UNIVERSITI PENDIDIKAN SULTAN IDRIS UNIVERSITI PENDIDIKAN SULTAN IDRIS UNIVERSITI PENDID N IDRIS UNIVERSITI PENDIDIKAN SULTAN IDRIS UNIVERSITI PENDIDIKAN SULTAN IDRIS UNIVERSITI F

# AN ANALYSIS ON CAUSES, IMPACT AND STRATEGIES OF PAYMENT AMONG CONTRACTORS IN MALAYSIAN CONSTRUCTION INDUSTRY

# NATASHA BINTI DZULKALNINE

# THESIS SUBMITTED IN FULFILLMENT OF THE REQUIREMENT FOR THE DEGREE OF MASTER OF MANAGEMENT (BUSINESS MANAGEMENT) (MASTER BY RESEARCH)

## FACULTY OF MANAGEMENT AND ECONOMICS SULTAN IDRIS EDUCATION UNIVERSITY

2015

UNIVERSITI PENDIDIKAN SULTAN IDRIS UNIVERSITI PENDIDIKAN SULTAN IDRIS UNIVERSITI PENDID

N IDRIS UNIVERSI II PENDIDIKAN SULTAN IDRIS

## GIATA ELISTITI ELI DIDIMAN SOLIAN I

# ABSTRACT

This study aimed to identify causes, impact, reaction, and solutions of payment issue in the Malaysian construction industry. This study employed explanatory mixed methodological approach to collect data through questionnaires, focus group and interviews. The purposive sampling used consists of selected contractors listed with CIDB. Descriptive statistics and factor analysis were used. The finding reveals that payment issue arises due to poor financial management, and the attitude of local society which in turn formed financial hardship to the contractors. This study recommends that paymaster provides security bond, implementing the policy of business license deregistration and the role of financial institution. This study also denotes on the importance of educating the citizen on Malaysia construction industry.

UNIVERSITI PENDIDIKAN SULTAN IDRIS UNIVERSITI PENDID

## ANALISIS PUNCA, IMPAK DAN STRATEGI PEMBAYARAN DALAM KALANGAN KONTRAKTOR DI DALAM INDUSTRI PEMBINAAN DI MALAYSIA

## ABSTRAK

Kajian ini bertujuan untuk mengenal pasti punca, impak, reaksi, dan penyelesaian isu pembayaran dalam industri pembinaan Malaysia. Kajian ini telah menggunakan kaedah penyelidikan campuran untuk mengumpul data melalui soal selidik, kumpulan fokus dan temu bual. Kaedah persampelan bertujuan yang digunapakai terdiri daripada kontraktor terpilih yang tersenarai dengan CIDB. Statistik deskriptif dan analisis faktor telah digunakan. Hasil kajian mendapati isu pembayaran timbul akibat pengurusan kewangan yang lemah, serta sikap masyarakat setempat yang mewujudkan kesukaran kewangan kepada kontraktor. Kajian ini mencadangkan pembayar menyediakan bon keselamatan, pelaksanaan pembatalan pendaftaran lessen perniagaan peranan institusi kewangan. Kajian ini juga menekankan tentang kepentingan untuk mendidik masyarakat tentang industri pembinaan Malaysia.

UNIVERSITI PENDIDIKAN SULTAN IDRIS UNIVERSITI PENDIDIKAN SULTAN IDRIS UNIVERSITI PENDID

Page

# **TABLE OF CONTENTS**

DECLARATION	1		ii
ACKNOWLEDO	GEME	NTS	iii
ABSTRACT			iv
DECLARATION ACKNOWLEDGEMENTS ABSTRACT ASSTRACT ASSTRACT ASSTRAK TABLE OF CONTENTS LIST OF TABLE LIST OF FIGURE LIST OF ABBREVIATION ALL Research Background ALL Research Questions ALL Research Objectives ALL Research Object	V		
TABLE OF CON	ITENI	.'S	vi
LIST OF TABLE	E		xii
LIST OF FIGUR	Е		xiv
LIST OF ABBRE	EVIAT	ION	XV
CHAPTER 1	INT	RODUCTION	1
	1.1	Research Background	1
	1.2	Problem Statement	5
	1.3	Research Questions	8
	1.4	Research Objectives	9
	1.5	Significance of Research	12
	1.6	Scope and Limitation of the Study	13
	1.7	Operational Definition	14
		1.7.1 Payment	14
		1.7.2 Late payment	14
		1.7.3 Under payment	15
		1.7.4 Non-Payment	15
		1.7.5 Contractor	15

