

PAYMENT CULTURE IN MALAYSIAN CONSTRUCTION INDUSTRY

MOHD KHAIRUL ANAS BIN MOHD BADROLDIN

UNIVERSITI TEKNOLOGI MALAYSIA

PAYMENT CULTURE IN MALAYSIAN CONSTRUCTION INDUSTRY

MOHD KHAIRUL ANAS BIN MOHD BADROLDIN

A project report submitted in partial fulfillment of the
requirements for the award of the degree of
Master of Science (Construction Management)

Faculty of Civil Engineering
Universiti Teknologi Malaysia

JANUARY 2015

DEDICATION

Especially for

My beloved parents

Mohd Badroldin Bin Mohd Rejab and Rajemah Binti Hamzah,

“Your unrepayable love motivates me endlessly”.

My beloved Friends

Syazwani Binti Abdul Raman, Friends From Sekolah Menengah Teknik Pendang,

Politeknik Kota Bharu and Uitm Shah Alam

Who give me moral supports and inspiration in your own way, Your encouragement

makes me forget the meaning of being a quitter.

You know who you are.

May Allah have mercy on you and gives you blessing for the rest of your life.

ACKNOWLEDGEMENT

In the name of Allah S.W.T the most gracious and most merciful, with his permission Alhamdulillah this study has been completed. Praise to Prohet Muhammad S.A.W., His companions and to those on the oath as what He preached upon, might Allah Almighty keep us His blessing and tenders.

Firstly I would like to express gratitudes to those who endlessly help me from the start of this study until the submission of this thesis. Highest gratitudes dedicated to my supervisor, Mr Abdul Rahim Abdul Hamid who had given me his precious time for discussion during the study. Moreover, his guidance, hints, references and motivating advices has helped me a lot through the process in completing this task sucessfully.

Secondly I'am trully gratefull for the help and fast reply from the construction companies that participated in the study. Eventhough with their tight schedule the could manage to help me completing the questionnaire. Thank you.

Last but not least special thank you to my dearest friends and family who helped me so much during the process conducting the study. Thier endless encouragement motivates me to where I am now.

ABSTRACT

Cash flow is the life blood of the construction industry and basically cash flow is majorly contributed by payment that gain. Unfortunately, late payment becomes a habit in the construction industry and this practice could turn the construction company to many implications such as bankruptcy, the higher the contract sum due to the risk, uncomfortable relationship between the payer and payee, disturbance supply chain and others. The objectives of this master project are to study the construction industry payment scenario, impact of late payment to contractors, to identify the factors of late payment in the construction industry and to identify methods for tackling late payment in the construction industry. Literature review by performing focusing on issues related to late payment and primary data were collected by distributing 100 sets of questionnaires based on convenience sampling. The collected data were analysed by using frequency distribution and relative important index. The results of the study show that the late payment is one of the most critical problems in the Malaysian construction industry. The majority of the contractor experienced late payment quite frequently and even beyond the stipulated term. The top 3 impact of the late payment problems is the negative chain effect on other parties, results in delay in completion projects and leads to bankruptcy or liquidation. The top 3 factors that contribute to the late payment problem are disagree with the valuation of work done, technical problem and conflict among parties involve. The top 3 method for tackling late payment problem are uses of technology, sector based approaches and fair and clear payments practice.

