

**THE FACTORS INFLUENCING POOR PROJECT MANAGEMENT ON
HOUSING CONSTRUCTION PROJECT'S
IN MALAYSIA**

By

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**Project Paper Submitted in Partial Fulfilment of the Requirements for the
Degree of Master of Business Administration
Universiti Tun Abdul Razak**

OCTOBER 2023

DECLARATION

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Table of Contents

Declaration.....	i
Acknowledgement.....	ii
Tables of Contents.....	iii-vi
List of Tables	vii-ix
List of Figures.....	x
List of Abbreviations.....	xi
Abstract.....	xii

CHAPTER 1:

1.0 INTRODUCTION

1.1 Background of The Study.....	1-6
1.2 Problem Statement.....	6-9
1.3 Research Objective.....	9-11
1.4 Research Questions.....	11-12
1.5 Significance of The Study.....	12
1.6 The Organization of The Study.....	12
1.6.1 Chapter 1.....	12-13
1.6.2 Chapter 2.....	13
1.6.3 Chapter 3.....	13
1.7 Research Timeframe.....	13

CHAPTER 2:

2.0 LITERATURE REVIEW

2.1 Introduction.....	14-15
2.2 Theoretical Foundation.....	15-16
2.3 Empirical Research.....	17
2.3.1 Inadequate Project Planning.....	18-19

2.3.2 Limited Project Management Skills and Knowledge	19-21
2.3.3 Inefficient Project Monitoring and Control.....	21-24
2.3.4 Limited Stakeholder Collaboration.....	24-25
2.3.5 Ineffective Project Leadership.....	25-26
2.3.6 Resource Constraints and Supply Chain Issues.....	26-28
2.3.7 Poor Project Management in Housing Construction.....	28-29
2.4 Proposed Conceptual Framework.....	29-30
2.5 Hypothesis Development.....	30-31
2.6 Summary and Conclusion Chapter 2.....	31-32

CHAPTER 3:

3.0 RESEARCH METHODOLOGY

3.1 Introduction.....	33
3.2 Research Approach.....	33-35
3.3 Research Design.....	35-37
3.4 Study Population and Sampling Procedures.....	37-38
3.5 Data Collection Method.....	38-39
3.6 Operationalization and Measurement.....	39-40
3.6.1 Variable and Measurement/Instrument.....	40-41
3.7 Data Analysis Technique.....	41-42
3.7.1 Reliability Analysis.....	42
3.7.2 Descriptive and Inferential Statistic Analysis.....	42-43
3.7.3 Frequency Distribution Analysis	43-44
3.7.4 Correlation Analysis.....	43
3.7.5 Multiple Regression Analysis.....	44
3.8 Summary and Conclusion Chapter 3.....	44

CHAPTER 4:

4.0 DATA ANALYSIS AND RESULT

4.1 Introduction.....	45
4.2 Frequencies on Demographic Profile.....	45-46

4.3 Section 1: Demographic Analysis.....	46-47
4.3.1 Gender Analysis.....	47-48
4.3.2 Age Group Analysis.....	48
4.3.3 Race Analysis.....	49
4.3.4 Highest Level Education.....	49-50
4.3.5 Field of Study.....	50-51
4.3.6 Area of Workplace.....	51-52
4.3.7 Area of Workplace.....	52-53
4.3.8 Role at Workplace.....	53
4.3.9 Years of Experience.....	54
4.3.10 Average Monthly Income.....	54-55
4.4 Reliability Test Analysis.....	55-56
4.4.1 Reliability Test on Research Instrument/Questionnaire.....	56-57
4.4.2 Normality Test on Research Data.....	57-58
4.5 Descriptive Statistic Analysis	58
4.6 Descriptive Statistic Analysis (Mean)	58-59
4.7 Descriptive Variable mean & Standard Deviation (Section 2-8).....	59
4.7.1 Inadequate Project Planning (IV).....	59-61
4.7.2 Limited Project Management Skills & Knowledge (IV).....	61-63
4.7.3 Inefficient Project Monitoring & Control (IV).....	63-65
4.7.4 Limited Stakeholder & Collaboration (IV).....	65-66
4.7.5 Ineffective Project Leadership (IV).....	66-68
4.7.6 Resources Constraints & Supply Chain Issues (IV).....	68-70
4.7.7 Poor Project Management (DV).....	70-71
4.8 Summary Descriptive Analysis Variable Mean & Standard Deviation.....	71-72
4.9 Inferential Statistic Analysis.....	72
4.9.1 Use of Pearson Correlation.....	72-74
4.10 Multiple Regression Analysis.....	74-77
4.11 Hypothesis Finding & Summary.....	77-78

CHAPTER 5:

5.0 CONCLUSION AND RECOMMENDATIONS

5.1 Introduction & Discussion on Research Finding.....	79
5.2 Discussion on Research Finding.....	79
5.2.1 Relationship Between Inadequate Project Planning Influenced Poor Project Management.....	79-80
5.2.2 Relationship Between Limited Project Management Skills & Knowledge Influenced Poor Project Management.....	80-81
5.2.3 Relationship Between Inefficient Project Monitoring & Control Influenced Poor Project Management.....	81-82
5.2.4 Relationship Between Limited Stakeholder's Collaboration Influenced Poor Project Management.....	82-83
5.2.5 Relationship Between Ineffective Project Leadership Influenced Poor Project Management.....	83-84
5.2.6 Relationship Between Resources Constraints & Supply Chain Issues Influenced Poor Project Management.....	84-85
5.3 Limitation of The Study.....	85-86
5.4 Recommendation of The Future Research.....	86-87
5.5 Conclusions.....	87-88

6.0 BIBLIOGRAPHY	89-93
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7.0 APENDICES

7.1 Appendix A: Questionnaire	94-108
7.2 Appendix B: Approval Page	109

LIST OF TABLES

Table	Description	Page
1	Gantt Chart for Research Paper Time Frame	13
2	CIDB Grades of Contractors	37
3	Taro Yamane Sample Population Table	38
4	5 Point Likert Scale	40
5	Interpretation of Cronbach's Alpha	42
6	Mean Score Level for Descriptive Analysis	43
7	Correlation Table Analysis	44
8	Summary of Questionnaire Dimensions	45
9	Demographic Profile (n=101)	46-47
10	Demography Gender	47
11	Demography Age Group	48
12	Demography Race	49
13	Demography Highest Education	50
14	Demography Field of Study	51
15	Demography Area of Workplace	52
16	Demography Field at Workplace	52-53
17	Demography Role at Workplace	53
18	Demography Years of Experience	54
19	Demography Average Monthly Income	55
20	Reliability of inadequate project planning, limited project management skill and knowledge, inefficient project monitoring and control, limited stakeholder collaboration, ineffective project leadership, resource constraints and supply chain issues, poor project management and overall	56-57
21	Normality test of inadequate project planning, limited project management skill and knowledge, inefficient project monitoring and control, limited stakeholder collaboration, ineffective project	58-59

	leadership, resource constraints and supply chain issues and poor project management	
22	Mean Core table	60
23	Descriptive Analysis of Inadequate Project Planning	60-61
24	Descriptive Analysis of Limited Project Management Skills & Knowledge	62
25	Descriptive Analysis of Inefficient Project Monitoring & Control	64
26	Descriptive Analysis of Limited Stakeholder & Collaboration	66
27	Descriptive Analysis of Ineffective Project Leadership	67-68
28	Descriptive Analysis of Resources Constraints & Supply Chain Issues	69
29	Descriptive Analysis of Poor Project Management	71
30	Summary of Descriptive Analysis on All Variables	72
31	Pearson's Correlation Scale Model by David (1996)	73
32	Pearson's correlation analysis between inadequate project planning, limited project management skill and knowledge, inefficient project monitoring and control, limited stakeholder collaboration, ineffective project leadership and resource constraints and supply chain issues with poor project management	74
33	Multicollinearity analysis of inadequate project planning, limited project management skill and knowledge, inefficient project monitoring and control, limited stakeholder collaboration, ineffective project leadership and resource constraints and supply chain issues	76
34	Model Summary	76
35	<i>ANOVA</i> Model	77
36	Summary of multiple regression analysis of inadequate project planning, limited project management skill and knowledge, inefficient project monitoring and control, limited stakeholder	77-78

	collaboration, ineffective project leadership and resource constraints and supply chain issues in predicting poor project management	
37	Summary of Hypothesis Testing	79


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LIST OF FIGURES

Figure	Description	Page
1	The Challenges on Construction Industry in Malaysia	6
2	The Statistic of Private Housing Projects Based on Category	8
3	Problems on Construction Industry in Malaysia	9
4	Project Planning Concept (Lines et al., 2015)	19
5	Proposed Conceptual Framework for Research	30
6	Type of Quantitative Research	34
7	Gender	46
8	Age Group	48
9	Race	49
10	Highest Level Education	50
11	Field of Study	51
12	Area of Workplace	52
13	Field of Workplace	53
14	Role of Workplace	54
15	Years of Experience	55
16	Average Monthly Income	56
17	Inadequate Project Planning Histogram with Normal Curve	61
18	Limited Project Management Skills & Knowledge Histogram with Normal Curve	63
19	Inefficient Project Monitoring & Control Histogram with Normal Curve	65
20	Limited Stakeholder & Collaboration Histogram with Normal Curve	66
21	Ineffective Project Leadership Histogram with Normal Curve	68
22	Resources Constraints & Supply Chain Issues Histogram with Normal Curve	70
23	Poor Project Management Histogram with Normal Curve	71

LIST OF ABBREVIATIONS

BNM	-	Bank Negara Malaysia
CIDB	-	Construction Industry Development Board
NTP	-	National Transformation Plan
ETP	-	Economic Transformation Plan
GTP	-	Government Transformation Programmed
JPN	-	Jabatan Perumahan Negara
DV	-	Dependent Variable
IDV	-	Independent Variable
BIM	-	Building Information Modelling
MHPs	-	Mass housing projects
PMP	-	Project Management Professional
CPM	-	Construction Project Management
EIAs	-	Environmental Impact Assessments
UBBL	-	Uniform Building By-Laws
SPSS	-	statistical analysis using computer software
CIMS	-	Centralized Information Management System

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ABSTRACT

Abstract of the research project paper submitted to the Senate of Universiti Tun Abdul Razak in partial fulfilment of the requirements for the Master of Business Administration

THE FACTORS INFLUENCING POOR PROJECT MANAGEMENT ON HOUSING CONSTRUCTION PROJECT'S IN MALAYSIA

By

Muhamad Ajib Bin Embok Upak

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Poor project management have plagued the housing building industry, leading to missed deadlines, inflated budgets, and subpar result. The aim of this study is to identify the causes of “poor project management on housing construction projects in Malaysia”. Project managers and Developers/Contractor in Malaysia's residential building sector were surveyed for the research. The purpose of the study was to learn about the difficulties encountered by the sector and how they affect project planning and management. The findings of the survey indicate that poor project management and lack of planning are the primary causes of delays, cost overruns, and poor quality of housing construction projects within the country.

The guidelines call for the construction of project management frameworks, the use of technology to enhance communication and cooperation, the provision of sufficient resources, the introduction of risk management measures, and the drafting of appropriate legislation and guidelines.

Keywords: Housing construction, project management, planning, Malaysia, poor performance factors, challenges and strategy.

CHAPTER 1

INTRODUCTION

1.1 BACKGROUND OF THE STUDY

The construction sector is crucial to every country's economic success. The housing construction industry has rapidly risen to become one of the world's most important in recent decades. As a result, the construction sector is held up as a barometer of a country's economic health due to its correlation with general growth and development. As a result, it is clear that the construction industry is one of Malaysia's fastest-growing sectors today.

One example of the failure of the construction sector in Malaysia is the economic crisis that hit the nation between 1997 and 1998, which hampered the completion of several building projects. The result was unfinished work. Years later, the building industry in Malaysia is still one of the country's most vital. Evidence of this may be seen in the many mega projects that have been planned for the future as well as the quick pace at which they are being executed.

Poor performance concerns in the construction business, notably in house building projects, have been noted in Malaysia (Riazi et al., 2013). Inaccurate methodologies were used, important success variables weren't identified, success aspects weren't identified, and no systematic performance measurement systems were implemented, all of which contributed to the observed low performance (Takim et al., 2004). So, it's crucial to investigate the efficiency of public building projects to make sure the facilities built are up to par with what the public needs for a higher standard of living. Public and private customers make up the bulk of the construction business, respectively (Jaafar and Nuruddin, 2012). Highways, hospitals, low-income housing, community centers, sports arenas, and water and sewerage projects are only some of the things that the public relies on the government to build (Jaafar and Nuruddin, 2012; Al-khalil and Gha, 1999). However, private customers care primarily about how a project would affect their bottom line. Construction in Malaysia may be broken down into four distinct types: residential, nonresidential, civil engineering, and special trade (Bank Negara, 2015). Statistics reveal that the majority of construction work in Malaysia is carried out by the

government (Bank Negara, 2015), and this categorization accurately represents the nature of the construction industry's clientele. The two most important indicators of a project's success are how well it performs in terms of time and money. The Malaysian construction sector has a terrible reputation due to its repeated failures to meet deadlines and budget constraints. Therefore, most projects have significant cost and schedule overruns. The purpose of this survey-based research is to evaluate the efficiency with which construction projects in Malaysia are completed in terms of both time and money. The research showed that 92% of construction projects had cost overruns, and just 8% were completed in accordance with their original deadlines. Respondents agreed that the time overrun was between 5 and 10 percent. The majority (89%) of respondents agreed that cost overruns were an issue for their projects, with an average overrun of 5%-10% of the contract price. Only 11% of respondents said their projects typically concluded within the planned cost. Problems with the project's architecture and documentation, as well as its management of financial resources and its administration of contracts, are important factors in its poor performance. In addition, a qualitative research was conducted utilizing semi-structured interviews with professionals in the field of building project management. As a consequence of these discussions, we came up with 13 steps to better the construction project's time performance and 15 measures to better its cost performance. This research will aid professionals in putting together preventative measures throughout the planning phase of building projects (Memon et al., 2012).

Success, from the point of view of the project manager, is the timely and cost-effective completion of the project so that it may achieve its stated goals and serve the needs of its constituents. In addition, a building project has to be managed in a methodical way for it to be carried out successfully. Management, in general, is crucial to the success of any building endeavor. A project manager's primary responsibilities include overseeing and organizing work on the building itself. Everything from workers to budgets to work schedules to know-how to tools and machines must be considered.

The house building industry in Malaysia has been expanding rapidly in recent years. Poor project management have been recognized as problems in many of Malaysia's home development projects. Because of these problems, the projects may face

setbacks and be completed late. The purpose of this research is to illuminate the causes of these issues in Malaysian house development projects.

Inadequate communication and coordination among project stakeholders is a major contributor to poor project management in residential building projects. Confusion and postponed decision-making are the results of muddled project goals. Inadequate management and monitoring of project operations may worsen this, leading to additional delays and expense overruns.

Inadequate project management tools and procedures can play a role. Traditional techniques of project management are still used in many home building projects in Malaysia, despite the fact that they may not be enough for the complexity of today's construction projects. Scheduling, allocating resources, and managing risks may all be hampered without the right project management tools and practices.

Another important obstacle is the dearth of qualified project managers and construction specialists. People in Malaysia often lack the requisite skills and expertise to handle house development projects. Because of this, project planning, decision making, and management could suffer. Improving communication and coordination among stakeholders in home development projects in Malaysia is crucial for meeting these problems. Traditional approaches may be improved upon via the use of more up-to-date tools and strategies for project management. Last but not least, one way to guarantee that projects are handled well and efficiently is to invest in the education and expertise of project managers and construction specialists.

Poor project management are clearly major obstacles for house development projects in Malaysia. All parties invested in these initiatives must work together to find solutions to these problems. Following the aforementioned procedures will guarantee the timely completion of Malaysian house development projects.

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Figure 1: The Challenges on Construction Industry in Malaysia

1.2 PROBLEM STATEMENT

By 2022, Malaysia plans to have become a developed, high-income country. To ensure that Malaysia is headed in the correct direction, the government has designed and launched a number of plans and programs. So, they came up with the National

Transformation Plan (NTP). Both the Government Transformation Programmed (GTP) and the Economic Transformation Plan (ETP) were implemented as part of NTP. The ETP's basic idea is to zero in on measures that would stimulate the economy, whereas the GTP prioritizes issues that will have an impact on the general populace. Both strategies are meant to assist the government in achieving its Vision 2020 aim of being a developed, high-income country.

The construction sector is a major economic driver in Malaysia and a major provider of high-quality employment opportunities for locals. Therefore, the government has periodically implemented new programs to encourage expansion in the building industry. There is a total of 149 projects planned to be implemented as part of the Economic Transformation Plan (ETP), with an estimated RM137.6 billion in gross national revenue to be produced by 2020 and 410,892 new employment to be created (BERNAMA, 2012).

Excellent project management is fueling the growth of the Malaysian construction sector, which is strengthening the country's economy. This includes everyone from the client-planner through the engineer to the contractor and the operator. Institutions for Project Management predict that between 2010 and 2020, the field of project management will expand to include 15.7 million new jobs. A solid management and control system is essential for the successful completion of most construction projects, which are moderated by instruments such as project management.

The construction sector is essential to the development of the Malaysian economy. The sector is a major employer in Malaysia, employing 1.2 million people (or 9.5% of the country's total workforce). Seventy-five percent of construction workers in Malaysia are locals. Engineers, architects, planners, and surveyors are just some of the professionals that engage in the business; skilled and unskilled construction laborers are also employed there. Thousands of young Malaysians annually enroll in colleges and universities to study subjects related to the building sector. As Malaysia continues on its path to modernization, the importance of this sector of the economy will only grow (CIDB, 2007).

However, many building projects are experiencing difficulties due to inefficient management and inadequate management systems. A building project may have many difficulties due to the intricate nature of the process. That's why it's crucial to have competent project management to guarantee a successful outcome. In recent years, there has been a decline in project participants' knowledge of the need of competent project management. The results of this were costly delays in many projects. Until 15th Jun 2022, the Jabatan Perumahan Negara (JPN) in Malaysia has classified private housing projects into the categories shown in Figure (2).

Malaysia's housing construction industry has been facing challenges in terms of poor project management. These challenges have led to a series of problems such as delays in project completion, cost overruns, and poor quality of work.

One of the primary causes of poor project management is the inadequate project planning and management skills among project managers and other stakeholders. This lack of skills has led to poor project outcomes, including substandard work and incomplete projects. Secondly, a lack of proper communication channels between project stakeholders has led to misunderstandings and conflicts. These conflicts have resulted in project delays and cost overruns. The lack of communication has also contributed to project managers' inability to allocate resources effectively and to track project progress accurately.



STATISTIK PROJEK-PROJEK PERUMAHAN SWASTA MENGIKUT KATEGORI SEHINGGA 15 JUN 2022

BIL.	NEGERI	JUMLAH PROJEK BERLESEN	PROJEK BELUM MULA		PROJEK LANCAR			PROJEK LEWAT			PROJEK SAKIT		
			BIL. PROJEK	UNIT RUMAH	BIL. PROJEK	UNIT RUMAH	BIL. PEMBELI	BIL. PROJEK	UNIT RUMAH	BIL. PEMBELI	BIL. PROJEK	UNIT RUMAH	BIL. PEMBELI
1	Perlis	24	1	540	22	1,206	665	1	17	7	0	0	0
2	Kedah	237	6	1,641	203	22,039	7,896	12	1,134	772	16	2,074	1,369
3	Pulau Pinang	154	3	2,805	128	37,595	12,844	6	1,006	523	17	3,072	1,898
4	Perak	457	15	1,355	358	48,614	20,922	20	1,036	705	64	7,105	3,402
5	Selangor	892	19	4,233	743	155,602	68,689	50	12,112	7,800	80	16,618	8,050
6	Wilayah Persekutuan	191	20	17,585	137	89,671	50,915	6	1,877	1,652	28	15,239	7,899
7	Negeri Sembilan	201	1	80	169	18,498	7,259	5	178	133	26	5,988	2,008
8	Melaka	166	5	3,228	135	6,140	2,812	4	246	192	22	5,825	2,889
9	Johor	474	4	1,535	391	46,136	12,372	20	4,332	2,739	59	10,846	3,452
10	Pahang	326	5	245	263	11,939	2,456	5	418	316	53	5,660	3,342
11	Terengganu	85	14	1,121	45	1,527	401	1	64	63	25	1,623	839
12	Kelantan	116	4	2,020	59	3,960	406	5	176	108	48	5,251	1,572
	JUMLAH	3,323	97	36,388	2,653	442,927	187,637	135	22,596	15,010	438	79,301	36,720

Figure 2: The Statistic of Private Housing Projects Based on Category
Source: Jabatan Perumahan Negara

Moreover, inadequate funding and budgetary constraints have caused project managers to cut corners and compromise on quality. The pressure to complete projects within tight deadlines and budgets has led to substandard work and incomplete projects. In addition to inadequate funding, the use of outdated technology and methods in project management has hampered progress. These outdated technologies have made it difficult to meet project timelines and budgets. They have also led to an inability to track project progress accurately, making it challenging to identify potential problems early on.

Addressing the factors contributing to poor project management in housing construction projects in Malaysia is crucial for the successful completion of projects. It requires a concerted effort on the part of project managers, stakeholders, and policymakers to implement effective planning and management strategies. This includes enhancing communication channels, investing in appropriate technology and training, and allocating resources effectively. In conclusion, Malaysia's housing construction industry can overcome its challenges by adopting effective planning and management strategies. By doing so, the industry can improve project outcomes, reduce delays and cost overruns, and ensure the successful completion of projects.

