

CHALLENGES IN RESCUE PROJECT TOWARDS PROCUREMENT METHOD

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Choose an item.

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DEDICATION

This thesis is dedicated to my mother, who taught me that the best kind of knowledge to have been that which is learned for its own sake. It is also dedicated to my siblings and my wife, who taught me that even the largest task can be accomplished if it is done one step at a time.

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“In the name of Allah, the Merciful, the Beneficent”

Glory to Allah S.W.T, the most gracious, the most merciful and peace upon his messenger Holy Prophet Muhammad S.A.W the worship belongs only to Allah S.W.T. Above all, to the Great Almighty, the author of knowledge and wisdom, for His countless love and blessings that I am able to complete this research project titled.

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ABSTRACT

The existence of abandoned housing projects is a serious problem and will continue to be cancerous in Malaysia's construction industry. This trend is becoming increasingly worrying. In order to finish the abandoned construction project, the government has engaged a rescue contractor. However, some rescue contractors have trouble finishing abandoned building projects since it presents distinct difficulties to finishing conventional construction projects. Therefore, this study aims to identify challenges amongst rescue contractors in rescuing abandoned projects and to determine strategies to overcome the challenges in rescuing abandoned projects. This study uses quantitative methods through survey methods using a questionnaire. Thus, the questionnaire will be distributed to the contractor data based on Public Works Department (PWD). Around 345 respondents from the list are chosen to answer the questionnaires. The data analysis was done using the content analysis method and mean and ANOVA analysis. The results of the study found that the most significant challenges among the rescue contractor are lack of policy continuity and materials price increase in rescuing abandoned projects, with a mean of 4.84 for both. Meanwhile, addressing the fundamental root causes is one of the strategies in rescuing abandoned projects, with a mean of 4.63. The result of the One-Way ANOVA analysis has shown a significant difference between the challenges of rescuing abandoned projects by the Contract Method, where the value of $f = 6.558$; $p < 0.05$. Therefore, the hypothesis is accepted, and significant differences exist in challenges in rescuing abandoned projects based on different procurement ($p = 0.002$). This study can be a guide for any rescue contractors who are interested in restoring abandoned projects in order to help the government in reducing the number of abandoned housing projects in the country. The efforts of rescue contractors not only help to reduce the statistics of abandoned housing projects, but they can also realize the dreams of home buyers who want to occupy their new homes after a long period.

ABSTRAK

Kewujudan projek perumahan terbengkalai merupakan masalah serius dan akan terus menjadi barah dalam industri pembinaan Malaysia. Trend ini menjadi semakin membimbangkan. Bagi menyelesaikan projek pembinaan yang terbengkalai itu, kerajaan telah mengambil kontraktor penyelamat. Walau bagaimanapun, sesetengah kontraktor penyelamat menghadapi masalah menyiapkan projek bangunan terbengkalai kerana ia memberikan kesukaran yang berbeza untuk menyiapkan projek pembinaan konvensional. Oleh itu, kajian ini bertujuan untuk mengenal pasti cabaran dalam kalangan kontraktor penyelamat dalam menyelamatkan projek terbengkalai dan menentukan strategi untuk mengatasi cabaran dalam menyelamatkan projek terbengkalai. Kajian ini menggunakan kaedah kuantitatif melalui kaedah tinjauan menggunakan soal selidik. Justeru, soal selidik akan diedarkan kepada data kontraktor berdasarkan Jabatan Kerja Raya (JKR). Kira-kira 345 responden daripada senarai dipilih untuk menjawab soal selidik. Analisis data dilakukan menggunakan kaedah analisis kandungan dan analisis min dan ANOVA. Hasil kajian mendapati bahawa cabaran paling ketara dalam kalangan kontraktor penyelamat adalah kekurangan kesinambungan dasar dan kenaikan harga bahan dalam menyelamatkan projek terbengkalai, dengan min 4.84 bagi kedua-duanya. Sementara itu, menangani punca asas adalah salah satu strategi dalam menyelamatkan projek terbengkalai, dengan min 4.63. Hasil analisis ANOVA Sehalu telah menunjukkan perbezaan yang ketara antara cabaran menyelamatkan projek terbengkalai dengan Kaedah Kontrak, di mana nilai $f = 6.558$; $p < 0.05$. Oleh itu, hipotesis diterima, dan wujud perbezaan yang ketara dalam cabaran dalam menyelamatkan projek terbengkalai berdasarkan perolehan yang berbeza ($p = 0.002$). Kajian ini boleh menjadi panduan kepada mana-mana kontraktor penyelamat yang berminat untuk memulihkan projek terbengkalai bagi membantu kerajaan dalam mengurangkan bilangan projek perumahan terbengkalai di negara ini. Usaha kontraktor penyelamat bukan sahaja membantu mengurangkan statistik projek perumahan terbengkalai, malah mereka juga dapat merealisasikan impian pembeli rumah yang ingin menduduki kediaman baharu selepas tempoh yang panjang.