ABSTRAK

Aliran tunai adalah nadi industri pembinaan dan pada dasarnya aliran tunai disumbang daripada bayaran yang diperolehi. Malangnya, pembayaran lewat menjadi kebiasaan dalam industri pembinaan dan amalan ini boleh menyebabkan syarikat pembinaan untuk mendapat banyak implikasi seperti muflis, jumlah kontrak yang lebih tinggi disebabkan oleh risiko yang tinggi, hubungan tidak selesa antara pembayar dan penerima, gangguan rantaian bekalan dan lain-lain. Objektif projek ini adalah untuk mengkaji senario pembayaran industri pembinaan, kesan pembayaran lewat kepada kontraktor, untuk mengenal pasti faktor-faktor pembayaran lewat dalam industri pembinaan dan untuk mengenal pasti kaedah untuk menangani pembayaran lewat dalam industri pembinaan. Kajian literatur dengan memberi tumpuan kepada isu-isu yang berkaitan dengan pembayaran lewat dan data primer telah dikumpulkan dengan mengedarkan 100 set borang soal selidik berdasarkan kaedah persampelan mudah. Data yang dikumpul telah dianalisis dengan menggunakan taburan kekerapan dan indeks penting relatif. Keputusan kajian menunjukkan bahawa pembayaran lewat adalah salah satu masalah yang paling penting dalam industri pembinaan Malaysia. Majoriti kontraktor mengalami pembayaran lewat agak kerap dan walaupun di luar tempoh yang ditetapkan. Tiga kesan tertinggi daripada masalah pembayaran lewat adalah kesan negatif kepada rantaian terhadap pihak lain, menyebabkan kelewatan dalam menyiapkan projek dan membawa kepada kebangkrapan atau pembubaran. Tiga faktor tertinggi yang menyumbang kepada masalah pembayaran lewat adalah tidak bersetuju dengan penilaian kerja yang dilakukan, masalah teknikal dan konflik di antara pihak yang terlibat. Tiga kaedah tertinggi untuk menangani masalah pembayaran lewat ialah penggunaan teknologi, pendekatan berasaskan sektor dan amalan yang wajar dan pembayaran jelas.

TABLE OF CONTENTS

CHAPTER	TITLE	PAGE
	DECLARATION	ii
	DEDICATION	iii
	ACKNOWLEDGEMENT	iv
	ABSTRACT	v
	ABSTRAK	vi
	TABLE OF CONTENT	vii
	LIST OF TABLES	x
	LIST OF FIGURES	xi
	LIST OF ABBREVIATIONS	xii
	LIST OF APPENDICES	xiii
1	INTRODUCTION	1
	1.1 Introduction	1
	1.2 Problem Statement	2
	1.3 Aim and Objectives	3
	1.4 Scope of Study	4
	1.5 Methodology of Study	5
	1.6 Arrangement of the Report	6
	1.7 Conclusion	6
2	LITERATURE REVIEW	8
	2.1 Introduction	8

2.2	Payment in Construction	9
2.3	Advance Payment	10
2.3.1	Based on PWD Standard Form of Contract	10
2.3.2	Based on PAM Standard Form of Contract	12
2.4	Interim Payment	13
2.4.1	Based on PWD Standard Form of Contract	13
2.4.2	Based on PAM Standard Form of Contract	17
2.5	Final Account	17
2.5.1	Based on PWD Standard Form of Contract	17
2.5.2	Based on PAM Standard Form of Contract	19
2.6	Payment Terms	20
2.6.1	Method of Valuation	20
2.7	Importance of Payment in the Construction Industry	21
2.8	Problem Associated with Payment in Construction Industry	22
2.9	Scenario of Late Payment	25
2.10	Causes of Payment Problems in Construction Industry	26
2.11	Effects of Payment to Construction Industry Development	32
2.12	Methods to Encounter Late Payment	36
2.13	Conclusion	38
3	METHODOLOGY OF STUDY	40
3.1	Introduction	40
3.2	First Stage: Background Study	42
3.3	Second Stage: Literature Review and Questionnaire Design	42
3.3.1	Primary Data	43
3.3.2	Secondary Data	44
3.4	Third Stage: Data Collection and Data Analysis	44
3.4.1	Reliability of Data	45
3.4.2	Percentage Frequency Distribution	46
3.4.3	Relative Importance Index	47
3.5	Fourth Stage: Results and Discussion	48

3.6	Fifth Stage: Conclusion and Recommendation	49
3.7	Conclusion	49
4	RESULTS AND DISCUSSION	50
4.1	Introduction	50
4.2	Realibility Test Result	51
4.3	Demographic Data Analysis	51
4.4	Result and Analysis Accordance to Objective of Study	52
4.4.1	Section A: Respondent Information	52
4.4.2	Section B: Scenario of Late Payment and Its Impact to Contractors	55
4.4.3	Section C: Factors of Late Payment	62
4.4.4	Section D: Methods for Tackling Late Payment	69
4.5	Conclusion	74
5	CONCLUSION AND RECOMMENDATION	75
5.1	Introduction	75
5.2	Conclusions of Study	75
5.3	Limitations of Study	76
5.4	Recommendations for Further Study	77
5.5	Conclusion	78
	REFERENCES	79
	APPENDIX A	83