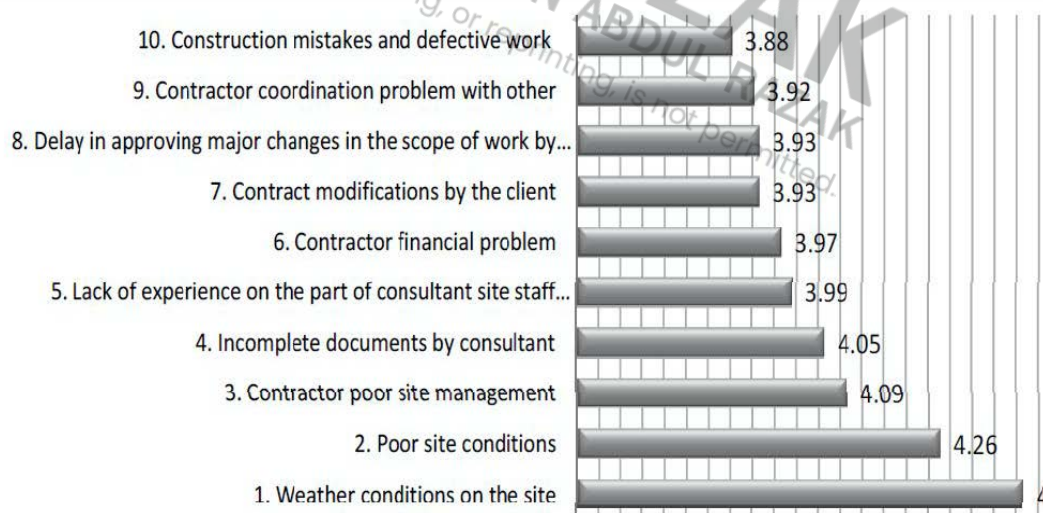


Figure 3: Problems on Construction Industry in Malaysia

1.3 RESEARCH OBJECTIVES

The research objectives are to determine what causes housing development projects in Malaysia to have poor project management. Our study's primary objective is to help

the Malaysian housing construction sector by recommending practices and approaches that will boost productivity, cut down on waste, and guarantee on-time and under-budget project completion.

Several problems with project management have plagued Malaysia's house building construction industry, leading to things like overbudgeting, missed deadlines, and shoddy results. The industry's credibility and financial stability have taken serious hits as a result of these difficulties.

A major contributing factor of poor project management is the inadequate project planning and management skills among project managers and other stakeholders. Inadequate skills lead to poor project outcomes, including substandard work and incomplete projects. This research seeks to identify the specific skills that are lacking and provide recommendations on how to address the skills gap.

Another factor contributing to poor project management is the lack of proper communication channels between project stakeholders. This lack of communication has led to misunderstandings and conflicts, resulting in project delays and cost overruns. The lack of communication has also contributed to project managers' inability to allocate resources effectively and track project progress accurately. This research aims to identify the specific communication breakdowns and provide recommendations on how to enhance communication channels among stakeholders.

Moreover, inadequate funding and budgetary constraints have caused project managers to cut corners and compromise on quality. The pressure to complete projects within tight deadlines and budgets has led to substandard work and incomplete projects. This research seeks to identify the funding and budgetary challenges facing the industry and provide recommendations on how to address them.

In addition to inadequate funding, the use of outdated technology and methods in project management has hampered progress. These outdated technologies have made it difficult to meet project timelines and budgets. They have also led to an inability to track project progress accurately, making it challenging to identify potential problems early on. This research seeks to identify the specific technologies and

methods that are outdated and provide recommendations on how to adopt new technologies that can improve project management and planning.

Addressing the factors contributing to poor project management housing construction projects in Malaysia is crucial for the successful completion projects. It requires a concerted effort on the part of project managers, stakeholders, and policymakers to implement effective planning and management strategies. This includes enhancing communication channels, investing in appropriate technology and training, and allocating resources effectively.

In conclusion, the purpose of this study is to give a thorough knowledge of the elements that lead to poor project management and a lack of planning in home building projects in Malaysia. This understanding will be achieved via the use of quantitative methods. We will provide recommendations and strategies to improve project outcomes, reduce delays and cost overruns, and ensure the successful completion of projects. By implementing these recommendations, housing construction industry in Malaysia can overcome the challenges it faces and realize its full potential.

1.4 RESEARCH QUESTIONS

According to the objective of the studies, this research questions are formulated specifically as below:

- I. How does inadequate project planning will factor poor project management on housing construction in Malaysia?
- II. How limited project management skills and knowledge will factor poor project management on housing construction in Malaysia?
- III. How inefficient project monitoring and control will factor poor project management on housing construction in Malaysia?
- IV. How do limited stakeholder and collaboration will factor poor project management on housing construction in Malaysia?
- V. How does ineffective project leadership will factor poor project management on housing construction in Malaysia?
- VI. How do resources constraints and supply chain issue will factor poor project management on housing construction in Malaysia?

VII. What does poor project management will factor on housing construction in Malaysia?

1.5 SIGNIFICANCE OF THE STUDY

The importance of the research on the variables influencing poor project management on Malaysian housing building projects is critical for various reasons. To begin with, the building sector is a big contributor to the Malaysian economy, and home development projects play an important role in providing inhabitants with affordable housing. Project delays and abandoned housing projects, on the other hand, have major economic and social effects as a result of poor project management and lack of planning (Sohu S, Ullah K, and Jhatial AA et al., 2018).

Second, the research will determine the most important characteristics that determine the success of housing building projects in Malaysia, which will allow for the creation of more efficient regulations and methods for reducing construction delays and guaranteeing the quality of finished homes. (AlSehaimi, Koskela, and Tzortzopoulos, 2013).

Third, the research will provide light on the reasons for and effects of Malaysia's housing project delays and abandonment, information that can be utilized to create more efficient risk management frameworks and tactics. Based on research (Mazurina Mohd Ali, Nur Shazwani Ab Hamid, and Erlane K Ghani,2019).

Finally, the study will add to the current literature on the variables that impact poor project management and lack of planning on Malaysian housing construction projects, which may be used to guide future research in this area.

1.6 THE ORGANIZATION OF THE STUDY

1.6.1 CHAPTER 1

Chapter 1 sets the housing building industry in Malaysia has been expanding rapidly in recent years. Poor project management have been recognized as problems in

several of Malaysia's housing development projects. An analysis of the research issue, its root causes, the study's aims, and its relevance were all discussed.

1.6.2 CHAPTER 2

Chapter 2 focuses on literature review of factor influence poor project management, the theoretical background that drives this research paper, and a detailed study on each factor that is identified in this paper under empirical study. All the variables are defined and explained based on previous researches. Finally, the conceptual model is proposed and the hypotheses for this study are outlined.

1.6.3 CHAPTER 3

Methods for quantifying the dependent, independent, and moderating factors are discussed in Chapter 3. This chapter also provides details on the study's methodology, target population, and sampling strategy. Data will be gathered primarily via a series of survey questions.

1.7 RESEARCH TIMEFRAME

A Gantt chart is constructed to prepare the study or research roadmap in order for the researcher to have a look ahead on the research work and to complete the study in stipulated time. The Research Project timeline is tentative and is subject to change according to unforeseen circumstances. (**extension of semester, postponed work, etc.**).

WEEK	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
RESEARCH PROPOSAL																				
TOPIC SELECTION																				
JOURNAL ANALYSIS																				
CHAPTER 1: INTRODUCTION																				
CHAPTER 2: LITERATURE REVIEW																				
CHAPTER 3: RESEARCH METHODOLOGY																				
REPORT PREPARATION																				
REPORT PRESENTATION																				
REPORT SUBMISSION																				
RESEARCH PROJECT (PLAN)																				
DATA COLLECTION																				
CHAPTER 4: DATA ANALYSIS																				
CHAPTER 5: CONCLUSION & RECOMMENDATION																				
REPORT PREPARATION																				
REPORT PRESENTATION																				
REPORT SUBMISSION																				

Table 1: Gantt chart for Research Paper time

CHAPTER 2

LITERATURE REVIEW

2.1 INTRODUCTION

The Malaysian housing construction has serious problems due to poor project management. A lack of quality awareness among project participants, insufficient support from senior management, poor planning, inexperienced personnel, and ineffective communication of risk management methods are all contributors.

The construction industry is one of the most important sectors in every country (Dastyar et al., 2018). However, it is the nature of construction projects to be limited by time and cost; if delays occur, projects will not be handed over in their stipulated time. Although time is crucial and critical for construction projects, there is seemingly a chronic delay problem experienced much of the time. This normally causes severe ramifications, not only in the form of financial problems or slow growth in the construction sector but also in legal problems, disputes and conflicts (Abbasi et al., 2020). This undesirable situation is a global, endemic and chronic phenomenon.

Construction projects are one-of-a-kind and may take a long time to complete, so conditions and available choices may evolve over time. Due to the long duration of projects and their multi-stage processes, beginning with the preparation and beginning of the project and ending with the implementation and final delivery of it, the project's operation and the economics of construction are negatively impacted by a number of conditions, possibilities, and uncertainties, as well as the risk of falling into the duration of the project or incurred financial or other losses (Gajewska & Ropel, 2011). According to (Alsuliman, 2019) a contractor will suffer a loss of output and revenues due to missed opportunity costs. This means that good project management and planning are crucial for ensuring the project's success and avoiding the traps that are common in building and planning (Falqi, 2004).

A selection of available published documents which contain information, ideas, data and evidence written from the standpoint of the interest of the study was reviewed extensively to fulfill the objective of the research. In regards to the interest of the

researcher on the topic, a few variables were selected as subject of the study. The dependent variable (DV) is the poor project management. The independent variables (IV) are from inadequate project planning, limited project management skill and knowledge, inefficient project monitoring and control, limited stakeholder collaboration, ineffective project leadership and resources constraints and supply chain issues. This chapter explains the underpinning theory that support this study, explains each and every stress that are identified for the interest of the study as well as proposes a conceptual framework for the research.

2.2 THEORETICAL FOUNDATION

The construction industry in Malaysia has been experiencing significant growth in recent years due to rapid urbanization and population growth. However, despite this growth, the industry still faces challenges in delivering quality housing construction projects on time and within budget. Poor project management have been identified as the root causes of these challenges.

Poor project management often characterizes housing construction projects in Malaysia, which is characterized by a lack of clear project objectives, inadequate resource allocation, poor communication, and lack of accountability. These factors contribute to delays in project completion, cost overruns, and poor-quality workmanship. Delayed projects lead to increased costs, which ultimately affect the end product's quality and negatively impact the industry's reputation.

According to the Project Management Institute, a project is "an endeavor undertaken to bring about a special product, service, or result for which there is a defined beginning and end." It is time to wrap up a project when its objectives have been met, it is obvious that they cannot be met, or the necessity for it has gone. The results of most projects are intended to endure for a long time; if the project calls for building a monument, for example, the structure itself will likely stand for millennia. So, "temporary" doesn't necessarily mean "short-term" or that the project's output will be consumable in a short amount of time. The efforts themselves may be outweighed by their potential long-term repercussions on society, the economy, and the environment (Snyder, 2014).

Lack of planning, on the other hand, is linked to poor project design, inadequate risk assessment, and failure to identify potential challenges during the project lifecycle. This results in delays, budget overruns, and poor-quality work. Lack of planning is also a significant cause of rework. Rework leads to increased costs, which ultimately affect the end product's quality and the industry's reputation.

The construction industry is an industry which involves various stakeholders consist of clients, consultants and, contractors. According to (Jatarona et al, 2016); (Samarah and Bekr, 2016); (Ullah et al, 2017) these stakeholders play an important role to achieve a successful project. (Jatarona et al, 2016) opined that the responsibilities and the accountability carried by each party determine the success of a project. (Oppong et al. 2017) also share the same opinion that the performance of the construction industry stakeholders will influence the project result whether the project would be a successful or a failure.

Effective project management procedures and good planning approaches may help the Malaysia housing building sector meet these problems. Project management best practices include setting attainable goals, maintaining open lines of communication, performing frequent checks and balances, and mitigating any dangers. Projects in the construction sector need to be managed more efficiently so that they may be completed on schedule and within budget. The quality, cost, and schedule of a project may be guaranteed by using proper planning procedures to assure its design and construction. All parties involved, from project managers and contractors to policymakers, must work together to implement efficient methods of project management and sound planning. By standardizing on these procedures, the house building sector can complete projects on time and within budget without sacrificing quality. Recommended project management standards and adequate planning approaches in the building sector should be enforced by the government via policy and regulatory frameworks. The government should also provide favorable conditions for the sector to expand.

2.3 EMPIRICAL RESEARCH

As the Malaysian economy has expanded rapidly over the last several decades, so has the country's building sector. Nonetheless, poor project management remain obstacles that must be addressed despite the increase. These difficulties have caused a broad variety of issues in Malaysia's housing construction projects. This study's overarching goal is to investigate how these difficulties have an effect on building homes in Malaysia.

In this investigation, we will combine quantitative and qualitative techniques. Project managers in the Malaysian housing construction industry will be polled for the quantitative study. Information on project management methods, planning procedures, and final results will be gathered via this survey. In order to better understand the difficulties project manager experience while overseeing the housing construction, this qualitative study will incorporate interviews with those managers.

Statistical software and thematic analysis will be used, respectively, to examine the survey and interview data. The research will result in a report with suggestions for better project management and planning in the Malaysian housing construction sector.

The report will be an important contribution to the understanding of the challenges faced by project managers in the housing construction industry in Malaysia. It will provide valuable insights into the impact of poor project management on project outcomes and will help to identify strategies for improving project management practices and planning processes in the industry.

The research will also have major repercussions for Malaysia's construction sector. It will aid project managers in comprehending the difficulties they confront and provide advice on how to enhance project management procedures and strategic preparation. In addition, it will help advance Malaysia's construction sector by raising the bar for the standard of Malaysia's residential building projects. Poor project management methods are common challenges in Malaysian housing construction projects. The following factors contribute to these issues:

2.3.1 INADEQUATE PROJECT PLANNING

Poor project management is a major problem for Malaysia's residential building sector. A lack of a complete project plan that describes everything from the project's scope and budget to its timeline and risk mitigation strategies is a common cause of poorly executed projects. Improper communication and coordination among architects, engineers, contractors, and subcontractors may also contribute to poorly conceived plans for the project. Manual scheduling and budgeting are only two examples of how antiquated methods of managing projects may lead to haphazard preparations. Reference: (Abdul-Rahman, H., C. Wang, and O. Mohamed, 2015).

Building Information Modeling (BIM) and Lean building are two examples of cutting-edge project management technologies and practices that need to be used in Malaysia's home building sector to overcome poor project planning. Tools like this may help constructors better interact with one another, create more accurate schedules and plans, and cut down on waste and inefficiency. Sustainability and energy efficiency are two additional factors that must be taken into account while developing a project. As reported by (Othman et al., 2017)

The planning stages of a project do not end just because construction has begun. The following is how the forethought intervals are characterized (Hoseini, 2015):

- Initiation planning: From the perspective of the owner association, initial scope definition and budget preparation are common components of the initiation planning process (Lines et al., 2015).
- Following the completion of the budget and scope phases, the project enters the preconstruction planning phase. The design, planning, and award phases are all potential components of the preconstruction stage (Lines et al., 2015).
- Planning may take place throughout the execution stage of construction, which includes everything done after the start and end of preconstruction planning (Lines et al., 2015).

Time management and planning culminate in the project schedule, as stated by PMI (2013) and (Lines et al., 2015). The project manager may monitor the time spent on

each activity using this schedule (Westland, 2007). As was previously said, venture planning is a comprehensive notion that takes into account a wide variety of perspectives. The following chart illustrates the final outcome of venture planning: the project schedule.

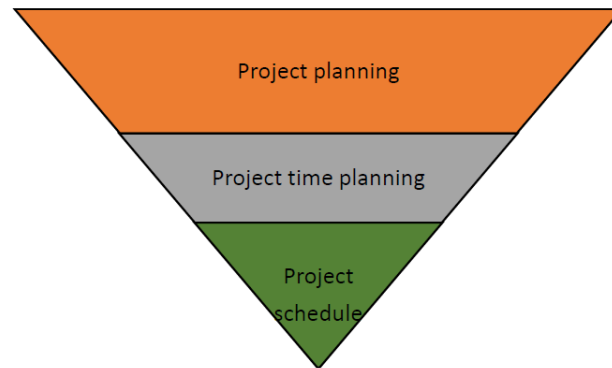


Figure 4: Project Planning Concept (Lines et al.,2015)

2.3.2 LIMITED PROJECT MANAGEMENT SKILLS AND KNOWLEDGE

The housing construction industry in Malaysia may face difficulties due to a lack of project management expertise. Management techniques for MHPs must be distinct from those used for more conventional construction projects. For this reason, it's crucial to have a clearly defined set of key competencies that enable the project manager to effectively lead administrative staff, supervisors, foremen, skilled and non-skilled labor, subcontractors, and suppliers through the application of acquired knowledge, skills, values, ethics, and personality traits. In conclusion, the house building business in Malaysia faces a potential obstacle caused by a lack of project management skills and expertise. Risk management, stakeholder management, construction technology management, and value and risk management are all essential to finding a solution to this problem. (Frank Fugar, Emmanuel Adinyira, Divine Kwaku Ahadzie, 2014).

According to several researches on this particularly on project management skills, Effective project management is crucial in the housing construction industry to ensure timely completion, quality craftsmanship, and cost control. However, many professionals in the field often face challenges due to limited project management

skills and knowledge. This article aims to highlight the importance of developing and enhancing project management competencies in the context of housing construction.

By addressing these limitations, professionals can navigate complexities, mitigate risks, and achieve successful outcomes in their projects.

- **Identifying the Knowledge Gap**

One of the primary reasons for limited project management skills in housing construction is the knowledge gap. Many professionals enter the industry with technical expertise but lack formal training or education in project management principles and methodologies. This gap often leads to inefficiencies, communication breakdowns, and project delays. Recognizing this deficiency is the first step towards improvement.

- **The Role of Project Management in Housing Construction**

Project management encompasses planning, organizing, controlling, and coordinating activities to achieve project goals. In housing construction, it involves various stakeholders, including architects, contractors, suppliers, and regulatory authorities. A project manager must possess skills in scope management, cost estimation, scheduling, risk assessment, and communication to ensure successful project delivery.

- **Professional Development Opportunities**

Professionals in housing construction can bridge the knowledge gap through various professional development opportunities. They can pursue certifications such as Project Management Professional (PMP) or Construction Project Management (CPM) to gain comprehensive knowledge and recognized credentials. Additionally, attending workshops, seminars, and industry conferences can provide valuable insights and networking opportunities.

- **Collaborative Approach and Communication**

Successful project management in housing construction requires effective communication and collaboration among all stakeholders. Project managers

must establish clear lines of communication, set realistic expectations, and ensure all parties are aligned with project goals. Regular meetings, progress reports, and collaborative software tools can streamline communication and enhance project outcomes.

- **Embracing Technology**

Adopting construction project management software and technology can significantly improve efficiency and streamline processes. Tools such as Building Information Modeling (BIM), project scheduling software, and cloud-based collaboration platforms enable real-time data sharing, document management, and seamless coordination among team members.

- **Risk Management and Contingency Planning**

Design revisions, material shortages, bad weather, and noncompliance with regulations are just a few examples of the hazards that might arise during the housing construction. Proactively seeing risks, planning for them, and taking measures to lessen their impact are all hallmarks of successful project management. Costly delays and interruptions may be avoided with proper risk assessment, monitoring, and routine project review.

- **Continuous Improvement**

Project management skills and knowledge in housing construction should be viewed as a continuous learning process. Professionals must stay updated with industry trends, regulations, and best practices. Engaging in ongoing professional development, joining industry associations, and seeking mentorship can contribute to enhancing project management expertise.

2.3.3 INEFFICIENT PROJECT MONITORING AND CONTROL

The housing construction industry in Malaysia has serious difficulties due to ineffective project monitoring and supervision. Delays, cost overruns, and subpar building result from insufficient monitoring and management. Multiple researches have pointed out the significance of risk management systems in avoiding housing projects being

abandoned. Affordable housing developments can only be completed with careful monitoring and management. Due to a lack of funds and the inefficiencies of the public sector, especially in developing countries, public-private partnerships have gained popularity as a method for housing development projects (Zayyanu.M, Foziah Johar, 2019).

The use of modern technologies, such as cloud monitoring management architecture and information modeling technologies, can improve project monitoring and control. Furthermore, the implementation of risk management processes throughout the construction of mega housing projects can improve the efficiency of project monitoring and control. The application of linear programming can also help in the efficient management of housing construction projects (Arkady N. Larionov, 2023)

Research has been done to identify the inefficient project monitoring and control in housing construction can lead to numerous issues and challenges throughout the project lifecycle. Some of the common problems associated with inefficient monitoring and control include cost overruns, schedule delays, poor quality of work, and inadequate communication among project stakeholders. Here are a few specific aspects that can contribute to inefficiency:

- **Lack of a comprehensive project plan**

A project plan serves as a roadmap for successful project execution. Without a well-defined plan, it becomes challenging to monitor and control the project effectively. A detailed plan should include clear objectives, a breakdown of tasks, timelines, resource allocation, and risk management strategies.

- **Inadequate progress tracking**

Monitoring the progress of construction activities is crucial to ensure that work is on schedule. However, inefficient monitoring practices, such as infrequent site visits or incomplete documentation, can make it difficult to accurately assess progress. This can lead to delays going unnoticed and hamper timely decision-making.

- **Weak communication channels**

Effective communication among project team members, contractors, suppliers, and clients is vital for successful project delivery. Inefficient communication channels, such as delayed or unclear information sharing, can result in misunderstandings, errors, and rework. It is important to establish regular communication mechanisms to address concerns, provide updates, and ensure everyone is on the same page.

- **Inadequate resource management**

Poor allocation and management of resources can significantly impact project efficiency. This includes issues like incorrect estimation of material quantities, delays in procuring necessary resources, or inadequate supervision of labor. Insufficient resource planning can lead to cost overruns, project delays, and compromised quality.

- **Ineffective change management**

Changes are inevitable in construction projects, but if not properly managed, they can disrupt the project's progress. Inefficient change management processes, such as lack of formal change request procedures or failure to assess the impacts of changes, can lead to scope creep, increased costs, and delays.

- **Insufficient quality control**

Quality control is crucial in housing construction to ensure that the work meets the required standards and specifications. Inefficient monitoring of quality control processes, such as infrequent inspections or inadequate documentation of defects, can result in substandard work, rework, and customer dissatisfaction.

To address these inefficiencies, it is essential to implement effective project monitoring and control practices. This includes establishing clear project objectives, developing a comprehensive project plan, implementing robust progress tracking mechanisms,

fostering effective communication channels, optimizing resource management, implementing change management procedures, and ensuring rigorous quality control processes. Regular evaluation of the project's performance and feedback from stakeholders can help identify areas of improvement and allow for timely corrective actions.

2.3.4 LIMITED STAKEHOLDER COLLABORATION

According to the stakeholder theory, people with vested interests (or "stakes") in an organization play a crucial role in keeping it running by engaging with and providing resources to it via their actions (Boatright, J. 1994) et al. It's a framework for understanding how companies behave in relation to the many groups into which they are woven. To better comprehend stakeholder interactions, researchers have focused on developing a theory that defines the stakeholder notion and organizes stakeholders into several groups.