JNIVERSITI PENDIDIKAN SULTAN IDRIS

IVERSITI PENDIDIKAN SULTAN IDRI

vii UNIVERSITI PENDII

20

21

IDRIS UNIVERSITI PENDIDIKAN SULTAN IDRIS

IAN IDR	IS UNIVERSITI PENDIDIKAN SULIAN IDRIS UNI	VERS
KAN SUL	TAN IDRIS UNIVERSITI PENDIDIKAN SULTAN IDRIS	U
1.7.6	Sub-contractor	15
1.7.7	Consultant	16
1.7.8	Supplier	16
1.7.9	Developer	16
1.7.10	Paymaster	17
1.7.11	Interim Payment	17
1.7.12	Final Payment	17
1.7.13	Pay when Paid Clause	18
1.7.14	Contract Agreement	18
1.7.15	Certificate of Payment	19

- 1.7.16
   Adjudication
   19

   1.7.17
   Payment Bonds
   19
- 1.8 Summary

# CHAPTER 2 LITERATURE REVIEW

2.1	Introduction	21				
2.2	The Construction Industry Globally	22				
2.3	The Construction Industry in Malaysia					
	2.3.1 Phase I: The early years of Post- Independence	24				
	2.3.2 Phase II: The New Economic Policy (1970 – 1990)	25				
	2.3.3 Phase III: The New Development Policy and Vision 2020 (from 1991 onwards)	25				
2.4	Ministry of Work (MOW)	26				
2.5	Construction Industry Development Board (CIDB)	20 28				
		<u> 40</u>				

IN ITS	/FDCITI	DEVIDIDIV	AND CLUTAN	IDDIC
	$V \in K \setminus [1]$			IDRIN
O L MT	A CLOTIT		/ $($ $)$ $)$ $)$ $)$ $($ $)$ $)$ $)$ $($ $)$ $)$ $($ $)$ $)$ $)$ $($ $)$ $)$ $($ $)$ $)$ $($ $)$ $)$ $($ $)$ $)$ $($ $)$ $)$ $($ $)$ $)$ $($ $)$ $($ $)$ $)$ $($ $)$ $($ $)$ $)$ $()$ $($	101/10

UNIVERSITI PENDIDIKAN SULTAN IDRIS UNIVERSITI PENDID

 1	11.1	_		÷	~
<li>I.</li>			к		<u> </u>
 Ν.		~	1.1	ul.	0

TI PEI	NDIDI	KAN SU	LTAN IDRIS UNIVERSITI PENDIDIKAN SULTAN IDRIS	UNIVERSI
	2.6	Supply	Chain Theory	29
	2.7	Causes	of Late, Under and Non-Payment Issue	34
		2.7.1	Paymaster's Poor Financial Management	34
		2.7.2	Paymaster's Withholding of Payment	36
		2.7.3	Conflict among the Parties Involve	37
		2.7.4	The Use of Pay When Paid Clause In Sub-Contractor	37
		2.7.5	Local Culture and Attitude	39
		2.7.6	Short of Current Year's project	40
		2.7.7	Delay in Certification	40
		2.7.8	Disagree on the Valuation of Work Done	40
		2.7.9	Contractual Provisions	41
		2.7.10	Technical Problems	42
	2.8	Impact	of Late, Under and Non-Payment Issue	47
		2.8.1	Create Negative Chain Effect on other Parties	47
		2.8.2	Results in Delay in Completion Projects	48
		2.8.3	Leads to Bankruptcy or Liquidation	50
		2.8.4	Project Delay	51
		2.8.5	Affect the Contractor's Reputation	53
		2.8.6	Profitability of the Project	53
	2.9	Potentia	al Solution Towards Late, Under and Non-Payment Issue	56
		2.9.1	Financial Management	56
		2.9.2	Contractual Matters	57
		2.9.3	Legislation	58
			2.9.3.1 Suspension of Work	59

