

**ANALYZING THE MOST PROMINENT
ISSUES DURING REHABILITATION PROCESS
OF ABANDONED HOUSING PROJECT**

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ANALYZING THE MOST PROMINENT ISSUES DURING REHABILITATION
PROCESS OF ABANDONED HOUSING PROJECT

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Thesis submitted in partial fulfillment of the requirements
for the award of the
B. Eng (Hons) Civil Engineering

Faculty of Civil Engineering & Earth Resources

UNIVERSITI MALAYSIA PAHANG

MAY 2019

ACKNOWLEDGEMENTS

Bachelor of degree is a long and tough journey with a lot of obstacles and hardships. However, with continuous help, guide and valuable support the completion of this thesis has been possible. I would like to thank my supervisor, En.Zahrizan Bin Zakaria who has been supervising me during this final year project. I would like to thank him upon his her professionalism, patience and guidance in supervising my studies. The best parts of this thesis would not have been possible without his inputs. Then, I would like to thank the interviewees and the questionnaire respondents. It is fortunate that there are people in the industry who support research efforts and have provided quality information.

Also, I would to thank my father Shammudi bin Sihar, my mother Kalshom binti Taram, and my sisters Noorfadzilah and Nor Hidayah who have been my biggest supporters in terms of mentally, psychologically and also financially. I would not be able to go through my hardest moment without their supports. They all kept me going and this book would not be possible without them

Last but not least, I would like to acknowledge with gratitude, the support from important in university life who are my classmates Azri Nurfathiah and also Noor Syazwani. There are also my handball teammates Fateen Zulaiqha, Mumtazah Annura, Muhd Nur Aimanuddin, Nik Muhd Khaidir, Amirul Arsyad, Zulkarnain, Afisyakirin and Syahrizal who always give me moral supports and helped throughout my university life. Also, thank you to my colleagues in Universiti Malaysia Pahang who have provided extraordinary moral support to ease my countless episodes of sufferings throughout the process.

ABSTRAK

Isu bangunan terbengkalai telah berlaku di seluruh dunia dan tidak membawa perkara yang positif kepada negara sama ada dari segi kepentingan dan juga ekonomi. Di Malaysia, isu ini telah berkembang dengan drastik sehingga tidak terkawal. Oleh sebab itu, kajian ini dilakukan bertujuan untuk mengkaji bangunan terbengkalai di Malaysia. Bangunan terbengkalai bermaksud sebarang projek dari segi bangunan, kejuruteraan awam dan projek pembangunan kejuruteraan berat seperti rumah, sekolah, jambatan, jalan raya, bangunan tinggi dan lain-lain yang tidak disiapkan dalam tempoh yang ditetapkan dan telah mencemarkan pemandangan. Isu projek terbengkalai masih merupakan masalah yang belum dapat diselesaikan di Malaysia. Walaupun terdapat projek-projek terbengkalai yang telah dihidupkan kembali berjaya, tetapi ada projek-projek yang masih dihidupkan semula atau dianggap dipulihkan. Pada masa yang sama terdapat banyak projek terbengkalai yang belum lagi dekat dengan peringkat pertimbangan, kerana beberapa sebab seperti kemungkinan kebangkitan semula projek adalah tipis kerana tidak ada syarikat yang berminat melabur pada kebangkitan projek terbengkalai. Terdapat banyak dasar-dasar dan undang-undang telah digubal oleh kerajaan Malaysia, namun masalah projek perumahan terbengkalai masih berlaku dan masih belum ditangani sepenuhnya. Dalam kajian ini, soal selidik dan kajian literatur dijalankan untuk menilai isu-isu yang timbul dalam pemulihan projek perumahan terbengkalai. Pencapaian yang dijangka daripada kajian ini adalah untuk menyediakan kaedah pencegahan untuk isu dan penyelesaian menghidupkan semula kepada bangunan terbengkalai di Malaysia. Sebanyak 50 soalan kaji selidik telah diedarkan secara rawak kepada kontraktor, perunding, pemaju, kerajaan, dan lain-lain. Borang soal selidik telah diedarkan melalui rangkaian sosial, e-mel juga dengan tangan menggunakan borang soal selidik. Sebanyak 34 set soalan selidik telah dikembalikan dan digunakan sebagai analisis untuk kajian ini. Relatif Indeks Ketaksamaan (RII) telah diguna pakai untuk menilai ranking faktor yang berbeza oleh responden. Daripada dapatan kajian, masalah pengurusan and kewangan serta perundangan menjadi isu utama yang menyebabkan pemulihan projek terbengkalai tidak dapat dijalankan dengan pantas dan sempurna dan demikian menyebabkan angka bilangan projek terbengkalai tidak dapat dikurangkan.

ABSTRACT

The issue of abandoned building happens across the globe, and it brings nothing positive to the stakeholders as well as to the country economy. In Malaysia, this issue has grown to an unbearable state, and this study aims to study the abandoned building in Malaysia. Abandoned was the project including the building, civil engineering and heavy engineering development project for example houses, schools, bridges, roads, high rise building and others that been abandoned. The issue of abandoned projects is still an unsettled issue in Malaysia. Although there are abandoned projects that has been revived successfully, but there are projects that are still being revived or being considered to be revived. At the same time there are number of abandoned projects which has not yet come close to the consideration stage, due to some reasons such as the possibility of project revival is slim as there are no companies that are interested in investing on the revival of abandoned projects. Even though there are numerous policies and laws have been promulgated by the Malaysian government, yet the problem of abandoned housing projects is still occurring and has not yet been fully addressed. In this study, questionnaires and literature studies were conducted to assess the issues that arise in the rehabilitation of abandoned housing projects. The expected outcomes of this study are to provide preventive measures for reviving issues and solutions to abandoned buildings in Malaysia. The expected outcomes of this study are to provide methods of prevention for the issue and reviving solutions to the abandoned building in Malaysia. Minimum 50 questionnaires surveys were distributed randomly to contractor, consultant, developer, government, and others. The questionnaires forms were distributed through the social network, e-mail and also by hand using questionnaire form. The 34 sets of questionnaire were used and as the analyzed in this research. Relative Index Inequality (RII) is adopted to evaluate the ranking of different factors by the respondents. From the findings of the study, management, financial and legal issues are the major issues that cause the abandonment of the abandoned project cannot be carried out quickly and perfectly so the number of abandoned projects cannot be reduced. The precautionary steps should take before start the project to avoid the abandoned housing project happen, where the legality of the developer should be tracked.

TABLE OF CONTENT

DECLARATION

TITLE PAGE

ACKNOWLEDGEMENTS	ii
ABSTRAK	iii
ABSTRACT	iv
TABLE OF CONTENT	v
LIST OF TABLES	ix
LIST OF FIGURES	x
LIST OF ABBREVIATIONS	xi
CHAPTER 1 INTRODUCTION	1
1.1 Introduction	1
1.2 Background of Study	3
1.3 Problem Statement	4
1.4 Research Objectives	5
1.5 Scope of Study	5
1.6 Significant Of Study	5
1.7 Methodology	6
1.8 Layout of Thesis	7
CHAPTER 2 LITERATURE REVIEW	8
2.1.1 Current state of abandoned housing in Malaysia : Statistic of abandoned housing project in Malaysia	8
2.1.2 Introduction	8

2.1.2.1	Year 2014	9
2.1.2.2	Year 2015	10
2.1.2.3	Year 2016	11
2.1.2.4	Year 2017	12
2.2	Rehabilitation Status of Abandoned Housing Projects in Malaysia.	13
2.2.1	Year 2014	14
2.2.2	Year 2015	15
2.2.3	Year 2016	16
2.3	Issues During Rehabilitation Process	17
2.3.1	Managerial Aspect	17
2.3.2	Financial Aspect	18
2.3.3	Legal and Regulatory	18
2.3.4	Construction-related Aspect	19
CHAPTER 3	METHODOLOGY	20
3.1	Introduction	20
3.2	Literature Review	20
3.3	Data Collection Method	21
3.3.1	Secondary Data	21
3.3.2	Primary Data	21
3.4	Development Of Questionnaire	21
3.4.1	Section A	22
3.4.2	Section B	22
3.4.3	Section C	23
3.5	Questionnaire Distribution	24

3.6	Analysis of Data	24
3.7	Summary	24
CHAPTER 4 RESULTS AND DISCUSSION		25
4.1	Introduction	25
4.2	Responses to Questionnaire	25
4.2.1	Background Of Respondents	26
4.2.1.1	Profession Of Respondents	26
4.2.1.2	Respondents Age	27
4.2.1.3	Locations	27
4.3	Part B : Evaluate the perspective from respondents regarding the current state of Abandoned Housing Project in Malaysia and the rehabilitation .	28
4.3.1	About Abandoned Housing Project	30
4.3.2	Rehabilitation of Abandoned Housing Project	32
4.4	Issues During Rehabilitation Of Abandoned Project	37
4.4.1	Managerial	37
4.4.2	Financial	38
4.4.3	Legal and Regulatory	39
4.4.4	Technical Aspect	40
4.4.5	Construction-Related Aspect	41
4.5	Most Prominent Issue	42
CHAPTER 5 CONCLUSION		43
5.1	Introduction	43
5.2	Conclusion of Findings	43

5.2.1	To study the current state of abandoned housing project and the rehabilitation process in Malaysia	43
5.2.2	To analyse the most prominent issues during the rehabilitation process of abandoned project.	44
5.3	Recommendations	45
	REFERENCES	47
	APPENDIX A SAMPLE OF QUESTIONNAIRES AND RESPONDENTS FEEDBACK	51

LIST OF TABLES

Table 2.1	Abandoned housing project by state, 2014	10
Table 2.2	Abandoned housing project by state, 2015	11
Table 2.3	Abandoned housing project by state, 2016	12
Table 2.4	Abandoned housing project by state, 2017	13
Table 4.1	Number of questionnaire distributed	26
Table 4.2	Perspective on abandoned housing project	32
Table 4.3	Managerial aspect result	37
Table 4.4	Financial aspect results	38
Table 4.5	Legal And Regulatory aspect results	39
Table 4.6	Technical Aspect results	40
Table 4.7	Construction Related Result	41

LIST OF FIGURES

Figure 1.1	Methodology Flow chart	7
Figure 2.1	Overall status of abandoned housing project, 2014	15
Figure 2.2	Overall status of abandoned housing project, 2015	16
Figure 2.3	Overall status of abandoned housing project, 2016	17
Figure 4.1	Professions of Respondents	27
Figure 4.3	Respondent's Age	27
Figure 4.4	Locations of respondents	28
Figure 4.5	Perspective on abandoned housing project	32
Figure 4.6	Involvement in rehabilitation of abandoned housing project	34
Figure 4.7	Respondent's choices rehabilitation as the best way to revive abandoned housing	34
Figure 4.8	Respondent's choices on government role on abandoned housing project	35
Figure 4.9	Respondent's choices on developers as important parties in rehabilitation work of abandoned housing project	35
Figure 4.10	Respondent's choices on reviving abandoned housing	36
Figure 4.11	Respondent's choices on exposure to risk during rehabilitation of abandoned project	36
Figure 4.12	Respondent's choices of risk in rehabilitation process	37

LIST OF ABBREVIATIONS

MHLG	Ministry of Housing and Local Government
JPN	Jabatan Perumahan Negara
S&P	Sale and Purchase Agreement
KPI	Key Performance Index
KPKT	Kementerian Perumahan dan Kerajaan Tempatan

CHAPTER 1

INTRODUCTION

1.1 Introduction

The Ministry of Housing and Local Government stated that housing should provide the occupants with safety, security, comfort and health and other services. However, not all buyers get to experience the joy and smooth sailing of buying a house. In fact, there are some them who suffering from having the half way done house and don't even have the chance to enter the new house. This has been a nightmare where the progress has slowing down and finally stops the construction. This situation is referred as abandoned housing project and the worst nightmare to the buyers. Due to the failure to implement the law on developers, the government are blamed by the house buyers while the parties involved are blaming each other. Also, the developers blame the bank as the project sponsors and the local authorities and the local authorities blame the engineers and also the architects because they failed to submit the report progress of the project.