For Freeman, a stakeholder is "any group or individual who can affect or who is affected by the achievement of the firm's objectives." He defines a stakeholder as "anyone whose material or immaterial interests are directly or indirectly affected by the decisions made by a company." (Waddock, 2002) suggests that these components are further bound together by a tie or tether. The forms of stakeholder impact, as well as the organizational reactions to those influences, must be known in order to develop a stakeholder theory of the organization. Every business has its own special group of stakeholders, which add up to its own distinct spheres of influence. As shown by (Ambler and Wilson, 1995), companies do not only react to the impact of any one stakeholder but rather to the interplay of various forces from across the board.

The lack of cooperation amongst different parties is a major problem in Malaysia's housing construction sector. Successful home development projects need cooperation among many parties, including the corporate sector, non-governmental groups, international organizations, foreign governments, and local communities. Numerous researches have pointed out the significance of stakeholder participation in residential building projects. The significance of collaborative techniques in fostering the adoption

of green procurement for building projects was recently brought to light (Zafikha, Asma Alia, Natasha Khalil, 2022). (Xue Lin, Christabel M. F. Ho, Geoffrey, 2018) shed light on how stakeholders may work together to address social responsibility concerns during building projects. Collaborating is a major subject in the research on stakeholder interactions in off-site construction (B.N. Nguyen, K. London, & Peng Zhang, 2021).

In conclusion, limited stakeholder collaboration is a significant challenge in the housing construction industry in Malaysia. Addressing this issue requires effective stakeholder engagement and collaboration strategies, including the development of a common vision, values, and purpose, bridging strategies, and multiple strategies to engage stakeholders.

2.3.5 INEFFECTIVE PROJECT LEADERSHIP

Effective project leadership is critical for the success of any project, including housing construction projects. Unfortunately, some projects suffer from ineffective leadership, which can lead to delays, cost overruns, and poor-quality outcomes. In the case of the housing construction project we are examining, it is clear that the project leadership has been ineffective.

The project is behind schedule, over budget, and there have been numerous quality issues. The delay in completing the project not only means that the project is not delivered on time but also that the stakeholders have to wait longer to realize the benefits of the project. It also means that the project has to spend more resources on the project, which could have been avoided if the project was completed on time.

One of the key problems with the project leadership is a lack of clear direction and communication. The project manager has not set clear goals or expectations for the team, which has led to confusion and miscommunication. This has also resulted in a lack of accountability among team members, as there are no clear metrics or targets to measure progress. Another issue with the project leadership is a failure to manage risk effectively. The project manager has not identified and mitigated potential risks,

which has led to costly delays and rework. For example, there was a delay in obtaining necessary permits, which could have been avoided with better risk management.

Ineffective project leadership is a significant challenge in the housing construction industry in Malaysia. Effective project leadership is essential for successful housing construction projects, as it involves managing project teams, stakeholders, and resources to achieve project goals. Several studies have highlighted the importance of effective project leadership in housing construction projects (Ogunsemi et al. ,2015).

Commended the role of top management in fostering a safe environment on building sites. leadership's role in fostering quality management in residential building projects was underlined. recognized the value of strong leadership in encouraging community participation in new housing construction projects (Adabre & Chan, 2018).

In conclusion, ineffective project leadership is a significant challenge in the housing construction industry in Malaysia. Addressing this issue requires the development of effective leadership competencies, including transformational leadership, ethical leadership, safety leadership, quality leadership, and stakeholder leadership.

2.3.6 RESOURCE CONSTRAINTS AND SUPPLY CHAIN ISSUES

Resource shortages and supply chain problems are major obstacles for the Malaysian housing construction sector. These difficulties are being felt most keenly in the house development project, one of the most important parts of the national economy. The building industry is vital to any nation's progress, and these problems must be resolved if the housing market is to keep up with rising demand.

The shortage of qualified workers is a major bottleneck that has delayed the house development project. The construction sector relies heavily on human labor, making the current scarcity of competent workers a major problem. Low salaries, competition from other nations, and out-migration of talented employees all contribute to a labor shortage. The rising demand for residential building projects necessitates more funding for technical education and training within the construction sector.

Another resource constraint is the limited availability of raw materials. The construction industry requires a large amount of raw materials such as cement, steel, and timber. However, the supply of these materials is often limited, which leads to price fluctuations and delays in construction projects. The government must increase the availability of raw materials by investing in the production of these materials locally. This will ensure a steady supply of raw materials and reduce the dependence on imports, which is a significant contributor to delays in housing construction projects.

Resource constraints and supply chain issues are significant challenges in the housing construction in Malaysia. The availability and steady supply of construction materials, such as sand, clay, and gravel, are critical factors in housing construction projects. Financial constraints, including the availability of easy and low-interest rate loans, also affect the affordability of housing construction projects (Bara Saab, Saad Farhan, Mushtaq Ahmad, 2022). The construction supply chain is also a critical factor in affordable housing construction projects. Developing linkages between affordable housing problems and construction supply chain problems is essential to address these challenges. Supply constraints, such as limited availability of construction materials and government regulations, affect the level of new construction and responsiveness of investment to house prices (Andrew D. Paciorek, 2012).

In addition, Malaysia's housing construction project is experiencing serious problems with its supply chain. Lack of communication between the project's many players is a major bottleneck. The building schedule suffers as a result of this lack of coordination, which causes supplies and equipment to arrive late. Better coordination and cooperation among the government, contractors, suppliers, and employees is essential for solving this problem.

Another supply chain issue is the lack of transparency in the procurement process. The procurement process is often non-transparent, which leads to corruption, favoritism, and delays in the delivery of materials. A transparent procurement process is essential to ensure that the materials are delivered on time and at the right price. The government must create a transparent procurement process that allows for fair competition among suppliers and contractors.

In conclusion, housing construction project in Malaysia is facing significant resource constraints and supply chain issues that impact the construction timeline, increase project costs, and affect the quality of the final product. Therefore, it is crucial to address these issues by investing in technical education, improving the coordination between stakeholders, and increasing transparency in the procurement process. By addressing these challenges, the housing construction industry in Malaysia can meet the growing demand for housing and contribute to the country's economic development.

2.3.7 POOR PROJECT MANAGEMENT

The Malaysian building sector and individual homeowners might lose a lot if housing projects are poorly managed. One of the most common issues with projects is that they go behind schedule. The duration of building projects often runs over schedule because to poor scheduling and insufficient planning. As a consequence, labor and material costs may rise as the project duration grows. Homeowners may have to keep paying their rent or mortgage or face an uncertain housing situation.

Inadequate planning and forecasting of project costs may lead to overruns. Reasons for this include inadequate budgeting, unanticipated site circumstances, and fluctuating material prices. Homebuyers may experience financial hardship if they are required to pay more than was originally agreed upon. Quality Control: Construction quality might suffer if projects are rushed or mismanaged. Homeowners should be aware that structural concerns, safety dangers, and continuing maintenance issues might result from using low-quality materials or shoddy workmanship. This not only decreases the value of the property but also affects the convenience and security of the inhabitants.

Legal troubles and penalties may arise from disregard for environmental standards, construction licenses, and ordinances. Liability issues for both builders and homeowners might arise from insufficient documentation or inappropriate inspections due to poor project management. It is essential for all parties involved in a building project to communicate effectively with one another. Misunderstandings,

miscommunication, and disagreements among contractors, subcontractors, architects, and homeowners are common results of ineffective project management. This may cause the project to be delayed even further and lead to expensive legal fights.

It's important to anticipate and deal with any problems that may arise with a project. Threats to building progress include things like bad weather, a lack of available workers, and problems with the supply chain. Failure to prepare for potential disruptions might hinder recovery efforts. Scope creep occurs when unplanned new work is introduced to a project without enough planning or budget modifications. This may put a burden on available resources, drive up prices, and push back the completion date. That's why it's important to make sure you're not wasting time or money by allocating resources like manpower, machinery, and supplies poorly. Higher building costs and, by extension, higher home prices for purchasers might come from inefficient use of resources.

Productivity and efficiency might be hampered if contemporary construction management systems are not used. Project management, communication, and early problem detection may all be facilitated by using cutting-edge software, tools, and data analytics. The environment and the well-being of the construction crew are only two of the many social and economic factors that might be overlooked due to poor project management. A company's image might be harmed if its leaders choose to ignore these concerns. Dissatisfied clients are the end result of sloppy project management. Project delays, budget overruns, and quality difficulties may lead to irritation, worry, and financial obligations for homeowners. The construction firms and the industry's reputations might suffer as a result.

Comprehensive planning, risk assessment, clear communication, and the use of cutting-edge technology are all essential components of successful project management practices that may help Malaysia solve these challenges in the house building industry. Furthermore, government laws and industry standards should be implemented to guarantee responsibility and openness in the building business.

2.4 PROPOSED CONCEPTUAL FRAMEWORK

The conceptual model developed for this study was derived from a literature review. This study initially assumed that six (6) independent variable (iv) relationship between factors inadequate project planning, limited project management skill and knowledge, inefficient project monitoring and control, limited stakeholder collaboration, ineffective project leadership, resources constraints and supply chain issues and one (1) dependent variable (DV) which is poor project management on successful housing construction industry in Malaysia as shown in Figure 3. Each seven hypotheses as shown in the figure represents related and non-related of the contribution factors toward poor project management in housing construction.

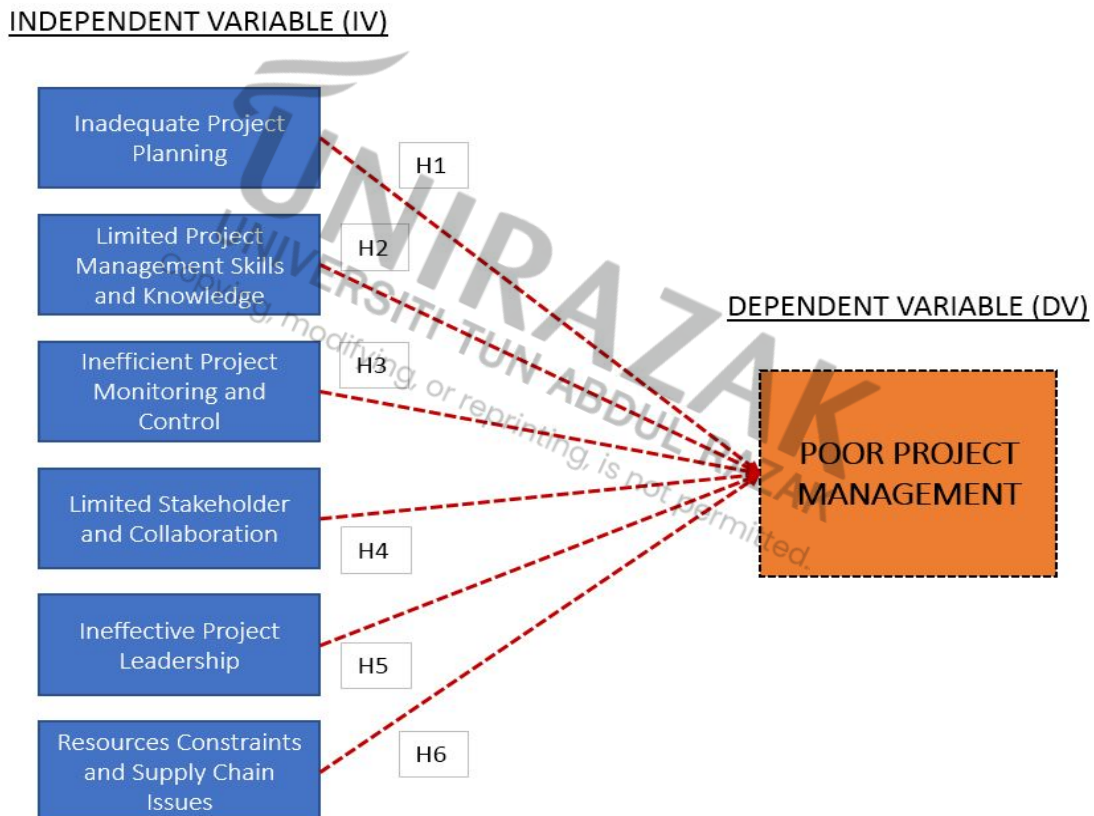


Figure 5: Proposed Conceptual Framework for Research

2.5 HYPOTHESIS DEVELOPMENT

H1: There is a significant relationship between inadequate Planning influenced the poor project management

- H2: There is a significant relationship between limited project management skill and knowledge influenced the poor project management
- H3: There is a significant relationship between inefficient project monitoring and control influenced the poor project management
- H4: There is a significant relationship between limited stakeholder collaboration influenced the poor project management
- H5: There is a significant relationship between ineffective project leadership influenced the poor project management
- H6: There is a significant relationship between resource constraints and supply chain issues influenced the poor project management

2.6 SUMMARY OF CHAPTER 2

In Chapter 2, we explain the extensive literature analysis that formed the basis for our research hypothesis on "The Factors Influencing Poor Project Management on Housing construction Projects in Malaysia." The suggested conceptual framework may give a thorough knowledge of the causes of ineffective project management and lack of planning in Malaysian housing construction projects by dissecting these seven components in detail. Managers and participants in a project may utilize this framework to better understand where they can make changes and how they can lessen or eliminate risks to the project's success. It is envisaged that this framework would help the Malaysian construction sector become more environmentally friendly and productive.

Numerous reports have examined how housing construction projects in Malaysia are affected by inadequate project management and a lack of effective planning. According to these analyses, delays, cost overruns, and shoddy building result from poor project management techniques such as insufficient coordination, communication breakdown, and ineffective leadership. Inadequate planning also causes unrealistic project timelines, incomplete and incorrect project scopes, and wrong risk assessments.

In addition, the lack of proper planning and poor project management practices often lead to conflicts and disputes between project stakeholders, including clients, contractors, and consultants. These conflicts further delay the project and lead to

additional costs. As a result, the overall cost of the project increases, and the quality of construction may be compromised.

Several studies suggest that effective project management and planning practices can mitigate the risks associated with housing construction projects in Malaysia. These practices include proper communication, risk management, stakeholder engagement and project scheduling. Effective communication ensures that project stakeholders understand their roles and responsibilities which helps to minimize misunderstandings and conflicts. Proper risk management helps to identify potential risks and develop strategies to mitigate them, which helps to minimize project delays and costs. Stakeholder engagement helps to ensure that the project's objectives align with stakeholders' needs, which helps to minimize conflicts and delays. Effective project scheduling enables project teams to complete tasks within the specified time frame, which helps to minimize delays and costs.

In conclusion, poor project management significantly affect housing construction projects in Malaysia, leading to project delays, cost overruns, low-quality construction, and conflicts between stakeholders. Therefore, it is crucial for project stakeholders to adopt effective project management and planning practices to ensure successful project completion within the specified time and budget. Failure to adopt these practices could result in significant financial losses for all parties involved. It is essential to note that the construction industry in Malaysia is constantly evolving, and it is crucial to keep up with the latest trends and best practices to ensure success.

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CHAPTER 3

RESEARCH METHODOLOGY

3.1 INTRODUCTION

This chapter discusses the technique utilized in the research and investigation study into the causes of ineffective project management in Malaysian home building projects. The importance and significance of achieving results in a certain direction that may affect the goals of the study cannot be overstated. There are many steps involved in conducting this research, the first of which is described in Chapter 3 as the research design. Here, we will determine the study's goals, research strategy, units of analysis, and time frames. The second stage will include defining the study population, outlining the sampling method, and discussing the various sampling strategies appropriate for various research aims and the factors that impact sample size. The third section explains how information is gathered and details the benefits and drawbacks of various approaches. Phase four involves defining and quantifying the intervening, dependent, and independent variables. Finally, we'll go through some data analysis methods and how to use statistical software (SPSS) to analyze the data.

Furthermore, this chapter 3 describes the statistical means and its relevant tools that are implemented for the analyses, the category of data collections, the factors which is employed to define the validity and reliability of the instruments identify the overall consistency of the constructs in the questionnaire.

3.2 RESEARCH APPROACH

This is a descriptive quantitative, cross-sectional study using a questionnaire. As per mentioned by (Hunter al,2019), the descriptive method is far better rather than other forms of research design for this and suit for this research.

Apart from this, it also helps the researcher to collect all the statistical interpretation of data, which is helpful to understand the stress factors, especially between the offshore employees in Malaysia. On the other hand, the researcher has also gone with the deductive approaches this is very much concerned with the very development of

hypothetical knowledge about objective of this current study. As per opinion by (Wardani & Kusuma, 2020), the deductive approach is very helpful to a better understanding of the main idea or concept. Another reason behind selecting this approach is that it helps to go to a profound conclusion. This research design and research approach is appropriate for this present study regarding gaining the proper knowledge about the stress factors and their impacts on the offshore in oil and gas industry. Significant types of non- experimental researches would be at least one than one of the type following classifications:

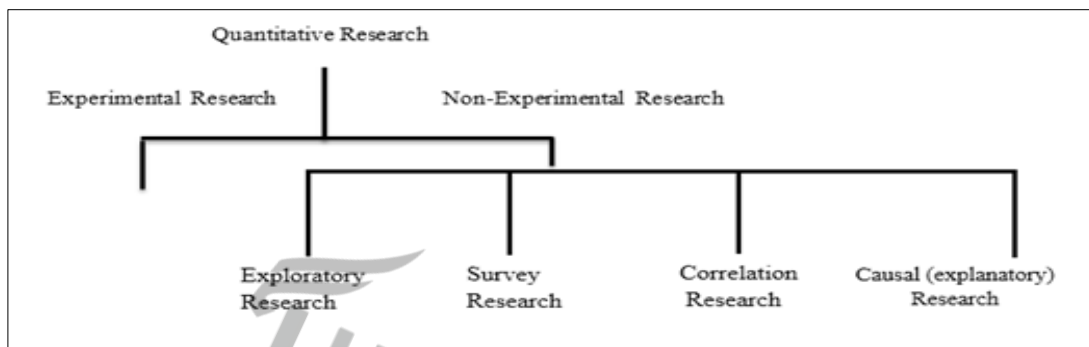


Figure 6: Type of Quantitative Researches

When doing exploratory research, priorities are established, operational definitions are created, and the study design is refined in order to address a subject that has not been researched in depth. While exploratory studies are useful for determining the most appropriate study design, data gathering, and topic selection strategies, they should be used with great care for drawing definitive results. Exploratory studies nearly usually come to the conclusion that an issue does not exist since that is their very nature. Exploratory research often makes use of secondary research techniques like literature reviews and/or data analyses, as well as informal qualitative approaches like talking to customers, employees, managers, or competitors, and formal qualitative research techniques like in-depth interviews, focus groups, projective methods, case studies, and pilot studies. Exploratory studies don't often aid in decision management, although their results may be useful in some situations. Qualitative studies are able to provide light on the "why," "how," and "when" of an event, but they are unable to reveal the "how many" or "how often" that an event occurs. This study will not use an exploratory research technique to address research questions or analyze correlations between variables since such research is seldom generalizable to a broader population. According to Shields et al. Researchers use survey data to learn more

about how people in various demographics respond to or perceive a certain phenomenon. However, correlation analysis aims to assess the strength and direction of the link between two or more variables for the same group of people.

For the purpose of establishing a relationship (or correlation) between two factors (proximity between them, not a contrast between their methods), correlations research is a quantitative investigative technique in which you have at least enough quantitative variable derived from a similar collection of subjects. Both the correlation coefficient and the correlation analysis itself do not imply which way the two variables in question are really related to one another. However, correlation research cannot determine what variable has what influence on another variable; it can only explain if two variables are associated. This has been shown to be true (Shields and Rangarjan, 2013). Studies aimed at establishing causes are often known as explanatory studies. The researcher's goal in doing a causal analysis is to better comprehend the interplay of different factors. Before calculating the change in the other variable(s), one must first observe the change in the putative cause that triggered the change. It's important to proceed with care when interpreting the findings of this kind of research, especially when the topic at hand is the inner workings of human beings, such as their views and motives. There has to be a strong correlation between cause and effect. Exploratory factor analysis is thus often utilized in this kind of research. Simply put, statistical analysis is the fundamental tool used in causal research, which tries to examine assumptions about the environment beyond the familiar logical results. Investigating potential links between events is what causal studies are all about. Causal study is necessary if one want to determine which variable, if any, may be responsible for a given behavior (Babbie, 2007).

As a result, this investigation used the causal and correlational research approach to inquire into the connection, reason, or impact of variations amongst a set of individuals (study sample).

3.3 RESEARCH DESIGN

The design and the strategies that will be use in to examine the research questions and objective are the causal types with the applied research. As the applied research

is known as to solve the current problem and directs the activity towards looking for a solving the solution in particular problem. While the causal types of the study purpose are defined as the causes of the problem which this study already knew the factors of poor project management on housing construction projects in Malaysia.

To conduct a quantitative study, researchers gather and analyze numerical data to better understand a phenomenon of interest (Browne et al., 2019). The purpose of this study is to continue investigating the causes of subpar project management and unorganized building of homes in Malaysia. In order to gather data from a large sample of respondents and analyze it statistically to discover patterns and correlations between variables, a qualitative survey design is necessary.

A research design is a blueprint for organizing and carrying out a study, and there are two main categories of research designs: qualitative and quantitative. However, qualitative approaches, also known as deductive analysis with verifying procedures, are appropriate for this investigation.

Since this is the deductive research where the means is the other previous study has been done with the related to this topic and based on those investigations and concepts, this study will come up with its own conceptual model and it will prove that the research question and the objective is actually tally with the investigation's design and analysis.

This research strategy will be the experimental strategy which this kind of strategy usually what the study is actually to follow such going through other research that has been done which related to this research topic and based on their finding and strategy where this study is going to follow and apply it in this study.

In addition, the survey-by-questionnaire approach will be useful for this study's investigation; researchers will compile data and information about participants to describe their ideas, concepts, comments, and suggestions in light of what they know, how they feel, and what they do in the course of the investigation. This research might also make use of observation and measurement, which involves gathering data in a natural environment.

Data is being collected at the individual level in specific companies within a certain sector. However, the time frames will be from cross-sectional research with a representative sample as it is a snapshot of components at a specific moment.

3.4 STUDY POPULATION AND SAMPLING PROCEDURES

The Klang Valley, which includes the cities of Kuala Lumpur and Selangor, is the subject of this study of the construction industry at the G7 categories and housing developer. The figure below is a summary of all contractors and their trade of registration in Klang Valley, based on data from the CIDB Centralized Information Management System (CIMS).