UNIVERSITI PENDIDIKAN SULTAN IDRIS

/FRSITI PENDIDIKAN SUI TAN ID

ix UNIVERSITI PENDID

IDRI5	UNIVERSITIPE	INDIDI	KAN SUI	LIAN IDRIS UNIVERSITI PENDIDIRAN SULIAN IDRIS	UNIV
				2.9.3.2 Application for Summary Judgement	62
				2.9.3.3 Termination of Contract	63
			2.9.4	New Way of Payment Method	65
			2.9.5	Local Attitude	65
			2.9.6	Technical Issue	66
			2.9.7	Financial Institution	66
		2.10	Researc	h Methodologies Applied in Previous Studies	71
	CHAPTER 3	RES	EARCH	METHODOLOGY	74
		3.1	Introduc	ction	74
		3.2	Researc	h Design	75
		3.3	Researc	h Organisation	77
		3.4	Populat	ion and Sample	79
		3.5	Researc	h Instrument	80
			3.5.1	Questionnaire	81
				3.5.1.1 Section A: Respondent's Particular / Company Background	83
				3.5.1.2 Section B: Causes of Late, Under and Non- Payment Issue	84
				3.5.1.3 Section C: Impact of Late, Under and Non- Payment Issue	84
				3.5.1.4 Section D: Reaction towards Late, Under and Non-Payment Issue	85
				3.5.1.5 Section E: Probable Remedies and Recommendation	85
			3.5.2	Focus Group	85
			3.5.3	Interview	86
NIVERS	ITI PENDIDIKAN	SULTA	N IDRIS	UNIVERSITI PENDIDIKAN SULTAN IDRIS UNIVEL	RSITI PEN

DRIS UNIVERSITI PENDIDIKAN SULTAN IDRIS UN

ONIVERSITITENDIDIRA

UNIVERSITI PENDIDIKAN SU	JLTAN IDF	RIS UNIVERSITI PENDIDIKAN SULTAN IDRIS UN	JIVERSITI PENDID
IDRIS UNIVERSITI PENDIC	OIKAN SU	LTAN IDRIS UNIVERSITI PENDIDIKAN SULTAN IDRIS	UNIVERSITI F
3.0	Dilot St		00
5.7	2 7 1	Quastionnoire Validity	00 80
	5.7.1		89
		3.7.1.1 Content Validity	91
	0.7.0	3.7.1.2 Construct validity	92
	3.7.2	Reliability Test	94
3.8	Data Ai	nalysis	97
	3.8.1	Descriptive Statistics	97
	3.8.2	Factor Analysis	99
3.9	Summa	ry	105
CHAPTER 4 DA	TA ANA	LYSIS AND RESULTS	106
4.1	Introdu	ction	106
4.2	Respon	dents' Details and Company Background	107
4.3	Paymer	nt Issue Faced by the Company	109
4.4	Amoun	t Involved in Payment Issue	109
4.5	Type of	Construction Involved in Payment Issue	111
4.6	Constru	action Phase Involved in Payment Issue	113
4.7	Standar	d Form of Contract Used	114
4.8	Causes	of Payment Issue	115
4.9	Impact	of Payment Issue	118
4.10	) Reactio	n towards Payment Issue	120
4.1	l Possible	e Solution towards Payment Issue	121
4.12	2 Mechar	nism Adopted to Resolve Payment Issue	124

UNIVE	RSITI PENDIDIKA	AN SU	TAN IDRIS UNIVERSIT	I PENDIDIKAN SULTAN IDRIS	xi UNIVERSITI PENDI
N IDRIS	UNIVERSITI PE	NDID	AN SULTAN IDRIS	IVERSITI PENDIDIKAN SULTAN	IDRIS UNIVERSITI
		4.13	Time Taken to Resolve Pays	nent Issue	125
		4.14	Summary		126
	CHAPTER 5	DIS	USSION, CONCLUSION	AND RECOMMENDATION	127
		5.1	Introduction		127
		5.2	Summary of the Study		128
		5.3	Discussion of Findings		129
		5.4	Implication of Management		122
		5.5	Study Constraint and Recom	mendations for Future Research	155
		5.6	Summary		137
					139
	REFERENCES				140
	APPENDIX 1				146
	APPENDIX 2				154