LIST OF TABLES

TABLE NO.	TITLE	PAGE
2.1	Definition of Payment	9
2.2	Scenario of Late Payment in Other Countries	26
2.3	Factors of Late Payment	30
2.4	Impacts of Late Payment	35
2.5	Methods to Encounter Late Payment	37
3.1	Internal Consistency Range based on Cronbach's Alpha (George et. al, 2003)	46
4.1	Summary of Reliability Test Result	51
4.2	Impact of Late Payment	61
4.3	Factors of Late Payment	65
4.4	Methods for Tackling Late Payment	70

LIST OF FIGURES

FIGURE NO.	TITLE	PAGE
2.1	Chain of Payment in Construction Industry (Bayley, 2006)	33
3.1	Flow Chart of Methodology of Study	41
4.1	Respondents' Gender	52
4.2	Respondents' Age	53
4.3	Respondents' Working Experience	53
4.4	Respondents' Position	54
4.5	Respondents' Company Status	55
4.6	Late payment is one of the most critical problems	56
4.7	Late Payment Faced by the Company	56
4.8	Experienced of Late Payment in the Last Two Years	57
4.9	Agreed Contractual Payment Terms	58
4.10	Duration Payment Made	58
4.11	Type of Client Who Practice Late Payment	59
4.12	Frequency of the Late Payment	60
4.13	Period to Chase the Late Payment	60
4.14	Delay in Paying the Supplier	61
4.15	Impact of Late Payment by Rank	62
4.16	Factors of Late Payment	68
4.17	Methods for Tackling Late Payment	73

LIST OF ABBREVIATIONS

ACDA	As Completed Detailed Abstract
CIDB	Construction Industry Development Board
CIMP	Construction Industry Master Plan
CIPAA	Construction Industry Payment and Adjudication Act
FIDIC	International Federation of Consulting Engineers
GDP	Gross Domestic Product
LAD	Liquidated and Ascertained Damages
MBAM	Master Builders Association Malaysia
PAM	Persatuan Arkitek Malaysia
PWD	Public Work Department
RII	Relative Importance Index
RM	Ringgit Malaysia
S.O.	Superintending Officer
SOCSSO	Social Security Organization
UK	United Kingdom
UM	Universiti Malaya
VOP	Variations of Price

LIST OF APPENDIX

APPENDIX	TITLE	PAGE
A	Sample of Questionnaire Form	83

CHAPTER 1

INTRODUCTION

1.1 Introduction

The construction industry is a catalyst of a nation's growth, even it only contribute 3% - 4% of total a nation gross domestic product (GDP) but it accelerates other industry for example manufacturing, tourism, agriculture and others. There are involving several parties, various process, different phases, and different stages of work and get a lot input from private and public sector (Sambasivan, 2007). Therefore, the practice of efficient and timely payment in construction projects is a major factor leading to a project's success. However, payment default is considered as a major problem in the construction industry (MBAM, 2012).

The Government has long been aware of the problems faced by parties in a construction project in securing regular and timely payment that impacts cash flow during project implementation. To ensure the smooth implementation of construction projects, problems of this nature have been addressed at the onset of the 10th Malaysia

Plan. On 15th July 2009, Cabinet has agreed that CIPAA be enacted to resolve payment problems in the construction industry.

The construction industry, in particular, the Construction Industry Development Board (CIDB) and Master Builders Association Malaysia (MBAM) and other related promoters have been instrumental in getting the government to enact this piece of legislation since 2003 to address the cash flow problems plagued by the industry (KLRCA, 2012).

1.2 Problem Statement

Payment has been said to be the lifeblood of the construction industry. Yet there remains a chronic problem of delayed and non-payment in the Malaysia construction industry affecting the entire delivery chain (Naseem, 2006). Many parties are being affected from delayed or non-payment and these results in the issues raised about the livelihood and welfare of workers and also on the continuity of the affected projects.

MBAM had long been lamenting the problems of delayed and non-payment and the construction industry had been waiting far too long for the CIPAA to be in place since the Cabinet approved its enactment in 2009 (MBAM, 2011). Cash flow in the construction industry is critical because of the relatively long duration projects. A planned, expected revenue flow is usually represented by an S curve. Any deviation due to either project delays or cash flow delays can have a major impact on the project (Naseem, 2006). Therefore, the Construction Industry Development Board (CIDB)

Malaysia is working together with the construction industry has moved forward to the enactment of Construction Industry Payment Adjudication Act 2012 to improve cash flow problem in the Malaysian Construction Industry.

According to survey by University of Malaya, reported in CIDB presentation, out 49 consultants, 31 which 63.3% of them already encounter late payment of professional fees in government project and 73.5 % which 36 of them have experienced late payment of fees from in private sector project. From the contractor sides, out 333 contractors, 44.1 % had faced late payment from the government project and 53.5% from the private sector project.

Late payment may affect the performance and financial of the contractors. This problem needs to be studied in depth because it involves a high and a major barrier to the success of the project.

1.3 Aims and Objectives

The aim of this master project is to examine the practice of payment in the construction industry and the objectives of this study are as follows:

1. To study the construction industry payment scenario, impact of late payment to contractors.

2. To identify the factors of late payment in the construction industry.
3. To identify methods for tackling late payment in the construction industry.

1.4 Scope of Study

The scope of study is to study the construction industry payment scenario, impact of late payment to contractors, factors of late payment and method for tackling late payment. This study will be focusing on contractor grade G7 in Selangor. The contractor was chosen because they conveyed the large categories on the construction industry team player. The respondent chosen area contractors as they spend and receive the most amounts of monetary sources in a project.

This study will be focusing on contractors and sub-contractors for construction projects in Malaysia where a regular disbursement of interim payment is the main method of payment to the contractor. A contractor is a person or firm that undertakes a contract to provide materials or labour to perform a service or do a job. In this study, contractors include main contractors as well as subcontractors doing any construction in Malaysia. If anything involved payments, they will be directly affected. The questionnaire is distributed to contractors within Malaysia.

1.5 Methodology of Study

Careful thought and planning in the preparation of the methods of study, data collection techniques and measurements is very important for conducting studies. A framework of the methodology has been designed to show the distinct stages and the sequence in which they occur.

Primary Data will be collected by distributing the questionnaires to the related personnel within the scope of the study. The questionnaires are designed to answer the objective that has been outlined. Both Main contractors and sub-contractors will be the respondents to these questionnaires. The next step after data collection would be data analysis. This method includes compiling all the data collected.

Secondary Data is collected through literature review, the latest secondary data and information can be collected from different sources which can be used for the survey being conducted. The sources include books, journals, magazines, dissertations, conference papers, periodicals and information from the internet. Due to the evolution of information technology, using the data from the internet that can be collected from many websites and web pages is the easiest way to retrieve the related information. These materials were used for background reading to obtain full understanding and information needed for discussion and analysis in the study.

1.6 Arrangement of the Report

Briefly, this study is related to construction industry payment scenario and from law aspects. In order to achieve final project objectives, some of the methodical programmes of study were undertaken. This is presented by 5 chapters.

The first which is introduction chapter, will describe the general overview of the whole study. In this chapter, the problem statement is clearly defined which leads to the aim and objectives of the study. The scopes of study are also clarified to avoid any confusion and misconception arises.

The second chapter which is literature review, consists of literature review regarding the construction industry payment scenario, impact of late payment, factors of late payment, how to tackle it and the challenge the implementations.

The methodology of study which is third chapter it describes in more details on the study methodology being used in this project report. This chapter will clearly state how the related information and sample data are being collected such as through literature review and questionnaire survey. It also discusses the procedure and techniques for analysing the collected data.

Results and discussions will be write on the fourth chapter and it explains the results and the discussion was related to the literature review in the second chapter, questionnaire survey and interview findings in relation to the three (3) objectives of the study as stated in the first chapter.

The last chapter is conclusions, this chapter will discuss the conclusion and concludes all findings that leads to the achievement of the three (3) objectives of the study as stated in the first Chapter. It also suggests some recommendations for the betterment of future study.

1.7 Conclusion

The study was conducted in order to meet certain interest and will be useful to the parties involved in the construction especially contractors.

- Study the scenario of payment in the construction industry and late payment impact. This result can be used as an indicator of the parties involved in order to prevent the problems in their projects.
- Propose several approaches to encounter late payment. This approach can be taken by the parties involved in order to reduce the risk of late payment in the project.
- Expands and develops the country's construction industry equivalent advanced in terms of project managements.

REFERENCES

- Abdul-Rahman H, Danuri M S M, Munaim M E C And Chen W (2006), *A Report Of A Questionnaire Survey On Late And Non-Payment Issues In The Malaysian Construction Industry*, Kuala Lumpur, Construction Industry Development Board (CIDB).
- Abdul-Rahman H, Takim, R and Wong, S M (2009), *Financial-Related Causes Contributing To Project Delays*, Journal of Retail & Leisure Property.
- Abdul-Rahman H, Wang C, Takim R And Wong S M (2011) *Project Schedule Influenced By Financial Issues: Evidence In Construction Industry*, Scientific Research and Essays.
- Ameer Ali, N. A. N., (2006), *A Construction Industry Payment and Adjudication Act”: Reducing Payment-Default And Increasing Dispute Resolution Efficiency in Construction*, Master Builder. (Part 1).
- Banwell, H. (1964). *The Placing and Management of Contracts for Building and Civil Engineering Wor.*. The Banwell Report, London: HMSO.
- Bayley,G. (2006). *The New Zealand Experience – The New Zealand Construction Contracts Act 2002. Adjudication Seminar: An End to Cash Flow Problems in the Construction Industry*, Kuala Lumpur: CIDB
- Cater-Steel, A., Tan, W.G. & Toleman, M., (2006) *Challenge of adopting multiple process improvement frameworks*, In Proceedings of 14th European Conference on Information Systems (ECIS 2006).
- Che Munaaim, M.E, (2006) *Payment Woes Among Malaysian Contractors*, Faculty Of Civil Engineering, Universiti Teknologi Malaysia, Skudai, Johor, Malaysia.
- Cherry, K., (2010), *What is Reliability*, *about.com Guide, Psychology*. Retrived on 14th May 2014, from <http://psychology.about.com/od/researchmethods/f/reliabilitydef.htm>

- Conditions of Contract for Construction, Construction Contract 1st ed (1999 Red Book), International Federation of Consulting Engineers (FIDIC), Geneva, Switzerland.
- Construction Industry Development Board (CIDB). *Enactment of the Construction Industry Payment & Adjudication Act or CIPAA for Malaysia*, Seminar on Legal Reforms in the Malaysian Construction Industry, N.D.
- Cortina. J. M. (1993). *What Is Coefficient Alpha? An Examination of Theory and Applications*, Journal of Applied Psychology.
- Danuri, M.S, Che Munaaim. M.E, Abdul Rahman, H., Hanid, M. (2006), *Late Payment Issues In the Malaysian Construction Industry – Contractors, Perspective, Centre for Project and Facilities Management*, University Of Malaya, Malaysia.
- Dunn, K.: *Interviewing, In: Qualitative Research Methods in Human Geography*, Edited By: Hay, I., Oxford University Press, Australia.
- Experian (2003), *Late Payment November 2003*. London.
- George, D., & Mallery, P. (2003), *SPSS For Windows Step By Step: A Simple Guide And Reference. 11.0 Update (4th Ed.)*, Boston: Allyn & Bacon.
- Gow, P.W. (2006), *Security of Payment and the Western Australian Construction Contracts Act. Adjudication Seminar: An End to Cash Flow Problems in the Construction Industry*, Kuala Lumpur: CIDB.
- Halim M.S. Jaafar M. Osman O. and Akbar S. (2010), *The Contracting firm's failure and financial related factors: a case study of Malaysian contracting firms*, International Research Journal of Finance and Economics.
- Haseeb M, LU X, Dyian M, and Rabbani W (2011), *Problems of Projects and Effects of Delays in the Construction Industry*, Australian Journal of Business and Management Research.
- Hasmori M F, Ismail I And Said I (2012), *Issues Of Late And Non-Payment Among Contractors In Malaysia*, 3rd International Conference On Business And Economic Research Proceeding, 12-13 March 2012, Golden Flower Hotel, Bandung, Indonesia.
- Holt,G.D., Olomoaiye, P.O., and Haris, F.C.(1996), *Tendering Procedures, Contractual Arrangement and Latham: The Contractor View. Engineering, Construction and Architectural Management*.