Grade of Contractor	Category of Projects (Project Value)	Total Numbers
G7	Unlimited	53
G6	Not more than RM 10,000,000.00	11
G5	Not more than RM 5,000,000.00	37
G4	Not more than RM 3,000,000.00	31
G3	Not more than RM 1,000,000.00	122
G2	Not more than RM 500,000.00	107
G1	Not more than RM 200,000.00	157

Table 2: CIDB Grades of Contractors in Klang Valley

The research will focus on CIDB registered contractors and developers. The group was selected because of its extensive network of suppliers, primary contractors, subcontractors, and equipment, as well as its involvement in the housing construction project. They are also selected because it is presumed that they generate more annual earnings, have more foreign employees parked under their company, and have more audited financial statements. It's common knowledge that businesses will feel the effects of recent political and economic shifts, as well as supply chain disruptions and the introduction of a "new normal," in one way or another. The project department, the contract department, the account and finance department, the human resources department, the purchasing/procurement department, and the safety and health department are all expected to provide feedback.

Employees with managerial titles and above were consulted for this study because those at the top of the company's food chain are in the best position to assess the organization's performance objectively and truthfully. The demographic for whom these questions were developed is also a good fit.

According to (Sundram et al.,2016) the term “target population” refers to the category of people the researcher is interested in studying. In this research, the size of population in the group was selected because of its extensive Consultant, Managers, primary contractors, subcontractors, and equipment suppliers, as well as its involvement in the housing construction project.

The sample population needed for this research according to Taro Yamane, 1967 [34] is n=97 with +/- 10% precision level at 95% confidence level.

Table 2. Sample size for ±3%, ±5%, ±7% and ±10% Precision Levels Where Confidence Level is 95% and P=.5.

Size of Population	Sample Size (n) for Precision (E) of:			
	±3%	±5%	±7%	±10%
3,000	811	353	191	97

Table 3: Taro Yamane Sample Population

Probability sampling will be used since the research is based on a particular population, and simple random sampling will be used because each member of the population has an equal chance of being selected and the accompanying bias is small.

3.5 DATA COLLECTION METHOD

According to Taro Yamane's sample population theory, with more than 3000 employees and contractors, only 97 valid questionnaires will be required for the reasoning and data analysis. However, as stated by (Nigell Lindemann,2021), only 33% of respondents to questionnaire-based data gathering methods really respond to the questionnaires. Hence, a set of 200 self-administered questionnaires through Google Form and will be blasted via social media apps, email, and the internet to allow for quick access for respondents, cost savings, minimal researcher interference, and the avoidance of biases.

Moreover, the survey process is more reliable considering the whole analysis getting statistical information through this selected data collection method (Ball, 2019). Based on the research objectives, there are considered quantitative research methods to get more statistical information by applying the key concepts in these concepts. It can search the genuine information considering the limited time to have better outcomes from the findings.

Due to the large number of individuals working in the Malaysian construction business who do not speak English as their first language, the questionnaire will be available in both English and Malay. A linguist who is proficient in both Malay and English will translate the questionnaire into Malay and then check the translation. This follows the back-translation approach proposed by (Brislin,1980) to guarantee accuracy of meaning. Midway through August 2023 is when we anticipate starting to gather data, and we anticipate finishing by the end of September.

Secondary data sources will also be used in the analysis of this study's results and theoretical framework. The term "secondary data" refers to information that has already been collected and is based on the work of primary researchers. Due to its accessibility, secondary data may be segmented over time. It's useful for gathering additional data, and it's a good sign that the information in the source is reliable and grounded in reality.

3.6 OPERATIONALIZATION AND MEASUREMENT

By doing this particular research, questionnaires are crucial for collecting relevant data. (Mertova and Webster, 2019) note that the quality and reliability of the data obtained are highly dependent on the questionnaire's design. The survey's three primary components are for gathering demographic data, factors influencing poor project management on housing construction in Malaysia. The questionnaire employed the standard in survey research, the 5-point Likert scale. When using the Likert 5-point scale, a statement is followed by a range of options from "Strongly Agree" to "Strongly Disagree."

Thus, the Likert scale is an appropriate tool for measuring the variables in this study on the factors influence poor project management on housing construction project in Malaysia. It consents for the gathering of quantitative data on attitudes and perceptions, which can be analyzed using statistical methods. However, it is important to consider its limitations, such as the assumption of equal distance between response options and the potential for oversimplifying participants' attitudes and perceptions. Overall, the Likert scale is a valuable tool in survey research and has been widely used in various fields, including business, education, and psychology. Hence, the summary of the measurements within this study are as follows:

5	4	3	2	1
Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree

Table 4: 5 Point Likert Scale

3.6.1 VARIABLE AND MEASUREMENT/INSTRUMENT

This section is divided into two main discussions, namely: (i) the development of the questionnaire as the instrument and the measurement used and (ii) the pilot test carried out on the proposed questionnaire. The variables and measurements are the key attributes of the research that support the bowler interpretation process to identify the variables which are related to the research objectives respectively.

The research measurement used in this study is the closed-ended questionnaire. The questionnaire is adapted from several of previous research. The questionnaire is divided by nine (8) section which are Section 1 until section 8 as a below description:

Section 1: Demographic information consist of ten (10) question [Gender, Age group, Race, Highest Education, Field of Study, Area Workplace, Field of Work, Role at Workplace, Years of Experience and Average Monthly Income]

Section 2: Consisting of five (5) questions related to inadequate project planning factors

Section 3: Consisting of five (5) questions related to limited project management skill & knowledge factors

Section 4: Consisting of five (5) questions related to inefficient project monitoring factors

Section 5: Consisting of four (4) questions related to Limited Stakeholder and collaboration factors

Section 6: Consisting of four (4) questions related to ineffective project leadership factors

Section 7: Consisting of five (5) questions related to Constraints resources & supply chain factors

Section 8: Consisting of five (5) questions related to Poor Project Management factors

All questionnaires used in this research were not simply constructed by the researcher, but they were adopted from established instrument and extract to be used by many researchers before. **Section 2** questionnaire for this inadequate project planning was adopted and adapted from (Duran, 2006). **Section 3** questionnaire for this limited project management skills & knowledge was adopted and adapted from (A. Khamaksorn, 2018) and (Hwang and Ng, 2013). **Section 4** questionnaire for this Inefficient project monitoring was adopted and adapted from (Arif and Sumbal, 2021). **Section 5** questionnaire for this Limited Stakeholder and collaboration factors was adopted and adapted from (Liu et al., 2021). **Section 6** questionnaire for this ineffective project leadership factors was adopted and adapted from (Liu et al., 2021). **Section 7** questionnaire for this Constraints resources & supply chain factors was adopted and adapted from (Md. Al Amin, Azizur Rahman, Asef Shahriar, 2020). **Section 8** questionnaire for this Poor Project Management factors was adopted and adapted from (Siti Zawani, 2012).

The conceptual framework that was built for this case study does a good job of laying out all of the factors at play. The results of this investigation will be affected by the variables under research in unique ways. The investigation is moving in a logical path, with few detours, thanks to the well-crafted framework and carefully documented assumptions. Because of this, no needless effort or materials have been wasted.

3.7 DATA ANALYSIS TECHNIQUES

The technique of data analysis is a crucial part to the research and the researcher should be able to identify the right *modus operandi* in order to get the desired results. It is the application of logic to comprehend a subject base on Lynn Westbrook- Qualitative Research Method (2020). The data analysis technique may include identifying a coherent pattern and summarizing the pertinent information revealed by the study. The researcher must be able to choose the best course of action for data analysis in order to achieve the study's goals. It's using your head to figure things out. Methods for analyzing collected data could involve drawing conclusions and synthesizing the study's findings. IBM's Statistical Package for the Social Sciences (SPSS) version 28.0.1 will be used to conduct statistical analyses on the questionnaire data, including analyses of reliability, description, frequency distribution, correlation, and multiple regression.

3.7.1 REALIBILTY ANALYSIS

The data gathered from the survey will be put through a reliability test to see whether or not it can be relied upon for the analysis. (Ursachi, Horodnic, and Zait,2013) state that determining an acceptable margin of error is necessary prior to data analysis. Type 1 error is a common measure of what constitutes an acceptable margin of error. Multiple-question surveys using Likert scale answers may be checked for reliability with Cronbach's alpha. Cronbach's alpha should fall anywhere between 0 and 1, with a cutoff of 0.7 set by (Hair Jr., Black, Babin, & Anderson, 2014).

Cronbach' Alpha	Internal Consistency
< 0.6	Poor
0.6 to < 0.7	Moderate
0.7 to < 0.8	Good
0.8 to < 0.9	Very Good
≥ 0.9	Excellent

Table 5: Interpretation of Cronbach's Alpha

3.7.2 DESCRIPTIVE AND INFERENCEAL STATISTIC ANALYSIS

Descriptive and inferential statistics are used in the vast majority of human subject research. To help explain, analyze, and summarize data in a quantitative and constructive way so that patterns might emerge that meet all requirements of the data that had been obtained, descriptive analysis is a sort of data analysis. It will not be possible to draw any firm conclusions about the hypotheses tested in this study based only on the results of the descriptive analysis. They are only a notational convention for describing data in terms of the population from which it was drawn. That's why it's important to complement descriptive analysis with inferential analysis, a method for extrapolating from data collected from a sample to the larger population from which it was derived. Quantitatively utilizing means and standard deviations of this study, we will examine the percentages and frequency of each variable of the respondents, while an inferential analysis based on secondary data will provide a more exact and trustworthy analysis.

Level	Mean Score
Low	1.00 – 2.33
Moderate	2.34 – 3.67
High	3.68 – 5.00

Table 6: Mean Score Level for Descriptive Analysis

3.7.3 FREQUENCY DISTRIBUTION ANALYSIS

(Gravetter FJ, Wallnau LB, 2000) describe a frequency distribution as "a tabular or graphical representation of the number of individuals in each category on a scale of measurement." Creating a frequency distribution is a common method for organizing data. It is described as "a representation of the number of individuals in each category on a scale of measurement." It provides a visual representation of how the individual observations are distributed over the measuring scale and enables the researcher to quickly and easily survey the whole dataset. To determine the distribution of answers over all possible values for a single variable and to determine which demographic groups make up the majority and which do not, a frequency analysis will be conducted.

3.7.4 CORRELATION ANALYSIS

The link between the study's independent variable and dependent variable will be explored and determined via the use of a correlation analysis, which will be included into the study. The correlation between two continuous quantitative variables is measured using the Person's method. The Pearson correlation, as stated by (Guildford,1973), is a statistical method for evaluating the linear association between two variables. A number of -1 indicates a completely negative linear correlation, 0 indicates no connection at all, and +1 indicates an ideal correlation. It proves there is a connection between the two factors.

R	Strength of Relationship
<0.20	Almost negligible
0.20 – 0.39	Low correlations, definite but small relationship
0.40 – 0.69	Moderate correlation with substantial relationship
0.70 – 0.89	High correlation; marked relationship
>0.90	Very high correlation; very dependable relationship

Table 7: Correlation Table Analysis

3.7.5 MULTIPLE REGRESSION ANALYSIS

Finally, multiple regression analysis will be conducted to study the significant level of relationship between contribution factors as the importance of each of the variables to the relationship.

3.8 SUMMARY AND CONCLUSION CHAPTER 3

This chapter provides a thorough analysis of the researcher's methodologies and tactics for gauging the dependent and independent variables. This chapter also included discussions on the study's methodology, demographic, sampling method, reliability analysis, descriptive & inferential analysis, frequency distribution analysis, correlation analysis and multiple regression.

CHAPTER 4

DATA ANALYSIS AND RESULTS

4.1 INTRODUCTION

This chapter presents the results of data analysis based on Chapter 4's research objective. The instrument used and data obtained were evaluated first before they were analyzed. The data were analyzed using version 28.0.1 of SPSS. Inferential analysis was used to test all hypotheses in this study, whereas descriptive analysis was used to examine the 101 respondents' demographics and to the factors influencing poor project management on Housing construction projects in Malaysia's.

Questionnaire Dimensions		No. of Item	Relationship
Section 1	Demographic Profile	10	-
Section 2	Inadequate Project Planning	5	IV
Section 3	Limited project Management Skills & Knowledge	5	IV
Section 4	Inefficient Project Monitoring and Control	5	IV
Section 5	Limited Stakeholder and Collaboration	4	IV
Section 6	Ineffective Project Leadership	4	IV
Section 7	Resources Constraints and supply Chain Issues	5	IV
Section 8	Poor Project Management	5	DV
Total Items		43	

Table 8: Summary of Questionnaire Dimensions

4.2 FREQUENCIES ON DEMOGRAPHIC PROFILE

In this study, 200 questionnaires were distributed to professional bodies like Architects, Engineers, Quantity Surveyor, Contractor and Building Material Suppliers also others within Malaysia construction industries. However only 101 questionnaires were returned representing the result on this research. The result of the analysis performed on data that had been collected and were analysed using SPSS version 28.0.1. The respondents background information consists of gender, age group, race, highest level of education, field of study, area of workplace, field of work, role of

workplace, year experience and monthly income. The demographic data of respondents been analysis with frequency is presented in Table 9 below.

4.3 SECTION 1: DEMOGRAPHIC ANALYSIS

This research mainly follows the "primary quantitative method" regarding all the gathered data. There are ten (10) specific categories under the demographic information consisting of [Gender, Age group, Race, Highest Level Education, Field of Study, Area Workplace, Field of Work, Role at Workplace, Years of Experience and Average Monthly Income] as table shown below:

Demographic Variable	Categories	Frequencies	Percentage (%)
Gender	Male	70	69.3%
	Female	31	30.7%
Age Group	Age 21 – 30	9	8.9%
	Age 31 – 40	34	33.7%
	Age 41 – 50	40	39.6%
	Age 51 – 60	16	15.8%
	Above 60	2	2.0%
Race	Malay	82	81.2%
	Chinese	16	15.8%
	Indian	2	2.0%
	Others	1	1.0%
Highest Level Education	Certificate/Diploma	12	11.9%
	Bachelor's Degree	47	46.5%
	Master's Degree	29	28.7%
	Ph.D	2	2.0%
	Other Professional Qualification	9	8.9%
	Others	2	2.0%
Field of Study	Architecture	45	44.6%
	Engineering	10	9.9%
	Quantity Surveying	4	4.0%
	Building Construction	5	5.0%
	Project Management	8	7.9%
	Others	29	28.6%
	Area of Workplace	Kuala Lumpur	58
Selangor		31	30.7%
others		12	11.9%
Field at Workplace	Contractor's	5	5.0%
	Architect's	35	34.7%
	Engineer's	11	10.9%
	Contract/Quantity Surveyor	3	3.0%
	Project Manager's	17	16.8%
	Others	30	29.6%
Role of Workplace	None Executive Level	8	7.9%

	Executive Level	35	34.7%
	Manager Level	30	29.7%
	Top Management	21	20.8%
	Others	7	6.9%
Years of Experience	Below 5 Years	27	26.7%
	Between 6 Years – 10 Years	20	19.8%
	Between 11 Years – 20 Years	35	34.7%
	20 Years and above	19	18.8%
Average Monthly Income	Below RM 5000	15	14.9%
	Below RM 5001 – RM 10,000	53	52.5%
	Below RM 10,001 – RM 20,000	24	23.8%
	RM 20,001 and above	9	8.9%

Table 9: Demographic Profile (n=101)

4.3.1 GENDER

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Female (Perempuan)	31	30.7	30.7	30.7
	Male (Lelaki)	70	69.3	69.3	100.0
Total		101	100.0	100.0	

Table 10: Demography Gender

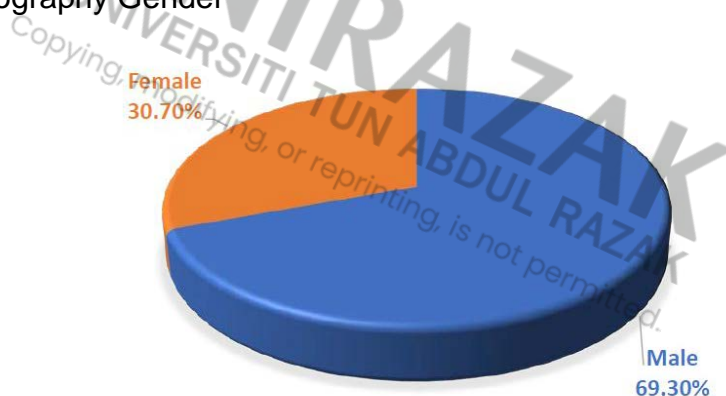


Figure 7: Gender

The next demographic table mainly represents the gender of the respondents. It can mainly be observed that there have 70 respondents (69.3%) males in this present research work whereas the 31 respondents (30.7%) were female participants. Henceforth, more male has taken an effective part in this survey, which is as compared to the female counterpart of this research as this is due to Male are monopoly group professional bodies like Architects, Engineers, Quantity Surveyor, Contractor and Building Material Suppliers also others within Malaysia construction industries. This helps in the gathering of the relevant data on the mentioned topic of this research

study. The participant of male and female helps to collect appropriate data based on the provided topic of this research work.

4.3.2 AGE GROUP

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	21-30	9	8.9	8.9	8.9
	31-40	34	33.7	33.7	42.6
	41-50	40	39.6	39.6	82.2
	51-60	16	15.8	15.8	98.0
	Above 60 (60 tahun ke atas)	2	2.0	2.0	100.0
	Total	101	100.0	100.0	

Table 11: Demography Age Group

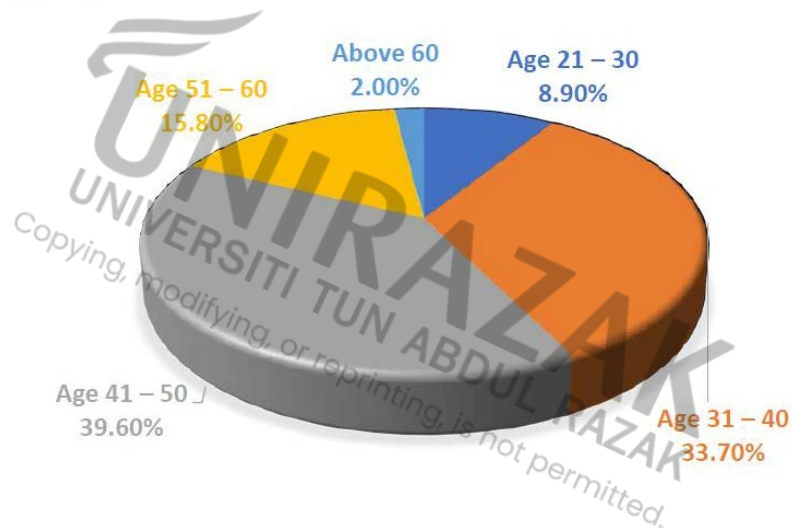


Figure 8: Age Group

From this above table and figure, it has been founded that this table presents four types of age groups in the questionnaire survey. There have been found that 9 (8.90%) participants were from the age of 21-30 group. Respondent of Age 31-40 has 34 (33.7%) of participant. For Age 41-50 is 40 respondent equivalents to 39.6% participant, whereas the 16 (15.8%) participants belong to the age group of 51 and above. And respondent above 60 represent 2 (2.0%). The participants from these five types of age groups facilitate this research work to add better outcomes as by going through this age group there gathered different perceptions on the mentioned topic of this research work which is considered as beneficial.

4.3.3 RACE

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Chinese (Cina)	16	15.8	15.8	15.8
	Indian (India)	2	2.0	2.0	17.8
	Malay (Melayu)	82	81.2	81.2	99.0
	Others	1	1.0	1.0	100.0
	Total	101	100.0	100.0	

Table 12: Demography Race

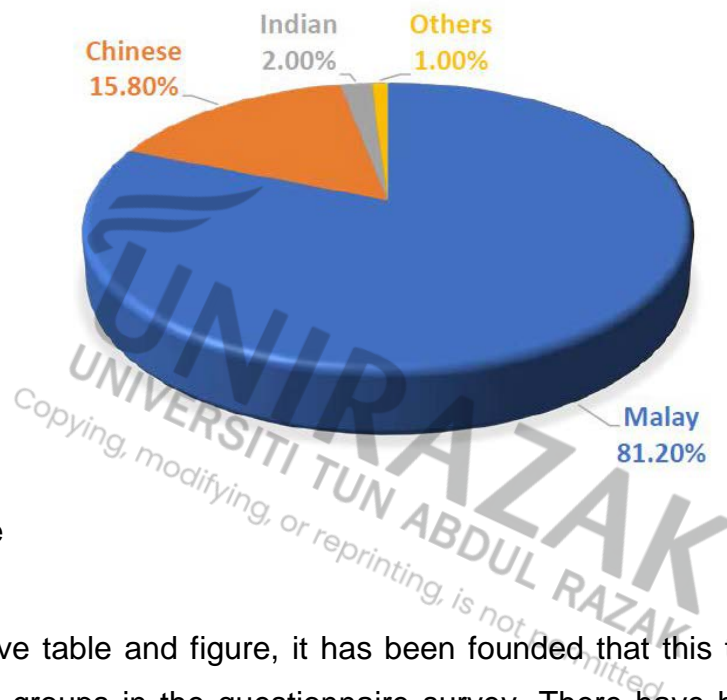


Figure 9: Race

From this above table and figure, it has been founded that this table presents four types of racial groups in the questionnaire survey. There have been found that 82 (81.2%) participants were from Malay group. Respondent of Chinese group has 16 of 15.8% of participant. And Indian group is 2 respondent equivalents to (2.0%) participant, whereas the 1 (1.0%) participants belong to the Other race group. The participants from these four types of age groups facilitate this research work to add better outcomes as by going through this age group there gathered different perceptions on the mentioned topic of this research work which is considered as beneficial.