UNIVERSITI PENDIDIKAN SULTAN IDRIS UNIVERSITI PENDIDIKAN SULTAN IDRIS UNIVERSITI PENDID

## LIST OF TABLE

Table		Page
1.1	Grades of Registration of Contractors by CIDB based on Paid up Capital and Tendering Capacity	2
1.2	Registered Contractors According to Grades as at 30 June 2012	3
1.3	Summary of Research Objective, Research Gap, Research Question and Expected Result	10
2.1	Agency under Ministry of Work (MOW) and Year of Establishment	27
2.2	Functions and Powers of CIDB	29
2.3	Literature Review Scholars of Objective Research	33
2.4	Factors Contributed to Late, Under and Non-Payment in Construction Industry	43
2.5	Impact of Late, Under and Non-Payment Issues	54
2.6	Potential Solution of Late, Under and Non-Payment Issues	67
2.7	Study Checklist	70
2.8	The Methodology of the Researchers	73
3.1	Description of Section	81
3.2	Number of Items for each Section	83
3.3	Types of Validity	90
3.4	KMO Value and Indication	93
3.5	Results of KMO and Bartlett's Test	94
3.6	Cronbach's Alpha and Indication	95
3.7	Cronbach's Alpha Value for each Items	96
3.8	Objectives of the Various Research Techniques used	96
3.9	Factor Analysis and Item Loadings (first rotated)	101

UNIVERSITI PENDIDIKAN SULTAN IDRIS UNIVERSITI PENDIDIKAN SULTAN IDRIS UNIVERSITI PENDIDIKA

xiii UNIVERSITI PENDIDIKAN SULTAN IDRIS UNIVERSITI PENDIDIKAN SULTAN IDRIS UNIVERSITI PENDID

UNIVER	SITI PENDIDIKAN SULTAN IDRIS UNIVERSITI PENDIDIKAN SULTAN IDRIS	UNIVERSITI
3.11	Analysis and Purpose of Analysis	105
4.1	Demographic Characteristics	108
4.2	Number of Payment Issue Faced by the Company	109
4.3	Percentage of Amount Involved in Payment Issue	110
4.4	Number of Type of Construction Involved in Payment Issue	112
4.5	Number of Construction Phase Involved in Payment Issue	113
4.6	Number of Standard Form of Contract Used	115
4.7	Mean and Ranking of Causes of Payment Issue	117
4.8	Mean and Ranking of Impact Payment Issue	119
4.9	Mean and Ranking of Reaction towards Payment Issue	120
4.10	Mean and Ranking of Possible Solution towards Payment Issue	123
4.11	Mechanism Adopted to Resolve Payment Issue	124
4.12	Number of Time Taken to Resolve Payment Issue	125

UNIVERSITI PENDIDIKAN SULTAN IDRIS UNIVERSITI PENDIDIKAN SULTAN IDRIS UNIVERSITI PENDID

# LIST OF FIGURE

Figure		Page
2.1	Supply Chain Level	31
2.2	Fishbone Diagram of Causes of Late, Under and Non-Payment Issue	46
2.3	Conceptual Framework	69
3.1	Explanatory Sequential Design	76
3.2	Research Process	79
3.3	Testing Goodness of Measures: Forms of Reliability and Validity	88
4.2	Percentage of Amount Involved in Payment Issue	111



UNIVERSITI PENDIDIKAN SULTAN IDRIS UNIVERSITI PENDIDIKAN SULTAN IDRIS UNIVERSITI PENDID N IDRIS UNIVERSITI PENDIDIKAN SULTAN IDRIS UNIVERSITI PENDIDIKAN SULTAN IDRIS UNIVERSITI F

# LIST OF ABBREVIATION

CIDB	-	Construction Industry Development Board
CIPAA	-	Construction Industry Payment Adjudication & Act
PAM	- 81	Pertubuhan Arkitek Malaysia
PWD	-	Public Work Department
GDP	-	Gross Domestic Product
KKR	<u> </u>	Kementerian Kerja Raya

UNIVERSITI PENDIDIKAN SULTAN IDRIS UNIVERSITI PENDIDIKAN SULTAN IDRIS UNIVERSITI PENDIDIKAN SULTAN IDRIS

**CHAPTER 1** 

## INTRODUCTION

#### 1.1 Research Background

The construction industry is an important segment of the Malaysian economy. This industry contributes 5.6% with value of RM 749.1 million of the gross domestic product (GDP) in 2012 (Statistics, 2012). It generates wealth, improves quality of life and creates work opportunities for many. It has an indirect multiplier effect on each other segments of the Malaysian economy (KLRCA, 2012).

