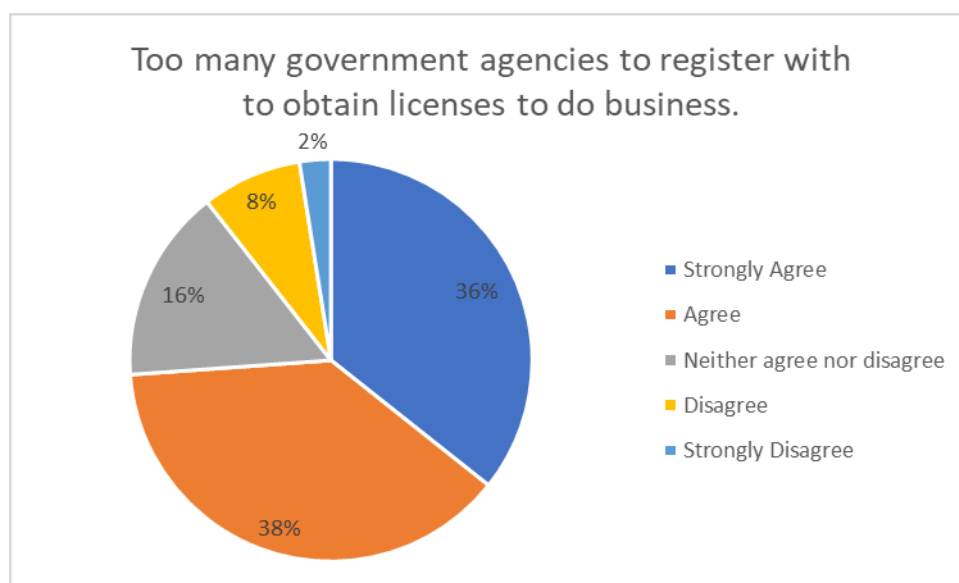
According to Figure 4.40, 34.67% of respondent have “Agree” that low price mentality by customer, fierce competition among contractor and paper-thin margin leads to corruption. 32.66% of respondent select “Strongly Agree” while 21.11% of respondent “Neither agree nor disagree” with the above statement. 9.05% of respondents “Disagree” with the above statement. while 2.51% of respondent “Strongly Disagree” that low price mentality by customer, fierce competition among contractor and paper-thin margin leads to corruption. Only 11.56% of respondent doesn’t agree with above statement while large part of respondents agrees with it. It is also state by FMI, (2004) in their findings and they agreed that corruption is caused by low price mentality by customer, fierce competition among contractor and paper-thin margin.

## 4.6 General

The question in this section is based on common situation faced by contractors. It is to gather additional information from the real situation and the outcome is used to support findings.

### 4.6.1 Too many government agencies to register with to obtain licenses to do business.

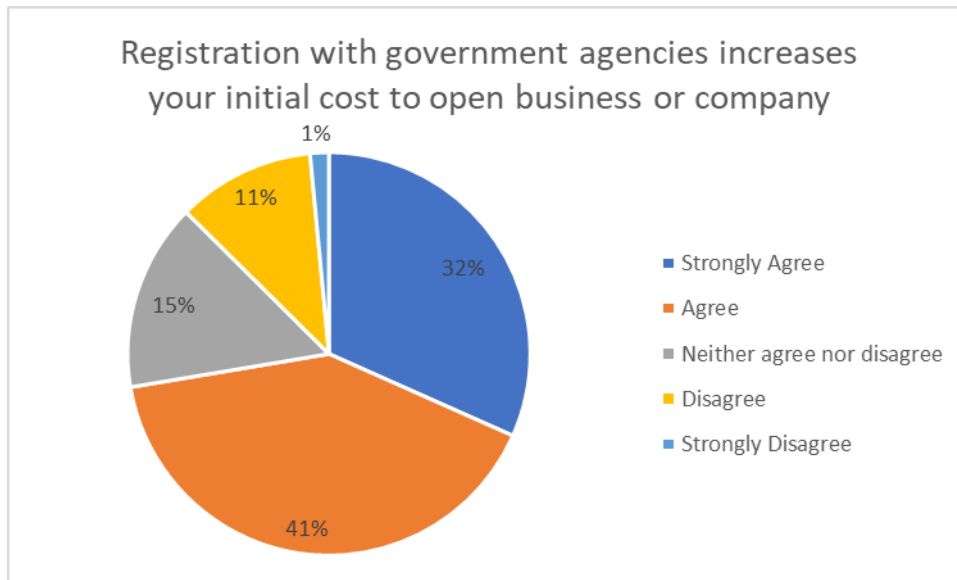
Figure 4.41: Too many government agencies to register with to obtain licenses to do business



According to Figure 4.41, 38.19% of respondent have “Agree” that too many government agencies to register with to obtain licenses to do business. 35.68% of respondent select “Strongly Agree” while 15.58% of respondent “Neither agree nor disagree” with the above statement. 8.04% of respondents “Disagree” with the above statement. while 2.51% of respondent “Strongly Disagree” that too many government agencies to register with to obtain licenses to do business. Majority of respondents felt there too many government agencies to be registered. There will be too many processes to go through just to start a business.

#### 4.6.2 Registration with government agencies increases your initial cost to open business or company

Figure 4.42: Registration with government agencies increases your initial cost to open business or company

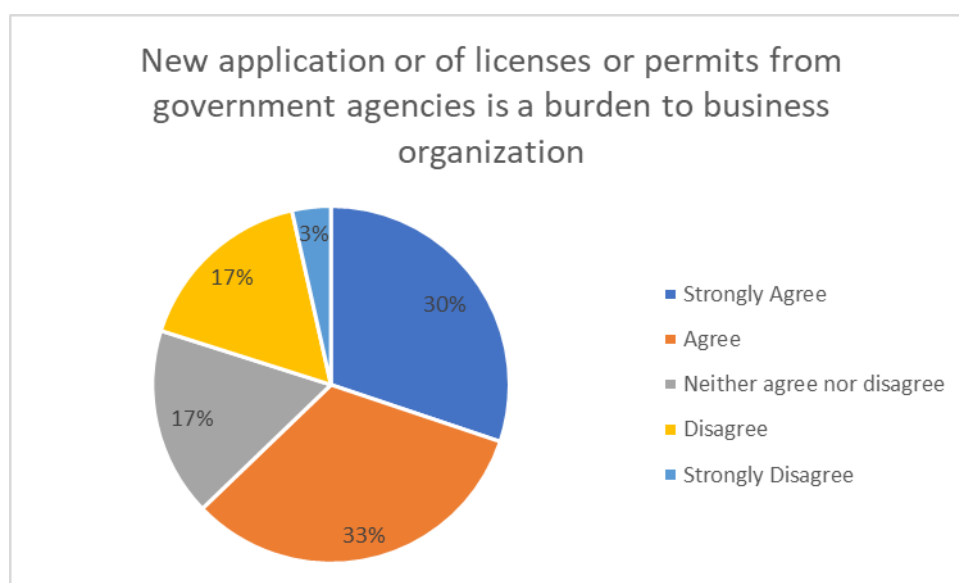


According to Figure 4.42, 40.7% of respondent have “Agree” that registration with government agencies increases your initial cost to open business or company. 31.66% of respondent select “Strongly Agree” while 15.08% of respondent “Neither agree nor disagree” with the above statement. 11.06% of respondents “Disagree” with the above statement. while 1.51% of respondent “Strongly Disagree” that registration with government agencies increases your initial cost to open business or company. Large portion of respondent says getting license from government agencies increase their initial cost plus based on figure 4.41, there too many government agencies hence the initial cause will be multiplied few times with longer process time. For example, to do underground plumbing works, a contractor need to register with Suruhanjaya Syarikat Malaysia then three license Construction Industry Development Board followed by Suruhanjaya Perkhidmatan Air Negara. With above licence they need to be registered with state level water agency. This is just for the companies. They need to renew the license after certain years with amount of processing fee which cost few hundred Ringgit each license. There is separate license for worker and if they obtain the job, they need to apply for work permits from other agencies. Long

process and multiple fees with work not guaranteed, this issue is increasing the cost which effects their profit.

#### **4.6.3 New application or of licenses or permits from government agencies is a burden to business organization**

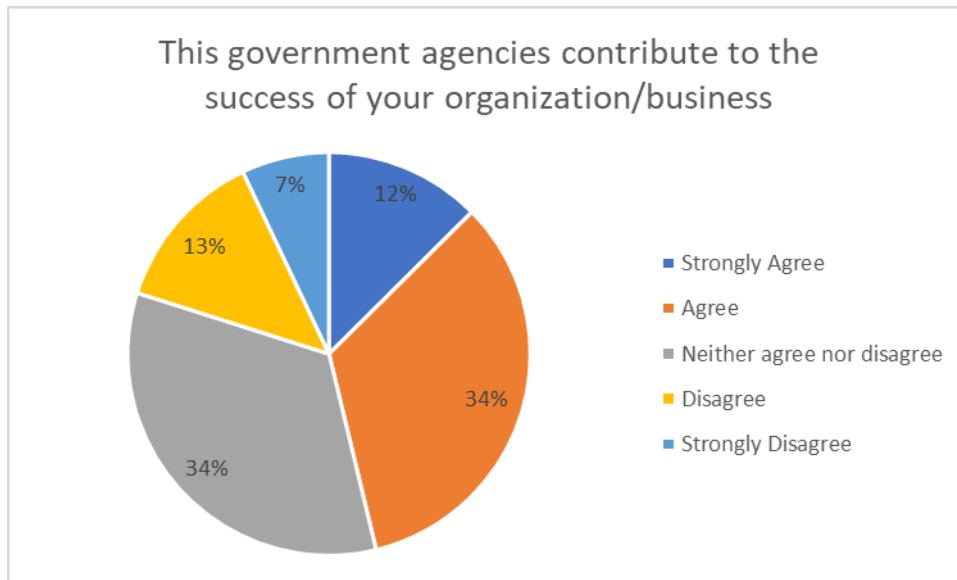
Figure 4.43: New application or of licenses or permits from government agencies is a burden to business organization



According to Figure 4.43, 32.66% of respondent have “Agree” that new application or of licenses or permits from government agencies is a burden to business organization. 30.15% of respondent select “Strongly Agree” while 17.09% of respondent “Neither agree nor disagree” with the above statement. 16.58% of respondents “Disagree” with the above statement. while 3.52% of respondent “Strongly Disagree” that new application or of licenses or permits from government agencies is a burden to business organization. Most of respondent agree that application of licences or permit is burden to them as it causes them time and money without guarantee of work.