4.3.4 HIGHEST LEVEL EDUCATION

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Bachelor's Degree (Ijazah Sarjana Muda)	47	46.5	46.5	46.5
	Certificate (Sijil) / Diploma	12	11.9	11.9	58.4
	Master's Degree (Ijazah Sarjana)	29	28.7	28.7	87.1
	Other Professional Qualifications (Kelayakan Profesional yang lain)	9	8.9	8.9	96.0
	Others	2	2.0	2.0	98.0
	Ph.D (Doktor Falsafah)	2	2.0	2.0	100.0
	Total	101	100.0	100.0	

Table 13: Demography Highest Education

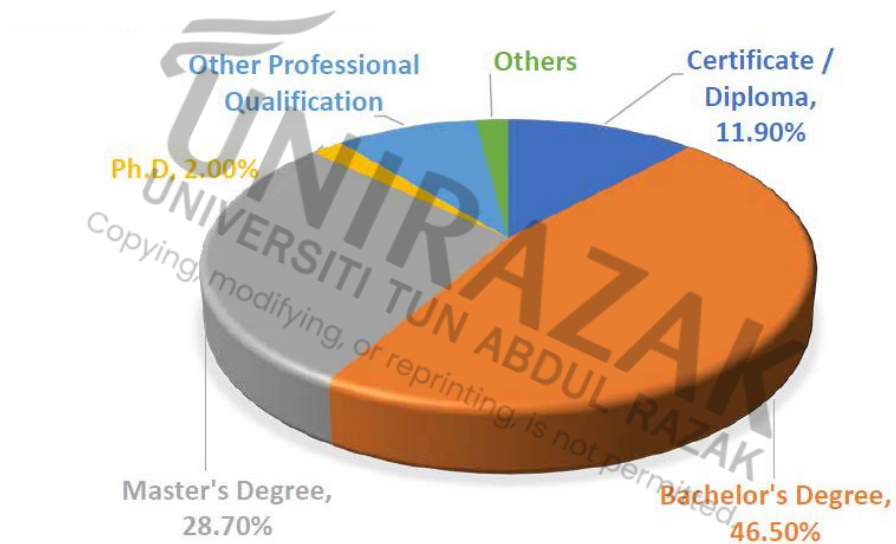


Figure 10: Highest Level Education

In terms of educational background, a substantial portion of the respondents holds a Bachelor's degree (46.5%), followed by those with a Master's degree (28.7%), Certificate/Diploma (11.9%), and other professional qualifications (8.9%).

4.3.5 FIELD OF STUDY

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Architecture (Seni Bina)	45	44.6	44.6	44.6

Building Construction (Pembinaan Bangunan)	5	5.0	5.0	49.5
Engineering (Kejuruteraan)	8	7.9	7.9	57.4
Others	31	30.7	30.7	88.1
Project Management (Pengurusan Projek)	8	7.9	7.9	96.0
Quantity Surveying (Ukur Bahan)	4	4.0	4.0	100.0
Total	101	100.0	100.0	

Table 14: Demography Field of Study

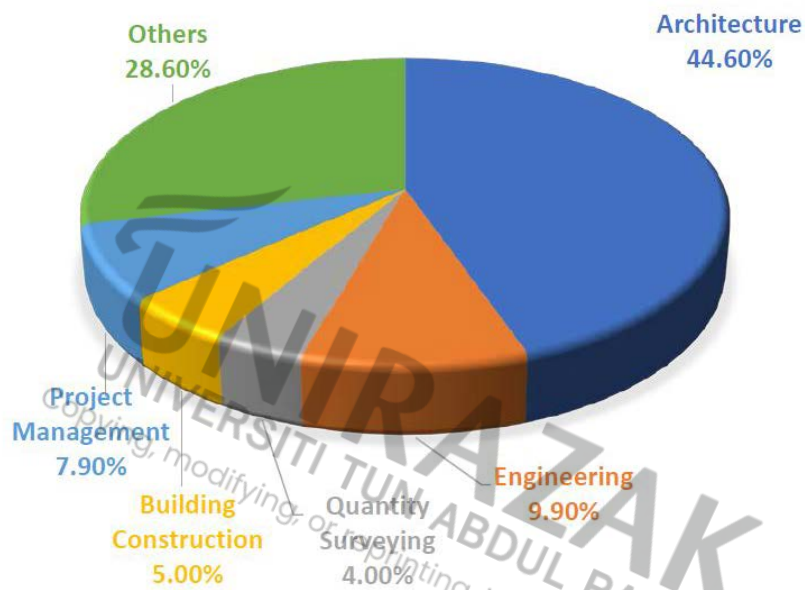


Figure 11: Field of Study

The sample of respondents' in the field of study, architecture is the most common (44.6%), followed by "Others" (28.6%), and smaller percentages in fields such as Building Construction, Project Management, and Quantity Surveying.

4.3.6 AREA OF WORKPLACE

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Kuala Lumpur / Wilayah Persekutuan	58	57.4	57.4	57.4
	Others	12	11.9	11.9	69.3
	Selangor	31	30.7	30.7	100.0
	Total	101	100.0	100.0	

Table 15: Demography Area of Workplace

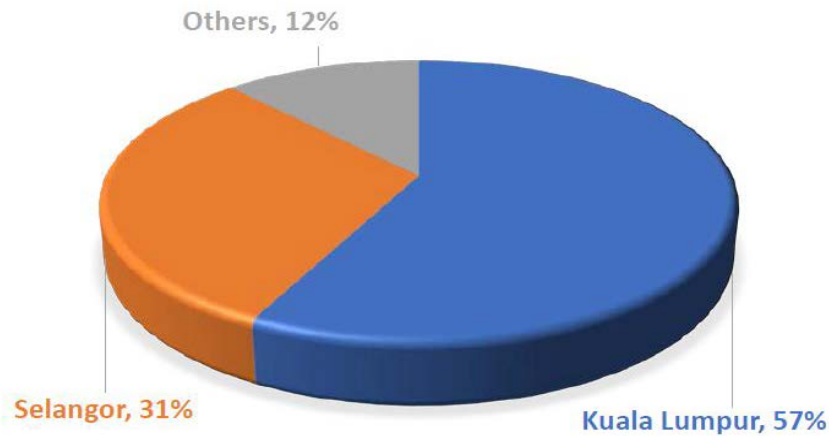


Figure 12: Area of Workplace

The sample of respondents' area of workplace, regarding the majority work in Kuala Lumpur (57.4%), followed by Selangor (30.7%) and other areas (11.9%)

4.3.7 FIELD AT WORKPLACE

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Architect's (Arkitek)	35	34.7	34.7	34.7
	Contract / Quantity Surveyor (Kontrak / Juru Ukur Bahan)	3	3.0	3.0	37.6
	Contractor's (Kontraktor)	5	5.0	5.0	42.6
	Engineer's (Jurutera)	11	10.9	10.9	53.5
	Others	30	29.7	29.7	83.2
	Project Manager's (Pengurus Projek)	17	16.8	16.8	100.0
	Total	101	100.0	100.0	

Table 16: Demography Field at Workplace

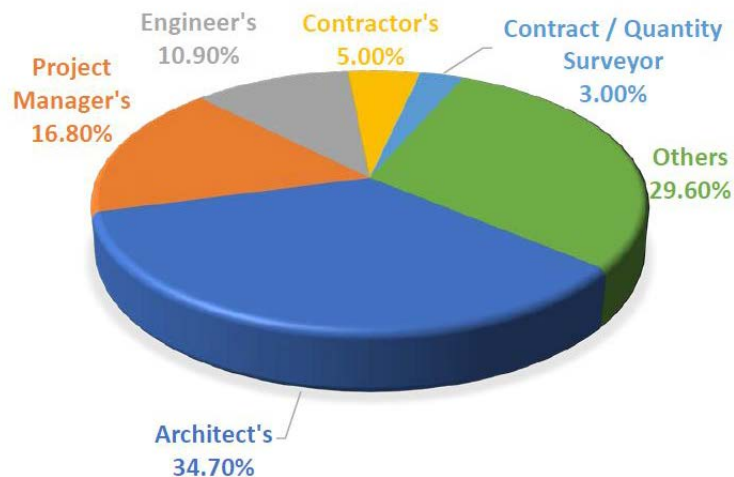


Figure 13: Field of Workplace

The sample of respondents' field at the workplace varies, with the largest group being in Architect's roles (34.7%), followed by Project Manager's roles (16.8%), Engineer's roles (10.9%), and others.

4.3.8 ROLE AT WORKPLACE

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Executive Level (Peringkat Eksekutif)	35	34.7	34.7	34.7
	Manager Level (Peringkat Pengurus)	30	29.7	29.7	64.4
	Non Executive Level (Peringkat Bukan Eksekutif)	8	7.9	7.9	72.3
	Others	7	6.9	6.9	79.2
	Top Management (Pengurusan Atasan)	21	20.8	20.8	100.0
	Total	101	100.0	100.0	

Table 17: Demography Role at Workplace

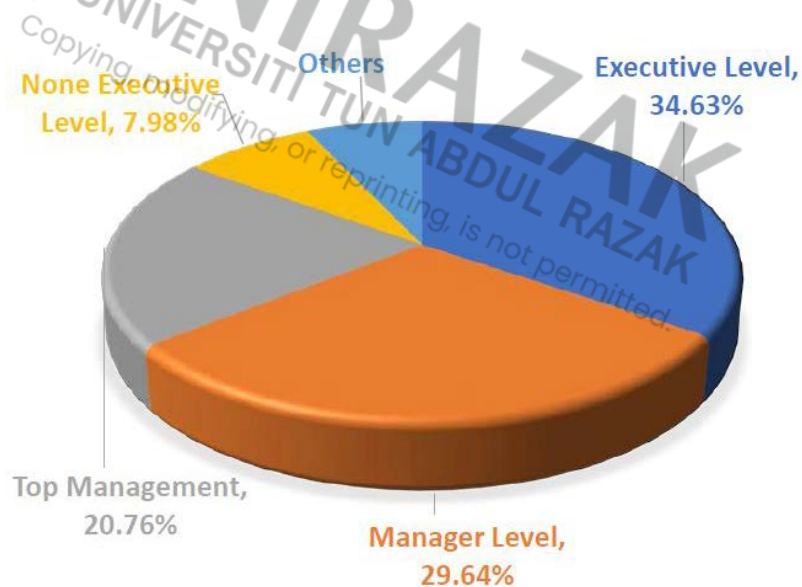


Figure 14: Role of Workplace

The sample of respondents' role at workplace, in terms of the most common roles are at the Executive Level (34.7%) and Manager Level (29.7%), with smaller percentages at Top Management and other roles.

4.3.9 YEARS OF EXPERIENCE

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	20 years and above (20 tahun dan ke atas)	19	18.8	18.8	18.8
	Below 5 years (Kurang 5 tahun)	27	26.7	26.7	45.5
	Between 11 years – 20 years (Antara 11 tahun - 20 tahun)	35	34.7	34.7	80.2
	Between 6 years – 10 years (Antara 6 tahun - 10 tahun)	20	19.8	19.8	100.0
	Total	101	100.0	100.0	

Table 18: Demography Years of Experience

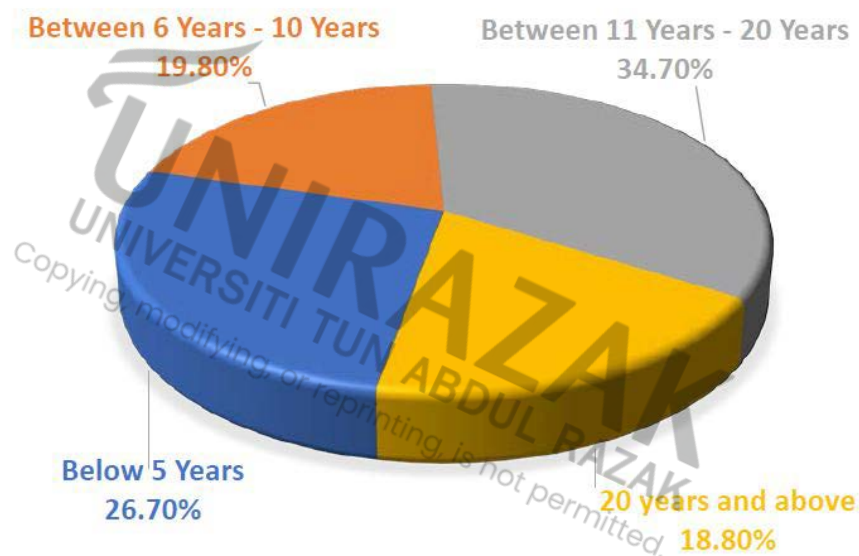


Figure 15: Years of Experience

The sample of respondents' years of experience, regarding the highest there is a diverse range, with the highest percentage falling between 11 and 20 years of experience (34.7%), followed by Below 5 Years (26.7%), Between 6 and 10 Years (19.8%), and 20 Years and above (18.8%).

4.3.10 AVERAGE MONTHLY INCOME

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Below RM 5,000 (Kurang RM 5,000)	15	14.9	14.9	14.9

Between RM 10,001 – RM 20,000 (Antara RM 10,001 - RM 20,000)	24	23.8	23.8	38.6
Between RM 5,001 – RM 10,000 (Antara RM 5,001 - RM 10,000)	53	52.5	52.5	91.1
RM 20,000 and above (RM 20,000 dan ke atas)	9	8.9	8.9	100.0
Total	101	100.0	100.0	

Table 19: Demography Average Monthly

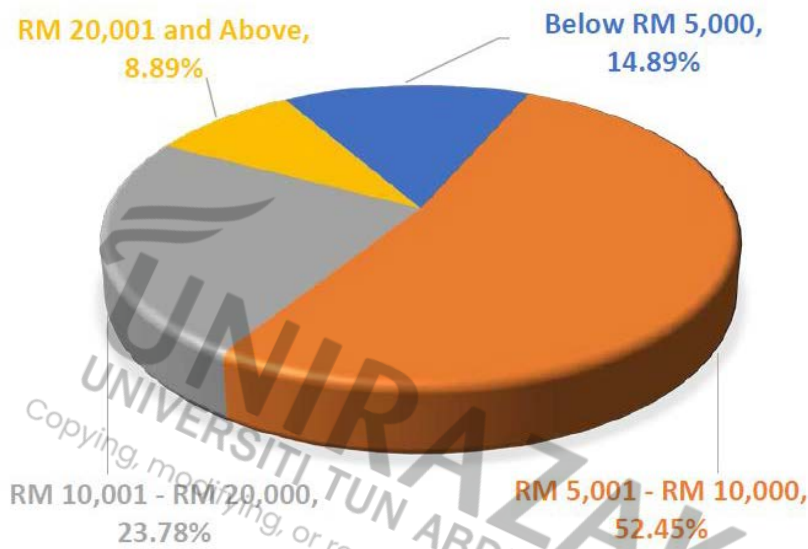


Figure 16: Average Monthly Income

Lastly, respondents' average monthly income varies, with the majority falling between Below RM 5,001 and RM 10,000 (52.5%), followed by Below RM 10,001 – RM 20,000 (23.8%), Below RM 5,000 (14.9%), and RM 20,001 and above (8.9%). This demographic information provides an overview of the diversity and characteristics of the study's participants, which can be valuable for understanding the context of the research findings.

4.4 RELIABILITY TEST ANALYSIS

Cronbach's alpha reliability factor might have contributed to the retention of the strategic measure in terms of demonstrating the key perspective that the overall reliability analysis is found to be relevant in a further demonstration of the constructed

items. The analysis is found to be successful in demonstrating the fact that the inclusion of the measure and the valued reflecting higher than 0.5 is found to be relevant and successful in addressing the key inclusive standard and measures relevant to the reflection of the validity constraint.

4.4.1 RELIABILITY TEST ON RESEARCH INSTRUMENT/QUESTIONNAIRE

Variables	Total Item	Reliability (α)
Inadequate project planning	5	0.91
Limited project management skill and knowledge	5	0.91
Inefficient project monitoring and control	5	0.82
Limited stakeholder collaboration	4	0.80
Ineffective project leadership	4	0.89
Resource constraints and supply chain issues	5	0.82
Poor project management	5	0.81
Overall	33	0.94

Table 20: Reliability of inadequate project planning, limited project management skill and knowledge, inefficient project monitoring and control, limited stakeholder collaboration, ineffective project leadership, resource constraints and supply chain issues, poor project management and overall

Table 20 presents an overview of the reliability of various factors affecting project management. These factors have been categorized into distinct variables, each comprising a specific number of items, and their corresponding reliability values (α) are provided. Reliability values, ranging from 0 to 1, signify the internal consistency of the items within each variable. The higher the reliability value, the greater the reliability or consistency of the items in measuring the same underlying concept.

Notably, both inadequate project planning and limited project management skill and knowledge exhibit high reliability values of 0.91, suggesting that the items within these variables consistently measure the issues related to insufficient project planning and limited project management expertise. Similarly, ineffective project leadership also boasts a strong reliability value of 0.89, indicating that the items assessing poor project leadership are internally consistent.

Inefficient project monitoring and control, resource constraints and supply chain issues, and poor project management display good but slightly lower reliability values, ranging from 0.81 to 0.82. These variables are still reliable in measuring their respective constructs, albeit with a marginally lower degree of internal consistency compared to the top-performing variables.

Meanwhile, limited stakeholder collaboration registers a reliability value of 0.80, which is generally acceptable but slightly lower than the other variables. This suggests that the items related to limited stakeholder collaboration exhibit good but not exceptional internal consistency.

The amalgamation of all variables into an overall measure yields a strikingly high reliability score of 0.94, indicating that this comprehensive measure adeptly encapsulates the core constructs assessed in the study, demonstrating a remarkable degree of internal consistency.

In summary, Table 20 provides valuable insights into the reliability of key factors impacting project management, with most variables demonstrating strong internal consistency in measuring their respective constructs. This robust reliability reaffirms the credibility of the data collected in the study and reinforces the notion that the survey instrument effectively captures the intended constructs. Consequently, this lays a sturdy foundation for subsequent data analysis and interpretation, enhancing the overall validity of the study's findings.

As a result, the research is successful in producing all reliable information about the research context. Besides, the research has satisfied properly to all variables to get more relevant information (Watkins, 2021). The range of the alpha values is measured by the key alignment of the research to get more relations information on the variables to mitigate all raising issues in the housing construction in Malaysia respectively. Moreover, the reliability test can measure the internal validity of the data by satisfying the research variables successfully.

4.4.2 NORMALITY TEST ON THE RESEARCH DATA

Before proceeding with the inferential analysis, data from this study were screened for missing values and normality. Based on the difference between the 5% trimmed mean

and the mean for all variables, there are no extreme values with 1-unit differences. Therefore, the values for skewness and kurtosis between -2 and +2 are considered appropriate to show normal univariate distribution (George & Mallery, 2003). All seven variables showed acceptable values for skewness assessment between -1.56 to -0.22, according to **Table 21**. For the kurtosis assessment, all seven variables showed acceptable values with a range between -0.41 to 0.88.

Variables	Mean	5% Trimmed Mean	Variance	Standard Deviation	Skewness	Kurtosis
Inadequate project planning	4.32	4.46	5.00	1.66	-1.56	0.88
Limited project management skill and knowledge	21.21	21.33	6.98	2.64	-0.28	-0.24
Inefficient project monitoring and control	20.14	20.17	8.00	2.83	-0.38	-0.41
Limited stakeholder collaboration	15.51	15.58	7.14	2.67	-0.28	-0.15
Ineffective project leadership	16.77	16.93	6.75	2.60	-0.68	-0.10
Resource constraints and supply chain issues	20.54	20.69	10.01	3.16	-0.68	0.25
Poor project management	18.43	18.46	9.97	3.16	-0.22	-0.25

Table 21: Normality test of inadequate project planning, limited project management skill and knowledge, inefficient project monitoring and control, limited stakeholder collaboration, ineffective project leadership, resource constraints and supply chain issues and poor project management

4.5 DESCRIPTIVE STATISTIC ANALYSIS

This part explains the descriptive analysis of inadequate project planning, limited project management skill and knowledge, inefficient project monitoring and control, limited stakeholder collaboration, ineffective project leadership, resource constraints and supply chain issues and poor project management.

4.6 DESCRIPTIVE STATISTIC ANALYSIS (MEAN)

For inferential statistic, compare means was used to analyze the relationship of the study variables to address the research objective. Typically, descriptive statistics are derived from all of the survey's questions and serve as the study's raw data output. All variables were measured using a 5-point Likert scale, with 1 signifying a severe disagreement and 5 signifying a strong agreement or demographic characteristics. Descriptive statistics are essential to the researcher because they lay the groundwork for further analysis, enable the research reader to reproduce the study, and give a summary of the results. The most significant descriptive statistics are those that focus on the central tendency. One of the most popular methods for characterizing the main trend in quantitative research is the use of the mean (M). The descriptive analysis, mean analysis, and standard deviation analysis were done to examine the results of the respondent response. Standard deviation is the amount by which data deviate from the mean, whereas mean is the average produced by dividing the sum of the data by the amount of data in the set. A measurement of how closely the data is clustered around the mean is the standard deviation. The average score will be contrasted with the findings of the mean and standard deviation analyses. Here is the mean score table:

Mean Core Table	
Score	Level
1.00-2.33	Low
2.34-3.67	Moderate
3.68-5.00	High

Table 22: Mean Core table

4.7 DESCRIPTIVE ANALYSIS VARIABLE MEAN AND STANDARD DEVIATION (Section 2 – Section 8)

4.7.1 Inadequate Project Planning (IV)

Item	Description (Section 2)	Mean	SD
1	Does inadequate project planning will impact the timeline of a housing construction project in Malaysia?	0.88	0.33

Item	Description (Section 2)	Mean	SD
2	Do specific challenges might arise from inadequate project planning in the context of a housing construction project in Malaysia, considering factors such as regulatory approvals, resource allocation, and labor management?	0.85	0.36
3	Does inadequate consideration of cultural or environmental factors during project planning might negatively affect a housing construction project's success in Malaysia?	0.83	0.38
4	Does inadequate risk assessment and mitigation planning in a housing construction project in Malaysia lead to potential cost overruns and delays?	0.86	0.35
5	Does inadequate coordination among various project teams, such as architects, engineers, and contractors, contribute to inefficiencies and suboptimal outcomes in a housing construction project in Malaysia?	0.92	0.27
Overall		4.32	1.29

Table 23: Descriptive Analysis of Inadequate Project Planning

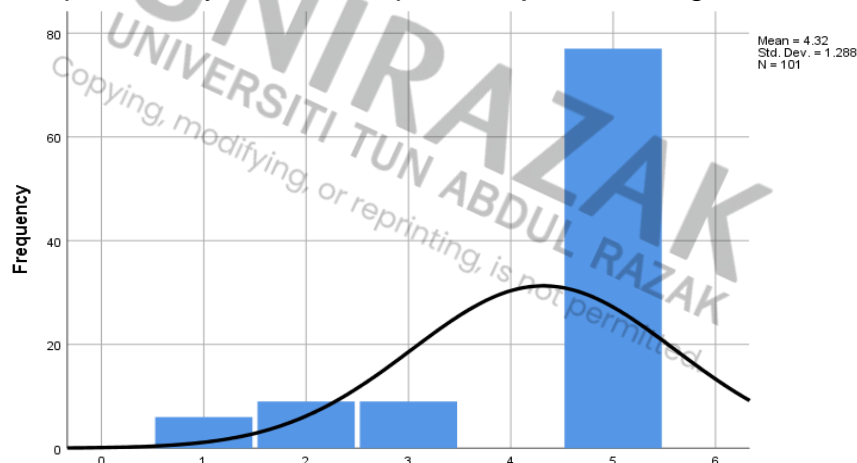


Figure 17: Inadequate Project Planning Histogram with Normal

Table 23 presents a descriptive analysis of the impact of inadequate project planning on housing construction projects in Malaysia. It provides information about various items related to this topic, including their mean values and standard deviations (SD). The table includes five items that address different aspects of inadequate project planning and its potential consequences, where respondents provide their opinions or assessments on the given statements.