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LIST OF ABBREVIATIONS

PPA1M	-	Perumahan Penjawat Awam 1 Malaysia
PPR	-	Program Perumahan Rakyat
PR1MA	-	Perumahan Rakyat 1 Malaysia
MHLG	-	Ministry of Housing and Local Government
EPU	-	Economic Planning Unit
MCO	-	Movement Control Order
HBA	-	National House Buyers Association
KKR	-	Ministry of Works (Kementerian Kerja Raya)
SPNB	-	Syarikat Perumahan Nasional Berhad
JKR	-	Public Work Department
JSKP	-	Jawatankuasa Saringan Kontraktor Penyiap
CIDB	-	Construction Industry Development Board
DB	-	Design and Build
C&C	-	Condition of Contracts
TCQ	-	Time, Cost and Quality
MRR2	-	Middle Ring Road 2
PWD	-	Public Works Department
S.O	-	Superintendent Officer
S&P	-	Sales and Purchase Agreement
PPP	-	Public Private Partnership
BOT	-	Build, Operate and Transfer
BOOT	-	Build-Own-Operate-Transfer
BOO	-	Build-Own-Operate
DBFO	-	Design-Build-Finance-Operate
NRP	-	National Recovery Plan
VOP	-	Variation of Price
MBAM	-	Master Builders Association Malaysia
PAM	-	Pertubuhan Arkitek Malaysia
CIPAA	-	Construction Industry Payment and Adjudication Act 2012
CPM	-	Critical Path Method

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CHAPTER 1

INTRODUCTION

1.1 Background of the research

Construction industry is among the major contributors to the Country's economic developments as well as determine the direction of a country's infrastructure. It also plays a vital role in meeting with people's needs and increasing the quality of life of the society as well. This is because the rapid mass in construction sector such as the construction of factories for the manufacturing and trade sector, the construction of commercial buildings to boost the services sector and the construction of hotel to boost the tourism sector (Zulaikha, 2018). As stated by Deputy Prime Minister, (Dato' Sri Ismail Sabri Yaakob, 2021), "*housing development will continue to be emphasized to provide adequate housing by regenerating the economy, strengthening the safety and inclusivity boosting sustainability*".

Besides, government housing programme such as *Rumah Mesra Rakyat*, *Perumahan Penjawat Awam 1 Malaysia* (PPA1M), *Program Perumahan Rakyat* (PPR) and *Perumahan Rakyat 1 Malaysia* (PR1MA) have been introduced by the government to achieve the objective, apart from that, private housing projects also showed a positive growth. The number of private housing projects is increasing from year to year due to the increasing demand for housing (Sunitha, Zainal, & Riduan, 2018). Thus, both government and private housing projects will contribute to the development of the construction industry in Malaysia.