The main parties involved in the construction industry are main contractors and sub-contractors. Contractors are from Grade G1 to Grade G7. Table 1.1 show the grades of registration of contractors by Construction Industry Development Board (CIDB) based on paid up capital and tendering capacity while Table 1.2 show the number of registered contractors according to grades G1 to G7as at 30 June 2012.

UNIVERSITI PENDIDIKAN SULTAN IDRIS UNIVERSITI PENDIDIKAN SULTAN IDRIS UNIVERSITI PENDID N IDRIS UNIVERSITI PENDIDIKAN SULTAN IDRIS UNIVERSITI F

Majority of the contractor companies are from Grade G1 to G3 (small size construction company).

Grade G7 is the highest contractor category in Malaysia where a contractor is capable of tendering for projects with no limits in terms of the contract value while Grade G1 is the lowest contractor category in Malaysia. The classification is based on paid-up capital, cost and contract of project awarded. From Table 1.1 and Table 1.2, majority of the contractors are from G1 to G3 which their paid-up capital ranging from RM 5,000.00 to RM 50,000.00 whereas large construction companies generally have paid-up capital ranging from RM 500,000.00 to RM 750,000.00.

#### Table 1.1

Contractor Grades of Registration	Tender Capacity (RM)	Paid-up Capital (RM)	Size of Company	
G7	No limit	750,000.00	Large	
G6	Not exceeding 10 million	500,000.00	construction company	
G5	Not exceeding 5 million	250,000.00	Medium size construction	
G4	Not exceeding 3 million	150,000.00	company	
G3	Not exceeding 1 million	50,000.00	Small size construction	
G2	Not exceeding 500,000	25,000.00	company	
G1	Not exceeding 200,000	5,000.00		

Grades of Registration of Contractors by CIDB based on Paid up Capital and Tendering Capacity

Source: CIDB Malaysia (2012)

## Table 1.2

Contractor Grades of Registration	Total Contractor Registered	Size of Company	
G7	4,773	Large construction company	
G6	1,454		
G5	3,930	Medium size construction company	
G4	2,793		
G3	11,183	Small size construction company	
G2	8,780		
G1	33,991		
Total	66,904		

## Registered Contractors According to Grades as at 30 June 2012

Source: Construction Quarterly Statistical Bulletin 2012 (CIDB, 2012)

The Malaysian construction industry is seems to be plagued with problems, primarily those related to payment. The issue of payment in the Malaysian construction industry has long been dealt by the construction players especially contractor. The construction players tend to receive late, under and non-payment from the paymaster. Payment problems at the higher end of the hierarchy cause serious cash flow problems in the chain of contracts (Rahman & Ye, 2010)

Based on statements given by (Rahman & Ye, 2010), the payment issues in the construction industry are more severe as compared to other industries due to the following factors:

 The duration of construction projects are relatively long unlike many other industries such as the service sector. The duration of the construction project is based on the project schedule;

UNIVERSITI PENDIDIKAN SULTAN IDRIS UNIVERSITI PENDIDIKAN SULTAN IDRIS UNIVERSITI PENDIDINAN SULTAN IDRIS UNIVERSITI F

- The size of each construction project is relatively large with project value being more than RM 1 million and for each progress, the payment sum involved is often relatively large;
- 3) Payment terms are usually on credit rather than payment on delivery;
- 4) Services are rendered before progress payment is made.

The company may potentially go into liquidation and influence the profitability of the contractor if they fail to receive regular and timely payment. Value chain of the construction industry will suffer when the paymasters do not pay the contractors on time (Judi & Rashid, 2010).

Importantly though, the viability of (especially emerging) contractors is closely related to the receipt of payment for work completed. If these payments are delayed, then the business financing requirement can change dramatically to the point where the company can easily slip into liquidation. Obviously, the business also faces the basic interest cost of financing the outstanding payments and this can severely affect the company's profitability. Profitability must be an essential outcome, given the requirement for the sustainable development of the construction industry (Judi & Rashid, 2010).

UNIVERSITI PENDIDIKAN SULTAN IDRIS UNIVERSITI PENDIDIKAN SULTAN IDRIS UNIVERSITI PENDIDIKAN SULTAN IDRIS UNIVERSITI F

#### **1.2 Problem Statement**

Despite the growth, construction industry is also facing obstacles and problems. Delays, abandonment, payments, cash flow distraction, standard form of contract used and valuation of work done are among the list of problems constantly faced (Ali, 2006).

This sector produces all of the facilities needed by other producers and end consumers (Abdullah, 2004). The construction industry in Malaysia, as in other countries, can serve as a barometer of the nation's economic conditions. However, every year, thousands of contractors face bankruptcy and business failure. These firms leave behind unfinished private and public construction projects. Even worse, they leave behind billions of dollars in losses for project owners and taxpayers (Strischek&McIntyre, 2008).

According to the Construction Industry Development Board Malaysia (CIDB), from January 2006 to August 2008, 11,321 construction companies were classified as dormant and non-active. There are very few successful contractors in Malaysia, and most construction projects cannot be completed within the original schedule. The sources of failure are directly related to financial factors (CIDB, 2008).

Firstly, multi layered industry can cause delay in project delivery. Unlike many other industries, construction projects involve long duration of project completion. This is due to construction projects involving multi layered hierarchy of contracts

between clients, main contractors, consultants, sub-contractors, suppliers. In addition, UNIVERSITI PENDIDIKAN SULTAN IDRIS UNIVERSITI PENDIDIKAN SULTAN IDRIS UNIVERSITI PENDIDIKAN DRIS UNIVERSITI PENDIDIKAN SULTAN IDRIS UNIVERSITI PENDIDIKAN SULTAN IDRIS UNIVERSITI PEN structure, super structure, finishes, external works, mechanical and electrical services. The supply chain applies different understanding and contracts used.

This statement is supported by the evidence from Ali (2006) which he stated that due to relatively long duration of projects, cash flow in the construction industry is critical. When there is any deviation due to either project delays or cash flow delays, it will have major impact on the project such as financial difficulties faced by affected parties. This can cause serious unfavourable cash flows as clients (developer) do not pay the main contractors may cause main contractors to default on their payments to their sub-contractors. In turn the sub-contractors may withhold payments to suppliers who supply building materials, machineries, equipment and workers (Judi & Rashid, 2010).

Thirdly is the issue regarding payment problems. Payment issues nonetheless bring the hardest impact to contractors. Paymasters usually refer the payment problem into late, under and non-payment. Based on the study done by CIDB (2006), about 33.9% of the respondents reported that the total amount of late and non-payment which is still overdue for government funded projects to date since January of 2000 until 2006 is RM 366,210,087.60 while RM 511,622,706.80 in private funded projects. Even though the government is giving their full attention to the payment issues in the construction industry, these problems do not seem to be dissolved (Rahman & Ye, 2010).

UNIVERSITI PENDIDIKAN SULTAN IDRIS UNIVERSITI PENDIDIKAN SULTAN IDRIS UNIVERSITI PENDID N IDRIS UNIVERSITI PENDIDIKAN SULTAN IDRIS UNIVERSITI F

> Fourthly, the construction contracts are usually drafted in wide terms and appeared to be applied to all parties involved. Various forms of construction contract are defined differently and used different wordings. Although the descriptions are clear but it is difficult to determine the point where it is 'variation' or 'new work', and it is not clear from the ambit of these clauses as to how extensive a variation may be and still be binding between paymaster and other parties. Thus variation clauses often give rise to argument, debate and litigation (Sim, 2007).

> Fifthly is the payment issue regarding the valuation of work done. Despite what has been documented in the contract, the paymaster need to require by the contract that the contractor needs to make payment as contractor perform as 'regularly and diligently', the paymaster seems to express dissatisfaction of work done. Because of this, the paymaster tends to reject certificate issued by the architect that considered as 'overvaluation'. Consequently, the paymaster will likely to apply set – off as counterclaim. At common law, set-off is a direct and logical remedy immediately available and often understood under various labels, such as apportionment, abatement, counterbalance, counterclaims or cross-claims. Such undervaluation of certification may put dilemma to the unpaid contractor causing his cash flow and profitability to be in jeopardy (Saad, 2008). However, the paymaster may not be satisfied with the work done and faced the dilemma of making payment or not.

Many of the studies conducted in the past for payment issues are based on causes (Abdul-Rahman, Takim, & Min, 2009); (Judi & Rashid, 2010) and (Hasmori, Ismail, & Said, 2012). The literature still lack studies on reaction, impact and

solutions. In addition, majority of previous studies only involved mostly main UNIVERSITI PENDIDIKAN SULTAN IDRIS UNIVERSITI PENDIDIKAN SULTAN IDRIS UNIVERSITI PENDIDIKAN SULTAN IDRIS UNIVERSITI PENDIDIKAN SULTAN IDRIS UNIVERSITI PEN UNIVERSITI PENDIDIKAN SULTAN IDRIS UNIVERSITI PENDIDIKAN SULTAN IDRIS UNIVERSITI PENDIDIKAN SULTAN IDRIS UNIVERSITI F

contractors. Studies on sub-contractors are still lacking (CIDB, 2006). Therefore, a comprehensive study needs to be undertaken to establish the current state of payment issue in the Malaysian construction industry.

## **1.3 Research Questions**

The main questions that would be answered in this research are as follows:

What are the causes related to payment issues? 1) 2) What are the impacts to parties involved? What were the disputed amounts involved in most cases? 3) What are time/project cycle dispute that normally occurs? 4) What were the standard form contracts used by parties affected? 5) 6) What types of contractor's registration are mostly affected by this issue? 7) What are the main reactions when parties do not get payment? How do parties affected solve their payment problems? 8) 9) Is current legislation framework sufficient to solve the problem? What is lacking? 10) What is the current mechanism used by parties in resolving payment issues?

UNIVERSITI PENDIDIKAN SULTAN IDRIS UNIVERSITI PENDIDIKAN SULTAN IDRIS UNIVERSITI PENDID N IDRIS UNIVERSITI PENDIDIKAN SULTAN IDRIS UNIVERSITI F

## 1.4 Research Objectives

The aim of this study is to identify the problems, impact and solutions related to payment issues in the Malaysian construction industry. The aim is supported by the following objectives:

- 1) To identify causes related to payment issues.
- 2) To clarify the impact and reaction towards payment issues.
- 3) To find the solutions used by various parties to address the payment issues.

To explain further, Table 1.3 shows the summary of the research objectives and research questions in this research. The table included research objective, research gap, research questions and the expected results.

UNIVERSITI PENDIDIKAN SULTAN IDRIS UNIVERSITI PENDIDIKAN SULTAN IDRIS UNIVERSITI PENDIDI N IDRIS UNIVERSITI PENDIDIKAN SULTAN IDRIS UNIVERSITI PENDIDIKAN SULTAN IDRIS UNIVERSITI F

# Table 1.3

No.	<b>Research</b> <b>Objective</b>	Relation to Literature Review (Research Gap)		Research Question
1	To identify causes related to payment issues	1. There are plenty of reports, comprehensive evidences, academic papers and information on the issues of non, late and under payment	1.	What are the causes related to payment issues?
		2. The aim of this objective is to validate the findings from literatures	2.	What were the disputed amounts involved in most cases?
			3.	What are time/project cycle dispute that normally occurs?
			4.	What were the standard form contracts used by parties affected?
2	To clarify the impact and reaction towards	1. There are few reports and academic papers that identify parties affected by non, late and under payment. The data and evidences are still lacking in	1.	What are the impacts to parties involved?
	payment issue	this area.	2.	What are the main reactions when parties do not get payment?
		2. The aim of this objectives are to reaffirm findings from literatures and to find new findings from primary data collection		

Summary of Research Objective, Research Gap, Research Question and Expected Result

3 To find the solutions used by various parties to address the payment issues

1. Based on literatures, there is currently no available 1. How do parties affected solve their payment data captured on how parties affected by this issue solve their problem

2. The aim of this objective is to identify new findings which are not been addressed in literatures (research gap)

- problems?
- 2. What is the current mechanism used by parties in resolving payment issues?