On average, the mean values of the responses for these items range from 0.83 to 0.92, with an overall mean score of 4.32 when considering all items together. The mean values suggest that, on average, respondents tend to agree that inadequate project planning can have a negative impact on housing construction projects in Malaysia.

The standard deviations (SD) provide insights into the variability of responses. In this case, the SD values range from 0.27 to 0.38, indicating some variability in respondents' opinions. A higher SD suggests a wider range of responses, which implies that there may be some diversity in perspectives regarding the impact of inadequate project planning.

In summary, **Table 23** reveals that, on average, respondents in this analysis believe that inadequate project planning can indeed affect housing construction projects in Malaysia negatively. However, there is some variability in these opinions, as indicated by the standard deviations, which reflect differences in the degree of agreement among respondents regarding the specific aspects of inadequate planning and its consequences in this context.

4.7.2 Limited Project Management Skills & Knowledge (IV)

Item	Description (Section 3)	Mean	SD
1	Potential challenges might arise in a housing construction project in Malaysia due to limited project management skills and knowledge, and could these challenges impact project outcomes?	4.22	0.79
2	Lack of comprehensive project scheduling and planning affect the timeline and budget of a housing construction project in Malaysia, especially when dealing with limited project management skills?	4.33	0.79
3	In the context of a housing construction project in Malaysia, inadequate risk assessment and mitigation strategies stemming from limited project management expertise lead to potential project delays and increased costs.	4.05	0.90
4	Some key aspects of local regulations, codes, and permitting processes that a project manager with limited knowledge might overlook or misunderstand during the execution of a housing construction project in Malaysia.	4.04	0.89

Item	Description (Section 3)	Mean	SD
5	Considering the communication demands of a housing construction project in Malaysia, limited project management skills and knowledge hinder effective collaboration among diverse stakeholders, such as contractors, architects & government agencies.	4.13	0.83
Overall		21.21	2.64

Table 24: Descriptive Analysis of Limited Project Management Skills &

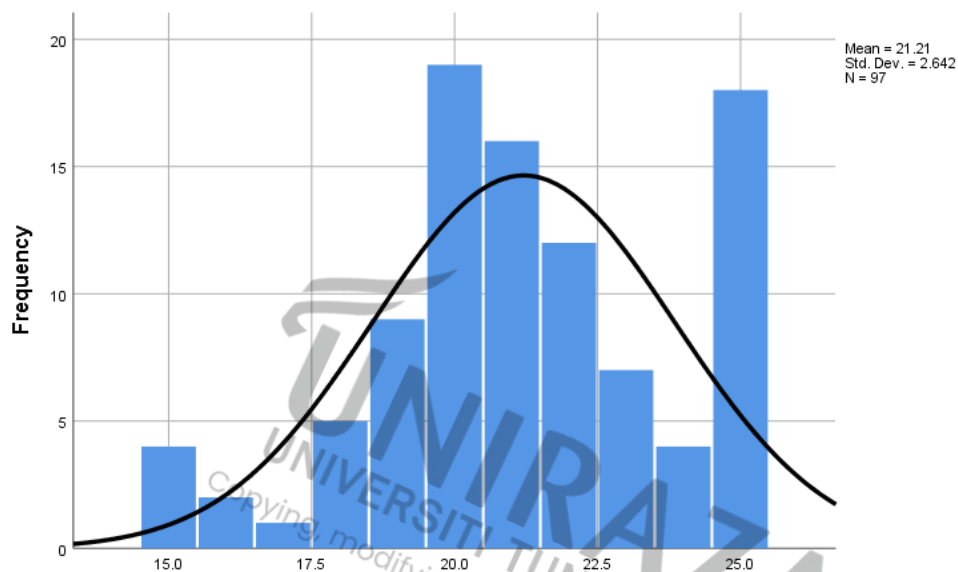


Figure 18: Limited Project Management Skills & Knowledge Histogram with Normal Curve

From above **Table 24** provides a descriptive analysis of the impact of limited project management skills and knowledge on housing construction projects in Malaysia. It consists of five items, each addressing various aspects related to this issue, and includes mean values and standard deviations (SD) for each item.

The mean values for these items range from 4.04 to 4.33, with an overall mean score of 21.21 when considering all items together. These mean values suggest that, on average, respondents in this analysis strongly agree that limited project management skills and knowledge can have a significant negative impact on housing construction projects in Malaysia.

The standard deviations (SD) for these items range from 0.79 to 0.90, indicating some variability in respondents' opinions. While the mean scores reflect strong agreement

on the impact of limited project management skills, the standard deviations suggest that there is some diversity in perspectives among respondents regarding the specific challenges and consequences associated with limited project management expertise in this context.

In summary, **Table 24** conveys that respondents in this analysis are in strong agreement that limited project management skills and knowledge can potentially result in significant challenges and negative outcomes for housing construction projects in Malaysia. However, there is some variation in the degree of agreement, as reflected by the standard deviations, highlighting the range of opinions among respondents regarding the specific implications of limited project management expertise.

4.7.3 Inefficient Project Monitoring & Control (IV)

Item	Description (Section 4)	Mean	SD
1	The issue of insufficient coordination and communication among stakeholders in Malaysian housing construction projects will contribute to challenges in project monitoring and control.	4.16	0.92
2	In the context of Malaysian housing construction, the primary factors that lead to delays and cost overruns due to inadequate resource allocation and mismanagement during project execution.	4.13	0.97
3	Specific instances where a lack of standardized performance metrics and key performance indicators (KPIs) has hindered effective project monitoring and control in the housing construction industry of Malaysia.	3.84	0.93
4	The current level of adoption and integration of technological tools and software for project monitoring and control within the Malaysian housing construction sector, and the lack of such tools impact project efficiency.	3.83	0.89
5	Within the regulatory framework of Malaysia, the compliance challenges and permit delays affect the ability to effectively monitor and control housing construction projects.	3.89	0.97
Overall		20.14	2.83

Table 25: Descriptive Analysis of Inefficient Project Monitoring & Control

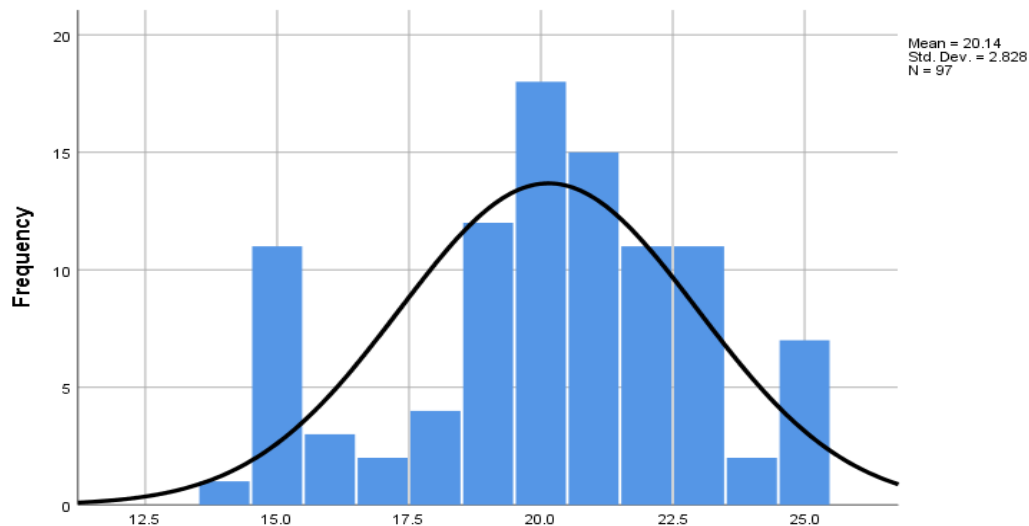


Figure 19: Inefficient Project Monitoring & Control Histogram with Normal Curve

Table 25 offers a descriptive analysis of the impact of inefficient project monitoring and control on housing construction projects in Malaysia. It consists of five items, each addressing various aspects related to this issue, and includes mean values and standard deviations (SD) for each item.

The mean values for these items range from 3.83 to 4.16, with an overall mean score of 20.14 when considering all items together. These mean values suggest that, on average, respondents in this analysis agree that inefficient project monitoring and control can have a notable negative impact on housing construction projects in Malaysia.

The standard deviations (SD) for these items range from 0.89 to 0.97, indicating some variability in respondents' opinions. While the mean scores reflect a general agreement on the impact of inefficient project monitoring and control, the standard deviations suggest that there is some diversity in perspectives among respondents regarding specific issues related to monitoring and control within the context of housing construction projects in Malaysia.

In summary, **Table 25** conveys that respondents in this analysis generally agree that inefficient project monitoring and control can lead to significant challenges and negative outcomes in housing construction projects in Malaysia. However, there is variation in the degree of agreement, as indicated by the standard deviations,

underscoring the range of opinions among respondents regarding the specific factors and consequences associated with inefficient monitoring and control practices.

4.7.4 Limited Stakeholder & Collaboration (IV)

Item	Description (Section 5)	Mean	SD
1	Limited stakeholder involvement impacts the decision-making process during the planning phase of a housing construction project in Malaysia?	3.82	1.00
2	In the context of housing construction in Malaysia, the challenges might arise due to limited collaboration between government agencies, developers, and local communities.	3.82	1.02
3	Strategies can be housing construction project managers employ to enhance collaboration among stakeholders with limited direct involvement, such as suppliers and subcontractors, to ensure project success in Malaysia's competitive market.	3.94	0.88
4	Does might the lack of collaboration between environmental regulatory bodies and housing developers influence sustainable practices in construction projects across Malaysia?	3.73	1.00
Overall		15.51	2.67

Table 26: Descriptive Analysis of Limited Stakeholder &

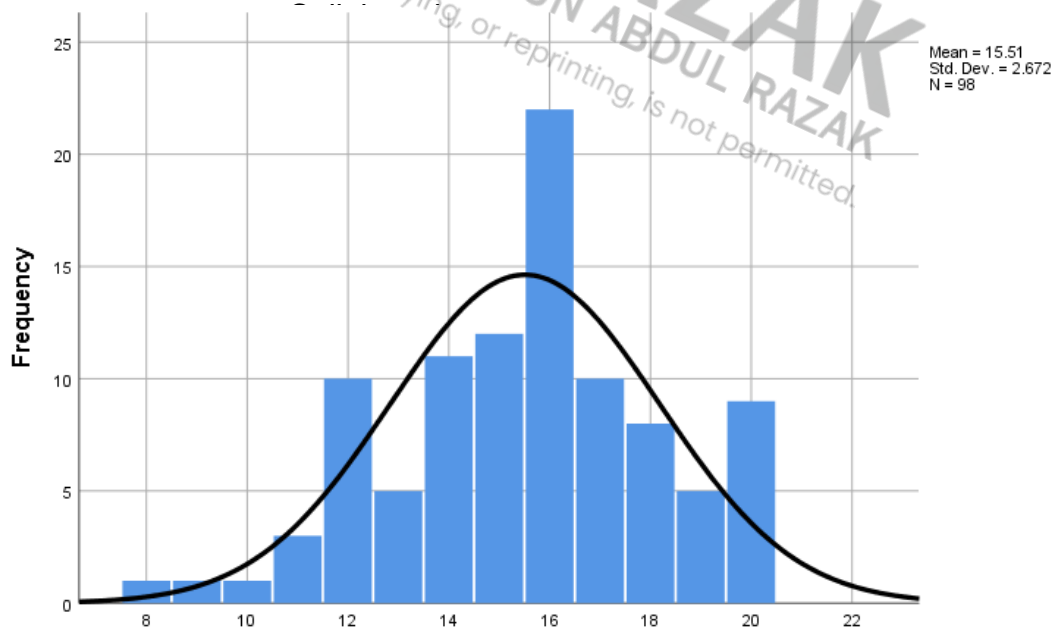


Figure 20: Limited Stakeholder & Collaboration Histogram with Normal Curve

Table 26 provides a descriptive analysis of the impact of limited stakeholder collaboration on housing construction projects in Malaysia. This table includes four

items, each addressing different aspects related to limited collaboration among stakeholders and presents mean values and standard deviations (SD) for each item.

The mean values for these items range from 3.73 to 3.94, with an overall mean score of 15.51 when considering all items together. These mean values suggest that, on average, respondents in this analysis tend to agree that limited stakeholder collaboration can have a moderate negative impact on housing construction projects in Malaysia.

The standard deviations (SD) for these items range from 0.88 to 1.02, indicating some variability in respondents' opinions. While the mean scores reflect a general agreement on the impact of limited collaboration among stakeholders, the standard deviations suggest that there is some diversity in perspectives among respondents regarding specific challenges and consequences related to stakeholder collaboration within the context of housing construction projects in Malaysia.

In summary, **Table 26** conveys that, on average, respondents in this analysis agree that limited stakeholder collaboration can result in challenges and negative outcomes in housing construction projects in Malaysia. However, there is some variation in the degree of agreement, as indicated by the standard deviations, highlighting the range of opinions among respondents regarding the specific issues and implications associated with limited collaboration among stakeholders.

4.7.5 Ineffective Project Leadership (IV)

Item	Description (Section 6)	Mean	SD
1	Does poor communication from project leaders in a housing construction project in Malaysia might lead to delays, misunderstandings, or other negative consequences?	4.09	0.90
2	In the context of a housing construction project in Malaysia, might a lack of proper planning and delegation by project leaders result in inefficiencies, cost overruns, and subpar construction quality.	4.16	0.91
3	Inadequate risk management and decision-making from project leaders will affect the overall progress and success of a housing construction project in Malaysia.	4.16	0.80

Item	Description (Section 6)	Mean	SD
4	Within the Malaysian housing construction industry, ineffective leadership contribute to team demotivation in a project success turnover.	4.18	0.83
Overall		16.77	2.60

Table 27: Descriptive Analysis of Ineffective Project

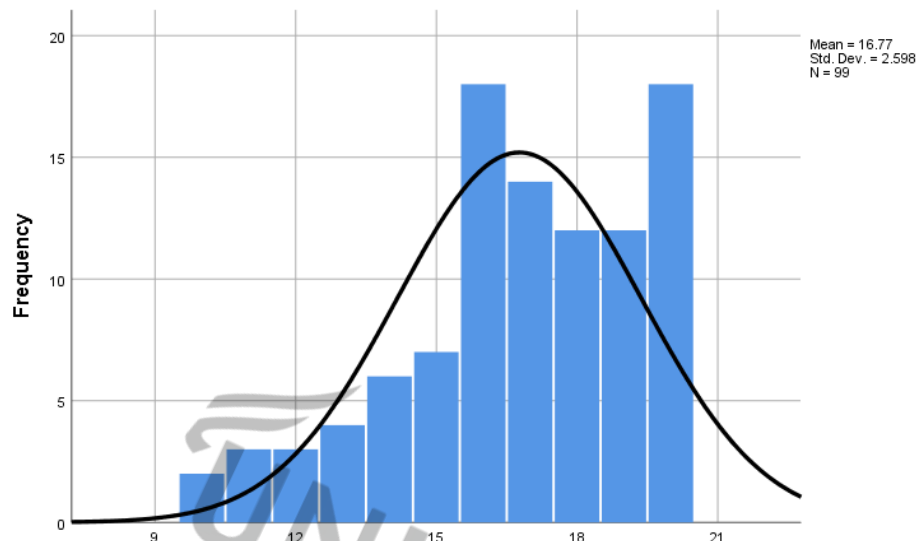


Figure 21: Ineffective Project Leadership Histogram with Normal Curve

Table 27 offers a descriptive analysis of the impact of ineffective project leadership on housing construction projects in Malaysia. It comprises four items, each addressing different facets of ineffective leadership and provides mean values and standard deviations (SD) for each item.

The mean values for these items range from 4.09 to 4.18, with an overall mean score of 16.77 when considering all items together. These mean values suggest that, on average, respondents in this analysis strongly agree that ineffective project leadership can have a significant negative impact on housing construction projects in Malaysia.

The standard deviations (SD) for these items range from 0.80 to 0.91, indicating some variability in respondents' opinions. While the mean scores reflect a strong agreement on the impact of ineffective project leadership, the standard deviations suggest that there is some diversity in perspectives among respondents regarding specific issues and consequences related to ineffective leadership within the context of housing construction projects in Malaysia.

In summary, **Table 27** conveys that respondents in this analysis are in strong agreement that ineffective project leadership can lead to significant challenges and negative outcomes in housing construction projects in Malaysia. However, there is some variation in the degree of agreement, as indicated by the standard deviations, underscoring the range of opinions among respondents regarding the specific factors and implications associated with ineffective leadership in this context.

4.7.6 Resources Constraints & Supply Chain Issues (IV)

Item	Description (Section 7)	Mean	SD
1	Do resource constraints, such as limited availability of construction materials and skilled labor, impact the progress and timeline of housing construction projects in Malaysia?	4.27	0.93
2	Do supply chain disruptions, such as transportation delays or import/export restrictions, play in exacerbating the challenges of resource constraints faced by housing construction projects in Malaysia?	4.29	0.92
3	In the context of housing construction projects, innovative construction techniques and technologies help mitigate the effects of resource constraints and supply chain issues in Malaysia?	3.97	0.95
4	Can housing developers and construction firms adopt to diversify their supplier base and ensure a more resilient supply chain amidst the uncertainties caused by factors like geopolitical tensions and global pandemics?	3.94	0.92
5	Considering the increasing demand for sustainable construction practices, resource constraints and supply chain challenges impact the incorporation of eco-friendly materials and energy-efficient technologies in housing projects across Malaysia?	3.96	0.88
Overall		20.54	3.16

Table 28: Descriptive Analysis of Resources Constraints & Supply Chain

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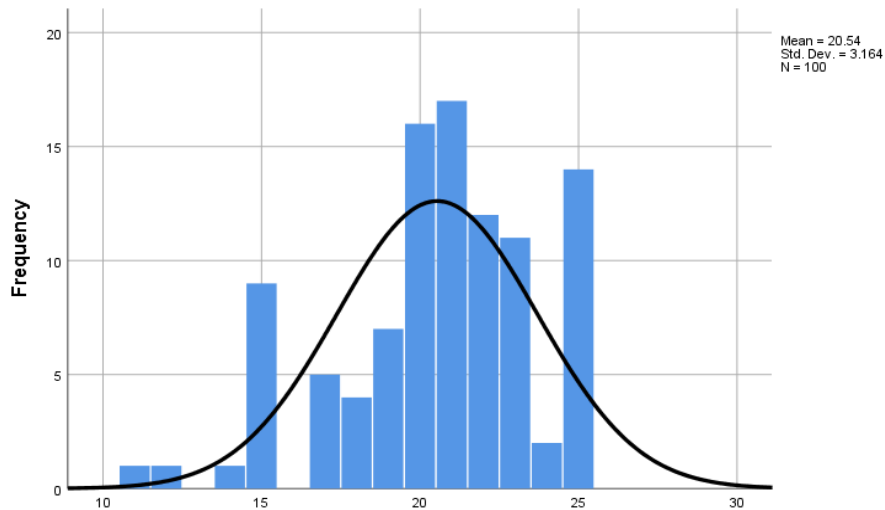


Figure 22: Resources Constraints & Supply Chain Issues Histogram with Normal Curve

Table 28 provides a descriptive analysis of the impact of resource constraints and supply chain issues on housing construction projects in Malaysia. It consists of five items, each addressing various aspects related to these challenges, and presents mean values and standard deviations (SD) for each item.

The mean values for these items range from 3.94 to 4.29, with an overall mean score of 20.54 when considering all items together. These mean values suggest that, on average, respondents in this analysis tend to strongly agree that resource constraints and supply chain issues can have a significant negative impact on housing construction projects in Malaysia.

The standard deviations (SD) for these items range from 0.88 to 0.95, indicating some variability in respondents' opinions. While the mean scores reflect strong agreement on the impact of resource constraints and supply chain issues, the standard deviations suggest that there is some diversity in perspectives among respondents regarding specific challenges and consequences related to these issues within the context of housing construction projects in Malaysia.

In summary, **Table 28** conveys that, on average, respondents in this analysis strongly agree that resource constraints and supply chain issues can result in significant challenges and negative outcomes in housing construction projects in Malaysia. However, there is some variation in the degree of agreement, as indicated by the

standard deviations, underscoring the range of opinions among respondents regarding the specific factors and implications associated with these challenges.

4.7.7 Poor Project Management (DV)

Item	Description (Section 8)	Mean	SD
1	Timely identification and resolution of issues during construction are common in Malaysian housing projects.	0.88	0.33
2	Some of the common challenges that housing construction projects in Malaysia might face in obtaining the necessary permits and approvals from local authorities?	0.85	0.36
3	Does use of outdated technology and construction methods will impact project management efficiency in Malaysia?	0.83	0.38
4	Does regular project monitoring and control mechanisms are in place in housing construction projects in Malaysia?	0.86	0.35
5	Do you agree that poor project management is a major contributing factor to issues in housing construction projects in Malaysia?	0.92	0.27
Overall		18.43	3.16

Table 29: Descriptive Analysis of Poor Project Management

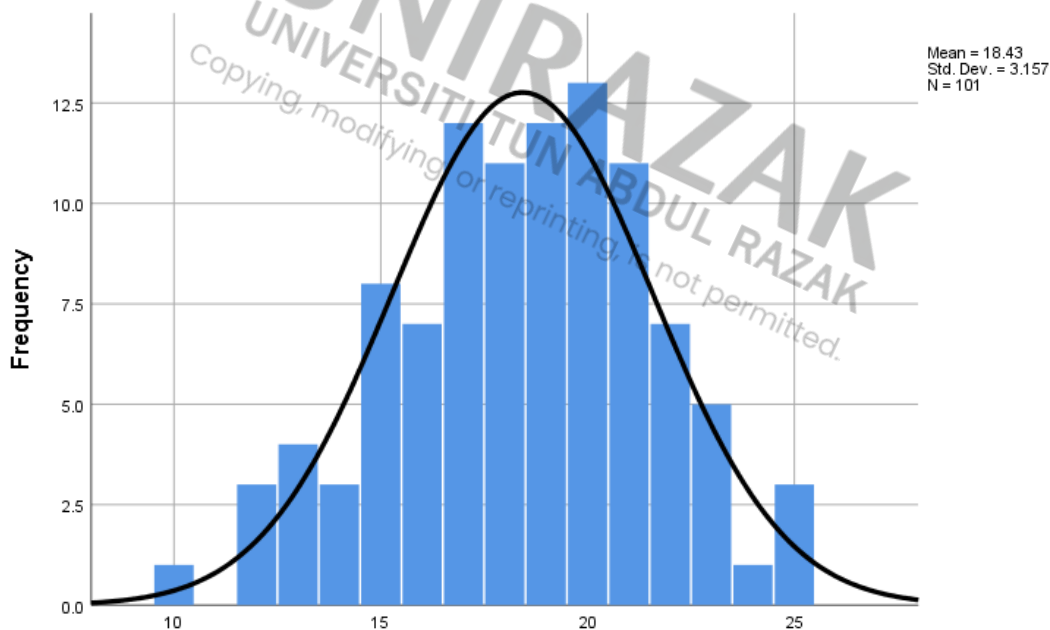


Figure 23: Poor Project Management Histogram with Normal Curve

Table 29 provides a descriptive analysis of poor project management in housing construction projects in Malaysia. It includes five items, each addressing various aspects related to poor project management, and presents mean values and standard deviations (SD) for each item.