The pressing issue on abandoned housing project has been a hot topic not only in the urban area, but also in the rural area. Also, this issue always been highlighted in media and has become a major concern to stakeholders that involves in the project especially the house purchasers and also the government. Although this issue has been voice out in higher authorities, this issues has remain to be a problem not only in every year but also in daily life. There are four (4) criteria and conditions that has been set by Ministry of Housing and Local Government to declare the housing project as abandoned project: (1) the house units are not finished within or exceeded the period that stated in Sale and Purchase agreement (S&P) or there are no obvious construction progress continuously in 6 month, (2) Winding petitions have been registered at the High Court under Section 218 of the Companies Act 1966, (3) the developers declares

inability to the Housing Officer in writing, (4) confirmed to be the abandoned housing project by the Ministry of Urban Wellbeing, Housing and Local Government pursuant to the Housing Development act Section 11 (1) (a) of Act 118.

This problem has suffered the Malaysian housing sector since early 1980s up to date. For example, in 2016 there were only 74 abandoned housing projects in peninsular Malaysia (excluding Sabah and Sarawak) comprising 16,036 housing units and 11,339 purchasers (KPKT, 2016). To overcome this problem, the Malaysian has government has undertaken four initiatives (1) carry out rehabilitation for current abandoned projects, (2) change the current selling system to (build-then-sell), (3) encouraging project delivery success through some approaches such as public-private partnerships, and (4) (Abdul-Aziz, A.R. and Kassim, 2011) (Dahlan, 2011).

Out four initiatives, rehabilitation has been the main initiative to overcome this problem. Rehabilitation can be defined as some parties taking over the construction work and continue the project to be completed. This initiative may be the only way to preserve the right of house purchaser who continuously pay the instalment to their lenders, bank especially to avoid any legal prosecution or bankruptcy. According to Ministry of Wellbeing, Housing and Local Government, there are 48 projects under rehabilitation process. According to (Khalid, 2010) not all projects that are under rehabilitation process are guaranteed to be completed successfully. In reviving abandoned projects, the process involved various levels of stakeholders such as new developers, previous developers, contractors, consultants, creditors, liquidators, homebuyers, local authorities and the Ministry of Wellbeing, Housing and Local Government. Once rehabilitation is approved, the construction work can be resumed. During this process, various uncertainties may occur and putting the process at stake. This study will identify the most prominent issues and challenge that arising during the rehab process document, it is important that you should enable several *Microsoft Word* features first.

1.2 Background of Study

Most of the rehabilitation of abandoned housing projects in Peninsular Malaysia were left to the discretion of the rehabilitating parties with the cooperation and assistance of the charge, lender banks, purchasers, local planning authorities, local authorities, technical agencies, the states and federal authorities, the end-financiers, the land offices and MHLG. The stringent laws governing housing development, land, banking, planning and building, were mostly made relaxed and flexible to accommodate the needs and to facilitate the due execution of the rehabilitation scheme. For example in *Hongkong and Shanghai Banking Corporation Ltd v. Kemajuan Bersatu Enterprise Sdn. Bhd* [1992] 1 LNS 26 (High Court), the court allowed the application of the creditor to appoint a provisional liquidator pending the disposal of a winding up petition for the purpose of rehabilitating the abandoned housing project carried out by the respondent company. Nevertheless, there are situations where there are no required help and facility to smooth out the rehabilitation scheme, to the detriment of the purchasers desiring the project so abandoned to be revived. For example in *Mohammad bin Bae v. Pembangunan Farlim Sdn. Bhd.* [1988] 3 MLJ 211 (High Court), the court refused the application of the purchasers to have the abandoned housing project revived by the newly appointed receiver and manager because of the difficulty to supervise the rehabilitation process. However, the court granted damages to the purchasers. In other situations, the court allowed the application of the creditor bank to order the foreclosure of the project land charged on the default of the borrower developer in the repayment of the bridging loans, to the detriment of the purchasers' right to have the project revived.

Dahlan (2011b) indicated the following risks pertaining to abandoned housing projects: unsettled legal actions, risks related to the new selling system, lack of developers' liabilities, contractors' capacity to deliver the project, lack of appropriate funding resource, developer's failure to sell all bridging loans, and inadequate homebuyers. These risks can be regarded as legal and regulatory as well as financial risks. In addition, Dahlan (2011b) highlighted other potential risks, which can be categorized as managerial risks, namely construction delay, project not considered abandoned anymore if auctioned off to other parties or the application for reviving the project is rejected (project not viable for rehabilitation), lack of compromise and collaboration (e.g. consultant with holding necessary information about the projects),

and problems related to the ownership of land. Lastly, technical risks include soil conditions and landslides, lack of complete sets of information about the abandoned project, price increase of building materials, poor building quality, and shortage of manpower (Dahlan, 2011b; Jamaludin and Hussein, 2006; Sulaiman et al, 2012)

1.3 Problem Statement

The presence of great numbers of abandoned housing project in our country has given great anxiety to various parties including the homebuyers and the government. Under the Government Transformation Program Roadmap, one of the ministry's KPI is reviving abandoned residential project. In order to achieve the KPI, the ministry had taken steps to engage the existing developers to help them. (Mastura Atan, 2012). From years to years, the number of abandoned housing project seems to be decreasing. It takes so many courage for the stake holders and the government to take responsibilities in order to solve this problem. Reviving abandoned housing is not an easy task as it requires full support from the government and stakeholders, particularly the homebuyers who in most cases need to top-up on the prices. At the same time there are number of abandoned projects which has not yet come close to the consideration stage, due to some reasons such as the possibility of project revival is slim as there are no companies that are interested in investing on the revival of abandoned projects. As starting a new construction project, reviving an abandoned project has its challenges and risks as well, but when a project is successfully revived and completed, it does have its beneficial contribution to various parties, and reduces the burden and the anxiety of this parties Exposure to risk during the rehabilitation process may influence the progress of completion of the remaining construction work. Several unfavourable risks and issues that occur may affect the process. For this reason, this research will study the current state of abandoned housing project in Malaysia, identify the issues and risk during the rehabilitation process, and analyse the most prominent issues and risk during the rehabilitation process.

1.4 Research Objectives

The purpose of this research is to look into the issues during the rehabilitation process abandoned housing project. This goal will be achieved through the following objectives:

- i. To study the current state of abandoned housing project and the rehabilitation process in Malaysia
- ii. To identify the issues and during the rehabilitation process.
- iii. To analyse the most prominent issues during the rehabilitation process of abandoned project.

1.5 Scope of Study

The surveys of the study have focused on Klang Valley. This study applied review on study the current state of abandoned housing project in Malaysia and types of risks and issue arises during the rehabilitation process. Questionnaire survey is applied to investigate the most prominent issues and risk of rehabilitation process and come out with the method to reduce the risks in order to make the rehabilitation progress going smoothly. This study will involve government bodies, consultant department, developer, academician and also the public to identify opinion on issues for reviving abandoned project

1.6 Significant Of Study

There are several significances on conducting this study. The significance of establishing the issues on rehabilitation of abandoned project was to create greater insight to ensure that the abandoned housing project in Malaysia can be revived smoothly with minimal problems and risks. This can be achieved by applying theoretical concepts discussed in a few literatures. Hopefully this finding can be as useful guide for parties involved in construction in order to improve the performance of project management in construction industries in Malaysia

The purpose of this research is to look into the issues during the rehabilitation process abandoned housing project. This goal will be achieved through the following objectives:

1.7 Methodology

Research methodology that are applied in this research :

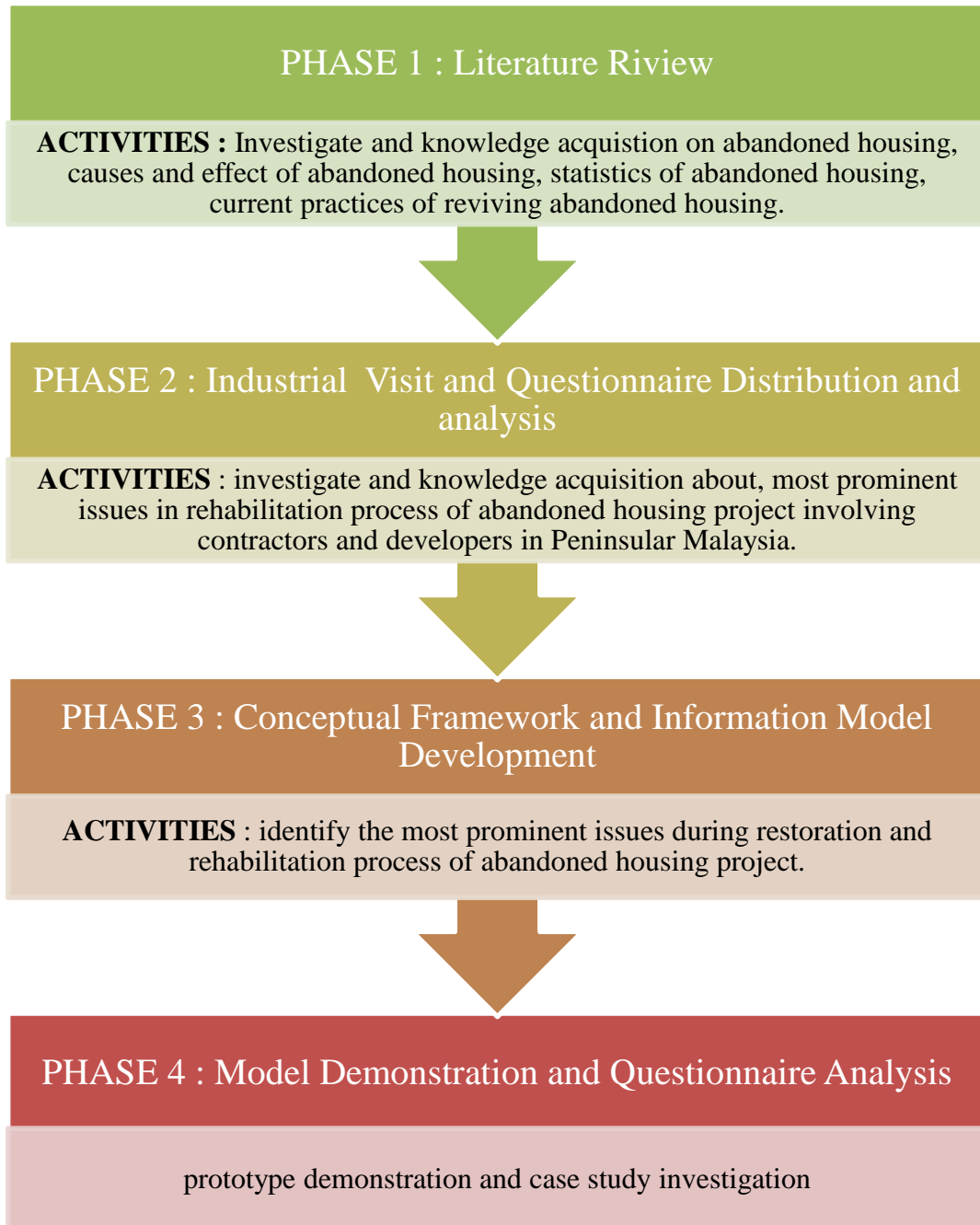


Figure 1.1 Methodology Flow chart

1.8 Layout of Thesis

In order to make this report more systematic and more organized for the reader to read the research, it is organized into five chapters. General description of every chapters in this report are given as below:

- i. **Chapter 1:** is basically the introduction of the project which discuss about the background of the study, problem statement, objectives, scopes and significance of the study.
- ii. **Chapter 2:** describes about the literature review of the study which contains the information about statistics of abandoned housing project in Malaysia for the past 5 years and statistic of rehabilitation of abandoned housing project. Also, this chapter consist of literature review on issues during the rehabilitation process of abandoned housing project
- iii. **Chapter 3:** shall describe on the methodology of the project. This chapter will discuss the overall approach of the study. It will cover the approached method to be used.
- iv. **Chapter 4:** will describe on data analysis and results of the project. This chapter will discuss and analyse the result of the data obtain. It must achieve the objective of this research.
- v. **Chapter 5:** concludes the study which shows that the project has been achieved the objectives of the project

CHAPTER 2

LITERATURE REVIEW

2.1.1 Current state of abandoned housing in Malaysia : Statistic of abandoned housing project in Malaysia

2.1.2 Introduction

Based on Table 2.4.1, this table shows the total number of abandoned housing projects. The impacts on the house buyers are twofold: Despite the fact that the purchased properties will not be completed, the house buyers still have to service bank loans for the unfinished houses (NST Online 2009; Ng 2011; Rahman 2012) and meanwhile have to rent another house to stay (Chan 2009; Ng 2009b). They also suffer losses for being unable to reap the benefit from potential property value appreciation and rental collection (Chow 2009). Some house buyers have even been blacklisted by the banks as they fail to service their bank loans (Yip 2009b; Yip 2009a). Consequently, they are unable to buy another property unless they pay back their loans (Yip 2009a). House buyers of abandoned projects have often been left without any assistance from the developer and have to resort to the tedious process of forming a committee to deal with the developers and the authorities (Ali 2011; Chan 2009; Chow 2009). There are cases which have been dragged on for so long that some owners have even passed away before any plan to revive the project is in place (Chan 2009). Although occasionally settlements are reached between the developers and the house buyers, the settlement amount might be disproportionate to the actual losses suffered by the house buyers (Lim 2009; Yip 2009a). The buyers often have no choice but to reluctantly accept the settlement offered as they become financially stressed. For some revived projects on leasehold land, owners are left with less years remaining on the lease after many years of abandonment (The Star Online 2009). All these have negative effects on the image of the country in the eyes of foreign property investors (Chang 2009).

2.1.2.1 Year 2014

NEGERI	BIL. PROJEK	BIL. UNIT RUMAH	BIL. PEMBELI
JOHOR	11	4,126	3,112
KEDAH	3	814	215
KELANTAN	1	39	29
MELAKA	1	554	502
NEGERI SEMBILAN	5	1,165	999
PAHANG	4	761	589
PERAK	9	1,023	536
PULAU PINANG	2	1,550	1,337
SELANGOR	30	13,624	9,576
W.P. KUALA LUMPUR	2	1,070	573
JUMLAH	68	24,726	17,468

Table 2.1 Abandoned housing project by state (Jabatan Perumahan Negara 2014)

Table 2.1 shows the overall status of the housing project abandoned by the state in 2014. A total of 57 projects listed housing abandoned in January 2014. From the number, 24 projects in Selangor, 11 projects in the Johor and 22 other projects are in other states. For the addition of new abandoned projects, 6 projects are in Selangor, 3 projects in Perak and 2 projects in Pahang. Out of 15 abandoned / completed abandoned housing projects, 8 project involving abandoned housing projects in the Selangor, 3 projects in Johor and 1 project in Kedah, Melaka, Negeri Sembilan and Wilayah Persekutuan Kuala Lumpur. Recovery of 15 abandoned projects throughout 2014 to make abandoned housing projects listed on 31st December 2014 is a total of 53 projects. Of these, 22 project involving abandoned housing projects in the Selangor, 9 projects in the Perak and the remaining 22 projects involved abandoned projects in other states.

2.1.2.2 Year 2015

NEGERI	BIL. PROJEK	BIL. UNIT RUMAH	BIL. PEMBELI
JOHOR	9	2,868	2,101
KEDAH	2	765	169
KELANTAN	4	289	263
MELAKA	0	0	0
NEGERI SEMBILAN	4	973	807
PAHANG	6	812	634
PERAK	9	962	600
PERLIS	0	0	0
PULAU PINANG	2	1,550	1,337
SELANGOR	24	7,856	5,366
TERENGGANU	2	210	165
W.P. KUALA LUMPUR	1	134	23
JUMLAH	63	16,419	11,465

Table 2.2 Abandoned housing project by state(Jabatan Perumahan Negara 2015)

Table 2.2 shows the overall status of abandoned housing projects by state in 2015. A total of 63 listed housing projects were abandoned in January 2015. Of these, 24 projects were in the Selangor, 9 projects in the Johor and 30 other projects in the states others. In addition to the new abandoned projects, 3 projects are in Kelantan and Pahang, 2 projects in Selangor and Terengganu and 1 in Johor. Of the 15 completed / completed abandoned housing projects, 6 projects involving abandoned housing projects in Selangor, 4 projects in Perak and two projects in Pahang and Negeri Sembilan and 1 project in Kelantan. The recovery of 15 abandoned projects throughout the year led to abandoned housing projects listed on December 31, 2015, with 48 projects. Of these, 18 projects involving abandoned housing projects in the State of Selangor, 9 projects in the Johor and the remainder of 21 projects involved abandoned projects in other states

2.1.2.3 Year 2016

NEGERI	BIL. PROJEK	BIL. UNIT RUMAH	BIL. PEMBELI
JOHOR	10	2,890	2,107
KEDAH	2	765	169
KELANTAN	12	1,095	1,079
MELAKA	0	0	0
NEGERI SEMBILAN	2	323	294
PAHANG	5	618	478
PERAK	5	675	394
PERLIS	0	0	0
PULAU PINANG	2	1,550	1,337
SELANGOR	32	7,667	5,184
TERENGGANU	3	319	274
W.P. KUALA LUMPUR	1	134	23
JUMLAH	74	16,036	11,339

Table 2.3 Abandoned housing project by state (Jabatan Perumahan Negara 2016)

Table 2.3 shows the overall status of abandoned housing projects by state in 2016. A total of 74 listed housing projects were abandoned in January 2016. Of these, 32 projects were in Selangor, 12 projects in Kelantan, 10 projects in Johor and 20 projects again are in other states. For 2016 there are 26 new abandoned projects, 14 projects in Selangor, 9 projects in Kelantan and 1 project in Pahang, Terengganu and Johor respectively. Of the 15 completed / completed abandoned housing projects, 4 projects involving abandoned housing projects in Selangor, 2 projects in Kelantan and 1 project in Johor and Perak respectively. The restoration of 8 abandoned projects throughout the year 2016 has left 66 projects on abandoned housing projects listed on December 31, 2016. Of these, 28 projects involving abandoned housing projects in the State of Selangor, 10 projects in the State of Kelantan and the balance of 28 projects involved abandoned projects in other states.

2.1.2.4 Year 2017

NEGERI	BILANGAN PROJEK	BILANGAN UNIT RUMAH	BILANGAN PEMBELI
JOHOR	44	8,839	5,807
KEDAH	14	2,097	1,228
KELANTAN	19	1,961	1,662
MELAKA	8	1,503	1,072
NEGERI SEMBILAN	25	4,340	3,110
PAHANG	17	3,458	2,594
PERAK	18	2,327	1,407
PERLIS	0	0	0
PULAU PINANG	14	6,660	3,715
SELANGOR	82	29,483	20,788
TERENGGANU	4	340	293
WP KUALA LUMPUR	9	3,632	2,010
JUMLAH	254	64,640	43,686

Figure 2.4 Abandoned housing project by state (Jabatan Perumahan Negara 2017)

Table 2.4 shows the overall status of abandoned housing projects by state in 2017. A total of 254 listed housing projects were abandoned in January 2017. Of these, 82 projects were in Selangor, 19 projects in Kelantan, 44 projects in Johor and etc. For 2017 there are 26 new abandoned projects, 14 projects in Selangor, 9 projects in Kelantan and 1 project in Pahang, Terengganu and Johor respectively. Of the 15 completed / completed abandoned housing projects, 4 projects involving abandoned housing projects in Selangor, 2 projects in Kelantan and 1 project in Johor and Perak respectively. The restoration of 8 abandoned projects throughout the year 2017 has left 66 projects on abandoned housing projects listed on December 31, 2017. Of these, 28 projects involving abandoned housing projects in the State of Selangor, 10 projects in the Kelantan and the balance of 28 projects involved abandoned projects in other states.

2.2 Rehabilitation Status of Abandoned Housing Projects in Malaysia.

Rehabilitation of a building is also closely related to building restoration, where the U.S. Secretary of Interior's standards, describes it as a particular treatment approach and philosophy within the field of architectural conservation. It is also according to them that the terms of restoration is defined as the act or a process of accurately depicting the form, features, and character of a property as it is appeared at a particular period of time by means of the removal of features from other periods in its history and reconstruction of missing features from the restoration period. The limited and sensitive upgrading of mechanical, electrical, and plumbing systems and other code-required work is done here to make properties as functional as possible and to make sure it is appropriate within a restoration project.

Although there are abandoned projects that has been revived successfully, but there are projects that are still being revived or being considered to be revived. At the same time there are number of abandoned projects which has not yet come close to the consideration stage, due to some reasons such as the possibility of project revival is slim as there are no companies that are interested in investing on the revival of abandoned projects. As starting a new construction project, reviving an abandoned project has its challenges and risks as well, but when a project is successfully revived and completed, it does have its beneficial contribution to various parties, and reduces the burden and the anxiety of these parties as well including the government.