#### 4.6.4 This government agencies contribute to the success of your organization/business

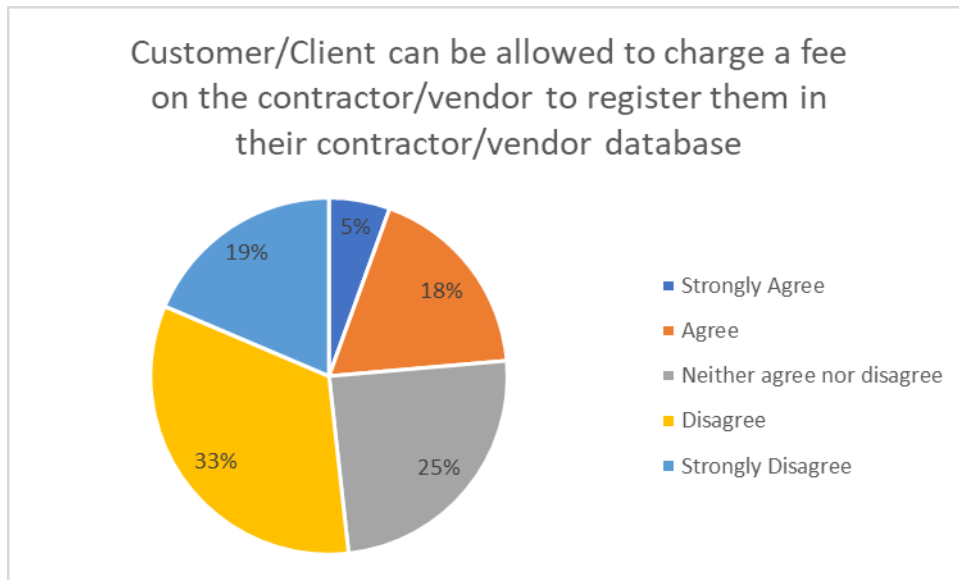
Figure 4.44: This government agencies contribute to the success of your organization/business



According to Figure 4.44, 33.67% of respondent have “Agree” that government agencies contribute to the success of your organization/business. 33.67% of respondent select “Neither agree nor disagree” while 13.07% of respondent “Disagree” with the above statement. Number of respondents select “Agree” and “Neither agree nor disagree” are in equal number. 12.56% of respondents “Strongly Agree” with the above statement. while 7.04% of respondent “Strongly Disagree” that government agencies contribute to the success of your organization/business. Only about 46.23% of respondent government agencies have some contribution to their success with number of licenses they need to take spending their time and money.

#### 4.6.5 Customer/Client can be allowed to charge a fee on the contractor/vendor to register them in their contractor/vendor database

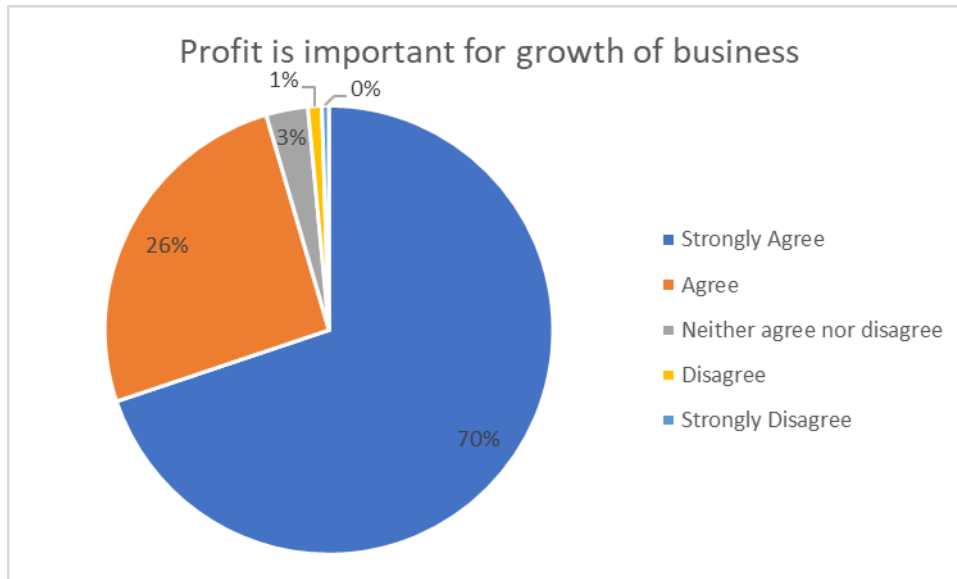
Figure 4.45: Customer/Client can be allowed to charge a fee on the contractor/vendor to register them in their contractor/vendor database



According to Figure 4.45, 33.17% of respondent have “Disagree” that customer should charge a fee for vendor registration. 24.62% of respondent select Neither agree nor disagree while 18.59% of respondent “Strongly Disagree” with the above statement. Number of respondents select “Agree” and “Neither agree nor disagree” are in equal number. 18.09% of respondents “Agree” with the above statement. while 5.53% of respondent “Strongly Agree” that customer should charge a fee for vendor registration. After registration with all the government agencies, the contractor needs to register with client which sometimes takes months to register and need to pay a fee charged by them. Some of requirement, contractor need to submit their 3 months bank balance but in payment section, it is noted customer is the one who not paying the contractor then why do customer need to know cash balance in contractors bank account.

#### 4.6.6 Profit is important for growth of business

Figure 4.46: Profit is important for growth of business

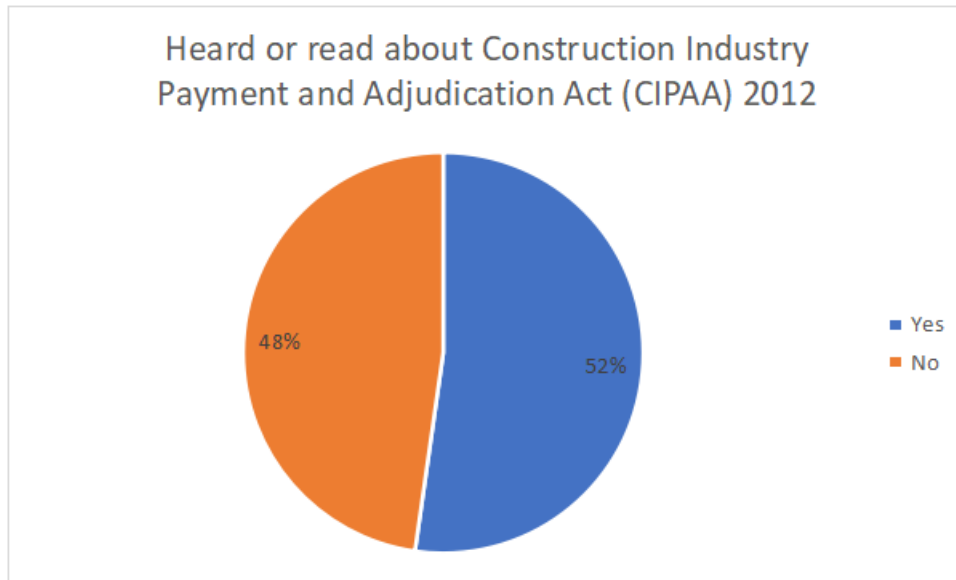


According to Figure 4.46, 69.85% of respondent have “Strongly Agree” that Profit is important for growth of business. 25.63% of respondent select “Agree” while 3.02% of respondent “Neither agree nor disagree” with the above statement. 1.01% of respondents “Disagree” with the above statement. while 0.50% of respondent “Strongly Disagree” that Profit is important for growth of business. Majority of respondents agree that profit is important for growth of business. Nina (2016) said that without profitability an organization will find difficulty to attract investor and it rarely sustain in long run



#### 4.6.7 Heard or read about Construction Industry Payment and Adjudication Act (CIPAA) 2012

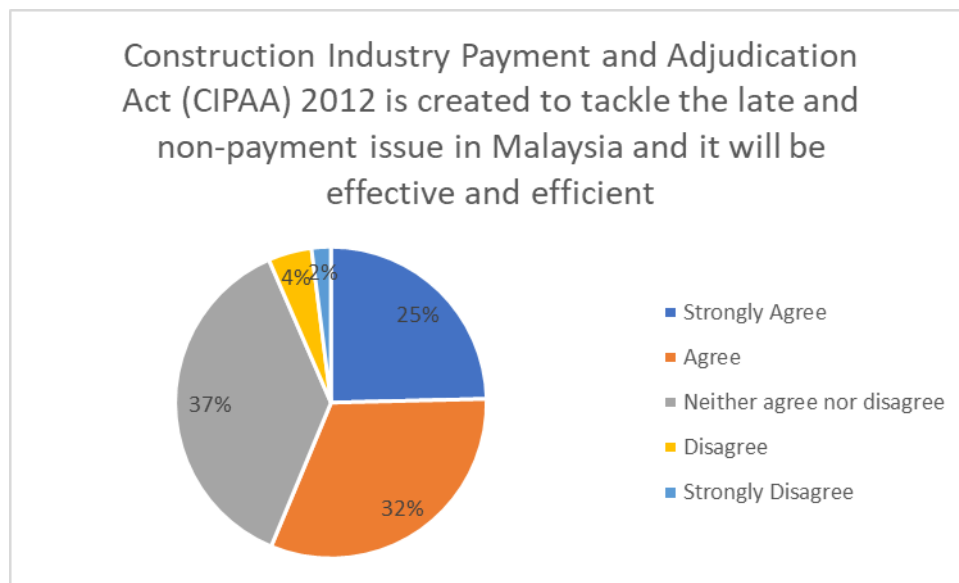
Figure 4.47: Heard or read about Construction Industry Payment and Adjudication Act (CIPAA) 2012



Hadi et al (2018) mention the implementation of CIPAA is still new to the construction industry hence there is great possibility of construction players to be lack of knowledge and awareness about CIPAA. According to Figure 4.47, 52.26% of respondent have said that they have heard or read about CIPAA 2012 by selecting “Yes” while 47.74% of respondent select “No” which means they haven’t known about CIPAA 2012. Based on result above, it can be concluded half of respondent doesn’t know about this act which is agreed by Hadi et al (2018). Related agency needs to find a way to promote the act to industry players for smooth implementation.