- Intrum Justitia, (2014), *European Payment Index 2013*, Stockholm, Sweden: Intrum Justitia DB (Publ).
- Judi S S and Abdul Rashid R (2010), *Contractor's Right of Action for Late or Non-Payment by the Employer*, Journal of Surveying, Construction & Property.
- Kenney, P. (2005), *Statistic And Trends In Statutory Adjudication In The UK Since 1998*, International Forum On Construction Industry Payment Act And Adjudication, 13&14 September 2005, Kuala Lumpur Convention Centre, Kuala Lumpur, Malaysia.
- Latham, M. (1993), *Trust and Money – Interim Report of the Joint Government Industry Review of Procurement Arrangements in the UK Construction Industry*, London: HMSO.
- Latham, M. (1994) *Constructing the Team, Joint Review of Procurement and Contractual Arrangements in the United Kingdom Construction Industry*, Final Report, HMSO.
- Lip, Euginie. (2006), *Curing the Ills of Non-Payment in the Construction Industry – The Singapore Experience*, 8th Surveyors' Congress. Kuala Lumpur: ISM.
- MBAM Quarterly Survey on Progress Payment Issue in the Construction Industry – 3rd Quarter 2005. Kuala Lumpur: Master Builders Association Malaysia (MBAM).)
- Mohamad F M, Nekooie M A And Che Kamaruddin N (2012), *The Adequacy Of Contractual Provisions In Managing Construction Failure In Malaysia*, European Journal of Business and Management.
- Nazir N Z (2006), *Late Payment Problems among Contractors in Malaysia*, Msc, Universiti Teknologi Malaysia (UTM).
- Nesan, L.J. (1997), *A Generic Model for Effective Implementation of Empowerment in Construction Contractor Organisation*, Ph.D Thesis, University Of Wolverhampton.
- Noushad Ali Naseem. (2004), *CIDB Working Group (WG) Report – Payment*, Kuala Lumpur: Construction Industry Development Board (CIDB) Malaysia.
- Noushad Ali Naseem. (2006), *A Construction Industry Payment And Adjudication Act – Reducing Payment-Default And Increasing Dispute Resolution Efficiency*, International Forum Construction Industry Payment Act and Adjudication. Kuala Lumpur: CIDB and ISM.

- Oon Chee Keng. (2005), *Pay When Paid Clauses. 7th Surveyor's Congress*, Kuala Lumpur: ISM. Cheng, Teresa. (2006). A Comparison of the Methods of Dispute Resolution Adopted By the Construction Industry.
- Pettigrew, R. (2005), *Payment under Construction Contract Legislation*, London: Thomas Telford.
- Ramachandra T and Rotimi J O (2011), *The Nature of Payment Problems in the New Zealand Construction Industry*, Australasian Journal of Construction Economics and Building.
- Rourke, J.W. & Gentry, C A. (2002), *Missouri Prompt Payment Laws Applicable to Construction Projects*, Journal of the Missouri Bar Vol. 58 (3).
- Sambasivan, M. (2007), *Causes And Effects Of Delay In Malaysian Construction Industry*, International Journal Of Project Management.
- Supardi A, Adnan H and Mohammad M F (2011), *The Adequacy of Malaysian Security of Payment Legislation for Sub-Contractors in Construction Industry*, Sixth International Conference on Construction in the 21st Century, 5-7 July 2011, Kuala Lumpur, Malaysia.
- Ye K M and Abdul-Rahman H (2010), *Risk of Late Payment in the Malaysian Construction Industry*, World Academy of Science, Engineering and Technology.