2.2.1 Year 2014

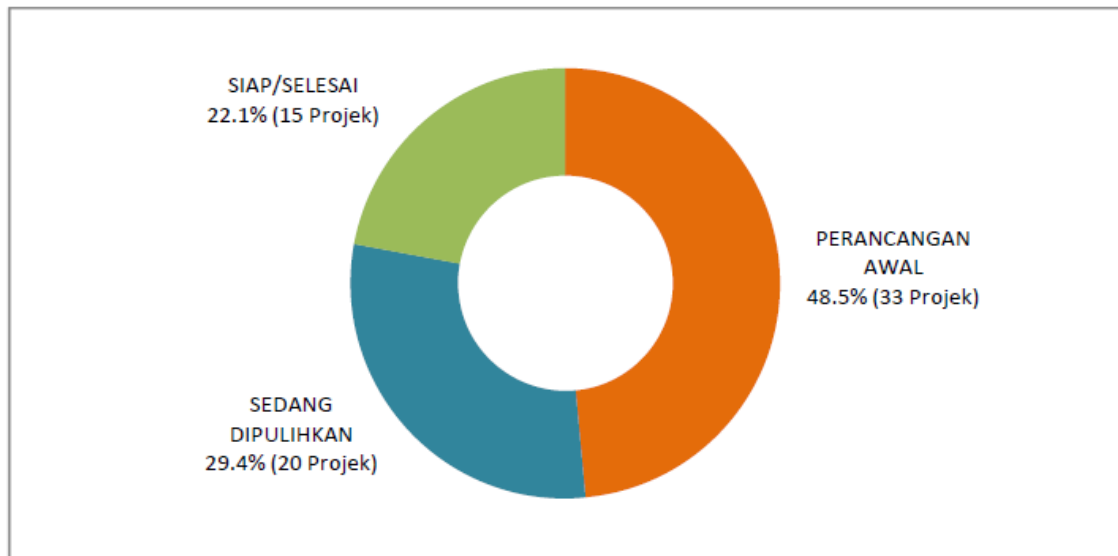


Figure 2.1 Overall status of abandoned housing project (Jabatan Perumahan Negara 2014)

A total of 11 new projects have been declared abandoned projects throughout 2014. This makes the number of projects abandoned increased to 68 projects out of 57 projects listed on January 2013. Of the 68 projects, a total of 48.5% (33 projects) were in early stage planning for recovery, 29.4% (20 projects) still in the recovery process and 22.1% (15 projects) were completed and removed from the list of abandoned housing projects. More details is shown in Chart 3.1 and Table 3.1.

2.2.2 Year 2015

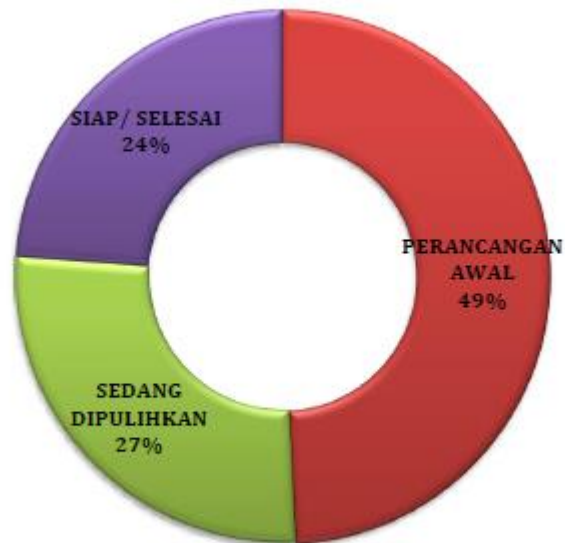


Figure 2.2 Overall status of abandoned housing project (Jabatan Perumahan Negara 2015)

A total of 11 new projects have been declared abandoned projects by 2015. This has resulted in the number of abandoned projects rising to 63 projects from 52 projects listed in January 2014. Of the 63 projects, 49.0% (31 projects) were in the early stages of planning for rehabilitation, 27.0% (17 projects) were still in recovery process and 24.0% (15 projects) were completed and removed from the list of abandoned housing projects. Further details are shown in Chart 3.1 and Table 3.1.

2.2.3 Year 2016

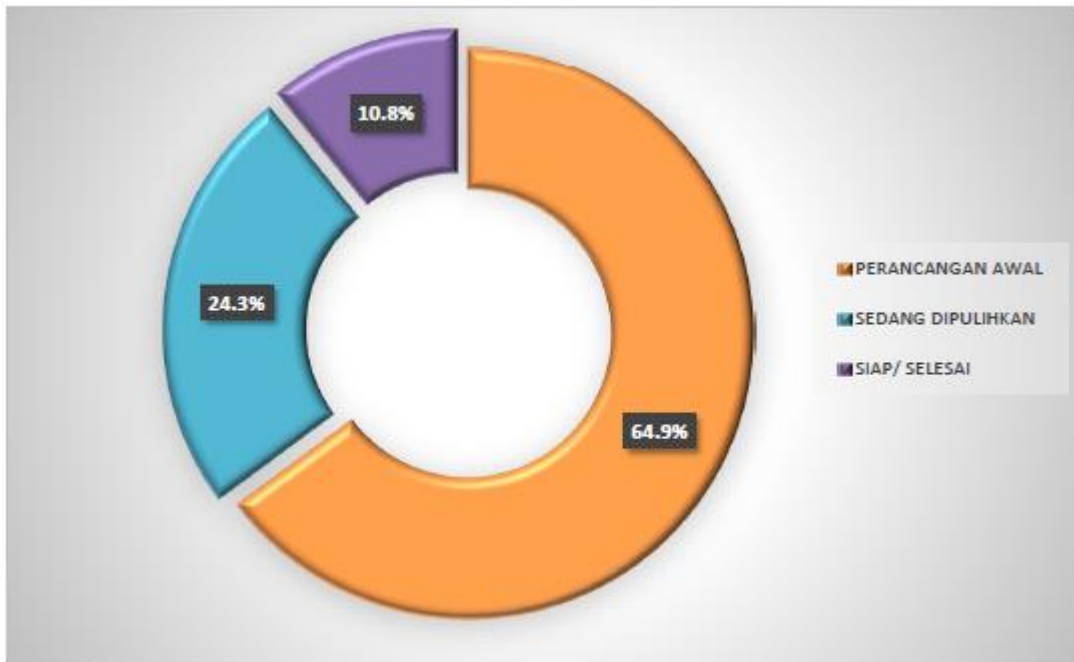


Figure 2.3 Overall status of abandoned housing project (Jabatan Perumahan Negara 2016)

A total of 26 new projects have been declared abandoned projects throughout 2016. This has resulted in the abandonment of the total number of projects to 74 projects from 48 projects listed in January 2016. Of the 74 projects, 64.9% (48 projects) were in the early stages of planning for recovery, 24.3% (18 projects) were still in the recovery process and 10.8% (8 projects) were completed and removed from the list of abandoned housing projects. Further details are shown in Chart 3.1 and Table 3.1

2.3 Issues During Rehabilitation Process

Managing and reviving an abandoned project is a complicated affair involving the developer purchasers, bridging financier, landowner and other parties. It will take time for all parties to reach a consensus, since each wants to protect its interest. Construction projects involve a high level of uncertainty and risk because they are complex, take long time, and involve numerous participants. Several issues that involve risks in reviving abandoned project are anticipated to create unfavourable conditions, thus affecting the rehabilitation process. However, a limited number of studies have indicated potential risks, which can be grouped under four categories, namely legal and regulatory, financial, managerial, and technical risks and these risk are connected to the issues in rehabilitation of abandoned housing project. Thus, potential risks associated with abandoned housing projects can be categorized into managerial, financial, construction-related, technical, and legal and regulatory.

2.3.1 Managerial Aspect

In the purpose of rehabilitating a building, there are orderly and adequate approaches that has to be followed by architects and engineers in the process of rehabilitation of the buildings. It is important to know and identify the system and choices made in the process of rehabilitation of the buildings, so that the living conditions of the occupants are improved and the architectural and structural aspects of the building is preserved within the community as well, for the present and also in the future.(Doraisamy, Akasah, & Yunus, 2015) A proper understanding of delays is essential for the contractors, subcontractors, and the developers, as well as the owners. If issues of delays are unable to be solved by these parties, then involvement of the government or other third parties might be needed. In this stage by involving government bodies, delay in approval processes also might be happen. This might include laws and legal procedures as well.(Chai, Yusof, & Habil, 2015) For example, to obtain licensing, developers need to go through two parties — the local authorities and the ministry. Developers have to first contact the local authorities for approval on matters such as the development order and building plans. Also, issues related in managerial aspect are termination of contractors or consultant, project delay in design and regularity approval, staff turnover, shortage of skilled staff, delay in approval processes of the government, delay in approval processes from the owner, delay in

construction because of a third party, cost overrun of the project, incompetency of contractors, sub-contractors, or consultants, inadequate original documents of the project, late approval of project details/ lack of technical knowledge of staff, unreasonably imposed tight schedule (Abdul-Rahman, Alashwal, & Aziz Abdullah, 2016)

2.3.2 Financial Aspect

In rehabilitation of abandoned housing project, financial remains as one of the crucial issues that need to be taken care of. The focus in this aspect is not enough funds to continue the project. The resources include financial resources, human resources, material resources and equipment resources. However, only the financial resources are focused in the research, as Abdul-Rahman et al (2006) addressed that lack of funds may affect the project 's cash flow and lead to delay in site possession, which consequently causes delays in the project as whole. The factors that would cause insufficient financial resources are (1) difficulties in obtaining loan from financiers and (2) allocation of government budget not in place. Nonetheless, if the available funds to finance the rehabilitation are inadequate and that there are many complications and problems in the failed residential projects that carries the risks of jeopardising the creditors' rights and interests.

2.3.3 Legal and Regulatory

Dahlan in (Nuarrual Hilal M Dahlan, 2011) indicated the following risks pertaining to abandoned housing projects: unsettled legal actions, risks related to the new selling system, lack of developers' liabilities, contractors' capacity to deliver the project, lack of appropriate funding resource, developer's failure to sell all bridging loans, and inadequate homebuyers. These risks can be regarded as legal and regulatory as well as financial risks. A question can be raised viz whether the liquidator is under a responsibility to revive the abandoned housing projects of the wound up companies? Nonetheless this is subject to the sanction/authority of the creditors, contributories, committee of inspection and the Court, as the case may be (section 236(1)(3) and section 237(1) of the CA). If these parties (the creditors, contributories, committee of inspection and the Court) do not allow the liquidator to carry out the intended rehabilitation, the liquidator shall not carry on the same. Even though even these parties

(creditors, contributories and committee of inspection) refuse to follow the rehabilitation process, the aggrieved purchasers may invoke Order 92 rule 4 of the High Court's Rules 1980 (inherent power of the Court) and section 23(1) of the Courts of Judicature Act 1964 to request the Court to rely on its inherent power acceding the aggrieved purchasers' request to have the abandoned housing projects be rehabilitated by the liquidator on the ground of public interest. (Nuarrual Hilal Md. Dahlan, 2008)

2.3.4 Construction-related Aspect

In this aspect, firstly, the concerned part is unforeseen ground condition of the construction site as the site has been left for quite some times. The original topography is significantly changed once urbanisation process starts. Waste soils, gravels and residues, temporary soil piles on construction sites, vegetation elimination and asphalt cover are common actions during urbanisation. These processes change progressively the especially sensitive coastal landscapes. (Hussin, A. A., & Omran, 2011) therefore, the new contractors need to do some more research about the grounds and it is definitely requires some times. In taking over abandoned housing for rehabilitation, there will some changes in construction procedures especially when it involved new parties for the construction work. Also, in (Abdul-Rahman, Alashwal, & Aziz Abdullah, 2016) construction related issues are changes in design or scope of works, rework potential, unforeseen ground conditions, delay of material supply to the site, shortage in manpower (workers) availability, shortage of special equipment/ low productivity, poor performance, change in construction procedures, clashes between design and construction, and workmanship negligence and malicious.

CHAPTER 3

METHODOLOGY

3.1 Introduction

In research methodology, these chapters serve as guidelines for researchers to implement and achieve the goals and objectives of the study, as described and stated in chapter 1. Furthermore, the chronology of research methodologies and research methods to achieve the objectives also will be discussed in this chapter. This chapter also examines the existing literature on the philosophy of meaning and background research and research methodology for a clearer and more vivid purpose. Then study the methods of quantitative, qualitative and triangulation with a discussion on the selection of an appropriate method for this study. It is important to describe and demonstrate that the method used during the study ensures that all data and information collected is reliable and that it is collected and analyzed systematically. Once the raw data obtained from the respondents, so the data will be analyzed and studied in detail in order to obtain conclusions and propose solutions to the problems studied.

3.2 Literature Review

All information regarding abandoned housing projects in Malaysia was gathered through this section. Literature reviews were conducted to improve the understanding of the theory of the research problem. Books, articles, magazines, the Internet, journals, papers and other research papers are useful as literature reviews material. These reading materials provided the research with a good primary source. The relevant information has been used as a reference against the primary data collected to support the research

3.3 Data Collection Method

3.3.1 Secondary Data

Secondary data refer to data already in various forms. Secondary information can be found, for example, in books and documents such as government documents, official reports, annual reports, economic reports and national statistics. Secondary information was collected from both published and unpublished sources for the purposes of this study. The collected secondary data were used to analyze the existence of abandoned housing projects from different perspectives, i.e. the definition, statistics on abandoned projects, actions taken by the government to avoid abandoned projects and to update the current situation of the problem. . In addition, the data and information that gained from the survey questionnaire and interviews was also used to help researcher understand more and have better view about abandoned housing project in Malaysia. Instead of gathering data on most prominent issues in rehabilitation process of abandoned housing in Malaysia, the secondary data also provided information about the economics perspective and its relation to housing development.

3.3.2 Primary Data

Primary data were also collected in addition to collecting secondary data for the purpose of this study. Primary data is also referred to as original or source data. Research using such data is referred to as basic research. For example, the primary research data, including survey data, were collected in an uncontrolled scenario using a questionnaire for the purposes of this study.

3.4 Development Of Questionnaire

The questions were designed related to the research objectives especially on abandoned housing projects in Malaysia. Before designing the questionnaire, according to Dayang Sabriah Binti Safri there a very important point that needs to be considered. The questions have to be short and precise without touching any sensitive or confidential issues as reject may be offended (Taylor S, 2005). The purpose is to facilitate the respondent's understanding. Subsequently, the questionnaires were sent to 90 respondents (clients, consultants and contractors. Through information gathered

from chapter 2 of the literature review, questionnaires created. To avoid any mistakes and also to ensure that only relevant questions included in the questionnaire, a thorough examination has been carried out before the form is approved. The design and structure of the questionnaire was subsequently reviewed by supervisors to make appropriate corrections and amendments. After the form has been approved, a number of copies of questionnaires forms are made and ready for distribution. The questionnaires were divided into 4 main sections.

The respondents were first asked about their personal and organization background in section A. Subsequently in section B, will be evaluating the perspective from authority regarding abandoned housing project in Malaysia. Section C the respondents were asked about the factors that contribute to the financial problems of abandoned housing occurs through the study of literature. Section D is about the methods that minimize abandoned building projects.

3.4.1 Section A

Section A is to obtain the information of respondent's background as well as their organization. The typical questions that been asked include the following:

- The gender of the respondents
- The sectors of the respondents
- Location of the respondents
- The company in which the respondent represents

3.4.2 Section B

Section B has two parts. The first part is to evaluate the perspective from authority regarding abandoned housing project in Malaysia is another point of objective in this research. , respondents were asked to indicate in the space according to a Likert scale of five points, namely strongly disagree, disagree, agree or disagree, agree, and strongly agree to show how much they agreed on the abandoned housing project. The example question that will be attached in this part is:

- Did you know about abandoned building/housing
- Have you experienced with the abandoned housing project
- Abandoned house is where house is not occupant for a very long time
- Abandoned housing project is either the receiver in the case where the developer company has been winding up defined the abandoned project as the project which had to be stopped owing to financial problems, or the developer of that project has disappeared.
- There are lot of abandoned housing in Malaysia need to be revived.

The second part is about rehabilitation of abandoned housing project. The question will be given with two choices of answers which are “yes” and “no”. The examples of the questions will be

- Involvement in rehabilitation process of abandoned project.
- Rehabilitation is compulsory to be conducted and the best way in order to revive the abandoned housing project in Malaysia
- It is important to know and identify the system and choices made in the process of rehabilitation of the buildings
- Developers are the most important parties in making decision in implementation of rehabilitation work of abandoned housing.
- In rehabilitation process of abandoned project, it will involve legal and regulatory, financial, managerial, and technical risks.

3.4.3 Section C

For this part, the survey questions will be more focused on the objectives of the study which is described in chapter 1 and it was also made clear in chapter 2 of the literature review.

After identifying the most prominent issues during the rehabilitation process of abandoned project occurs through the study of literature, respondents were asked to indicate in the space according to a likert scale of five points, namely strongly disagree,

disagree, agree or disagree, agree, and strongly agree to show how much they agreed to the factors that contributes to the financial problems of construction projects abandoned

3.5 Questionnaire Distribution

The respondents involved in this research were the clients, consultants, contractors and any parties whom involved in construction industry respectively. A large sample data can give more accurate result which is according to Paul Cozby (2003). Their addresses were obtained from internet particularly through the Construction Industry Development Board (CIDB) directory 2009, Board of Quantity Surveyor Malaysia, Institution of Engineer Malaysia and Public Work Department website. The main method been used for the purpose of this questionnaire distribution is via mail delivery. Due to the time limited, there is the only way to complete this research even though there were other alternatives that can be applied.

3.6 Analysis of Data

The respondents involved in this research were the clients, consultants, contractors and any parties whom involved in construction industry respectively. A large sample data can give more accurate result which is according to Paul Cozby (2003). Their addresses were obtained from internet particularly through the Construction Industry Development Board (CIDB) directory 2009, Board of Quantity Surveyor Malaysia, Institution of Engineer Malaysia and Public Work Department website. The main method been used for the purpose of this questionnaire distribution is via mail delivery. Due to the time limited, there is the only way to complete this research even though there were other alternatives that can be applied.

3.7 Summary

In order to achieve the objectives of the study, the research methodology has been established. This study was carried out based on literature review and questionnaire survey. Next chapter would be the analysis and discussion for the research findings.

CHAPTER 4

RESULTS AND DISCUSSION

4.1 Introduction

This chapter will explain the finding of data collecting and all also data analysis in order to achieve all four objectives. All of the data is collected; the final and essential step is data analysis. It involves treating, managing, and analyzing of all information gathered in previous phases particularly in data collection. The data was collected through the questionnaire that conducted based on the objective of study.

4.2 Responses to Questionnaire

The structured questionnaire based on the data obtained from the literature review where the final questionnaire from is presented in Appendix. Table 4.1 below shows the questionnaire distribution and responses. Fifty (50) sets of questionnaire were distributed via google form and only 34 were returned completed. The percentages of the response rate were 68%

Number of distributed questionnaires	Number of respondents	Percentages
50	34	68%

Table 4.1 Number of questionnaire distributed

4.2.1 Background Of Respondents

A total of 34 respondents were selected for this research. Backgrounds of the respondents taking into consideration are the gender of respondents, the respondent's occupation, and their ages.

4.2.1.1 Profession Of Respondents

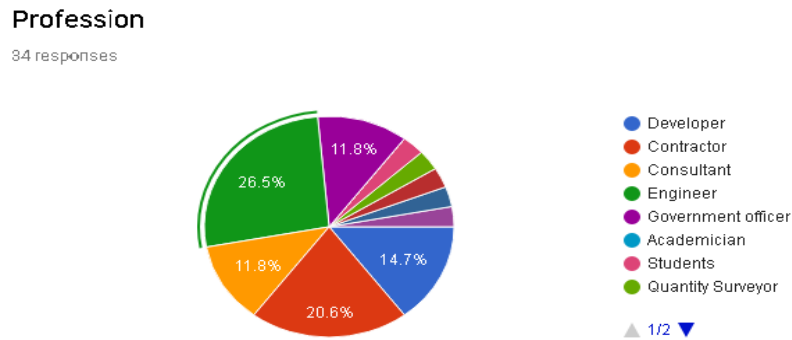


Figure 4.1 Professions of Respondents

Figure 4.1 represented the profession of respondents that involved in construction industry. The figure shows that 26.5% of engineers lead the number of respondents, followed by 20.6% of contractors, 14.7% of developer representatives. Government officers and consultant shared the same percentage of 11.8% respondents. The other respondents represented by various professions such as quantity surveyor, students and site clerk.

4.2.1.2 Respondents Age

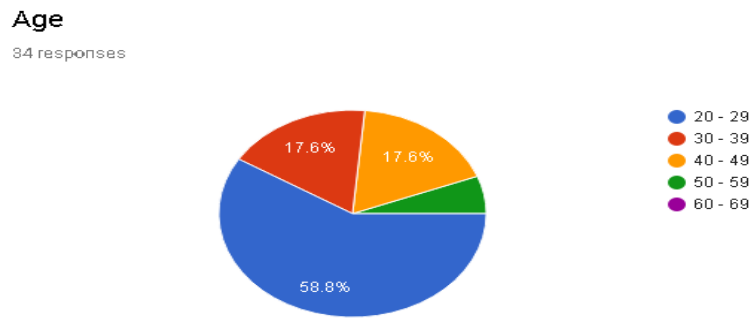


Figure 4.2 Respondents Age

The percentage of age range lead by the respondents in age range of 20-29 and followed by same percentage of respondents in age of 30-39 and 40-49 which is 17.6%. The remaining respondents are in age of 50-59.

4.2.1.3 Locations

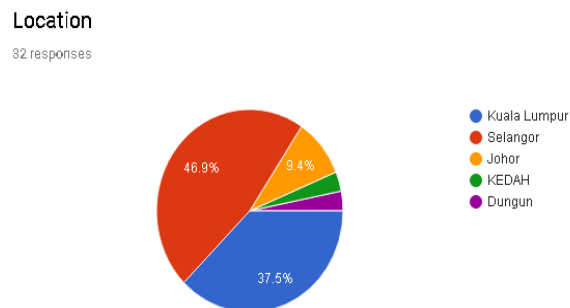


Figure 4.3 Location of Respondents

This study focused in Kuala Lumpur and Selangor area. There 46.9% respondents came from Selangor and 37.5% are from Kuala Lumpur. However, there are respondents that came from other state which is from Kedah, Terengganu and Johor and the responds are still taken into account in this study.

4.3 Part B : Evaluate the perspective from respondents regarding the current state of Abandoned Housing Project in Malaysia and the rehabilitation .