#### 4.6.8 Construction Industry Payment and Adjudication Act (CIPAA) 2012 is created to tackle the late and non-payment issue in Malaysia and it will be effective and efficient

Figure 4.48: Construction Industry Payment and Adjudication Act (CIPAA) 2012 is created to tackle the late and non-payment issue in Malaysia and it will be effective and efficient



According to Figure 4.48, 37.19% of respondent have “Neither agree nor disagree” that CIPAA 2012 will be effective and efficient. 31.66% of respondent select “Agree” while 24.62% of respondent “Strongly Agree” with the above statement. 4.52% of respondents “Disagree” that CIPAA 2012 will be effective and efficient while 2.01% of respondent “Strongly Disagree” that CIPAA 2012 will be effective and efficient. Even though half of respondent not aware of this Act but they have the confidence that this act will be effective an efficient while balance respondent has lower confidence.

## 4.7 Level of Importance of Factor Affecting Profitability

The data of the survey were analysed to provide a better understanding of the factors influencing profitability and payment regularity of facilities and maintenance service providers in Malaysia. The results of this study were produced from all the responses received and discussed based on the categories provided in the questionnaire as follows

### 4.7.1 Relative Importance Index

The results are processed using Relative Importance Index to rank them according to importance of factor.

#### 4.7.1.1 Payment Analysis

Relative Importance Index of Payment is applied for question 5.1 to 5.9. The question from 1 to 4 is a supporting question. The payment term set by majority of respondent is 30 days but majority of them receive their payment between 30 days to 60 days which already delayed. Only 4.52% doesn't follow up with their client for payment while balance 95.48% do follow up even though frequency of follow up varies. Only 18% of respondent Never had non-payment invoice while staggering 82% of them have non-payment invoice.

Table 4.6: Relative Importance Index of Payment

Question	Description	Relative Importance Index	Rank
Q5	Issues with regard to documentation error	0.698	6
Q6	Breach of contract term by parties involved in the project	0.685	8

Q7	Paymaster's poor financial management	0.767	2
Q8	Conflict among the Parties Involved in the Project	0.712	5
Q9	The use of "pay when paid" clause in the contract	0.681	9
Q10	Delay in certification by consultant	0.727	3
Q11	Paymaster's Wrongly Withholding of Payment	0.698	7
Q12	Local Culture/ Attitude	0.770	1
Q13	Disagreement of the valuation of work done	0.719	4
Average RII		0.717	

The ranked 1 relative importance index is Question 12 which is Local Culture/ Attitude in payment delay. Followed by Paymaster's poor financial management and Delay in certification by consultant. Ansah, S. (2011) also finds similar pattern of responds from his study where client's poor financial management and their failure to encourage good payment attitude as ranked top two by his respondents. The top five ranked index have relative importance index value more than 0.7 while 6<sup>th</sup> and 7<sup>th</sup> ranked question is actually having equal score.

The use of "pay when paid" clause in the contract is ranked last could be due to rejection during the drafting of Construction Industry Development Board in 2002 in Malaysia but still about 51% of respondents say this cause the delay in their payment. Only 16% of respondent disagreed that their payment delayed due to "pay when paid" clause. The average Relative Important Index for table 4.6 is 0.717

#### 4.7.1.2 Workforce Analysis

The Relative Importance Index is used for Question 1 to 7 while Question 8 and 9 is as supportive findings. Based on outcome of question 8 it is found majority of respondents vote that local employee is causing more discipline issue compare to foreign worker. Lack of discipline in an employee could affect the production of an organization which will cause their income to drop. Mustafa Elqadri et al (2015) mention productivity is affected a variety of factors, both related to the labour itself such as work discipline, attitude, and ethics. This issue is resonated by respondent in question 9 where they claimed the worker is lack of discipline and attitude. The inefficient productivity will cause losses to companies which effect their profitability.

Table 4.7: Relative Importance Index of Workforce

Question	Description	Relative Importance Index	Rank
Q1	Minimum Wage Afforded	0.577	6
Q2	Equals Salary Request by Staff	0.648	5
Q3	Attract Highly Motivated Worker	0.659	4
Q4	Keeping highly motivated and skilled labour for long time	0.661	3
Q5	Hiring Foreign Labour	0.497	7
Q6	Cost increased due to raids on foreign labour	0.707	1
Q7	Providing Worker Benefits	0.670	2
Average RII		0.737	

Relative Importance Index for Workforce ranks cost increment due to raids as no 1 while no 2 is providing worker benefits while the third is keeping highly motivated and skilled labour for long time. Hiring foreign labour is ranked last while minimum wage afforded is rank 6. The Rank 1 and rank 7 index contra each other. This is because if organization is not always hiring foreign worker then why they agree that their cost increase during raid done by authority to apprehend illegal foreign worker. This could be due to the organization hiring them on need

basis or on part time basis rather as full-time staff which can be caused by complicated application process to apply permit for worker and cost of it. Other factor could be due the organization's supplementary or support service provider facing worker shortage issue and charging higher fee to this Micro and SME organization to provide same product or service. The average Relative Important Index for table 4.7 is 0.737

#### 4.7.1.3 Lack of Information Analysis

The overall outcome of this section shows the outcome is nearly half of respondents facing a negative treatment while another half is facing positive treatment from customer. In the situation of lack of information regarding the work, job or project, the contractor or service provider tend to under or over quote the price for work. Whitfield, (2012a) has in length explained in his book about how misquoting price for work effects the contractor's profit and push them to bankruptcy. In some case the customer dishonestly and unfairly hides information from contractor to make them misquote the price.

Table 4.8: Relative Importance Index of Lack of Information

Question	Description	Relative Importance Index	Rank
Q1	Customers employ Building Information Modelling Systems	0.453	7
Q2	Customers give sufficient information regarding the job scope	0.708	3
Q3	Customer explain regarding the work scope clearly and completely	0.721	1
Q4	Customer knows the requirement and specification of the work	0.711	2
Q5	Customer gives enough time to check the problem and prepare	0.687	4

	the quotation		
Q6	Customer purposely or deliberately hides information	0.506	6
Q7	Problem encountered by customer usually inherited from design or construction stage of the structure	0.596	5
Average RII		0.626	

The table 4.8 shows the ranking of outcome using Relative Importance Index. The first ranking is ‘Customer explain regarding the work scope clearly and completely’ followed by ‘Customer knows the requirement and specification of the work’ and the third rank is ‘Customers give sufficient information regarding the job scope’. The last ranked is ‘Customers employ Building Information Modelling Systems’. The average Relative Important Index for table 4.8 is 0.626

#### 4.7.1.4 Unethical Analysis

Ethics refer to a moral philosophy or code of morals practiced by a person or group of people. Unethical means not morally correct. Askew et al (2015) wrote that unethical behaviour causes drop in organizational performance, financial losses, reputation is tainted, safety issues and loss of clients. Shah et al (2018) mention customer or owner contribute to unethical practises by taking illegal action, imposing pressure and delay in payment.

Table 4.9: Relative Importance Index of Unethical

Question	Description	Relative Importance Index	Rank
Q1	Customers ask for bribery or kickbacks	0.422	9
Q2	Purposely delays the payment to receive gift	0.406	10
Q3	Threatened to accept a job or	0.352	12

	refuse a job		
Q4	Customer treat the contractor fairly and with respect in work/projects	0.719	3
Q5	Customer offers a contract or agreement	0.735	2
Q6	Contract offered by customer is fair	0.699	5
Q7	Customer force contractor to accept the contract	0.356	11
Q8	Customer forces contractor to accept the price set by them	0.489	8
Q9	Contractors is being push to corner where they have no choice but to cut down on material and work quality to make end meet	0.668	7
Q10	Government has introduce open tender to have fair tender process and thinks it will be materialize and work in reality	0.703	4
Q11	Customer have a very conservative approach to maintenance and not giving as much importance as design or construction of the building	0.690	6
Q12	Low price mentality by customer, fierce competition among contractor and paper-thin margin leads to corruption	0.772	1
Average RII		0.584	



Table 4.9 shows number one ranked is “Low price mentality by customer, fierce competition among contractor and paper-thin margin leads to corruption” followed by “Customer offers a contract or agreement’ and third ranked “Customer treat the contractor fairly and with respect in work/projects”. The number 1 questions show unethical issue is boiled down three main factor which causing corruption is low price mentality, fierce competition and paper-thin margin. All this pushing the contractor to cut corners and quality to make meet ends plus there is issue where the customer being dishonest and unfair towards contractor. “Threatened to accept a job or refuse a job” ranked last as it could be a straightforward method in corruption which can be used against the person which employs these methods to other. The average Relative Important Index for table 4.9 is 0.584

## 4.8 Discussion

The factors taken into consideration is payment, workforce, lack of information and unethical as influencer of profitability and payment regularity of facility service provider business organization. Based on outcome of result the factor ranked as in table 4.10 where workforce is ranked number one followed by payment, lack of information and unethical. The range of average Relative Importance Index is between 0.58 to 0.74

Table 4.10: Average Relative Importance Index (RII)

No	Factor	Average RII	Rank
1	Workforce	0.737	1
2	Payment	0.717	2
3	Lack of Information	0.626	3
4	Unethical	0.584	4

Workforce is an important part of an organization. Productivity of a company depends on how efficient and effective the workforce performance is. Productivity drops when there are lack of workforce or issue with existing

workforce. Product or service which is not there to be sold hence there is no income which translate no profit. Hence based on votes received from respondents which is process using RII method, it indicates Workforce as main factor effecting their profitability and payment regularity. Cost increment due to raid and need to provide worker benefit matching large enterprise is seen as main issue contribute to this factor to be number 1.

Payment ranked as number two in table 4.10. Ramachandra and Rotimi (2015) found payment are the lifeblood of businesses activity because performance in any business activity is dependent on an uninterrupted funds flow. Ye and Rahman, (2010) preach that net cash flow will be negative if payment is delayed and this contribute to cash deficit which cause the contractor to find alternative funding to overcome it. Negative cash flow also mean the profit margin is badly affect plus the interest need to pay for alternative funding will also pull down the profit margin in future. From the data it can be concluded main issue is local culture or attitude and paymaster poor financial management as the contributor for this factor to be number two influencer.

Lack of information cause the contractor to under or over price a work or project as the risk is not properly evaluated. Whitfield, (2012a) has described the dishonest and unfair effort taken by customer to hide the information and tender out incomplete form so that the contractor can't evaluate the actual risk and work scope to give actual price. 'Customer explain regarding the work scope clearly and completely' and 'Customer knows the requirement and specification of the work' is seen main contributor for this factor. It this factor data collection, the responds from contractor is seems like half of them facing a negative issue while other is facing a positive treatment from their customer.