The mean values for these items range from 0.83 to 0.92, with an overall mean score of 18.43 when considering all items together. These mean values suggest that, on average, respondents in this analysis strongly agree that poor project management is a significant issue in housing construction projects in Malaysia.

The standard deviations (SD) for these items range from 0.27 to 0.38, indicating some variability in respondents' opinions. While the mean scores reflect a strong agreement on the presence of poor project management in Malaysian housing projects, the standard deviations suggest that there is some diversity in perspectives among respondents regarding specific aspects and consequences related to poor project management within the context of housing construction projects in Malaysia.

In summary, **Table 29** conveys that respondents in this analysis strongly agree that poor project management is a significant problem in housing construction projects in Malaysia. However, there is some variation in the degree of agreement, as indicated by the standard deviations, underscoring the range of opinions among respondents regarding the specific factors and implications associated with poor project management in this context.

4.8 SUMMARY OF DESCRIPTIVE ANALYSIS VARIABLE MEAN AND STANDARD DEVIATION

SECTION 2-8	Mean	Std. Deviation
Inadequate Project Planning	4.32	1.288
Limited Project Management Skills and Knowledge	21.21	2.642
Inefficient Project Monitoring and Control	20.14	2.828
Limited Stakeholder and Collaboration	15.51	2.672
Ineffective Project Leadership	16.77	2.598
Resources Constraints and Supply Chain Issues	20.54	3.164
Poor Project Management in Housing Construction	18.43	3.157
Valid N		

Table 30: Summary of Descriptive Analysis on All Variables

Table 30 showed summary of descriptive analysis on all variables that the highest mean is the “limited project management skills and knowledge represent mean at 21.21 with standard deviation of 2.642. “Inadequate project planning” is the lowest mean for this variable represent mean of 4.32 and standard deviation is 1.288. All the

level of the mean score is high except 4.32. This result demonstrates that all respondents are understand and agree with the question.

4.9 INFERENCE STATISTIC ANALYSIS

All hypotheses were tested by using inferential statistics. For the six (6) hypotheses, they were tested by using Pearson Correction.

4.9.1 USE OF PEARSON CORRELATION

Correlation analyses are that analysis whether and how strongly pairs of variables are related/significant. This studied are used Pearson correction analysis. Pearson correlation analysis is used for examining and analyze the relationship between Independent variable and Dependent variable which is inadequate project planning, limited project management skills and knowledge, inefficient project monitoring and control, limited stakeholder and collaboration, ineffective project leadership, resources constraints and supply chain issues has significant to poor project management. This studied and compared the result generalized Pearson Correlation scale to identify and interpreted the strength of correlation as table below table 33.

Coefficient Range	Strength of Association
±0.91 to ±1.0	Very strong
±0.71 to ±0.90	High
±0.41 to ±0.70	Moderate
±0.21 to ±0.40	Small but define relationship.
±0.01 to ±0.20	Slight, almost negligible

Table 31: Pearson’s Correlation Scale Model by David (1996)

And below **Table 32** are the Pearson’s Correlation Statistic Analysis resulted on each of variable in this research

Independent variable	Poor project management	
	Sig.	Pearson correlation
Inadequate project planning	0.00	0.71

Independent variable	Poor project management	
	Sig.	Pearson correlation
Limited project management skill and knowledge	0.06	0.20
Inefficient project monitoring and control	0.00	0.66
Limited stakeholder collaboration	0.00	0.65
Ineffective project leadership	0.00	0.80
Resource constraints and supply chain issues	0.00	0.62

*Correlation is significant at the 0.01 level (2-tailed)

Table 32: Pearson's correlation analysis between inadequate project planning, limited project management skill and knowledge, inefficient project monitoring and control, limited stakeholder collaboration, ineffective project leadership and resource constraints and supply chain issues with poor project management

Table 32 presents the results of Pearson's correlation analysis, which examines the relationships between various independent variables, including inadequate project planning, limited project management skill and knowledge, inefficient project monitoring and control, limited stakeholder collaboration, and ineffective project leadership, with the dependent variable, which is poor project management.

The table provides information on the significance level (Sig.), Pearson correlation coefficients, and their interpretation. According to (Pallant,2016), value of correlation coefficient from .10 to .29 consider weak, .30 to .49 consider moderate and .50 to 1.0 consider strong. The correlation coefficient ranges from -1 to +1, with 0 representing no correlation, +1 indicating a perfect positive correlation, and -1 indicating a perfect negative correlation.

The results reveal several noteworthy findings. First, inadequate project planning exhibits a statistically significant positive correlation with poor project management, with a Pearson correlation coefficient of $r = 0.71$. This suggests that as the quality of project planning decreases, the likelihood of experiencing poor project management increases.

Second, limited project management skill and knowledge show no statistically significant correlation with poor project management, albeit with a lower correlation coefficient of $r = 0.20$. Third, inefficient project monitoring and control, limited stakeholder collaboration, and ineffective project leadership all demonstrate high and

moderate, statistically significant positive correlations with poor project management, with Pearson correlation coefficients of 0.66, 0.65, and 0.80, respectively. These results indicate that as project monitoring and control becomes less efficient, stakeholder collaboration becomes limited, or project leadership becomes ineffective, the likelihood of encountering poor project management significantly increases.

Lastly, resource constraints and supply chain issues also display a statistically significant moderate positive correlation with poor project management, with a Pearson correlation coefficient of $r = 0.62$. This implies that as resource constraints and supply chain issues become more prevalent, the probability of experiencing poor project management rises.

In conclusion, Table 33 underscores the importance of various factors, including inadequate project planning, inefficient project monitoring and control, limited stakeholder collaboration, ineffective project leadership, and resource constraints and supply chain issues, in influencing the quality of project management. The correlation analysis demonstrates that these factors are positively associated with poor project management, albeit with varying degrees of strength in their relationships. These findings provide valuable insights for project managers and organizations looking to improve project outcomes by addressing these critical factors.

4.10 MULTIPLE REGRESSION ANALYSIS

Table 33 below shows that the tolerance and VIF (Variance Inflation Factor) to measure the multicollinearity (Pallant,2007). Tolerance is an indicator of how much of the variability of the specified independent is not explained by other independent variables in the model (Pallant,2007). In this study, the tolerance value is between 0.35 to 0.74, not less than 0.20. Therefore, the value is not violated the multicollinearity assumption. This also supported by the VIF value between 1.35 to 2.23, which is below the cut-off 5. (Hair et al.,2011) recommended that multicollinearity is a concern if VIF value is higher than five, and the tolerance value is below 0.20. Thus, multicollinearity is not an issue in this present study.

Variables	Collinearity Statistics
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	Tolerance	VIF
Inadequate project planning	0.74	1.35
Limited project management skill and knowledge	0.49	2.02
Inefficient project monitoring and control	0.35	2.23
Limited stakeholder collaboration	0.48	2.09
Ineffective project leadership	0.47	2.15
Resource constraints and supply chain issues	0.50	2.02

Table 33: Multicollinearity analysis of inadequate project planning, limited project management skill and knowledge, inefficient project monitoring and control, limited stakeholder collaboration, ineffective project leadership and resource constraints and supply chain issues

Table 34 to 36 summarizes multiple regression analyses of inadequate project planning, limited project management skill and knowledge, inefficient project monitoring and control, limited stakeholder collaboration, ineffective project leadership, resource constraints and supply chain issues in predicting poor project management. The result showed that a combination of inadequate project planning, limited project management skill and knowledge, inefficient project monitoring and control, limited stakeholder collaboration, ineffective project leadership, resource constraints and supply chain issues contributed 30% ($R^2 = 0.30$) predicting on poor project management.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.55	0.30	0.25	2.73

Table 34: Model Summary

Among the key findings, it becomes clear that inadequate project planning does not significantly contribute to predicting poor project management. The statistical analysis shows minimal impact, with both unstandardized and standardized coefficients being quite small, and the p -value of 0.99 indicating no statistical significance. This suggests that problems in project planning, on their own, may not be the primary drivers of poor project management outcomes.

On the other hand, limited project management skill and knowledge shows a modest, albeit not statistically significant, negative relationship with poor project management. While its effect is relatively subtle, the p -value of 0.08 suggests that it approaches

significance, indicating that it might play a nuanced role in predicting poor project management.

Inefficient project monitoring and control and limited stakeholder collaboration emerge as statistically significant predictors of poor project management. These variables have positive effects on predicting poor project management, with moderate standardized coefficients and p -values below the conventional 0.05 significance level. This implies that issues related to monitoring, control, and stakeholder collaboration are likely significant drivers of poor project management outcomes within the analyzed context.

Conversely, ineffective project leadership does not seem to significantly contribute to predicting poor project management, with small coefficients and a high p -value of 0.79, indicating a lack of statistical significance. Lastly, resource constraints and supply chain issues display a moderate positive impact on predicting poor project management. Although the p -value of 0.08 is slightly above the 0.05 significance level, it approaches significance, implying that these constraints may have a marginal influence on predicting poor project management.

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	283.03	6	47.17	6.32	0.00
	Residual	663.83	89	7.46		
	Total	946.86	95			

Table 35: ANOVA Model

Variable	Unstandardized B	Standardized B	t	p
Inadequate project planning	-0.00	-0.00	-0.01	0.99
Limited project management skill and knowledge	-0.27	-0.22	-1.78	0.08
Inefficient project monitoring and control	0.33	0.30	1.98	0.05
Limited stakeholder collaboration	0.31	0.27	2.07	0.04
Ineffective project leadership	-0.04	-0.04	-0.27	0.79
Resource constraints and supply chain issues	0.23	0.23	1.80	0.08

* $p < .05$ (significant at the 0.01 level, 2-tailed)

Table 36: Summary of multiple regression analysis of inadequate project planning, limited project management skill and knowledge, inefficient project monitoring and control, limited stakeholder collaboration, ineffective project leadership and resource constraints and supply chain issues in predicting poor project management

In summary, this multiple regression analysis underscores the varying significance of different factors in predicting poor project management. It highlights the importance of efficient project monitoring and control and effective stakeholder collaboration, and to some extent, addressing resource constraints and supply chain issues to improve project management outcomes. It also suggests that improving project planning and leadership, while valuable, may not be the primary focus when addressing poor project management within the analyzed context. These findings offer valuable guidance for organizations seeking to enhance their project management practices and outcomes.

4.11 HYPOTHESIS FINDING & SUMMARY

Table 37 serves as a summary of the outcomes from hypothesis testing, which aimed to explore the relationships between specific factors and their influence on poor project management. Each hypothesis sought to determine whether a particular factor significantly contributes to poor project management outcomes.

The first **Hypothesis (H1)** was accepted, indicating that there is indeed a significant relationship between inadequate project planning and poor project management. This suggests that when project planning is insufficient or ineffective, it is associated with subpar project management outcomes. The second **Hypothesis (H2)**, which tested the relationship between limited project management skill and knowledge and poor project management, was rejected. The analysis did not find sufficient evidence to support a significant link between these factors within the context of the study.

The third **Hypothesis (H3)** was accepted, indicating a notable relationship between inefficient project monitoring and control and poor project management. Ineffectual monitoring and control processes were found to be significantly related to less successful project management outcomes. The fourth **Hypothesis (H4)** was also accepted, highlighting a significant connection between limited stakeholder

collaboration and poor project management. This suggests that inadequate collaboration with stakeholders contributes to suboptimal project management.

Hypothesis five (H5) was accepted, emphasizing the importance of effective project leadership. It revealed that ineffective project leadership within a project context is significantly related to poorer project management outcomes. The final **Hypothesis (H6)** was accepted, confirming that resource constraints and supply chain issues have a substantial impact on poor project management. These challenges were found to be closely linked to less successful project management outcomes.

Hypothesis	Result
H1: There is a significant relationship between inadequate planning influenced the poor project management	Accepted
H2: There is a significant relationship between limited project management skill and knowledge influenced the poor project management	Rejected
H3: There is a significant relationship between inefficient project monitoring and control influenced the poor project management	Accepted
H4: There is a significant relationship between limited stakeholder collaboration influenced the poor project management	Accepted
H5: There is a significant relationship between ineffective project leadership influenced the poor project management	Accepted
H6: There is a significant relationship between resource constraints and supply chain issues influenced the poor project management	Accepted

Table 37: Summary of Hypothesis

In summary, the hypothesis testing results provide valuable insights into the factors that play significant roles in influencing poor project management on housing construction in Malaysia. While limited project management skill and knowledge did not show a significant relationship in this particular study, inadequate planning, inefficient monitoring and control, limited stakeholder collaboration, ineffective leadership, and resource constraints emerged as key factors affecting project management outcomes. These findings offer guidance to organizations seeking to enhance their project management practices and address areas that are most likely to impact project success.

CHAPTER 5

CONCLUSION AND RECOMMENDATIONS

5.1 INTRODUCTION & DISCUSSION ON RESEARCH FINDING

The research finding is based on version 28.0.1 of SPSS of choices that varied their effect on the Malaysian housing construction industries. As per the analytic report there, Dependent variable (DV) is significant to the Independent Variables (IV) in the research. The chosen demographic factors are gender, age group, race, highest level of education, field of study, area of workplace, field of work, role of workplace, year experience and monthly income.

As per the statistical analysis, demographic factors as per the age of 41 to 50 are a group of participated most positivity arrests on the matter, there in the group above 60 that are less response in the matter. In addition, as per the gender protective analysis the real participated gender male value is high rather the female value. As per the analysis of their reliability test their rest value is higher than the standard value, therefore, Independent Variable (IV) is in significant with the Dependent Variable (DV). The proposed questionnaire is related to the present discussion topic on the housing construction industries. There are other analysis tastes there have been performed here are Reliability test analysis, Normality test analysis, Descriptive Statistic analysis, Inferential Analysis consist of Pearson Correlation Analysis and Multiple Regression.

5.2 DISCUSSION ON RESEARCH FINDING

In this section, a detailed exposition of the discoveries regarding the connections between inadequate project planning, limited project management skills and knowledge, inefficient project monitoring and control, limited stakeholder's collaboration, ineffective project leadership and resource constraints and supply chain issues, all in relation to the issue of poor project management.

5.2.1 Relationship Between Inadequate Planning Influenced the Poor Project Management

In this current study, the researcher found that through the analysis that had been conducted, inadequate planning has a significant positive relationship with poor project management. This suggests with a Pearson correlation coefficient of $r = 0.71$. This suggests that as the quality of project planning decreases, the likelihood of experiencing poor project management increases.

Imagine a construction project to build a new office building. In this scenario, adequate planning would involve creating a detailed project plan that outlines the scope, schedule, budget, resource allocation, and risk assessment. It would also involve conducting a comprehensive feasibility study to identify potential challenges and obstacles.

If the project planning phase is rushed or lacks detail, it may not adequately consider all the necessary elements. For instance, the project plan might underestimate the time required for certain tasks, leading to delays. It might also overlook potential risks, causing unexpected issues during construction. Inadequate planning could also result in an inaccurate budget estimate, causing financial strain as the project progresses.

As a consequence, when the quality of project planning decreases, it directly impacts the execution of the project and the management of various project aspects. Project managers may struggle to keep the project on track, deal with unexpected problems, and ensure that resources are allocated efficiently. This, in turn, increases the likelihood of experiencing poor project management overall.

In summary, the study's findings highlight the critical importance of thorough and well-executed project planning. When planning is inadequate, it can set the stage for various challenges and inefficiencies throughout the project's lifecycle, ultimately leading to poor project management outcomes.

5.2.2 Relationship Between Limited Project Management Skills and Knowledge Influenced the Poor Project Management

The analysis conducted in this study has revealed an interesting result, which is the absence of a significant positive correlation between limited project management skills

and knowledge and poor project management. These findings limited project management skill and knowledge show no statistically significant correlation with poor project management, albeit with a lower correlation coefficient of $r = 0.20$.

Consider a scenario in which project managers and team members possess limited project management skills and knowledge. Inadequate skills may result in difficulties in planning, organizing, and controlling project activities. Insufficient knowledge might lead to poor decision-making and an inability to address unexpected challenges effectively. In findings likely highlighted instances where projects faced difficulties due to limited project management skills and knowledge.

However, the current study's findings suggest that there might be other factors at play or variations in the sample or context that contribute to the lack of a significant positive correlation between limited project management skills and poor project management. It's essential to consider the specific circumstances and conditions under which the analysis was conducted.

In conclusion, it underscores the complexity of project management and the potential influence of various factors. It's crucial for researchers and practitioners to interpret findings in the context of the specific study and to consider the nuances that may contribute to varying results in different research settings.

5.2.3 Relationship Between Inefficient Project Monitoring and Control Influenced the Poor Project Management

The study, through its correlation analysis, has identified a significant positive relationship with a Pearson correlation coefficient of $r = 0.65$ between inefficient project monitoring and control and poor project management. This finding aligns with the research conducted by (Larionov, 2023), providing additional support to the notion that ineffective project monitoring and control can indeed contribute to poor project management. Larionov's research in 2023 likely provides further evidence and insights into how inefficient project monitoring and control can undermine effective project management.

As example, efficient project monitoring and control are crucial in a complex IT project. In this context, efficient monitoring and control would involve regularly tracking project progress, comparing it to the planned schedule, and taking corrective actions when deviations occur. It would also include closely managing resources, ensuring that they are allocated optimally, and monitoring project risks to mitigate potential issues.

Now, if project monitoring and control are inefficient, it could mean that project managers are not keeping a close eye on project progress. They might miss early warning signs of delays or budget overruns. Additionally, there might be a lack of communication and collaboration among team members, leading to misunderstandings and misalignment. Without effective monitoring and control, project managers may struggle to identify and address issues promptly, allowing them to escalate and negatively impact the project's overall success.

In conclusion, the current study's findings, emphasize the critical role of efficient project monitoring and control in achieving successful project management. When this aspect is neglected or handled inadequately, it can have a detrimental impact on a project's progress and overall management quality.

5.2.4 Relationship Between Limited Stakeholder's Collaboration Influenced the Poor Project Management

The Pearson correlation analysis conducted in this study has revealed a significant positive with a Pearson correlation coefficient of $r = 0.65$. relationship between limited stakeholder collaboration and poor project management. This finding aligns with and is supported by the research conducted by (Ambler and Wilson, 1995) and (Lin, Ho, and Geoffrey,2018), further emphasizing the importance of stakeholder collaboration in project management.

Consider a construction project where various stakeholders, such as clients, architects, contractors, and regulatory authorities, play critical roles. Effective collaboration among these stakeholders is vital for the project's success. It involves open communication, shared goals, and a willingness to address concerns and make collective decisions.

Now, if stakeholder collaboration is limited or hindered, it can have several adverse effects. For instance, there may be miscommunication or misunderstandings between stakeholders, leading to conflicting priorities or expectations. Critical decisions might be delayed, causing project delays or budget overruns. Moreover, when stakeholders are not actively engaged or consulted, they may become disengaged or resistant to project goals, making it challenging to achieve alignment.

According to the research by (Ambler and Wilson, 1995) and (Lin, Ho, and Geoffrey, 2018) likely provide empirical evidence and case examples demonstrating how limited stakeholder collaboration can negatively impact project outcomes. In summary, the current study's findings, in line with the research by Ambler and Wilson and Lin, Ho, and Geoffrey, underline the significance of fostering effective stakeholder collaboration in project management. When collaboration is limited, it can hinder communication, decision-making, and alignment among stakeholders, ultimately contributing to poor project management and potentially compromising project success.

5.2.5 Relationship Between Ineffective Project Leadership Influenced the Poor Project Management

The findings of this study underscore the existence of a significant positive relationship between ineffective project leadership and poor project management with Pearson correlation coefficients of $r = 0.66$. This relationship is substantiated by the research conducted by (Ogunsemi et al; 2015) and (Adabre and Chan's, 2018), reinforcing the critical role of effective leadership in project management.

Imagine a complex engineering project where the project manager's leadership skills and abilities significantly influence the team's performance and project outcomes. Effective project leadership involves setting clear goals, providing guidance, motivating team members, resolving conflicts, and making informed decisions.

When project leadership is ineffective, it can have far-reaching consequences. Team members may lack direction, leading to confusion or a lack of alignment on project

goals and priorities. Ineffective leaders might struggle to motivate or engage team members, resulting in reduced productivity and morale. Additionally, decision-making might become delayed or inconsistent, and conflicts within the team may escalate.

(Ogunsemi et al; 2015) and (Adabre and Chan's,2018) likely offer empirical evidence and case studies that demonstrate how poor project leadership can impact project management. In summary, the current study's findings, supported by (Ogunsemi et al; 2015) and (Adabre and Chan's,2018) research, emphasize the pivotal role of effective project leadership in achieving successful project management. When leadership is ineffective, it can result in a range of challenges that ultimately contribute to poor project management and can impede the project's overall success.

5.2.6 Relationship Between Resource Constraints and Supply Chain Issues Influenced the Poor Project Management

The study at hand emphasizes a significant positive relationship between resource constraints and supply chain issues with poor project management. This finding aligns with and is reminiscent of the findings from studies conducted by (Saab, Farhan, and Ahmad; 2022) and (Paciorek; 2012), shedding light on the crucial role that resource availability and supply chain efficiency play in project management with display a statistically significant moderate positive correlation with poor project management, with a Pearson correlation coefficient of $r = 0.62$.

Consider a manufacturing project where resources such as raw materials, skilled labor, and machinery are essential for project execution. Resource constraints, in this context, might refer to shortages or limitations in these critical resources. Supply chain issues could include disruptions in the procurement and delivery of necessary materials or components.