Abandoned house/buildings are an issue which is very popular among the authorities. Figure 4.4 shows the respondents involved in this study whether they know or not know on the problem in this study. 97.1% of respondents chose Yes, that is knows about abandoned house/building. As for choosing the answer 'no' and possibly know about the abandoned house/building is only one respectively compared to the other respondents. This clearly proves that the issue and problem is highly ranked in the construction industry. This also shows that most of construction parties that took parts in this survey have such awareness on abandoned housing project in Malaysia especially in Kuala Lumpur and Selangor. Therefore, this study is clear and can open the eyes of these parties to be more concerned about the problems of this abandoned building or house.

Have you heard about abandoned housing?

34 responses

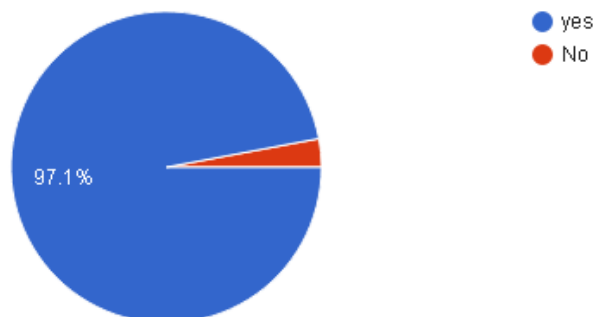


Figure 4.4 Percent of responded that ever heard about abandoned housing

There is the figure 4.5, where the responses of the respondents were either experienced in managing abandoned houses have been analyzed. There are 58.8% answered 'yes' and the remaining 41.2% answered 'no'. There are no huge gap differences. Therefore, we can conclude that there are many construction parties in this survey had experienced abandoned project. It can be their client or the developer itself. Moreover, there respondents that answered 'yes' is more than who answered 'no'. This

can be a good but worrying scenario where a lot of parties in construction had experienced in managing abandoned housing.

Have you experienced this in housing development

34 responses

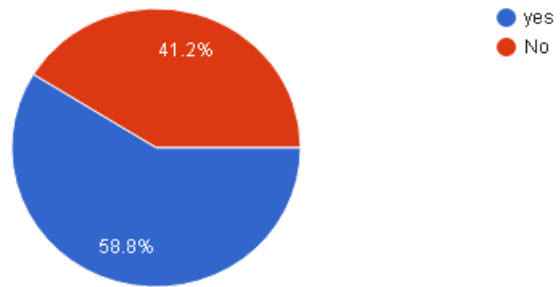


Figure 4.5 Experience in abandoned housing

4.3.1 About Abandoned Housing Project

Figure 4.2 show the ranking about abandoned building that made from the value relative index inequality at table 4.3. From figure, the result show that the highest rank 1 of disagreement is about the housing become abandonment when the construction housing project has been continuously stalled for six(6) months or more prefer the Ministry of Housing and Local Government. It indicated the range in 0.50 of the relative index. It is followed by the experienced in housing development with relative index 0.46 in rank 2. That's mean not all of the responses are involves in housing development.

Mostly all of the responses are heard about the abandoned building because it in the range of 0.30 of the relative index in rank 6. It's because the issues or the abandoned building we often heard in the newspapers also appear in the current news on television. Furthermore, refer to (The Rakyat Post, 2017) articles as many as 253 abandoned private housing projects were recorded in Peninsular Malaysia from 2009 until now. Housing and Local Government Minister Tan Sri Noh Omar said the number comprised 64,291 housing units that involved 43,538 house buyers.

no	Abandoned Housing Project	frequency					total	RII
		1	2	3	4	5		
1	Abandoned house is where house is not occupant for a very long time.	1	1	3	20	10	34	0.835
2	Abandoned housing project is where the construction work has stopped continuously in 6 months or more.	0	0	4	16	14	34	0.858
3	Abandoned housing project is either the receiver in the case where the developer company has been winding up defined the abandoned project as the project which had to be stopped owing to financial problems, or the developer of that project has disappeared.	0	1	7	14	12	34	0.817
4	The conditions of abandoned housing project in Malaysia are in worrying situation.	0	0	6	17	11	34	0.829
5	Numbers of abandoned housing project in Malaysia are increasing in these past few years.	0	2	7	14	11	34	0.800
6	There are lot of abandoned housing in Malaysia need to be revived.	0	0	6	15	13	34	0.841

Table 4.2 Perspective on abandoned housing project

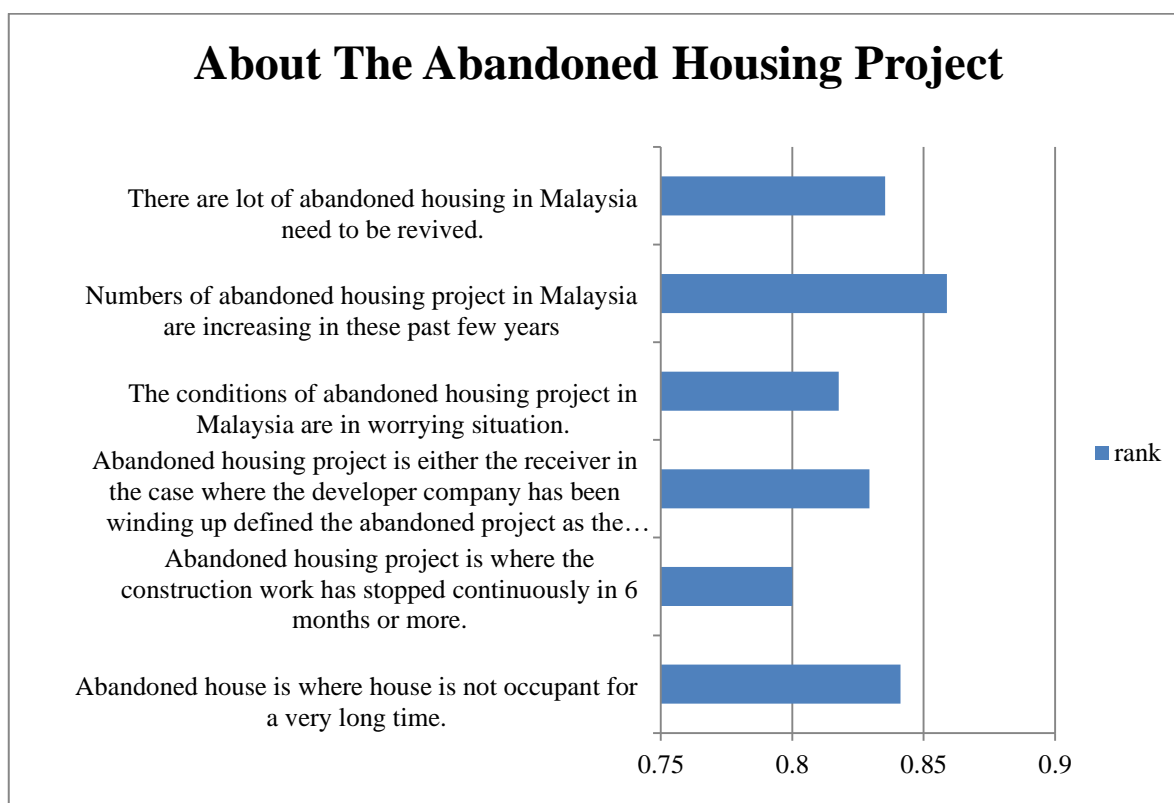


Figure 4.5 Perspective on abandoned housing project

4.3.2 Rehabilitation of Abandoned Housing Project

Abandoned housing had been a topic of concern in the construction industry. This problem can be minimized only when the rehabilitation is carried out. Also, it is important for the construction parties to know the importance of rehabilitation of abandoned housing project. More than half of the respondents have not involve in rehabilitation process base on the results below but all of them agree that it is compulsory to carry out the rehabilitation program. Government and developer especially need to play their roles correctly with the help of the parties in construction industries. However, 91.8% respondents agree that rehabilitation process of abandoned housing project are widely exposed to risk that may influence the rehab work. Therefore, it's a must to take care of those issues but first need to analyse which is the major issues and minor issues which are managerial, financial, legal and regulatory, technical and construction- related to make sure that the management are effectives. In These methods were ranked analysed based on the “yes” and “no” questions. There have a closer consensus between all respondents involved. They are agreed that ‘encouraging project delivery success through some approaches such as public-private partnerships’ and ‘rehabilitation (reviving) of current abandoned project’ are among top 5 effective methods to mitigate abandoned housing. Bilateral communications between the parties involved in the construction as well as efficiency of the resources (money, labor, materials, equipment, etc.) is a very important part to keep construction projects running smoothly.

Have you involve in rehabilitation process of abandoned housing project?

34 responses

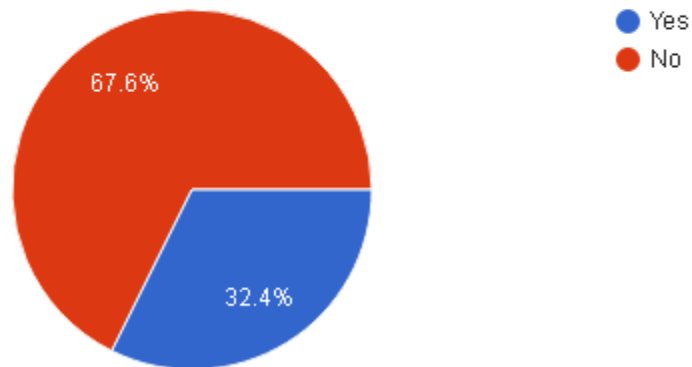


Figure 4.6 Involvement in rehabilitation of abandoned housing project

Rehabilitation is compulsory to be conducted and the best way in order to revive the abandoned housing project in Malaysia

34 responses

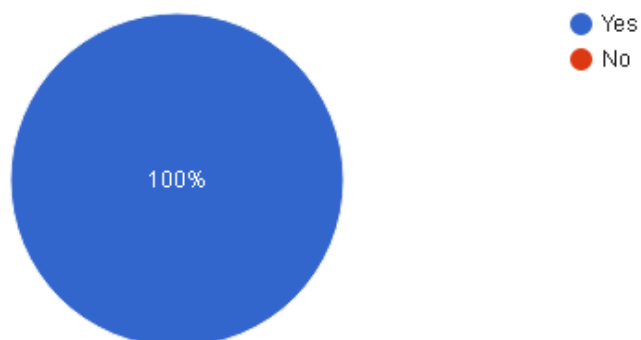


Figure 4.7 Respondent's choices rehabilitation as the best way to revive abandoned housing

The government plays an important role in rehabilitating abandoned housing projects

34 responses

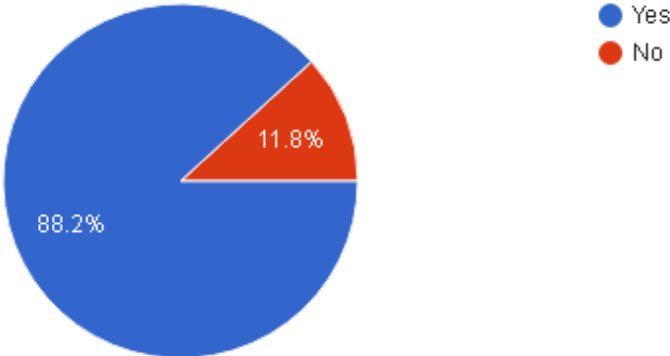


Figure 4.8 Respondent’s choices on government role on abandoned housing project

Developer are the most important parties in making decision in implementation of rehabilitation work of abandoned housing.