Unethical caused more losses to both parties involved where customer doesn't get quality work and service while contractor loss their reputation plus it effect the actual cash flow projection. Zakaria et al (2013) mention countless literatures have shown that unethical behaviours in the construction industry include unfair conduct, negligence, conflict of interest, collusive tendering, fraud

and bribery. As facilities management is considered under construction industry in Malaysia as it is a by-product of construction and life cycle of building, it also facing a similar issue with construction industry in terms of unethical. “Low price mentality by customer, fierce competition among contractor and paper-thin margin leads to corruption” and “Customer offers a contract or agreement’ plays important role in unethical factor.

From General section, it can be seen that the contractor agrees the profit is important for their growth. Many of them not familiar with CIPAA act but have a confidence on it effective and efficient of its implementation. They also feel there are lot of government agency regulating them and they need to apply licenses from each of these agencies which increasing their initial cost of starting business and not to mention the time spent to obtain this license but yet less than half of respondent only thinks these agencies are contributing to their success. Majority of respondent feel these agencies is burdening them with the license application and the fee need to pay for it rather than introducing helpful policy to improve Micro and SME enterprise. After all these burden from government agencies for registration and fees, they need to again register with the customer to be in their database where they are charged another fee by customer without guarantee of work.

Overall the respondents have face situation involving this factor and it effect their profitability and payment regularity. None of the question where all the respondent chosen a single answer which means abuse is still happening even with introduction of certain measure such as open tender, CIPAA Act, and more enforcement by government agencies. This means the measure introduce works but not efficiently and effectively. The contractor is still at loss with their profitability is affected and their growth is hampered as investor is looking a profitable business for investment purpose. This indirectly effect Malaysian economy growth as Micro and SME enterprise is largest job creator for locals.

## **CHAPTER 5**

### **CONCLUSION**

#### **5.1 Introduction**

In this chapter, recommendation to issue found in the data collection and analysis from the survey questionnaire are suggested. The achievement of objective is concluded. The findings from the research is summarized in conclusion section and a guide for future study or research on area which need improvement is advised.

#### **5.2 Achievement of Research Objectives**

Objective 1: To identify the factors affecting profitability and payment regularity of building and facilities maintenance service provider.

The aim of objective 1 is to identify the factors affecting profitability and payment regularity of building and facilities maintenance service provider. Table 5.0 shows the identified factors that affecting the profitability and payment regularity of facilities and maintenance service provider with summarized description. The four factors identified through literature review are payment, workforce, lack of information and unethical.

The number of literature available for factor of Workforce and Lack of Information is scarce and limited. There lot of literature available on Payment and Unethical factor but only the relevant literature is taken into consideration.

Table 5.0: Factors affecting profitability and payment regularity

No	Factors	References	Descriptions
1	Payment	Azman et al (2014), Ansah (2011), Abdul Rahman et al (2006), Suhaini (2005), Supardi, Adnan and Mohammad (2011), Supardi, and Adnan, (2011)	<ul style="list-style-type: none"> <li>• Affected many companies and categorized a financial problem by the victim</li> <li>• Type of payment in industry</li> </ul>
2	Workforce	Abor et al, (2014), Sivanandam, (2017)	<ul style="list-style-type: none"> <li>• Difficulty attracting highly motivated worked</li> </ul>
3	Lack of information	Ismail and Hamzah, (2013) Whitfield, (2012a) Eastman, (2009).	<ul style="list-style-type: none"> <li>• Customer doesn't understand their own issue</li> <li>• Customer deliberately, unfairly and dishonesty hide information</li> </ul>
4	Unethical	Hasmori et al. (2012) Suhaini (2005) Whitfield, (2012a) Daud (2011) Sivanathan et al (2012) Zakaria et al (2013)	<ul style="list-style-type: none"> <li>• Customer illegally holding payment in exchange of "gift"</li> <li>• Customer not practising fairness</li> <li>• Importance is given to design not to maintenance of asset</li> <li>• Maintenance problem is from design deficiency</li> </ul>

Objective 2: To determine the level of importance of factors affecting profitability and payment regularity of building and facilities maintenance service provider.

Table 5.1 shows the ranked factor. The factor was earlier identified and then it is ranked based on importance of its effect on profitability based on reply of respondent which is analysed using Relative Importance Index (RII) method.

Table 5.1: Rank of importance of factor affecting profitability

<b>No</b>	<b>Factor</b>	<b>Average RII</b>	<b>Rank</b>
1	Workforce	0.737	1
2	Payment	0.717	2
3	Lack of Information	0.626	3
4	Unethical	0.584	4

To achieve objective 2, a questionnaire survey was conducted where the respondent was reached out through online platform such as email, Facebook group and Whatsapp group application because it is cost efficient and effective to reach the contractor who are spread out through Malaysia and convenience for response. The questionnaire survey form was created using Google Form. The response rate was at 52.09%.

The data then processed using Relative Importance Index (RII) Method in Microsoft Excel software. The results are presented in chart pie graph in Chapter 4: Results. This method commonly used to rank factor based on its importance which are voted by response of survey. The range of average Relative Importance Index is between 0.58 to 0.74 for this study. For this study the factor is ranked as in Table 5.1 where Workforce is ranked 1, followed by Payment, Lack of Information and Unethical.

The outcome suggest that Workforce is main factor affecting the profitability of Micro and SME organization while Payment which affected by payment regularity as second followed by Lack of Information from customer side regarding the work or job and Unethical issue in business dealings.

### **5.3 Limitation of the Research Study**

It is norm for a research or study to have limitation due to unforeseen circumstances. In this research, number of respondents was 199 but the target respondent was 382. The coverage of this research was all over Malaysia hence it was viable to researcher to reach the respondent via email taking into consideration of cost and time. Even though more than 15,000 emails have been sent and researcher also has tried to reach the respondents via Facebook group and WhatsApp chat application, but the target couldn't be reached. Effort to contact them via telephone is futile as most of number not in service or unanswered. The email address was obtained from Construction Industry Development Board which they use to communicated with the contractors. Some of respondent taking more time to respond.

The government agencies taking lot of time to reply to research's request as they need to go several procedures before replying to researches email or request. Due to mass email containing questionnaire survey sent out by researcher to respondents, researcher email was blocked by email service provider for certain period of time and some of email service provider flagged researcher's email as spam hence this caused some of respondent not able to receive the email in their inbox. The email service provider has facility to send mass email, but they charge a fee for the service which is beyond researcher budget. The researcher also faced with time and budget constrain to complete the research

### **5.4 Recommendation**

Business owner need to take steps to address the worker issue properly especially Micro business which doesn't have proper management structure. Government agency and association related to this industry need guide this Micro and Small business on tackling this issue while government can introduce more easier, less time consuming and lenient procedure to hire foreign labour. Government can encourage insurance companies to introduce small workforce

benefit package for Micro and Small business

Ramachandra and Rotimi (2015) suggests steps to mitigate payment problems by placing charging orders, caveat registration over built properties, and issuance of bankruptcy and liquidation on customer or owner organization or property. Government also need to step up promoting their CIPAA act nationwide especially to Micro and SME business entity and publish the success of the act.

Lack of information is more of internal behaviour of customer. CIDB could introduce best practice guidelines for tendering process which need to be followed by all. Contractor need to more vigilante when during inspection of work and formally request for additional time is needed.

Unethical issue is damaging both customer and contractors. More whistle-blower is needed to address this matter and government need to make the whistle-blower act more whistle-blower oriented and more promotion is needed. They could also add a reward to those who report. Malaysian Anti-Corruption Commission need to look into the current method used to take bribery or kickbacks and publish in mainstream media.



### 5.3 Conclusion

The research objective has achieved by identifying four factors mainly effecting the profitability and payment regularity of Facilities and Maintenance Service Providers in Malaysia which is ranked by using Relative Importance Index Method to recognise their impact on profitability and payment regularity and Workforce is ranked number one followed by Payment, Lack of Information and Unethical. The main issue in Workforces factor is cost increment due to raid by authority for illegal foreign worker and to provide worker benefit. The important issue in Payment factor is local culture or attitude and paymaster poor financial management. The significance issue in Lack of Information are customer explain regarding the work scope clearly and completely and customer knows the requirement and specification of the work. The principal issue for Unethical are low price mentality by customer, fierce competition among contractor and paper-thin margin leads to corruption and customer offers a contract or agreement. Generally, contractor agrees the profit is important for growth, but they are also burden by license application from many government agencies which increase the initial start-up cost and time consuming while more than half respondent thinks these agencies not contributing to their success. These agencies need to make sure they're not burdening the contractors while making sure the policies and act is more helpful and friendly to contractors Contractor also need to register to their customer database for a fee without guarantee of work. Even though they not aware of CIPAA act but have confidence it will help to improve their cash flows.

For future studies or research concentration need to be given to Micro and Small contractors with CIDB grade of G1, G2 and G3 as their problem is not properly highlighted as their capacity to face the issue is differ from large enterprises. Current research concentrating to a bigger organization who have proper management structure than Micro enterprise. Exploratory research is recommended. The new research needs to diversify as majority of current research ison Payment issue while other factor such as Workforces, Lack of Information, and Unethical is very minimal. More research is need on addressing issue faced by Micro, Small enterprise with grading of G1 and G2 grade contractor.

## REFERENCES

- Abdul-Rahman, H., Berawi, M. A., Berawi, A. R., Mohamed, O., Othman, M., & Yahya, I. A. (2006). Delay Mitigation in the Malaysian Construction Industry. *Journal of Construction Engineering and Management*, 132(2), 125–133. doi: 10.1061/(asce)0733-9364(2006)132:2(125)
- Abor, J. Y., Agbloyor, E. K., & Kuipo, R. (2014). Bank finance and export activities of Small and Medium Enterprises. *Review of Development Finance*, 4(2), 97–103. doi: 10.1016/j.rdf.2014.05.004
- Adnan, H., Hashim, N., Mohd, N., Yusuwan, & Ahmad, N. (2012). Ethical Issues in the Construction Industry: Contractors Perspective. *Procedia - Social and Behavioral Sciences*, 35, 719–727. doi: 10.1016/j.sbspro.2012.02.142
- Agnieszka Parkitna , & Beata Sadowska. (2011). Determining The Profitability Of Enterprises – Influence Assessment. *Operations Research and Decision*, No 2, 45–63.
- Akadiri O.P., 2011, Development of a Multi-Criteria Approach for the Selection of Sustainable Materials for Building Projects, PhD Thesis, University of Wolverhampton, Wolverhampton, UK
- Ali, A., N., & Naseem, S. (2005). Construction industry payment and adjudication act, reducing payment default and increasing dispute resolution efficiency. *International Forum on Construction Industry Payment Act and Adjudication*.
- Ansah, S. K. (2011). Causes and Effects of Delayed Payments by Clients on Construction Projects in Ghana. *Journal of Construction Project Management and Innovation*, 1(1), 27–45.
- Arditi, D., & Chotibhongs, R. (2005). Issues in Subcontracting Practice. *Journal of Construction Engineering and Management*, 131(8), 866–876. doi: 10.1061/(asce)0733-9364(2005)131:8(866)
- Askew, O. A., Beisler, J. M., & Keel, J. (2015). Current Trends Of Unethical Behavior Within Organizations. *International Journal of Management & Information Systems (IJMIS)*, 19(3), 107. doi: 10.19030/ijmis.v19i3.9374
- Azman, M. N. A., Dzulkalnine, N., Hamid, Z. A., & Beng, K. W. (2014). Payment Issue in Malaysian Construction Industry: Contractors' Perspective. *Jurnal Teknologi*, 70(1). doi: 10.11113/jt.v70.2804
- Babin, B., Money, A. H., Samouel, P., & Hair, J. F. (2003). *Essentials of business research methods*. Hoboken, NJ: John Wiley & Sons.
- Baker, T. L. (1994). *Doing Social Research* (2nd ed.). New York : McGraw-Hill.
- Bari, N. A. A., Yusuff, R., Ismail, N., Jaapar, A., & Ahmad, R. (2012). Factors Influencing the Construction Cost of Industrialised Building System (IBS) Projects. *Procedia - Social and Behavioral Sciences*, 35, 689–696. doi: 10.1016/j.sbspro.2012.02.138
- Brown, G. H. (1947). A Comparison of Sampling Methods. *Journal of Marketing*, 11(4), 331–337. doi: 10.2307/1246272

- Burja, C. (2011). Factor Influencing The Companies Profitability. , *Annales Universitatis Apulensis Series Oeconomica*, 13(2), 215–224.
- Chan, D. W., & Kumaraswamy, M. M. (1997). A comparative study of causes of time overruns in Hong Kong construction projects. *International Journal of Project Management*, 15(1), 55–63. doi: 10.1016/s0263-7863(96)00039-7
- Chan, E. (2014). Building Maintenance Strategy: A Sustainable Refurbishment Perspective. *Universal Journal of Management*, 2(1), 19–25. doi: DOI: 10.13189/ujm.2014.020103
- C. I. D. B. (2019). *Construction Industry Development Board Malaysia. Buku Keperluan Dan Procedur Pendaftaran Kontraktor*. KUALA LUMPUR, KUALA LUMPUR. Retrieved from <http://www.cidb.gov.my/index.php/en>.
- Daud, A.-K. M. (2011). Transforming Conservative Maintenance Practice to Reliability Culture . Retrieved from <http://www.faqeh.com/>.
- Eastman, C. (2009). Automated Assessment of Early Concept Designs. *Architectural Design*, 79(2), 52–57. doi: 10.1002/ad.851
- Eisenhardt, K. M. (1989). Building Theories from Case Study Research. *Academy of Management Review*, 14(4), 532–550. doi: 10.4135/9781473915480.n52
- Elqadri, Z. M., Wardoyo, D. T. W., & Priyono. (2015). The Influence of Motivation and Discipline Work against Employee Work Productivity Tona'an Markets. *Review of European Studies*, 7(12). doi: 10.5539/res.v7n12p59
- Eusoff , N. S. (2018, September 14). Minimum wage will be raised to RM1,500 in five years. *The Edge Financial Daily*.
- (2018, December 18). Exploratory research. Retrieved from [https://en.wikipedia.org/wiki/Exploratory\\_research](https://en.wikipedia.org/wiki/Exploratory_research)
- Fikri Hasmori, M., Ismail, I., & Said, I. (2012). Issues of Late and Non-Payment Among Contractors in Malaysia. *Conference: 3rd International Conference on Business and Economic Research 2012, At Bandung, Indonesia*.
- Fill, C., & Visser, E. (2000). The outsourcing dilemma: a composite approach to the make or buy decision. *Management Decision*, 38(1), 43–50. doi: 10.1108/eum0000000005315
- Grimes, D. A., & Schulz, K. F. (2002). Descriptive studies: what they can and cannot do. *The Lancet*, 359(9301), 145–149. doi: 10.1016/s0140-6736(02)07373-7
- Guth, S. (2008, February 14). Vendor Management: Price Doesn't Matter. Retrieved from <https://www.cio.com/article/2437144/outsourcing/vendor-management--price-doesn-t-matter.html>
- Hadi, N. A., Othman, M. K. F., & Dadi, A. M. (2018). The Perception on the Importance of Construction Industry Payment and Adjudication Act (CIPAA) 2012 Towards Remediating Payment Disputes: A Research on Subcontractors in Kuching, Sarawak. *IOP Conference Series: Materials Science and Engineering*, 429, 012105. doi: 10.1088/1757-899x/429/1/012105
- HOME. Retrieved from <http://www.smecorp.gov.my/index.php/en/>

- Ibrahim, M. (2015). The art of Data Analysis. *Journal of Allied Health Sciences Pakistan*, 1(1), 98–104.
- Ismail, Z.-A., & Kasim, N. (2013). Maintenance Management Practices For Building Facility: A Case Study. *International Journal of Engineering Research and Applications (IJERA)*, 3(4), 487–497.
- C. R. E. A. M. (2014). *Issues and Challenges in Implementing Building Information Modelling (Bim) by Sme's in the Construction Industry . Issues and Challenges in Implementing Building Information Modelling (BIM) by SME's in the Construction Industry* . KUALA LUMPUR, Malaysia: Construction Research Institute of Malaysia.
- Johnston, S. (1999). *Debts and interest in the construction industry: A guide to The Late Payment of Commercial Debts (Interest) Act 1 998*. London: Thomas Telford Ltd.
- Kaur, P., Stoltzfus, J., & Yellapu, V. (2018). Descriptive statistics. *International Journal of Academic Medicine*, 4(1), 60. doi: 10.4103/ijam.ijam\_7\_18
- Kometa, S. T., Olomolaiye, P. O., & Harris, F. C. (1994). Attributes of UK construction clients influencing project consultants performance. *Construction Management and Economics*, 12(5), 433–443. doi: 10.1080/01446199400000053
- Koutamanis, A. (2017). Briefing and Building Information Modelling: Potential for integration. *International Journal of Architectural Computing*, 15(2), 119–133. doi: 10.1177/1478077117714914
- Kurdia, M., Abdul-Tharim, A., Jaffar, N., Azli, M., Shuib, M., & Ab-Wahid, A. (2011). Outsourcing in Facilities Management- A Literature Review. *Procedia Engineering*, 20, 445–457. doi: 10.1016/j.proeng.2011.11.187
- Kushnir, K. (2010, August 11). A Universal Definition of Small Enterprise: A Procrustean bed for SMEs? Retrieved from <https://blogs.worldbank.org/psd/a-universal-definition-of-small-enterprise-a-procrustean-bed-for-smes>
- Kothari, C.R., 2004. Research Methodology: Methods and Techniques
- Lateef, O. A. (2009). Building maintenance management in Malaysia. *Journal of Building Appraisal*, 4(3), 207–214. doi: 10.1057/jba.2008.27
- Lepkova, N., & Žūkaitė-Jefimovienė, G. (2012). Study on Customer Satisfaction with Facilities Management Services in Lithuania. *Slovak Journal of Civil Engineering*, 20(4), 1–16. doi: 10.2478/v10189-012-0017-4
- Margaretha, F., & Supartika, N. (2016). Factors Affecting Profitability of Small Medium Enterprises (SMEs) Firm Listed in Indonesia Stock Exchange. *Journal of Economics, Business and Management*, 4(2), 132–137. doi: 10.7763/joebm.2016.v4.379
- Maslow, A. H. (1943). A theory of human motivation. *Psychological Review*, 50(4), 370–396. doi: 10.1037/h0054346
- Michaelidou, N., & Dibb, S. (2006). Using email questionnaires for research: Good practice in tackling non-response. *Journal of Targeting, Measurement and Analysis for Marketing*, 14(4), 289–296. doi: 10.1057/palgrave.jt.5740189

- Mohd Danuri, M. S., Che Munaaim, M. E., Abdul Rahman, H., & M.Hanid. (2006). Late and Non Payment Issues in the Malaysian Construction Industry-A Contractor's Perspective. *Sustainable Development through Culture and Innovation, The Joint International Conference on Construction Culture, Innovation and Management (CCIM)*, 613–623.
- Mohd Isa, Z. (2001). The Management of Public Property in Malaysia. *International Conference FIG Working Week 2001. 6-11 Mei 2001. Seoul*, 1–13.
- Moona Haji Mohamed, R. K., Ramendran SPR, C., & Yacob, P. (2012). The Impact of Employment of Foreign Workers: Local Employability and Trade Union Roles in Malaysia. *International Journal of Academic Research in Business and Social Sciences*, 2(10), 530–541.
- Mustafa Kamal, E., & Flanagan, R. (2014). Key Characteristics of Rural Construction SMEs. *Journal of Construction in Developing Countries*, 19(2), 1–13.
- Mărginean, S., & Chenic, A. Ş. (2013). Effects of Raising Minimum Wage: Theory, Evidence and Future Challenges. *Procedia Economics and Finance*, 6, 96–102. doi: 10.1016/s2212-5671(13)00119-6
- Neveling, N. (2005, June 29). Late payment culture creates domino effect. Retrieved from <https://www.accountancyage.com/aa/news/1780668/late-payment-culture-creates-domino-effect>
- Odeh, A. M., & Battaineh, H. T. (2002). Causes of construction delay: traditional contracts. *International Journal of Project Management*, 20(1), 67–73. doi: 10.1016/s0263-7863(00)00037-5
- Oksenberg L, Channel C, Kalton G. (1991). New Strategies for Pretesting Survey Questions. *Journal of Official Statistics*, 7(3), 349–365.
- P Singh, J., & Pandey, S. (2008). Impact of Working Capital Management in The Profitability of Hindalco Industries Limited. *The IUP Journal of Financial Economics, IUP Publications*, 6(4), 62–72.
- Polit, D. F., Beck, C. T., & Hungler, B. P. (2001). *Essentials of nursing research: methods, appraisal, and utilization* (5th ed.). Philadelphia: Lippincott.
- Rahi, S. (2017). Research Design and Methods: A Systematic Review of Research Paradigms, Sampling Issues and Instruments Development. *International Journal of Economics & Management Sciences*, 06(02). doi: 10.4172/2162-6359.1000403
- Ramachandra, T., & Rotimi, J. O. B. (2015). Mitigating Payment Problems in the Construction Industry through Analysis of Construction Payment Disputes. *Journal of Legal Affairs and Dispute Resolution in Engineering and Construction*, 7(1). doi: 10.1061/(asce)la.1943-4170.0000156
- Rasila, H. M., & Gersberg, N. F. (2007). Service quality in outsourced facility maintenance services. *Journal of Corporate Real Estate*, 9(1), 39–49. doi: 10.1108/14630010710742473
- Reeves, K. (2003). Pay up. *JUBM Construction News and Views*, 1/2003: 4 6.
- Rudestam, K. E., & Newton, R. R. (2014). *Surviving Your Dissertation: A Comprehensive Guide to Content and Process* (4th ed.). SAGE Publications.

- Sambasivan, M., & Soon, Y. W. (2007). Causes and effects of delays in Malaysian construction industry. *International Journal of Project Management*, 25(5), 517–526. doi: 10.1016/j.ijproman.2006.11.007
- Senasi, V., & Khalil, S. (2015). Implementation of Minimum Wage Policy in Malaysia: Manufacturing Employers' Perceptions of Training Provision and Fringe Benefits. *International Journal of Humanities and Social Science*, 5(12), 87–94.
- Shah, R. K., & Alotaibi, M. (2018). A Study of Unethical Practices in the Construction Industry and Potential Preventive Measures. *Journal of Advanced College of Engineering and Management*, 3, 55. doi: 10.3126/jacem.v3i0.18905
- Sheehan, K. B. (2006). E-mail Survey Response Rates: A Review. *Journal of Computer-Mediated Communication*, 6(2), 0–0. doi: 10.1111/j.1083-6101.2001.tb00117.x
- Sheng, L. C., & Baharum, Z. A. (2015). Effectiveness of Malaysian Property Maintenance and Management Outsourcing. *International Journal of Property Sciences*, 5(1), 1–10. doi: 10.22452/ijps.vol5no1.2
- Shi, F. (2015). Study on a Stratified Sampling Investigation Method for Resident Travel and the Sampling Rate. *Discrete Dynamics in Nature and Society*, 2015, 1–7. doi: 10.1155/2015/496179
- Shields, L., & Twycross, A. (2003). The difference between quantitative and qualitative research. *Paediatric Nursing*, 15(9), 24–24. doi: 10.7748/paed.15.9.24.s25
- Siong, S. C., & Tan, S. (2015, November 19). Limits on regularity of payment claims. Retrieved from <https://www.lexology.com/library/detail.aspx?g=d463d74a-6467-4692-a49a-6a15c1e9fe9a>
- Sivanandam, H., Tan, R., Chan, A., Muthiah, W., Murali, R. S. N., Trisha, N., & Tan, G. C. (2017, July 3). Foreign workers go underground. *The Star*.
- Sivanathan, S., Jibril J, Jivasangeeta, J., Thanaraju, P., Dodo, Y., & Shika, S. (2012). An Overview of Design Deficiencies on Building Maintenance. *OIDA International Journal of Sustainable Development*, 5(11), 105–112.
- (2019, January 17). Small and medium-sized enterprises. Retrieved from [https://en.wikipedia.org/wiki/Small\\_and\\_medium-sized\\_enterprises](https://en.wikipedia.org/wiki/Small_and_medium-sized_enterprises)
- Suhaini, A. (2005, May 8). No joy for the small builders. . *The Star*. Retrieved from <https://www.thestar.com.my/opinion/letters/2005/05/08/no-joy-for-the-small-builders>
- Supardi, A., & Adnan, H. (2015). Security of Payment in Malaysian Construction Industry: Issues on Sub-Contracts Direct Payment. *International Conference on Mechanical and Electrical Technology, 3rd, (ICMET-London 2011), Volumes 1–3, 1-3*, 2021–2026. doi: 10.1115/1.859810.paper323
- Supardi, A., & Adnan, H. (2011). Security of Payment in Malaysian Construction Industry: Eradication of Sub-contract's Contingent Payment. *International*

- Conference on Energy, Environment, Entrepreneurship, Innovation, Lanzarote, Canary Islands, Spain, May*, 116–121.
- Supardi, A., Adnan, H., & Mohammad, M. F. (2011). Security of Payment Regime in Construction Industry: Are Malaysian Sub-Contractors Ready? *The Built & Human Environment Review*, 4, 122–137.
- F. M. I. C. M. A. A. (2004). Survey of Construction Industry Ethical Practices and Issues. *Management Consultant for the Construction Industry and Construction Management Association of America*, 1–18.
- Syed Muhammad , S. K. (2016). *Basic Guidelines For Research: An Introductory Approach for All Disciplines*(1st ed.). Chittagong - 4203, Bangladesh: Book Zone Publication.
- Taherdoost, H. (2016). Sampling Methods in Research Methodology; How to Choose a Sampling Technique for Research. *SSRN Electronic Journal*. doi: 10.2139/ssrn.3205035
- Tulsian, D. M. (2014). Profitability Analysis (A comparative study of SAIL & TATA Steel). *IOSR Journal of Economics and Finance*, 3(2), 19–22. doi: 10.9790/5933-03211922
- Vetter, T. R. (2017). Descriptive Statistics. *Anesthesia & Analgesia*, 125(5), 1797–1802. doi: 10.1213/ane.00000000000002471
- Wang, Y. (2016). What are the biggest obstacles to growth of SMEs in developing countries? – An empirical evidence from an enterprise survey. *Borsa Istanbul Review*, 16(3), 167–176. doi: 10.1016/j.bir.2016.06.001
- (2018, June 21). What's the average survey response rate? [2018 benchmark]. Retrieved from <https://surveyanyplace.com/average-survey-response-rate/>
- Whitfield, & Jeff. (2012a). *Conflict in Construction*. John Wiley & Sons.
- Whitfield, J. (2012b). *Conflicts in construction: avoiding, managing, resolving*. Hoboken, NJ: Wiley-Blackwell.
- Yahaya, Azizi (2008) Abraham Maslow: The Needs Hierachy. *Journal of Science & Mathematics Education* . (Unpublished)
- Yin, R. K. (2014). *Case study research: design and methods*(5th ed.). London: Sage Publication.
- Zakaria, Z., Ismail, S., & Yusof, A. (2013). Cause and Impact of Dispute and Delay the Closing of Final Account in Malaysia Construction Industry. *Journal of Southeast Asian Research*, 1–12. doi: 10.5171/2012.975385
- Zawawi, E. M. A., Kamaruzzaman, S. N., Samad, Z. A., & Myeda, N. E. (2009). A Quick Survey on Maintenance Management Practice in Malaysian Building Industry, Proceeding of the 1st Regional Symposium on Sustainable Construction Material & Building Systems. *Proceedings 1st Regional Symposium on Sustainable Construction Material and Building System*, 222–228

## APPENDICES

### APPENDIX A: Sample of Survey Questionnaire (English)

#### **Introduction**

Date: 12 February 2019

Dear Sir/Madam,

#### **Re: Questionnaire Survey Participation Invitation for Master Of Business Administration (Building Management)**

My name is Shiridharan a/l Ganesan Muthi who is currently undertaking a Master of Business Administration (Building Management) at Tunku Abdul Rahman University College. I am currently undertaking a research subject MKMA/MKMB/MKMF 29906 Research Project. The title of my research is “**Factors Influencing Profitability and Payment Regularity: A Study of Building and Facilities Maintenance Service Providers in Malaysia.**” and I am investigating the following aspects of its use:

- a) To identify the factors affecting profitability and payment regularity of facilities and maintenance service provider.
- b) To determine the level of importance of factor affecting profitability and payment regularity in facilities and maintenance services

I would like to conduct a questionnaire survey which involved Micro, Small and Medium Enterprise (SME) from Malaysia as respondent. To participate, the members must be working in Facilities and Maintenance Service Providers and Contractor firm or organization who are the owner, general manager, director or the Chief Executive Officer of the firm or organization. The questionnaire survey will take around 10 minutes to complete. Please use the following questionnaires survey online link to complete the questionnaire:

The information provided will be used only for the purposed of the research and all the information will be treated with strict confidence and individual firms will not be identified.

I would very much appreciate your help in any way you can answer the questionnaire survey form. Thank you.

#### **Researcher:**

Name	: Shiridharan a/l Ganesan Muthi
Student ID number	: 15UKM00861
Program	: Master of Business Administration (Building Management)
University/ College	: Tunku Abdul Rahman University College
Mobile phone number	: 012-621 5112
Email	: shiri85@yahoo.com



### 1. Respondent Demographic

1. What is your CIDB registration Grade.
  - a) G1
  - b) G2
  - c) G3
  - d) G4
  - e) G5
2. What is your company specialization category?
  - a) **Hard Service** (Building fabric maintenance, Air conditioning maintenance, Decoration & refurbishment, Lift & escalator maintenance, M&E plant maintenance, Fire safety system maintenance, Plumbing & drainage, Minor project management)
  - b) **Soft Service** (Cleaning, Recycling, Security, Pest control, Handyman services, Grounds maintenance, Waste disposal, Internal plants)
3. What state you are based?
  - a) Perlis
  - b) Kedah
  - c) Penang
  - d) Perak
  - e) Selangor
  - f) Negeri Sembilan
  - g) Melaka
  - h) Johor
  - i) Pahang
  - j) Terengganu
  - k) Kelantan
  - l) Sabah
  - m) Sarawak
  - n) Wilayah Persekutuan Kuala Lumpur
  - o) Wilayah Persekutuan Putrajaya
  - p) Wilayah Persekutuan Labuan
4. What is the size of your company?
  - a) **MICRO** (Less than five employees or annual sales turnover less than RM 300,000)
  - b) **SMALL** (Between five and 30 employees or annual sales turnover between RM 300,000 and less than RM 3 million)
  - c) **MEDIUM** (Between 30 and 75 employees or annual sales turnover between RM 3 million and RM 20 million)
5. How long is your personal experience in this field?
  - a) None
  - b) Less than 1 year
  - c) 2 - 4 year
  - d) 5-10 year
  - e) More than 10 year

## **2. Payment**

Description: This section question's is on payment terms, payment frequency or issues related to non or late payment by customers

1. What is your payment term?

- a) 7 days
- b) 14 days
- c) 30 days
- d) 60 days
- e) 90 days
- f) None

2. How fast your customer usually pays

- a) 7-14 days
- b) 30-60 days
- c) 90 days
- d) 1-2 year

3. Do you need to keep calling the customer for payments?

Never	Rarely	Sometimes	Very Often	Always

4. Do you have non-payment invoice?

Never	Rarely	Sometimes	Very Often	Always

5. Do you agree that non payment or late payments are due to:

No	Description	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
1	Issues with regard to documentation error					
2	Breach of contract term by parties involved in the project					
3	Paymaster's poor financial management					
4	Conflict among the Parties Involved in the Project					
5	The use of "pay when paid" clause in the contract					
6	Delay in certification by					

	consultant					
7	Paymaster's Wrongly Withholding of Payment					
8	Local Culture/ Attitude					
9	Disagreement of the valuation of work done					

### **3. Workforce**

Description: In this section, the worker factor based on salary, benefit, and problems towards the operation cost is evaluated.

1. What is the minimum wage you afford?

- a) RM 900.00
- b) RM 1,050.00
- c) RM 1,500.00
- d) RM 1,800.00

2. Can you pay the salary requested by workers?

Never	Rarely	Sometimes	Very Often	Always

3. Can you attract highly motivated and skilled worker?

Never	Rarely	Sometimes	Very Often	Always

4. Are you able to keep highly motivated and skilled labour for long time?

Never	Rarely	Sometimes	Very Often	Always

5. Do you hire foreign labour?

Never	Rarely	Sometimes	Very Often	Always

6. Do your cost increased due to raids conducted by Immigration Department to nab illegal immigrant workers

Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree

7. Can you provide benefits such as bonus, employee provident fund, insurance, medical benefits and etc given by larger companies to your worker?

Never	Rarely	Sometimes	Very Often	Always

8. Which worker have more issues or problems  
a) Local  
b) Foreign
9. What kind of problem you encountered from your worker?  
a) \_\_\_\_\_  
b) \_\_\_\_\_  
c) \_\_\_\_\_  
d) \_\_\_\_\_

#### **4. Lack of information**

Description: In this section the question evaluates how well customer provide information regarding work/project.

1. Do customers employ Building Information Modelling Systems?

Never	Rarely	Sometimes	Very Often	Always

2. Do customers give you enough information regarding the job scope?

Never	Rarely	Sometimes	Very Often	Always

3. Do customer explain to you the work scope clearly and completely?

Never	Rarely	Sometimes	Very Often	Always

4. Do customer knows the requirement and specification of the work?

Never	Rarely	Sometimes	Very Often	Always

5. Do customer gives enough time to check the problem and prepare the quotation?

Never	Rarely	Sometimes	Very Often	Always

6. Do you encounter the situation where the customer purposely or deliberately hides information from you?

Never	Rarely	Sometimes	Very Often	Always

7. Do the problem encountered by your customer usually inherited from design or construction stage of the structure

Never	Rarely	Sometimes	Very Often	Always

## 5. Unethical

Description: In this section question is regarding customer's representative, staff or customer themselves on the level of integrity and fairness shown towards contractor.

1. Have you experienced where customers ask for bribery or kickbacks?

Never	Rarely	Sometimes	Very Often	Always

2. Have you experienced where customers purposely delay the payment so that you will give "gift" to them?

Never	Rarely	Sometimes	Very Often	Always

3. Do the customers have threatened you to accept a job or refuse a job?

Never	Rarely	Sometimes	Very Often	Always

4. Do you think the customer treat you fairly and with respect in work/projects?

Never	Rarely	Sometimes	Very Often	Always

5. Do your client offers a contract or agreement?

Never	Rarely	Sometimes	Very Often	Always

6. Do you think the contract offered by customer is fair?

Never	Rarely	Sometimes	Very Often	Always

7. Do you ever encountered situation where the customer force you to accept the contract?

Never	Rarely	Sometimes	Very Often	Always

8. Do you encounter situation where the customer forces you to accept the price set by them?

Never	Rarely	Sometimes	Very Often	Always

9. Contractors is being push to corner where they have no choice but to cut down on material and work quality to make end meet. Do you agree with this statement?

Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree

10. Government has taken a measure in late year 2003 to introduce open tender to have fair tender process. Do you agree this will be materialize and accepted in reality?

Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree

11. Do you agree that customer have a very conservative approach to maintenance and not giving as much importance as design or construction of the building?

Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree

12. Do you agree low price mentality by customer, fierce competition among contractor and paper-thin margin leads to corruption?

Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree

## **6. General**

Description: The question in this section is based on common situation faced by contractors.

1. There are too many government agencies to register with to obtain licenses to do business.

Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree

2. Registration with government agencies increases your initial cost to open business or company

Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree

--	--	--	--	--

3. New application or of licenses or permits from government agencies is a burden to you and your company

Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree

4. This government agencies contribute to the success of your organization/business

Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree

5. Should Customer/Client charge a fee on the contractor/vendor to register them in their contractor/vendor database

Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree

6. Profit is important for growth of business

Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree

7. Have you heard or read about Construction Industry Payment and Adjudication Act (CIPAA) 2012?

- a) Yes  
b) No

8. Construction Industry Payment and Adjudication Act (CIPAA) 2012 is created to tackle the late and non-payment issue in Malaysia. Do you agree it will be effective and efficient?

Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree

THANK YOU

- END OF QUESTION -

## APPENDIX B: Sample of Survey Questionnaire (Malay)

### Pengenalan

Tarikh: 12 Februari 2019

### Tuan/Puan

#### **Pekara: Jemputan Penyertaan Soal Selidik Bagi Kursus Sarjana Pentadbiran Perniagaan (Pengurusan Bangunan)**

Nama saya Shiridharan a/l Ganesan Muthi, saya tengah mengikuti kursus Sarjana Pentadbiran Perniagaan (Pengurusan Bangunan) di Universiti Tunku Abdul Rahman (UTAR). Oleh itu di dalam pembelajaran kursus ini, saya perlu memenuhi keperluan subjek MKMA/MKMB/MKMF 29906 Research Project untuk tujuan kajian saya yang bertajuk “**Factors Influencing Profitability and Payment Regularity: A Study of Building and Facilities Maintenance Service Providers in Malaysia.**”. Di mana objektif kajian ini adalah :-

1. Mengenal pasti faktor utama yang mempengaruhi keuntungan dan kekerapan bayaran penyedia perkhidmatan penyelenggaraan fasiliti dan bangunan
2. Mengenalpasti dan menyusun faktor mengikut kepentingan yang mempengaruhi keuntungan dan kekerapan bayaran penyedia perkhidmatan penyelenggaraan fasiliti dan bangunan

Di dalam kajian ini, ia melibatkan Perusahaan Mikro, Kecil dan Sederhana (PKS) di Malaysia yang juga merupakan responden bagi memenuhi keperluan kajian saya dan juga untuk mencapai objektif yang dinyatakan di atas. Pemilihan responden yang di pilih adalah mereka yang bekerja di dalam Penyediaan Perkhidmatan Kemudahan dan Penyelenggaraan dan firma atau organisasi kontraktor yang merupakan pemilik, pengurus besar, pengarah atau ketua pegawai eksekutif firma atau organisasi. Kajian soal selidik ini akan mengambil masa kira-kira 10 minit untuk dijawab.

Semua maklumat yang diberikan akan digunakan hanya untuk tujuan penyelidikan dan diklasifikasikan sebagai maklumat rahsia atau sulit.

Saya sangat menghargai bantuan anda dalam menjawab borang soal selidik yang disediakan.

Sekian Terima kasih.

### Penyelidik:

Nama	: Shiridharan a/l Ganesan Muthi
Nombor ID Pelajar	: 15UKM00861
Kursus	: Sarjana Pengurusan Perniagaan (Pengurusan Bangunan)
Universiti/ Kolej	: Tunku Abdul Rahman University College
No Telefon Bimbit	: 012-621 5112
Emel	: shiri85@yahoo.com



## 1. Demografi Responden

1. Apakah gred pendaftaran CIDB syarikat anda?
  - a) G1
  - b) G2
  - c) G3
  - d) G4
  - e) G5
2. Apakah kepakaran syarikat anda?
  - a) **Hard Service** (Building fabric maintenance, Air conditioning maintenance, Decoration & refurbishment, Lift & escalator maintenance, M&E plant maintenance, Fire safety system maintenance, Plumbing & drainage, Minor project management)
  - b) **Soft Service** (Cleaning, Recycling, Security, Pest control, Handyman services, Grounds maintenance, Waste disposal, Internal plants)
3. Di negeri manakah syarikat anda beroperasi ?
  - a) Perlis
  - b) Kedah
  - c) Penang
  - d) Perak
  - e) Selangor
  - f) Negeri Sembilan
  - g) Melaka
  - h) Johor
  - i) Pahang
  - j) Terengganu
  - k) Kelantan
  - l) Sabah
  - m) Sarawak
  - n) Wilayah Persekutuan Kuala Lumpur
  - o) Wilayah Persekutuan Putrajaya
  - p) Wilayah Persekutuan Labuan
4. Apakah saiz syarikat anda?
  - a) **MIKRO** (Kurang daripada lima (5) pekerja dan perolehan jualan tahunan kurang dari RM 300,000)
  - b) **KECIL** (Di antara lima (5) dan tiga puluh (30) pekerja dan perolehan jualan tahunan antara RM 300,000 dan kurang dari RM 3 million)
  - c) **SEDERHANA** (Di antara tiga puluh (30) dan tujuh puluh lima (75) pekerja or perolehan jualan tahunan antara RM 3 million dan RM 20 million)
5. Berapa lama pengalaman anda di bidang ini?
  - a) Tiada
  - b) Kurang dari 1 tahun
  - c) 2 - 4 tahun
  - d) 5-10 tahun
  - e) Lebih dari 10 tahun

## 2. Pembayaran

Huraian: Soalan untuk bahagian ini adalah mengenai terma pembayaran, kekerapan pembayaran atau isu yang berkaitan dengan invois tidak dibayar atau invois lambat/ lewat dibayar oleh pelanggan.