Although the housing industry in Peninsular Malaysia plays an essential role in the development of the nation. The occurrences of abandoned is not uncommon in Peninsular Malaysia. This problem has been happening since the 1970s which have, hitherto, marred its role towards national development and safeguarding the interests of its citizen purchasers (Nuarrual, 2019).

Thus, the Ministry of Housing and Local Government (MHLG) revealed that 92 housing projects in Peninsular Malaysia have been classified as “abandoned”. According to the Economic Planning Unit, government has identified a total of 92 abandoned projects (Rahim, 2022). This data was consistent with Merican study in 2021 which found that the mentioned data has been comprised of 17,724 housing and involved with 11,824 buyers. In addition, Thomas (2021) found that the data on MHLG website has been reported that about 198 abandoned housing projects were recorded in Peninsular Malaysia which included as old as 1997. This is due to the fall in investment, especially public investment, which contracted by -11.4 per cent (Rahim, 2022).

A study by Loong (2021) explained that this is not something new towards developers falling “problematic” and becoming incapable of continuing with their housing projects and causing the buyers to be victims of abandoned housing projects.

Moreover, Siti Nurainin, Zahira, & Rozanah (2021) states that among the causes of the project being abandoned, the COVID-19 pandemic is the new list contributing to the occurrence of the problematic housing project. Added by Merican (2021) Covid-19 pandemic is one of the contributions to the problem in housing projects, and it has proved that 42 delayed cases have been recorded this is because of the Movement Control Order (MCO), which the government enforced on 18 March 2020 has resulted in an economic downturn and a slow movement in the housing industry.

Added by Siti Nurainin, Zahira, & Rozanah (2021) the industry has been affected by MCO due temporary closure of business operations. In addition, the supply of foreign workers also affected the construction and completion process due to rising positive cases of COVID-19 among them. As explained by Zul, James, & Gina (2020) the intervention of Temporary Measures for reducing the impact of Covid-19 has been problematic towards the construction, which affects their delay of works and soon will become abandoned in housing projects. According to Ariffin (2021), he stated that the Covid-19 act also has a significant impact on the existing situation. As reported by

MHLG and National House Buyers Association (HBA), below are the abandoned housing project statistics until 2020.

Table 1.1 Statistics abandoned housing projects until 2020

NO.	STATE	NUMBER OF PROJECTS	NUMBER OF UNITS	NUMBER OF BUYERS
1	JOHOR	9	2,785	2,508
2	KEDAH	2	680	317
3	KELANTAN	12	946	918
4	MELAKA	1	79	4
5	NEGERI SEMBILAN	4	594	558
6	PAHANG	6	623	487
7	PERAK	5	341	253
8	PERLIS	-	-	-
9	PULAU PINANG	-	-	-
10	SELANGOR	33	10,974	6,308
11	TERENGGANU	6	612	451
12	W.P. KUALA LUMPUR	1	90	20
13	W.P. PUTRAJAYA	-	-	-
	TOTAL	79	17,724	11,824

Thus, concerning the above table, this is where rescue contractors or white knight contractors come into play. They will save and revive ailing or abandoned developments from turning into an eyesore, a hotbed for criminal activity and causing unimaginable loss to buyers. Recently, serious efforts have been implemented by the government with the help of MHLG, The Ministry of Works (KKR), developers as well as government agencies such as '*Syarikat Perumahan Nasional Berhad*' (SPNB) and the Public Works

Malaysia Public Work Department (PWD) is willing to take over and revive abandoned projects and was tasked to monitor rescue contractors' performance through compliance with established criteria. Besides being free from any "sick projects", rescue contractors should also be free from disciplinary action and maintain

excellent performance (Shawn, 2020). Although the housing industry in Peninsular Malaysia plays an essential role in the nation's development, occurrence of abandonment is not uncommon in Peninsular Malaysia. This problem has been happening since the 1970s, which has, hitherto, marred its role in national development and safeguarding the interests of its citizen purchasers (Nuarrual, 2019).