34 responses

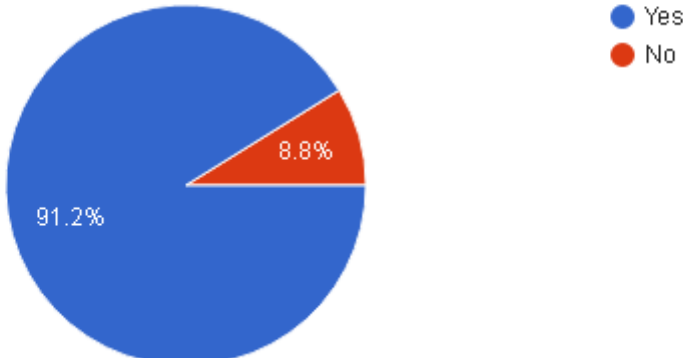


Figure 4.9 Respondent’s choices on developers as important parties in rehabilitation work of abandoned housing project

Reviving abandoned housing is not an easy task as it requires full support from the government and stakeholders, particularly the home buyers who in most cases need to top-up on the prices

34 responses

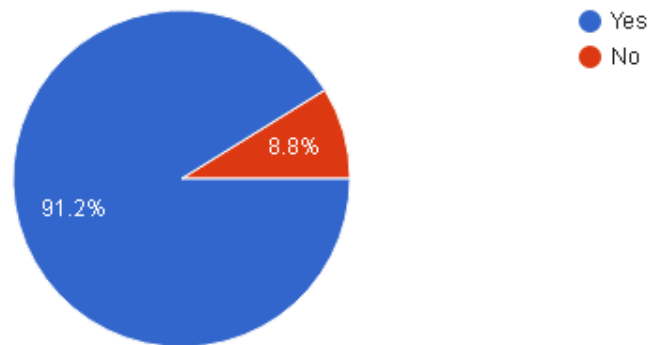


Figure 4.10 Respondent's choices on reviving abandoned housing

Exposure to risk during the rehabilitation of abandoned projects may influence completing the remaining construction work successfully

34 responses

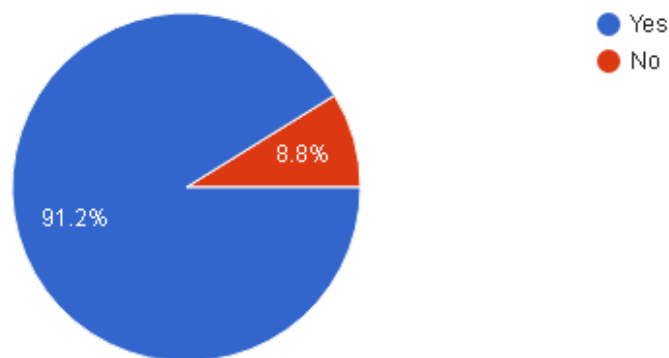


Figure 4.11 Respondent's choices on exposure to risk during rehabilitation of abandoned project

In rehabilitation process of abandoned project, it will involved legal and regulatory, financial, managerial, and technical risks.

34 responses

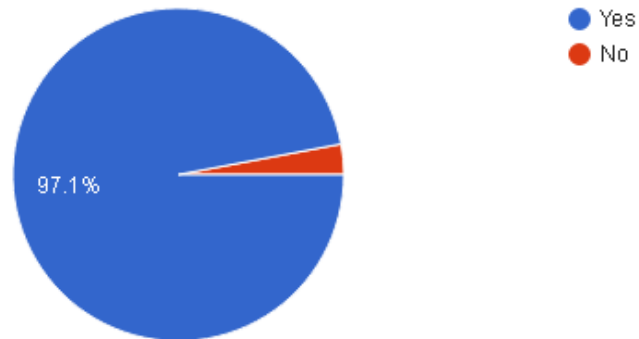


Figure 4.12 Respondent's choices of risk in rehabilitation process

4.4 Issues During Rehabilitation Of Abandoned Project

4.4.1 Managerial

no	Managerial aspect	frequency					Total	RII
		1	2	3	4	5		
1	Termination of contractors or consultants	0	0	8	14	12	34	0.823
2	Project delay in design and regularity approval	0	0	5	16	13	34	0.847
3	Delay in approval processes from the government	0	0	6	14	14	34	0.847
4	Delay in approval processes from the owner	0	1	9	13	11	34	0.800
5	Inadequate original documents of the project	0	0	8	16	10	34	0.811
6	Staff turnover or Shortage of skilled staff	0	2	11	14	7	34	0.752

Table 4.3 Managerial aspect result

Majority of respondents believed that the probability of risks related to management such as weakness in termination of contractors or consultants, delay in approval processes from the owner, inadequate original documents of the project, staff turnover or shortage of skilled staff are moderate, and the rest of respondents agreed that project delay in design and regularity approval and delay in approval processes from the government of such issues is high.. From the results it can be concluded that the management generally has a very important role in housing project. An efficient management can assist the project to achieve its desired objectives. A proper understanding of delays is essential for the contractors, subcontractors, and the developers, as well as the owners. If issues of delays are unable to be solved by these parties, then involvement of the government or other third parties might be needed.

4.4.2 Financial

no	Financial Aspect	frequency					Total	RII
		1	2	3	4	5		
1	Tax increase or change in policy	0	1	11	12	10	34	0.782
2	Liquidity of owner and liquidity of contractor	0	0	7	18	9	34	0.811
3	Funding withdrawn or delayed	0	0	7	16	11	34	0.823
4	Delayed payment to the contractor	0	0	3	14	17	34	0.882
5	Adequacy of contingency and profit margin	0	1	7	20	6	34	0.782
6	Difficulty in claiming insurance	0	1	11	11	11	34	0.788

Table 4.4 Financial aspect result

Financial issue is the most important factor which requires a great attention by parties involved in construction industry since a housing project cannot proceed without sufficient financial sources. The risks under this category are tax increase or change in policy, liquidity of owner and liquidity of contractor, liquidity of owner and liquidity of contractor, delayed payment to the contractor, adequacy of contingency and profit margin and difficulty in claiming insurance. By using descriptive frequency, financial-related risks were analyzed in order to see if each can be a huge issue in rehabilitation process of abandoned housing project. These issues always occur due to the financial failure in organization. Moreover, almost half of respondents believed that late payment to contractor has a high probability and financial crisis has a very high probability. Hence, these risks can be considered as most prominent issues in rehabilitation process of abandoned housing project.

4.4.3 Legal and Regulatory

no	Legal And Regulatory Aspect	frequency					Total	RII
		1	2	3	4	5		
1	Delay in resolving contractual dispute	0	0	11	12	11	34	0.800
2	Disagreement over evaluating the revised contract price	0	0	10	15	9	34	0.794
3	Conflicts due to differences in culture or religion	2	4	11	11	6	34	0.685
4	New government policy	1	1	8	17	7	34	0.764
5	Breach of contract	0	0	12	9	13	34	0.805
6	Criminal acts and civil torts	0	4	7	15	8	34	0.758

Table 4.5 Legal and regulatory aspect result

Law is one of the important factors that assist the development of housing projects. All parties involved should have high knowledge in law related to this industry. For this category, some risks are identified such as delay in resolving contractual dispute, disagreement over evaluating the revised contract price, conflicts due to differences in culture or religion, new government policy, breach of contract, and criminal acts and civil torts. By the use of descriptive frequency, the risks related to law were analyzed and discussed in table above. Almost half of respondents believed that all risks related to law, except breach of contract, have a moderate probability in housing project in Malaysia. The results imply that such risk are not considered as major issues contributing to problems associated with rehabilitation of abandoned housing project in Malaysia.

4.4.4 Technical Aspect

no	Technical Aspect	frequency					Total	RII
		1	2	3	4	5		
1	Inappropriate assessment of an abandoned project	0	0	10	13	11	34	0.805
2	Fatigue of materials due to the effect of corrosion	0	0	11	16	7	34	0.776
3	Lack of infrastructure of the project and technology	2	4	11	16	7	34	0.835
4	Estimation errors of the project cost	0	2	10	13	9	34	0.770
5	Deterioration of material and building structure	0	2	9	13	9	34	0.752
6	Technical standards or regulations unclear	0	2	12	13	7	34	0.747

Table 4.6 Technical aspect Result

Technical issues are one of an issue that need to be taken into consideration by parties involved in housing industry. Although this risk might not occur in every project, if it happens, it will have severe negative effects on the housing projects. By using the descriptive frequency tables, the factors related to technical aspects are inappropriate assessment of an abandoned project, fatigue of materials due to the effect of corrosion, lack of infrastructure of the project and technology, estimation errors of the project cost, deterioration of material and building structure, and technical standards or regulations unclear. The results indicate that lack of infrastructure of the project and technology is considered as serious issues in technical aspect in rehabilitation process of abandoned housing projects in Malaysia.

4.4.5 Construction-Related Aspect

no	Technical Aspect	frequency					Total	RII
		1	2	3	4	5		
1	Changes in design or scope of works	0	0	6	15	13	34	0.841
2	Unforeseen ground conditions	0	0	8	13	13	34	0.829
3	Change in construction procedures	0	0	7	17	10	34	0.817
4	Clashes between design and construction	0	0	7	17	10	34	0.817
5	Workmanship negligence and malicious	0	0	8	13	13	34	0.829
6	Shortage in manpower (workers) availability	0	1	8	13	8	34	0.694

Table 4.7 Construction-Related aspect result

There are many factors in the process of housing construction which may cause major risks. There are five risks recognized under the category of construction, which are delay of project, shortage of labour/manpower, shortage of equipment, low performance by labour, poor construction planning by contractor, and failure in managing construction activities by contractor. By the use of descriptive frequency, these factors were analysed.

4.5 Most Prominent Issue

The results show that the most critical and common risk is delay. Different forms of delay may be encountered during rehabilitation, including “project delay”, “delay payment to the contractor”, “delay in the approval processes from the government”, and “project delay in design and regularity approval”. Delay is obviously the most significant issues expected to affect rehabilitation projects. Dahlan (2011b) indicated construction delay as one of the issues involved in the rehabilitation. The fear of project delay might be justified because eventually a project will be declared as abandoned after considerable time of delays. There are specific factors that cause project delay, such as financial problems, poor site supervision and management, inadequate building materials, resource availability, errors during construction, slow decision making, lack of experience and communication, and incomplete project documents (Alaghbari et al, 2007; Sambasivan and Soon, 2007). To overcome delay in construction projects, Abdul-Rahman et al (2006) recommended the following activities: coordination and site meetings, increasing productivity, and rescheduling or utilizing additional resources. The other most critical risk is “termination of contractors or consultant”. It seems that contractors and consultants are often exempted from their service in this kind of projects. This situation probably occurs because of the complexity of rehabilitation and unsettled previous issues pertaining to the abandoned project. Other significant risk variables include “bankruptcy”, “inadequate original documents of the project”, “liquidity of contractors”, and “dispute”.

CHAPTER 5

CONCLUSION

5.1 Introduction

This chapter ascertained the conclusions of this research, the proposals to manage the problem of abandoned construction projects, limitations of this research, and the implications of this research for research and for practice. It started with the explanation of the causes of the abandoned housing as the appropriate statistical test for analysing the data in order to achieve the research objective. From the statistical procedures discussed earlier, it is proved that the factor analysis using the principal component analysis was an appropriate technique based on the data gathered from the survey questionnaire. It is useful for data reduction and summarization of the set of observed variables which contained variables for identifying in this study

5.2 Conclusion of Findings

The followings are the conclusions derived from the literature study and questionnaire survey conducted.

5.2.1 To study the current state of abandoned housing project and the rehabilitation process in Malaysia

First objective has been achieved through literature review. The main sources of this objective are from *Jabatan Perumahan Negara* and Ministry of Housing and Local Government (MHLG) as the literature review. The study shows that in these recent 5 years, the numbers of abandoned housing projects in Malaysia are still high. There were some decreasing in numbers but there is no much difference between the years. From the literature review, Selangor, Kuala Lumpur and Johor are the major contributor of big numbers of abandoned housing projects in Malaysia

Since 1986, the government has monitored the increases in the number of abandoned projects, and remedial policies were implemented in 1992 in order to prevent the existence of abandoned projects. Several remedial policies have been introduced by the government, as discussed before. Instead of monitoring the abandoned projects, the government has also involved in reviving the abandoned projects. The issues of housing abandonment have become a major problem to the Malaysian house building industry, as claimed by the Prime Minister in 2004. Therefore, the Prime Minister has urged the private housing developers to be more responsible and to give full commitment to completing the approved projects, as stated in the S&P agreement between developers and house purchasers, because the victims of the abandoned projects were members of the public.

. In order to protect the public interest, for instance, the government has allocated about 4.13 per cent of government expenditure in 2004 for rehabilitation programmes. In this sense, the government has had to use the taxpayers' funds for rehabilitation programmes through Syarikat Perumahan Negara Berhad (SPNB). However, not all of the abandoned projects can be revived; indeed, some of them have no chance of being revived. In addition, the process of rehabilitation is not a clear-cut process owing to some difficulties faced by the government, such as non-cooperation from the developers, fraudulent claims and so on.

5.2.2 To analyse the most prominent issues during the rehabilitation process of abandoned project.

From the analysis are presented in Chapter 4 of the responses participants to the survey questionnaire in section C which was based on the issues in rehabilitation of abandoned housing project in Malaysia this study has established Objective 2 can be used together in property research, especially in the issues in during the rehabilitation process. This result can be used to support the discussion on the most prominent issues during the rehabilitation process of abandoned project. This section examined the risks contributing to the issues associated with abandoned housing projects through a combination of qualitative and quantitative methods of literature review, questionnaire survey, and interview.

Based on the findings, there are many risks involved in housing project, such as risks related to environmental impacts, construction, politics, law, management, finance, materials, and economy. It was also found that under the categories of the abovementioned risks, the probability of risks from unexpected ground condition, project delays, bureaucracy, contractual disputes between developer and landlord, weakness in management by inexperienced developer, and financial crisis is very high, so that these risks are considered as the most significant risks leading to the problems associated with abandoned housing projects in Malaysia. Moreover, it was found that delay of material supply to site, shortage of material supply, and also economic crisis are recognized as major factors contributing to problems leading to the project being abandoned.

5.3 Recommendations

Further studies on the research need to be conducted in the future in order to come out with better and good result. The following recommendations might be useful for future investigation to achieve the objectives of this research

1. Contractors and local authorities in particular need to allocate additional resources and focus on developing risk management practices in all aspects. They have to take into consideration risk variables and categories highlighted in this study.
2. Develop appropriate managerial activities for risk analysis, response or mitigation, and risk monitoring and controlling during rehabilitation. This is important to ensure efficient rehabilitation process and subsequently lead to a successful completion of the abandoned projects.
3. It is high time for the Malaysian government to introduce a special legal regime governing rehabilitation of abandoned housing projects, for instance a provision for appointment of a caretaker to manage rehabilitation of the abandoned housing developer companies for the benefit of the aggrieved purchasers/customers/stakeholders of the wound-up-housing-developer-companies and thus can eliminate the problem as to who should carry out rehabilitation of abandoned housing projects if the housing developer companies are wound up (Dahlan, 2009)

4. It is incumbent that all applicant developers in Peninsular Malaysia who are subject to Act 118 and the MHLG should possess housing development insurance to cover any shortfall in funds to run rehabilitation, if the available moneys are not enough (Dahlan, 2009)
5. Project feasibility study must receive a serious attention and must do carefully, particularly for government funded project. Planning at the early stage of construction is crucial to minimize any major risk of difficulties during the execution of works. Effective project planning and implementation require a competent and experience personnel. Where possible, project managers need to have experience and qualifications in project or construction management so that they can effectively utilize well the project management tools that are available (project planning and scheduling tools).
6. Insufficient knowledge of the sites causes many abandoned in projects. Investigation of site conditions, together with the design of groundwork and foundations, should be thorough, complete and clearly presented before commencement of construction so as to reduce the impact of any unforeseen ground conditions.
7. Information is obtained through the questionnaire survey should more variety, likely the semi-structured interviews should do to get the quality answer and become closer with the respondent. Because some of respondent answer the questionnaire lackadaisical.
8. As to profile of the respondents of the questionnaire survey, in that despite fact appears to be a fair representation by different categories of respondents, for example in fields of role of respondent, it is not known whether this represent the actual profile of the industry.

This finding could help the practitioners in construction industry to gain better understanding about the problems time of projects during construction stage. By taking care of these potential factors and suggestion in their present and future projects, construction participants can reduce and control the extent of abandoned project.

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APPENDIX A
SAMPLE OF QUESTIONNAIRES AND RESPONDENTS FEEDBACK

ISSUES IN REHABILITATION PROCESS OF ABANDONED HOUSING PROJECT

The presence of great numbers of abandoned housing project in our country has given great anxiety to various parties including the homebuyers and the government. From years to years, the number of abandoned housing project seems to be decreasing. It takes so many courage for the stake holders and the government to take responsibilities in order to solve this problem. Reviving abandoned housing is not an easy task as it requires full support from the government and stakeholders, particularly the homebuyers who in most cases need to top-up on the prices. At the same time there are number of abandoned projects which has not yet come close to the consideration stage, due to some reasons such as the possibility of project revival is slim as there are no companies that are interested in investing on the revival of abandoned projects. Exposure to risk during the rehabilitation process may influence the progress of completion of the remaining construction work. Several unfavourable risks and issues that occur may affect the process. For this reason, this research will analyse the most prominent issues and risk during the rehabilitation process.

NEXT

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ISSUES IN REHABILITATION PROCESS OF ABANDONED HOUSING PROJECT

*Required

SECTION A : RESPONDENT'S BACKGROUND

Gender *

- Female
- Male

Age *

- 20 - 29
- 30 - 39
- 40 - 49
- 50 - 59
- 60 - 69

Profession *

- Developer
- Contractor
- Consultant
- Engineer
- Government officer
- Academician
- Other: _____

Location

- Kuala Lumpur
- Selangor
- Other: _____

SECTION B : ABANDONED HOUSING PROJECT

From the scale 1-5 rate, tick for the best answer.

- 1- Totally disagree
- 2- Disagree
- 3- Neither agree or disagree
- 4- Agree
- 5- Totally agree

a) Current state of abandoned housing in Malaysia

Have you heard about abandoned housing?

- yes
- No

Have you experienced this in housing development *

- yes
- No

Abandoned house is where house is not occupant for a very long time *

1	2	3	4	5
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Abandoned housing project is where the construction work has stopped continuously in 6 months or more *

1	2	3	4	5
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Abandoned housing project is either the receiver in the case where the developer company has been winding up defined the abandoned project as the project which had to be stopped owing to financial problems, or the developer of that project has disappeared. *

1	2	3	4	5
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

The conditions of abandoned housing project in Malaysia are in warring situation *

1	2	3	4	5
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Numbers of abandoned housing project in Malaysia are increasing in these past few years *

1	2	3	4	5
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

There are lot of abandoned housing in Malaysia need to be revived *

1	2	3	4	5
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

b) Rehabilitation of abandoned housing project

Have you involve in rehabilitation process of abandoned housing project? *

- Yes
 No

Rehabilitation is compulsory to be conducted and the best way in order to revive the abandoned housing project in Malaysia. *

- Yes
 No

The government plays an important role in rehabilitating abandoned housing projects. *

- Yes
 No

Developer are the most important parties in making decision in implementation of rehabilitation work of abandoned housing. *

- Yes
 No

Reviving abandoned housing is not an easy task as it requires full support from the government and stakeholders, particularly the home buyers who in most cases need to top-up on the prices. *

- Yes
 No

Exposure to risk during the rehabilitation of abandoned projects may influence completing the remaining construction work successfully. *

- Yes
 No

In rehabilitation process of abandoned project, it will involved legal and regulatory, financial, managerial, and technical risks. *

- Yes
 No

BACK

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SECTION C : ISSUES DURING REHABILITATION PROCESS

Exposure to risk during the rehabilitation process may influence the progress of completion of the remaining construction work. Several unfavourable risks and issues that occur may affect the process. For this reason, this research will analyse the most prominent issues and risk during the rehabilitation process.

From the scale 1-5 rate, tick for the best answer.

1- Totally disagree

2- Disagree

3- Neither agree or disagree

4- Agree

5- Totally agree

a) MANAGERIAL ASPECT

Termination of contractors or consultants *

1	2	3	4	5
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Project delay in design and regulatory approval *

1	2	3	4	5
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Delay in approval processes of the Government *

1	2	3	4	5
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Delay in approval processes from the owner *

1	2	3	4	5
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Inadequate original documents of the project *

1	2	3	4	5
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Staff turnover or Shortage of skilled staff *

1	2	3	4	5
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

B) FINANCIAL ASPECT

Tax increase or change in policy *

1	2	3	4	5
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Liquidity of owner and liquidity of contractor *

1	2	3	4	5
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Funding withdrawn or delayed *

1	2	3	4	5
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Delayed payment to the contractor *

1	2	3	4	5
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Adequacy of contingency and profit margin *

1	2	3	4	5
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Difficulty in claiming insurance *

1	2	3	4	5
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

C) LEGAL AND REGULATORY ASPECT

Delay in resolving contractual dispute *

1	2	3	4	5
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Disagreement over evaluating the revised contract price *

1	2	3	4	5
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Conflicts due to differences in culture or religion *

1	2	3	4	5
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

New government policy *

1	2	3	4	5
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Breach of contract *

1	2	3	4	5
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Criminal acts and civil torts *

1	2	3	4	5
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

D) TECHNICAL ASPECT

Inappropriate assessment of an abandoned project *

1	2	3	4	5
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Fatigue of materials due to the effect of corrosion *

1	2	3	4	5
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Lack of infrastructure of the project and technology *

1	2	3	4	5
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Estimation errors of the project cost *

1	2	3	4	5
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Deterioration of material and building structure *

1	2	3	4	5
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Technical standards or regulations unclear *

1	2	3	4	5
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

E) CONSTRUCTION-RELATED ASPECT

Changes in design or scope of works *

1	2	3	4	5
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Unforeseen ground conditions *

1	2	3	4	5
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Change in construction procedures *

1	2	3	4	5
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Clashes between design and construction *

1	2	3	4	5
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Workmanship negligence and malicious *

1	2	3	4	5
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Shortage in manpower (workers) availability *

1	2	3	4	5
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

BACK

SUBMIT

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