1. Apakah terma bayaran anda bagi sesuatu projek/kerja?

- a) 7 hari
- b) 14 hari
- c) 30 hari
- d) 60 hari
- e) 90 hari
- f) Tiada

2. Tempoh pembayaran minimum (cepat) yang diterima dari pelanggan?

- a) 7-14 hari
- b) 30-60 hari
- c) 90 hari
- d) 1-2 tahun

3. Adakah anda perlu kerap kali membuat panggilan kepada pelanggan anda untuk sesuatu menuntut pembayaran?

Tidak pernah	Jarang	Kadang-kadang	Kerap	Selalu

4. Adakah anda mempunyai tunggakan invois?

Tidak pernah	Jarang	Kadang-kadang	Kerap	Selalu

5. Setujukah anda bahawa invois tidak dibayar atau invois lambat dibayar adalah disebabkan oleh pekara yang di nyatakan di bawah:

No	Penerangan	Sangat setuju	Setuju	Tidak pasti	Tidak Setuju	Sangat tidak setuju
1	Isu berkaitan dengan masalah dokumentasi					
2	Pelanggaran terma kontrak oleh pihak yang terlibat dalam projek					
3	Pengurusan kewangan yang lemah pelanggan					
4	Konflik di kalangan pihak yang terlibat dalam projek					
5	Penggunaan klausa "pay when paid" di dalam					

	kontrak					
6	Kelewatan pensijilan oleh pihak perunding					
7	Pelanggan menahan bayaran secara haram					
8	Budaya tempatan/ Sikap					
9	Percanggahan dalam penilaian kerja yang dilakukan					

### 3. Pekerja

Huraian: Dalam bahagian ini, responden perlu menjawab soalan untuk faktor pekerja yang berdasarkan gaji, faedah, dan masalah terhadap kos operasi dinilai

1. Apakah gaji minima yang syarikat anda mampu?

- a) RM 900.00
- b) RM 1,050.00
- c) RM 1,500.00
- d) RM 1,800.00

2. Adakah anda mampu membayar gaji yang diminta oleh perkerja?

Tidak pernah	Jarang	Kadang-kadang	Kerap	Selalu

3. Bolehkah anda menarik pekerja yang bermotivasi tinggi dan terlatih untuk kerja dengan anda?

Tidak pernah	Jarang	Kadang-kadang	Kerap	Selalu

4. Mampukah anda untuk menyimpan pekerja yang terlatih dan bermotivasi tinggi untuk masa yang lama?

Tidak pernah	Jarang	Kadang-kadang	Kerap	Selalu

5. Adakah anda mengupah/mengambil pekerja asing?

Tidak pernah	Jarang	Kadang-kadang	Kerap	Selalu

6. Adakah kos anda meningkat apabila Jabatan Imigresen melakukan serbuan terhadap pekerja asing tanpa dokumen?

Sangat setuju	Setuju	Tidak pasti	Tidak Setuju	Sangat tidak setuju

7. Bolehkah anda memberi manfaat seperti bonus, caruman pekerja, insuran, peruntukan perubatan dan sebagainya kepada pekerja seperti syarikat besar yang lain?

Tidak pernah	Jarang	Kadang-kadang	Kerap	Selalu

8. Pekerja mana yang memberi masalah atau isu yang lebih?

c) Tempatan

d) Asing

9. Nyatakan masalah yang anda hadapi dengan pekerja anda?

\_\_\_\_\_

#### **4. Kekurangan maklumat**

Huraian: Dalam bahagian ini soalan menilai seberapa baik pelanggan memberikan maklumat mengenai kerja/ projek.

1. Adakah pelanggan anda menggunakan sistem “Building Information Modelling”?

Tidak pernah	Jarang	Kadang-kadang	Kerap	Selalu

2. Adakah pelanggan memberi maklumat yang mencukupi mengenai skop kerja yang diberikan?

Tidak pernah	Jarang	Kadang-kadang	Kerap	Selalu

3. Adakah pelanggan memberi penerangan yang lengkap dan jelas mengenai skop kerja yang perlu dilakukan?

Tidak pernah	Jarang	Kadang-kadang	Kerap	Selalu

4. Adakah pelanggan mengetahui keperluan dan spesifikasi kerja yang perlu dilaksanakan?

Tidak pernah	Jarang	Kadang-kadang	Kerap	Selalu

5. Adakah pelanggan memberi tempoh yang mencukupi untuk membuat pemeriksaan kerja dan penyediaan sebut harga?

Tidak pernah	Jarang	Kadang-kadang	Kerap	Selalu

6. Pernahkah anda melalui situasi dimana pelanggan dengan sengaja menyembunyikan maklumat daripada anda?

Tidak pernah	Jarang	Kadang-kadang	Kerap	Selalu

7. Adakah masalah yang dihadapi oleh pelanggan anda selalunya diwarisi dari peringkat reka bentuk atau pembinaan?

Tidak pernah	Jarang	Kadang-kadang	Kerap	Selalu

## 5. Tidak Beretika

Huraian: Dalam bahagian ini, soalan adalah mengenai tahap integriti dan keadilan yang ditunjukkan oleh wakil pelanggan, kakitangan atau pelanggan sendiri kepada kontraktor.

1. Pernahkah anda melalui situasi dimana pelanggan meminta rahsua atau sogokan?

Tidak pernah	Jarang	Kadang-kadang	Kerap	Selalu

2. Pernahkah anda melalui situasi dimana pelanggan sengaja melambatkan pembayaran imvois supaya anda akan memberi “hadiah” kepada mereka?

Tidak pernah	Jarang	Kadang-kadang	Kerap	Selalu

3. Pernahkah anda diugut oleh pelanggan untuk menerima atau menolak sesuatu kerja?

Tidak pernah	Jarang	Kadang-kadang	Kerap	Selalu

4. Adakah pelanggan anda berlaku adil dan saksama sambil menghormati anda di dalam sesuatu projek/kerja?

Tidak pernah	Jarang	Kadang-kadang	Kerap	Selalu

5. Adakah pelanggan anda menawarkan kontrak atau surat perjanjian di dalam sesuatu projek/kerja?

Tidak pernah	Jarang	Kadang-kadang	Kerap	Selalu

6. Adakah kontrak yang diberikan oleh pelanggan anda adalah adil dan saksama?

Tidak pernah	Jarang	Kadang-kadang	Kerap	Selalu

7. Pernahkah anda melalui situasi dimana pelanggan anda paksa anda untuk menerima atau menolak kontrak yang diberi?

Tidak pernah	Jarang	Kadang-kadang	Kerap	Selalu

8. Pernahkah anda melalui situasi dimana pelanggan anda paksa anda untuk menerima harga yang ditetapkan oleh mereka?

Tidak pernah	Jarang	Kadang-kadang	Kerap	Selalu

9. Kontraktor di tolak ke penghujung jalan sehingga mereka terpaksa mengurangkan kualiti kerja dan bahan untuk menyiapkan kerja/projek dalam kos yang diberi. Adakah anda setuju dengan kenyataan ini?

Sangat setuju	Setuju	Tidak pasti	Tidak Setuju	Sangat tidak setuju

10. Kerajaan telah mengambil langkah pada akhir tahun 2003 untuk memperkenalkan tender terbuka untuk mengadakan proses tender yang adil. Adakah anda bersetuju ini akan menjadi kenyataan dan diterima pakai dalam realiti?

Sangat setuju	Setuju	Tidak pasti	Tidak Setuju	Sangat tidak setuju

11. Adakah anda setuju bahawa pelanggan anda mempunyai pendekatan yang sangat konservatif dalam penyelenggaraan bangunan dan tidak memberi kepentingan yang sama seperti yang diberikan semasa reka bentuk atau pembinaan bangunan?

Sangat setuju	Setuju	Tidak pasti	Tidak Setuju	Sangat tidak setuju

12. Adakah anda setuju bahawa mentaliti harga rendah oleh pelanggan, persaingan sengit antara kontraktor dan margin keuntungan yang rendah mendorong ke rahsua?

Sangat setuju	Setuju	Tidak pasti	Tidak Setuju	Sangat tidak setuju

## 6. Umum

Huraian: Soalan di bahagian ini adalah berdasarkan keadaan biasa yang dihadapi oleh kontraktor.

1. Terlalu banyak agensi kerajaan yang perlu didaftar untuk mendapatkan lesen perniagaan

Sangat setuju	Setuju	Tidak pasti	Tidak Setuju	Sangat tidak setuju

2. Pendaftaran dengan agensi kerajaan meningkatkan kos pemulaan untuk memulakan sebuah perniagaan atau syarikat

Sangat setuju	Setuju	Tidak pasti	Tidak Setuju	Sangat tidak setuju

3. Permohonan atau pembaharuan lesen atau permit dari agensi kerajaan membebaskan anda atau perniagaan anda

Sangat setuju	Setuju	Tidak pasti	Tidak Setuju	Sangat tidak setuju

4. Agensi kerajaan tersebut menyumbang kepada kejayaan perniagaan atau organisasi anda

Sangat setuju	Setuju	Tidak pasti	Tidak Setuju	Sangat tidak setuju

5. Patutkah pelanggan mengenakan fi terhadap kontraktor/vendor untuk mendaftarkan mereka di dalam pusat maklumat kontraktor/vendor pelanggan?

Sangat setuju	Setuju	Tidak pasti	Tidak Setuju	Sangat tidak setuju

6. Keuntungan adalah penting untuk perkembangan perniagaan?

Sangat setuju	Setuju	Tidak pasti	Tidak Setuju	Sangat tidak setuju

7. Pernahkah anda mendengar atau membaca mengenai Construction Industry Payment and Adjudication Act (CIPAA) 2012?

- c) Ya
- d) Tidak

8. Construction Industry Payment and Adjudication Act (CIPAA) 2012 di bentangkan untuk menangani masalah bayaran lambat dan tidak bayar di Malaysia. Adakah anda setuju bahawa ia akan berkesan dan efisien dalam mendapatkan bayaran dari pelanggan?

Sangat setuju	Setuju	Tidak pasti	Tidak Setuju	Sangat tidak setuju

TERIMA KASIH

- SOALAN KAJIAN BERAKHIR -