In order to resolve these 'sick' projects, the Ministry has to deploy stringent screening to ensure that they can deal with abandoned projects such as financial strength, financial capability, practices, and company assets. The most important is a good track record from their previous experiences (Irene, 2021). As reported by the Committee of '*Kontraktor Penyiap*' (JSKP) and the Construction Industry Development Board (CIDB), there are 82 rescue contractors in Selangor, 65 in Kuala Lumpur, and 28 in Johor. Figure 1.2 is the list of registered Rescue Contractors.

In the meantime, the complex, varied and varying demands in the construction industry have produced more advanced commercial and industrial working environments for the least amount of money and the fastest rate. This will lead to the procurement method route for construction that needs to decide by clients. Therefore, alternate procurement techniques, including design-build, turnkey, and construction management, are becoming more prevalent. (Siti Aishah, 2011)

According to Haryati (2011) housing development projects in Malaysia fall within this category as design and build (DB). The popularity of the DB procurement method results from the demands for quicker project delivery with a consortium having entire responsibility for the project, a more integrated design and build process, and essentially on a lump sum fixed fee. As a result, DB procurement is acknowledged as the best alternative in many public and private projects and many nations.

However, research by Haryati (2011) states that 'gaps' exist within the DB system practised which need to be critically investigated the adequacy of the DB project implementation framework such as Condition of Contracts (C&C), Guidelines for Management of DB Projects and Project Brief Preparation adopted. The research also found a common displeasure over-discharge or ambiguity of contractual obligations such as warranty, obligation and discrepancy.

1.2 Problem Statement

Recently, the MHLG had identified 92 abandoned housing projects involving 17,724 housing units in Malaysia which affecting 11,824 buyers (Ariffin, 2021). As reported by Aziz (2021), as per current situation there are about 15 projects has been restored while 38 projects are in the process of awarding to the rescue contractor and remaining 26 projects are still don't have any progress or resolution.

According to Haryati (2011), she found that Selangor has the most number of abandoned development with number of 33 abandoned project which involve 10,974 units. It's followed by Johor has nine abandoned projects totalling 285 units, Kelantan has 12 projects, including 946 units. The government has has used RM219 million in direct intervention over previously abandoned projects over the past ten years until the work was finished, salvaging 215 projects totalling 59,090 units for 39,247 buyers (Aziz A. , 2021).

Thus, with the effect of the project triangle pillars of Time, Cost and Quality (TCQ) with the abandoned projects. In addition, to the fact that clients' organisations are complex and that various consumer categories require discrete procurement solutions, clients are under pressure to provide more advanced commercial and industrial working environments at the lowest possible cost and fastest turnaround time. Therefore, Design and Build (D&B) is implemented in abandoned projects to suit contract management (Florence & Edwin, 2002).

However, according to Siti Aishah (2011) has been labelled to be designed to fail. This is because some of the procurement method in mega projects have failed towards the completion as the client wanted (Ariffin, 2021). According to Musa and Obaju (2016), there are some examples of notorious mega projects using the DB system that have been highlighted in the past few years are Middle Ring Road (MRR) 2, Navy Recruit Training Center (Pularek) and Matrade Building.

However, as explained by Siti et al.(2021), they mentioned that not all abandoned project are caused by the poor performance of the contractor. As reported by Ogunsanmi et al.(2011), the major dispute that arose in procurement method system mostly related to the design liability. Unless stated otherwise, the common law implies that DB contractor is “fitness for purposes” which is more complicated than the regular duty of “reasonable skill and care” imposed on a design consultant. Therefore, any disparity, deviation or alteration from the original design will create high risks for the contractor because the contractor has to bear all the costs for his own mistakes or decisions.

Previous study conducted by Tan & Daniel (1997) indicate the contractor may encounter several issues, including the need to adapt to changing market conditions, finish projects in less time, and, last but not least, work with smaller budgets while generating far greater commercial value. This intense strain may eventually run into problems. Unfortunately, what is even worse, as stated by Jamman (2020) as of July 2020, 602 of the 650 unit owners had submitted damage notifications. Among complaints received were poor tile installation and wall surface finishing, doors and windows not properly installed and other electrical and mechanical problems.

As explained by Shawan (2020), it is a lot harder to rejuvenate these projects than to start new ones, as it can be an uphill battle dealing with a host of legal and financial issues with the history of the previous contractor. Moreover, building structures will need to be adequately inspected and may require a re-design to make them more desirable, which will involve cost.

On the other hand, in a study by Ling et al.(2001), some architects may dislike and do not favour the DB arrangement. They also rejected all other projects based on the DB procurement method. This is because they indicated that DB procurement is only suitable for simple projects and new construction, not for revived abandoned projects. Moreover, DB arrangement might be challenging in the way of administering contracts.

However, supported by Edwin and Ann (2005) both architects and contractors agreed that conventional projects should not be dependent on DB method. This is because housing developments have standard requirements and designs. Therefore purchasing the DB technique would be a waste of resources. In addition, according to Florence and Edwin (2002), most respondents state that the DB technique should not be used for projects involving rework, renovation, addition, and change. This is because several concealed goods and spots are challenging to value and present a more significant danger to contractors.

As highlighted by Ling et al.(2001), the professional consultants have the knowledge and expertise, which give them a power and authority to decide either the options are suitable or not for DB projects. They also develop a high degree of autonomy if contractors have substantial control over consultants. This may lead to more compliant performance on the part of the latter. In Singapore, the architects may always have to accept the contractor's contribution because they feel that the contractors pay their fees.

Prolonged abandoned housing will involve social problems and severe defects left. This problem arises is because the areas left alone without any security or control. Thus, the area will be surrounded by bushes, leading to robbery and vandalism. Among others, it will be used as a den of drug addiction. This problem should be addressed immediately as it is already starting to become a serious problem for the building itself (Rozetta, 2005).

Supported by Nsiah-Asamoah (2009), delay in payment, bad estimating, and planning, under or overvaluation of work and non-settlement or undecided claims will lead to contractors becoming insolvent. Furthermore, Site et al.(2021), states that architects should avoid ambiguity and must consider factors such as buildability and maintainability. As reported by Haryati (2011), in Malaysian every building which is educational, residential and hospital developed in DB procurement system consequently caused the government a considerable sum of money to rectify the defects which are common. The causes of the defects were categorized by material causes, workmanship causes, design causes and lack of protection causes (Haryati, 2011).

There was a general problem that may contribute to operational being delay which is the selection and procurement of some of the materials, equipment's, specifications and materials are obsolete. (Ayman , 2014).

Highlighted by (Rahim, 2022), because of the seriousness of the problem Ministry of Education decided to extent of suspending the use DB procurement system in their projects from 2005 – 2010 (in the 9th Malaysia Plan). This is because, they do not dissatisfy with the delivery of their DB hospital projects, especially when it comes to large number of defects. They also will not accept any DB hospitals project in the future.

Accepting that there is an issue that has to be rectified is the biggest barrier to starting a project rescue. Many avoid taking this route as long as they can because they believe that doing so would reflect poorly on them, their reputation, or the company. Unfortunately, the more time a rescue is postponed, the more difficult and expensive it is to fix (Rickey, 2015).

Due to this view, researcher have identified shortcomings in the research of previous thesis related to the problem arising towards rescue contractor in DB abandoned projects. However, among the previous thesis related to abandoned projects were on effect of mismanagement towards abandoned project in Malaysia provided by Salam, et al., in 2020, the causes and management of sick project rehabilitation provided by Dzailyherdaway Zainal in 2009, Strategies of developers and contractors taking over and restoring abandoned projects prepared by Nur Zulaikha Binti Isa in 2018, Action of taking over abandoned housing projects in Melaka prepared by Rozetta Binti Yunus 2005.

Therefore, from the previous thesis, it can be seen that there is no specific study on the challenges that arise in rescue projects towards DB contracts. Hence, this study was conducted to identify the issues arising from the contractor's design and build contract in the rescue project. In addition, this study is conducted to identify the circumstances of disputes arising under the DB contract concerning rescue projects.

1.3 Aim of Study

To investigate the relationship between design and build contract aspects of rescue projects and issues arise amongst the rescue contractors towards rescue projects.

1.4 Research Question

The question of the research are:

- (a) What are the challenges amongst the rescue contractor towards rescuing abandoned projects?
- (b) How to overcome the challenges in rescuing abandoned projects?
- (c) Whether there is a significant difference on challenges in rescuing abandoned project based on different procurement

1.5 Objective Of Study

- I. To identify the challenges of in rescuing abandoned projects.
- II. To determine strategies to overcome the challenges in rescuing the abandoned project.
- III. To identify significant differences on challenges in rescuing abandoned projects based on different procurement

1.6 Hypothesis

(H₁) – There are NO significant differences on challenges in rescuing abandoned project based on different procurement

(H₂) – There are significant differences on challenges in rescuing abandoned project based on different procurement

1.7 Scope of Study

In order to complete this study, the researcher has identified the scope of the study which is the challenges towards rescuing abandoned project by rescue contractor. Therefore, the focus area of the research is abandoned project in the housing category. Thus, in order to ensure that the objective of the study is achieved, the questionnaire will be distributed as listed in '*Senarai Jawatankuasa Kontraktor Penyiap*' (JSKP). The respondent for questionnaire is rescue contractor that will cooperate during time of collecting data and the total number of rescue contractors.

1.8 Research Methodology

In order to fulfil all the objectives of this topic, the method that need to be taken had been recognized and planned. All methods have been divided into stages to make an easier assessment of the research. Refer to the figure 3.2 the framework of research methodology for this research topic.

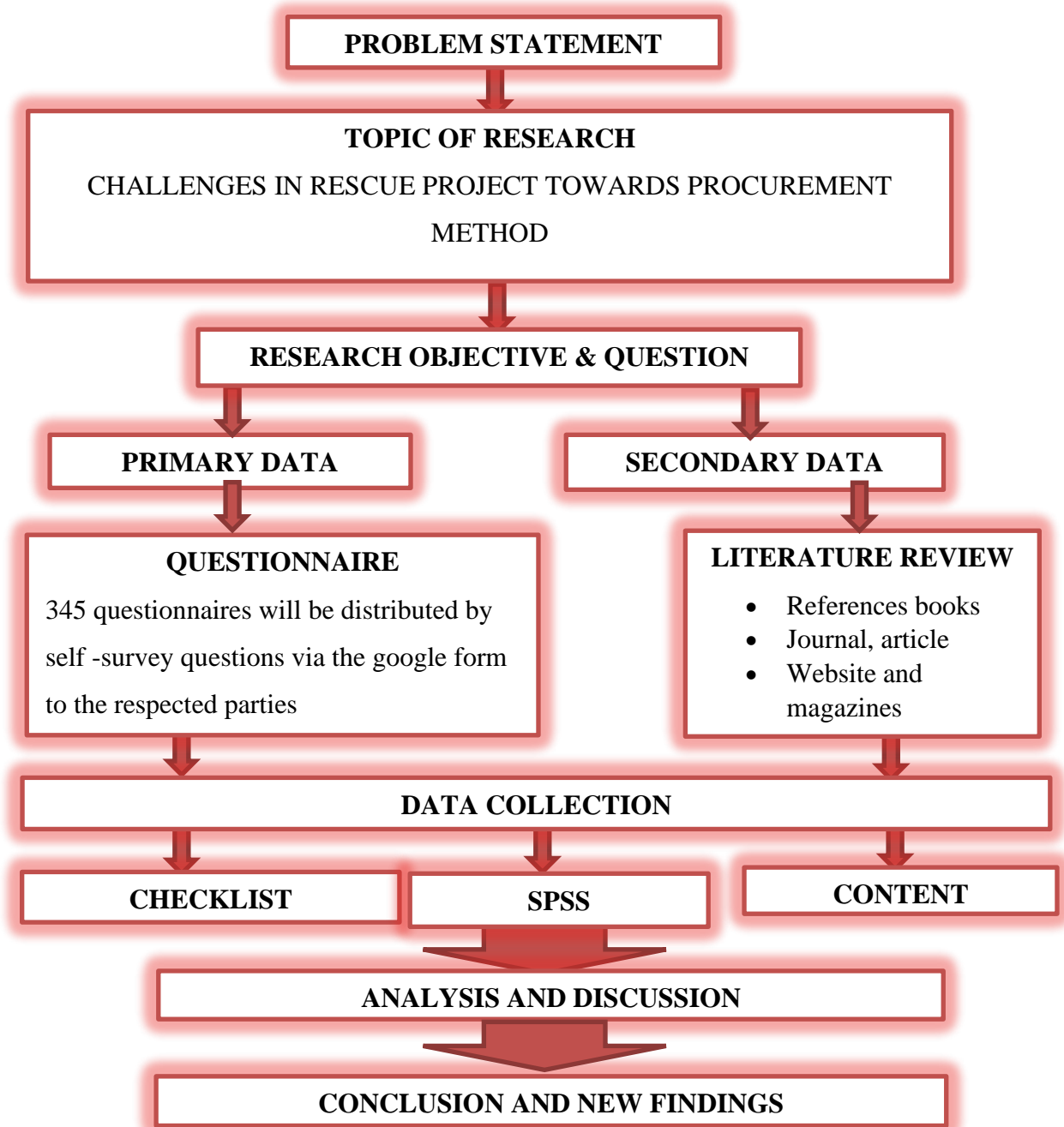


Figure 1.1 : Flow Chart of Methodology

1.9 Chapter Organisation

Chapter 1: Introduction

This chapter discusses the study's overall aim, including the study's background, the issue statement and the research technique. The focus area of the research is abandoned project in the housing category. The target population of this research is among contractor listed in '*Senarai Jawatankuasa Kontraktor Penyiap*' (JSKP).

Chapter 2: Literature review

This chapter covers reading, compiling, and reviewing the work of other researchers, as well as related books, table issues, reference books, articles, newspapers, the internet, and other relevant materials. This chapter aims to obtain information by using content analysis to collect data from other researchers or any other relevant data.

Chapter 3: Research Methodology

This chapter will go through how to collect and analyse data. The questionnaire survey, content analysis, and literature research were employed in this study. Data gathering must be relevant to the study issue to fulfil the goal and objective.

Chapter 4: Data Analysis and Findings

This chapter discusses the results of data analysis collected in the previous chapter to identify the study's conclusions. This chapter will present the outcomes and findings from the analysis in greater detail. The descriptive analysis has been use to analyze the frequency distribution of collected data. Furthermore, under the descriptive analysis the compare mean analysis has been conducted to the identify the challenges of in rescuing abandoned projects and to determine strategies to overcome the challenges in rescuing the abandoned project. Lastly, to test the hypothesis, this research use one-way Anova to identify significant differences on challenges in rescuing abandoned projects based on different procurement.

Chapter 5: Conclusion and Recommendation

This is the concluding chapter of the investigation; in this chapter, the researcher will present the research conclusion based on the data analysis findings. As a result, this chapter provides new results and suggestions that will be valuable as a reference for various parties.

1.10 Chapter Summary

The researcher has detailed the research's introduction in this chapter. This chapter is crucial to the research since it provides a broad overview of the project. The introduction, problem statement, research aim, research objectives, research question, scope and limitation of study, and chapter layout are all contained in this chapter. The chapter will discussed about the previous literature review. provides an overview of previous research on knowledge sharing and intranets. It introduces the framework for the case study that comprises the main focus of the research described in this thesis

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