When a project encounters resource constraints or supply chain problems, several challenges can emerge. For instance, delays in material deliveries can disrupt project timelines, causing costly setbacks. Resource shortages might lead to overworking the available staff, potentially resulting in burnout and decreased productivity. In such

situations, project managers may need to make last-minute adjustments, which can be costly and inefficient.

According to the study by (Saab, Farhan, and Ahmad; 2022) and (Paciorek; 2012), likely provide empirical evidence and case studies illustrating how resource constraints and supply chain issues can adversely impact project management. In summary, the current study's findings, paralleling the research conducted by Saab, Farhan, and Ahmad, as well as Paciorek, underscore the significance of addressing resource constraints and supply chain issues in project management. When these challenges are not effectively managed, they can lead to delays, increased costs, and overall poor project management, potentially jeopardizing the project's success.

5.3 LIMITATION OF THE STUDY

This study has several limitations. Firstly, it only focuses on inadequate project planning, limited project management skills and knowledge, inefficient project monitoring and control, limited stakeholder collaboration, ineffective project leadership, resource constraints and supply chain issues in predicting poor project management.

Moreover, this study had limitations since all the data were collected within one-time point. The cross-sectional design and the exclusive use of a self-report questionnaire made it susceptible to response and social desirability biases. The cross-sectional design makes it impossible to make causal inferences about the relationship between inadequate project planning, limited project management skill and knowledge, inefficient project monitoring and control, limited stakeholder collaboration, ineffective project leadership, resource constraints and supply chain issues with poor project management.

The third constraint pertains to the restricted dataset obtained from respondents outside Kuala Lumpur and Selangor. According to the respondent profile data, merely 11.9%, equivalent to 12 participants, originated from workplaces in other regions. Consequently, the analysis outcomes could exhibit variations, particularly concerning

the omitted variables, given that different geographic areas present diverse challenges for respondents.

It should be noted that the results of this study may not be generalized to the general population of contractors and developers in Malaysia due to the non-representative nature of the sample. Therefore, it is advised that the implications of these findings are not inferred until they are replicated in other contractors and developers in Malaysia, with a larger population of interest.

5.4 RECOMMENDATION OF THE FUTURE RESEARCH

After identifying the limitations of this research, this part provides recommendations for future research. Firstly, future studies may investigate the effects of other factors in predicting poor project management. Other factors that could lead to poor project management are lack of clear objectives, inadequate communication and resources, inflexibility and scope creep.

Future research should rely on longitudinal, multi-informant, and multi-method designs to overcome the limitations of cross-sectional design. Adopting longitudinal, multi-informant, and multi-method designs in future research offers several advantages for overcoming the limitations of a cross-sectional design. Longitudinal studies examine changes over time, while multi-informant approaches provide diverse perspectives and reduce bias. Multi-method designs enhance the robustness of findings by utilizing various data collection techniques. By incorporating these strategies, researchers can enhance their research's depth, accuracy, and validity, ultimately contributing to a richer understanding of the subject matter.

Another suggestion for future research involves expanding the respondent sample and collecting additional data, with a particular emphasis on encompassing workplaces from all regions of Malaysia, including Sabah and Sarawak. By doing so, future research endeavors can achieve a more comprehensive representation of contractors and developers across the country. This expanded data collection approach will facilitate the generation of research findings that can be more widely applied and

generalized to the Malaysian context, benefiting the overall understanding of the subject matter in the Malaysian context.

Finally, the ultimate suggestion for future researchers pertains to adopting a qualitative approach when engaging with their target respondents. Future researchers could employ qualitative research methods, including open-ended questionnaires and face-to-face interviews with participants to gather trustworthy data. This approach will assist future researchers in thoroughly understanding how individuals respond to issues related to poor project management.

5.5 CONCLUSIONS

In this study, several key findings related to the relationship between various factors and poor project management were highlighted. These findings are in line with or supported by previous research and provide valuable insights into the importance of different aspects of project management.

The study found that inadequate project planning was significantly positively related to poor project management, emphasizing the critical role of thorough project planning in achieving project success, a finding that aligns with (Abdul-Rahman, Wang and Mohamed;2015) research. Surprisingly, the analysis in this study did not find a significant positive correlation between limited project management skills and knowledge and poor project management, contrary to the findings. It suggests that in the specific context of this study, other factors may be more influential in determining project management outcomes.

The research revealed a significant positive relationship between inefficient project monitoring and control and poor project management, a finding that supports the idea that ineffective monitoring and control can contribute to poor project management outcomes. Additionally, limited stakeholder collaboration was found to be significantly positively related to poor project management, consistent with the importance of effective collaboration among project stakeholders highlighted in previous research by (Ambler and Wilson, 1995) and (Lin, Ho, and Geoffrey,2018)

The study underscored a significant positive relationship between ineffective project leadership and poor project management, emphasizing the critical role of effective leadership in project management, a finding supported by the research conducted by (Ogunsemi et al; 2015) and (Adabre and Chan's,2018). Furthermore, the study emphasized a significant positive relationship between resource constraints and supply chain issues with poor project management, highlighting the importance of addressing resource and supply chain challenges in project management, a finding similar to research by (Saab, Farhan, and Ahmad; 2022) and (Paciorek; 2012).

However, it's essential to acknowledge the limitations of this study, including its focus on specific factors and potential geographic limitations in data collection. For future research, it's recommended to explore other factors affecting poor project management, adopt more comprehensive research designs such as longitudinal and multi-method approaches, expand the sample to include diverse geographic areas in Malaysia, and consider qualitative methods to gain a deeper understanding of participants' responses related to poor project management. These approaches can contribute to a more comprehensive and nuanced understanding of project management dynamics.

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7.0 APPENDICES

7.1 APPENDIX A: QUESTIONNAIRE

MASTER RESEARCH PROJECT: THE FACTOR'S INFLUENCING POOR PROJECT MANAGEMENT ON HOUSING CONSTRUCTION IN MALAYSIA

Dear Value Respondents,

I am a Tun Abdul Razak University MBA (Master of Business Administration- Majoring Project Management) student (UNIRAZAK). I am conducting research study to fulfill the requirement of my final year research project. The objective of this study's is to survey "The Factor's Influencing Poor Project Management on Housing Construction in Malaysia". Respondent are expected to answer honestly and sincerely. Every response is treated Confidential.

Kindly respond to every single one of enquiries as best as possible. None of this responses to whichever of these assertions is incorrect. All responses and data collected will be handle in the strictest confidentiality and will only be utilized for research purposes.

Your participation is fully appreciated and a million thanks for spending your precious time.

Regards, and for any enquiries about the study or participant's rights, do not hesitate to contact:

Researcher:

Muhamad Ajib Bin Embok Upak (M21711078)

m.ajib217@unirazak.ur.edu.my

Master of Business Administration

(Majoring in Project Management)

Universiti Tun Abdul Razak (UNIRAZAK)

Project Supervisor:

Dr. Farhana Tahmida Newaz

Assistant Professor / Deputy Dean

Universiti Tun Abdul Razak (UNIRAZAK)

By agreeing to this consent form, participant agree to authorized the review data arising from the study by the researcher. By clicking "I agree" below you are indicating that you are at least 18 years old, have read and understood this consent form and agree to participate in this study research.

I agree / Saya bersetuju

SECTION 1 (Demographic Information)

1. Gender (Jantina)

Mark only one

- Female
 Male

2. Age Group (Umur)

Mark only one

- 21-30
 31-40
 41-50
 51-60
 Above 60

3. Race (Bangsa)

Mark only one

- Malay
 Chinese
 Indian
 Other:

4. Highest Level of Education (Pendidikan Tertinggi)

Mark only one

- Certificate / Diploma
 Bachelor's Degree
 Master's Degree
 Ph.D
 Other Professional Qualification
 Other:

5. Field of Study (Bidang Pengajian)

Mark only one

- Architecture
 Engineering
 Quantity Surveying
 Building Construction
 Project Management
 Other:

6. Area of Workplace (Tempat Bekerja)



Mark only one

- Kuala Lumpur
- Selangor
- Other:

7. **Field of Work** (Bidang Pekerjaan)

Mark only one

- Contractor's
- Architect's
- Engineer's
- Contract/ Quantity Surveyor
- Project Manager's
- Other:

8. **Role at Workplace** (Peranan Tempat Kerja)

Mark only one

- Non Executive Level
- Executive Level
- Manager Level
- Top Management
- Other:

9. **Years of Experience in Housing Construction Industry** (Tahun Pengalaman

Dalam Bidang Industri Pembinaan Rumah)

Mark only one

- Below 5 years
- Between 6 years – 10 years
- Between 11 years – 20 years
- 20 years and above

10. **Average Monthly Income** (Purata Pendapatan Bulanan)

Mark only one

- Below RM 5000
- Between RM 5001 – RM 10,000
- Between RM 10,001 – RM 20,0000
- RM 20,000 and above

SECTION 2

Inadequate Project Planning

(Perancangan Projek yang Tidak Mencukupi)

11. Does inadequate project planning will impact the timeline of a housing construction project in Malaysia?

Adakah perancangan projek yang tidak mencukupi akan memberi kesan kepada garis masa projek pembinaan perumahan di Malaysia?

Mark only one

Yes

No

12. Do specific challenges might arise from inadequate project planning in the context of a housing construction project in Malaysia, considering factors such as regulatory approvals, resource allocation, and labor management?

Adakah cabaran khusus mungkin timbul daripada perancangan projek yang tidak mencukupi dalam konteks projek pembinaan perumahan di Malaysia, dengan mengambil kira faktor seperti kelulusan kawal selia, peruntukan sumber dan pengurusan buruh?

Mark only one

Yes

No

13. Does inadequate consideration of cultural or environmental factors during project planning might negatively affect a housing construction project's success in Malaysia?

Adakah pertimbangan yang tidak mencukupi terhadap faktor budaya atau persekitaran semasa perancangan projek boleh menjejaskan kejayaan projek pembinaan perumahan di Malaysia secara negatif?

Mark only one

Yes

No

14. Does inadequate risk assessment and mitigation planning in a housing construction project in Malaysia lead to potential cost overruns and delays?

Adakah penilaian risiko dan perancangan mitigasi yang tidak mencukupi dalam projek pembinaan perumahan di Malaysia membawa kepada potensi lebihan dan kelewatan kos?

Mark only one

Yes

No

15. Does inadequate coordination among various project teams, such as architects, engineers, and contractors, contribute to inefficiencies and suboptimal outcomes in a housing construction project in Malaysia?

Adakah penyelarasan yang tidak mencukupi di kalangan pelbagai pasukan projek, seperti arkitek, jurutera, dan kontraktor, menyumbang kepada ketidakcekapan dan hasil yang tidak optimum dalam projek pembinaan perumahan di Malaysia?

Mark only one

Yes

No

SECTION 3

Limited Project Management Skills and Knowledge

(Kemahiran dan Pengetahuan Pengurusan Projek Terhad)

16. Potential challenges might arise in a housing construction project in Malaysia due to limited project management skills and knowledge, and could these challenges impact project outcomes?

Cabaran yang berpotensi mungkin timbul dalam projek pembinaan perumahan di Malaysia kerana kemahiran dan pengetahuan pengurusan projek yang terhad, dan adakah cabaran ini boleh memberi kesan kepada hasil projek?

Mark only one oval

	1	2	3	4	5	
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Strongly Disagree Sangat Tidak Bersetuju						Strongly Agree Sangat Bersetuju

17. Lack of comprehensive project scheduling and planning affect the timeline and budget of a housing construction project in Malaysia, especially when dealing with limited project management skills?

Kekurangan penjadualan dan perancangan projek yang komprehensif menjejaskan garis masa dan bajet projek pembinaan perumahan di Malaysia, terutamanya apabila berhadapan dengan kemahiran pengurusan projek yang terhad?

Mark only one oval

	1	2	3	4	5	
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Strongly Disagree Sangat Tidak Bersetuju						Strongly Agree Sangat Bersetuju

18. In the context of a housing construction project in Malaysia, inadequate risk assessment and mitigation strategies be stemming from limited project management expertise lead to potential project delays and increased costs.

Dalam konteks projek pembinaan perumahan di Malaysia, penilaian risiko dan strategi mitigasi yang tidak mencukupi berpunca daripada kepakaran pengurusan projek yang terhad membawa kepada potensi kelewatan projek dan peningkatan kos

Mark only one oval

	1	2	3	4	5	
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Strongly Disagree Sangat Tidak Bersetuju						Strongly Agree Sangat Bersetuju

19. Some key aspects of local regulations, codes, and permitting processes that a project manager with limited knowledge might overlook or misunderstand during the execution of a housing construction project in Malaysia.

Beberapa aspek utama peraturan tempatan, kod dan proses membenarkan pengurus projek dengan pengetahuan terhad mungkin terlepas pandang atau salah faham semasa pelaksanaan projek pembinaan perumahan di Malaysia.

Mark only one oval

	1	2	3	4	5	
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Strongly Disagree Sangat Tidak Bersetuju						Strongly Agree Sangat Bersetuju

20. Considering the communication demands of a housing construction project in Malaysia, limited project management skills and knowledge hinder effective collaboration among diverse stakeholders, such as contractors, architects, government agencies, and local communities.

Memandangkan tuntutan komunikasi projek pembinaan perumahan di Malaysia, kemahiran pengurusan projek yang terhad dan pengetahuan menghalang kerjasama yang berkesan di kalangan pihak berkepentingan seperti kontraktor, arkitek, agensi kerajaan dan masyarakat tempatan.

Mark only one oval

	1	2	3	4	5	
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Strongly Disagree Sangat Tidak Bersetuju						Strongly Agree Sangat Bersetuju

SECTION 4

Inefficient Project Monitoring and Control

(Pemantauan dan Kawalan Projek yang Tidak Cepak)

21. The issue of insufficient coordination and communication among stakeholders in Malaysian housing construction projects will contribute to challenges in project monitoring and control.

Isu penyelarasan dan komunikasi yang tidak mencukupi di kalangan pihak berkepentingan dalam projek pembinaan perumahan Malaysia akan menyumbang kepada cabaran dalam pemantauan dan kawalan projek.

Mark only one oval

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Strongly Disagree Sangat Tidak Bersetuju						Strongly Agree Sangat Bersetuju

25. Within the regulatory framework of Malaysia, the compliance challenges and permit delays affect the ability to effectively monitor and control housing construction projects.

Dalam rangka kerja kawal selia di Malaysia, cabaran pematuhan dan kelewatan permit menjejaskan keupayaan untuk memantau dan mengawal projek pembinaan perumahan dengan berkesan.

Mark only one oval

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Strongly Disagree Sangat Tidak Bersetuju						Strongly Agree Sangat Bersetuju

SECTION 5

Limited Stakeholder and Collaboration

(Pihak Berkepentingan Dan Kerjasama Yang Terhad)

26. Limited stakeholder involvement impacts the decision-making process during the planning phase of a housing construction project in Malaysia?

Penglibatan pihak berkepentingan yang terhad memberi kesan kepada proses membuat keputusan semasa fasa perancangan projek pembinaan perumahan di Malaysia?

Mark only one oval

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Strongly Disagree Sangat Tidak Bersetuju						Strongly Agree Sangat Bersetuju

27. In the context of housing construction in Malaysia, the challenges might arise due to limited collaboration between government agencies, developers, and local communities.

Dalam konteks pembinaan perumahan di Malaysia, cabaran mungkin timbul disebabkan kerjasama yang terhad antara agensi kerajaan, pemaju dan masyarakat tempatan.

Mark only one oval

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Strongly Disagree Sangat Tidak Bersetuju						Strongly Agree Sangat Bersetuju

28. Strategies can be housing construction project managers employ to enhance collaboration among stakeholders with limited direct involvement, such as suppliers and subcontractors, to ensure project success in Malaysia's competitive market.

Strategi boleh digunakan oleh pengurus projek pembinaan perumahan untuk meningkatkan kerjasama di kalangan pihak berkepentingan dengan penglibatan langsung yang terhad, seperti pembekal dan subkontraktor, untuk memastikan kejayaan projek dalam pasaran kompetitif di Malaysia.

Mark only one oval

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	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Strongly Disagree Sangat Tidak Bersetuju						Strongly Agree Sangat Bersetuju

29. Does might the lack of collaboration between environmental regulatory bodies and housing developers influence sustainable practices in construction projects across Malaysia?

Adakah kekurangan kerjasama antara badan kawal selia alam sekitar dan pemaju perumahan boleh mempengaruhi amalan mampan dalam projek pembinaan di seluruh Malaysia?

Mark only one oval

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Strongly Disagree Sangat Tidak Bersetuju						Strongly Agree Sangat Bersetuju

SECTION 6

Ineffective Project Leadership

(Kepimpinan Projek yang Tidak Berkesan)

33. Within the Malaysian housing construction industry, ineffective leadership contribute to team demotivation in a project success turnover.

Dalam industri pembinaan perumahan di Malaysia, kepimpinan yang tidak berkesan boleh menyumbang kepada penurunan motivasi pasukan dalam perolehan kejayaan di dalam projek.

Mark only one oval

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Strongly Disagree Sangat Tidak Bersetuju						Strongly Agree Sangat Bersetuju

SECTION 7

Resources Constraints and Supply Chain Issues

(Kekangan Sumber dan Isu Rantai Bekalan)

34. Do resource constraints, such as limited availability of construction materials and skilled labor, impact the progress and timeline of housing construction projects in Malaysia?

Adakah kekangan sumber, seperti ketersediaan bahan binaan dan buruh mahir yang terhad, memberi kesan kepada kemajuan dan garis masa projek pembinaan perumahan di Malaysia?

Mark only one oval

	1	2	3	4	5	
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Strongly Disagree Sangat Tidak Bersetuju						Strongly Agree Sangat Bersetuju

35. Do supply chain disruptions, such as transportation delays or import/export restrictions, play in exacerbating the challenges of resource constraints faced by housing construction projects in Malaysia?

Adakah gangguan rantai bekalan bahan binaan, seperti kelewatan pengangkutan atau sekatan import/eksport, memainkan peranan dalam memburukkan lagi cabaran kekangan sumber yang dihadapi oleh projek pembinaan perumahan di Malaysia?

Mark only one oval

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	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Strongly Disagree Sangat Tidak Bersetuju						Strongly Agree Sangat Bersetuju

36. In the context of housing construction projects, innovative construction techniques and technologies help mitigate the effects of resource constraints and supply chain issues in Malaysia?

Dalam konteks projek pembinaan perumahan, teknik dan teknologi pembinaan yang inovatif membantu mengurangkan kesan kekangan sumber dan isu rantaian bekalan di Malaysia?

Mark only one oval

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	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Strongly Disagree Sangat Tidak Bersetuju						Strongly Agree Sangat Bersetuju

37. Can housing developers and construction firms adopt to diversify their supplier base and ensure a more resilient supply chain amidst the uncertainties caused by factors like geopolitical tensions and global pandemics?

Bolehkah pemaju perumahan dan firma pembinaan menerima pakai untuk mempelbagaikan pembekal mereka dan memastikan rantaian bekalan bahan binaan yang lebih berdaya tahan di tengah-tengah ketidaktentuan yang disebabkan oleh faktor seperti ketegangan geopolitik dan pandemik global?

Mark only one oval

	1	2	3	4	5	
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Strongly Disagree Sangat Tidak Bersetuju						Strongly Agree Sangat Bersetuju

38. Considering the increasing demand for sustainable construction practices, resource constraints and supply chain challenges impact the incorporation of eco-friendly materials and energy-efficient technologies in housing projects across Malaysia?

Memandangkan peningkatan permintaan untuk amalan pembinaan mampan, kekangan sumber dan cabaran rantaian bekalan memberi kesan kepada penggabungan bahan mesra alam dan teknologi cekap tenaga dalam projek perumahan di seluruh Malaysia?

Mark only one oval

	1	2	3	4	5	
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Strongly Disagree Sangat Tidak Bersetuju						Strongly Agree Sangat Bersetuju

SECTION 8

Poor Project Management in Housing Construction

(Pengurusan Projek yang Lemah dalam Pembinaan Perumahan)

39. Timely identification and resolution of issues during construction are common in Malaysian housing projects.

Pengenalpastian tepat pada masanya dan penyelesaian isu semasa pembinaan adalah perkara biasa dalam projek perumahan Malaysia.

Mark only one oval

	1	2	3	4	5	
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Strongly Disagree Sangat Tidak Bersetuju						Strongly Agree Sangat Bersetuju

40. Some of the common challenges that housing construction projects in Malaysia might face in obtaining the necessary permits and approvals from local authorities?

Beberapa cabaran biasa yang mungkin dihadapi oleh projek pembinaan perumahan di Malaysia dalam mendapatkan permit dan kelulusan yang diperlukan daripada pihak berkuasa tempatan?

Mark only one oval

	1	2	3	4	5	
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Strongly Disagree Sangat Tidak Bersetuju						Strongly Agree Sangat Bersetuju

41. Does use of outdated technology and construction methods will impact project management efficiency in Malaysia?

Adakah penggunaan teknologi lapuk dan kaedah pembinaan akan memberi kesan kepada kecekapan pengurusan projek di Malaysia?

Mark only one oval

	1	2	3	4	5	
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Strongly Disagree Sangat Tidak Bersetuju						Strongly Agree Sangat Bersetuju

42. Does regular project monitoring and control mechanisms are in place in housing construction projects in Malaysia?

Adakah anda bersetuju mekanisme pemantauan dan kawalan projek secara berkala dilaksanakan dalam projek pembinaan perumahan di Malaysia?

Mark only one oval

	1	2	3	4	5	
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Strongly Disagree Sangat Tidak Bersetuju						Strongly Agree Sangat Bersetuju

43. Do you agree that poor project management is a major contributing factor to issues in housing construction projects in Malaysia?

Adakah anda bersetuju bahawa pengurusan projek yang lemah merupakan faktor penyumbang utama kepada isu-isu dalam projek pembinaan perumahan di Malaysia?

Mark only one oval

	1	2	3	4	5	
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Strongly Disagree Sangat Tidak Bersetuju						Strongly Agree Sangat Bersetuju

APPROVAL PAGE

TITLE PROJECT PAPER : THE FACTORS INFLUENCING POOR PROJECT MANAGEMENT ON HOUSING CONSTRUCTION PROJECT'S IN MALAYSIA

NAME OF AUTHOR : MUHAMAD AJIB BIN EMBOK UPAK

The undersigned certify that the above candidate has fulfilled the condition of the project paper prepared in partial fulfilment for the degree of Master of Business Administration

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Supervisor,
Date:

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Professor Dr. Benjamin Chan Yin Fah
Dean,
Graduate School of Business
Date:

