

A Literature Review on the Critical Factors Contributing to Project Abandonment in Construction Projects

*Sorotan Literatur tentang Faktor-Faktor Kritikal yang Menyumbang kepada
Pengabaian Projek dalam Projek Pembinaan*

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ARTICLE HISTORY

Received: 10th December 2025

Revised: 23rd Mac 2026

Accepted: 23rd April 2026

Published: 27th April 2026

KEYWORDS

Project Abandonment

Rescue Contractors

White Knights

Construction Management

ABSTRACT - Abandoned construction projects in Malaysia erode economic value, harm the environment, and weaken public trust, while rescue contractors face elevated financial, legal, and reputational risks. This conceptual paper integrates findings from prior studies and documented cases to identify recurring critical factors of abandonment and to map them to project phases. Seven categories are highlighted, with financial challenges, regulatory and policy constraints, and technical and operational issues most prevalent; further contributors include stakeholder engagement problems, economic instabilities, systemic limitations, and unforeseen external risks. Understanding the relative prominence and phase specific manifestation of these factors clarifies why even rehabilitated projects can remain vulnerable without stronger financial controls, streamlined regulatory interfaces, quality assurance, and proactive risk governance. The synthesis provides a practical basis for stakeholders, particularly rescue contractors, to prioritise interventions and improve completion outcomes.

INTRODUCTION

Abandoned construction projects remain a significant concern in Malaysia, disrupting economic growth, eroding public trust, and posing environmental hazards. According to the Housing and Local Government Ministry, as of January 31, 2024, there were 117 abandoned housing projects, affecting 30,840 units and 12,565 buyers, with 81 of these projects priced at RM300,000 or less. These projects, characterized by prolonged inactivity and incomplete construction, often result from factors such as financial mismanagement, policy inconsistencies, and inadequate project planning and management. For example, studies by Md Dahlan (2022) and Hamdan et al. (2024) highlight issues such as poor financial planning, rising material costs, and delays in regulatory approvals as major contributors to these challenges.

Rescue contractors, who are tasked with revitalizing abandoned projects, play a critical role in mitigating these adverse impacts. However, they face substantial risks, including uncertain project conditions, legal entanglements, and financial burdens. Despite their efforts, many projects remain unfinished, resulting in additional delays and cost overruns. As noted by Deputy Prime Minister Datuk Seri Fadillah Yusof (2024), even with the appointment of rescue contractors, the number of incomplete projects continues to rise, further exacerbating the problem.

Understanding the key factors that contribute to project abandonment is essential for implementing effective prevention measures and ensuring the successful completion of construction projects. This paper seeks to explore these critical factors and provide a comprehensive overview to help stakeholders, particularly rescue contractors, address these ongoing challenges.

1.1 Challenges in Addressing Project Abandonment

Project abandonment remains a significant concern within the Malaysian construction industry, with substantial implications for various stakeholders. As of January 31, 2024, the Housing and Local Government Ministry recorded 117 abandoned housing projects, encompassing 30,840 units. Notably, 81 of these projects, involving 23,031 units and affecting 12,565 buyers, comprise houses priced at RM300,000 and below. Deputy Minister Datuk Aiman Athirah Sabu (2024) highlighted this issue, emphasizing the significant impact on affordable housing segments.

The prevalence of such projects not only disrupts economic growth but also erodes public trust and creates environmental hazards. Malaysian citizens are particularly impacted, facing unfulfilled aspirations of property ownership and prolonged financial burdens due to ongoing rental commitments. Ariffin et al. (2024) reported that numerous factors contribute to project abandonment, including mismanagement by inexperienced developers, inadequate project planning, and financial difficulties.

Despite governmental interventions, including the enforcement of the Housing Development (Control and Licensing) Act of 1966, abandoned projects continue to pose challenges. The persistence of these issues underscores the need for a comprehensive understanding of the root causes and the development of effective strategies to prevent future occurrences. Mohamad (2020) emphasized the importance of protecting homebuyers and ensuring stricter regulatory measures to mitigate the risks associated with project abandonment. It is important to note that the risk of abandonment is not confined to housing projects alone. Other types of construction projects, such as commercial and infrastructure, are also susceptible to these risks.

Addressing these challenges requires a collaborative effort among all stakeholders, including contractors, consultants, clients, and regulatory bodies. A thorough understanding of the critical factors leading to project abandonment is essential for implementing preventive measures and ensuring the successful completion of construction projects.

1.2 Understanding the Causes of Project Abandonment

Contractors must comprehend the causes that contribute to project abandonment. Even when a rescue contractor is appointed, projects can still be at high risk of being abandoned again. Therefore, all critical factors need to be thoroughly understood.

Therefore, identifying these critical factors can also assist other stakeholders, such as consultants and clients involved in abandoned projects, in prevention efforts. Successful project completion involves multiple parties working collaboratively. The impact of project abandonment is substantial, leading to economic downturns, as demonstrated by Doraisamy, Akasah, & Yunus (2015).

1.3 Objective of Study

To identify critical factors contributing to project abandonment in construction projects.

1.4 Definition of Abandoned Project

An abandoned project is a construction endeavor that has been halted indefinitely or for an extended period due to factors such as financial constraints, regulatory issues, or management failures, rendering it incomplete and inactive. Siti Nur Afiqah Zuhairi et al. (2024) provided a comprehensive definition in their study.

For housing projects, according to Kunasekaran (2024), a project is declared abandoned when it fulfills the following criteria:

1. It fails to be completed within the period specified in the Sale and Purchase Agreement (SPA), and construction activity has stopped for six consecutive months or more; or
2. A winding-up petition has been filed in the High Court under Section 218 of the Companies Act 1966; or
3. The company has been placed under the control of a Receiver and Manager; or
4. The developer has provided a written admission of its inability to proceed to the Controller of Housing; and
5. The project is confirmed as abandoned by the Minister of Housing and Local Government under Section 11(1) (ca) of Act 118.

1.5 Definition of Rescue Contractor

A rescue contractor is a construction professional or entity specializing in the revival and completion of abandoned projects, navigating challenges such as legal complexities, financial risks, and technical deficiencies to deliver the intended outcomes. Abdul-Rahman, Alashwal, & Abdullah (2016) discussed the role of rescue contractors in detail.

Rescue contractors are also referred to as "white knights." This term refers to companies or individuals who rescue troubled projects by taking on the responsibility of revitalizing and ensuring their successful completion, as noted by Rudy F.C.B. Sirau et al. (2024).

METHODS AND MATERIALS

This conceptual paper employs a structured narrative review to identify and analyze the critical factors contributing to project abandonment in the Malaysian construction industry. The methodology involved a comprehensive search of peer-reviewed articles, government reports, and industry publications.

2.1 Database Selection

To ensure the inclusion of high-quality sources, several academic databases were used, including Google Scholar, Scopus, and JSTOR. These databases were selected for their broad coverage of relevant literature in construction management, project abandonment, and risk management.

2.2 Inclusion Criteria

Articles were selected based on the following inclusion criteria:

1. Relevance to project abandonment: Only studies that directly addressed factors contributing to construction project abandonment or related issues (e.g., financial mismanagement, regulatory issues, project planning failures) were included.
2. Geographical focus: Studies focused on the Malaysian context or similar developing countries in Southeast Asia were prioritized, although broader international studies were also considered if applicable.
3. Peer-reviewed status: Only peer-reviewed articles were included to ensure academic rigor.
4. Language: Sources published in English and Malay were included to capture a wider range of relevant studies.

2.3 Publication Date Range

The review focused on studies published between 2015 and 2024 to ensure that the literature was up-to-date and reflected current trends and challenges in the construction industry. However, seminal works and key foundational papers published before 2015 were also included if they were highly relevant.

2.4 Data Analysis

The selected sources were analyzed using a thematic approach. Key factors contributing to project abandonment were identified and categorized based on their occurrence in the literature. These factors were then mapped to different project phases (inception, tender, construction) to identify phase-specific challenges. A qualitative synthesis was conducted to highlight recurring themes, draw comparisons, and evaluate the relative significance of each factor.

2.5 Search Strategy

The search terms included variations of "project abandonment," "construction risk," "financial mismanagement," "regulatory issues," and "rescue contractors" in combination with "Malaysia" and other Southeast Asian nations. Boolean operators (AND, OR) were used to refine the search results.

2.6 Contributing Factors to Project Abandonment

Extensive research has identified several factors contributing to project abandonment, as highlighted by numerous scholars. Understanding these factors is crucial for all construction projects, especially when revitalizing abandoned ones. Table 1 below delineates these factors, as identified by researchers, along with the corresponding project phases they impact.

Table 1. Literature Summary Abandonment Factors by Phase

No.	Key Issue	Cited References	Contributing Factors to Project Abandonment	Relevant Project Phases
1	Financial Challenges	a. Zuhairi et al. (2024); b. Abdul-Rahman et al. (2016); c. Rudy F.C.B. Sirau, et al. (2024) d. Kunasekaran (2024); e. Obakin et al. (2024); f. Adil et al. (2019);	a. Insufficient financial resources b. Rising material costs and economic volatility c. Poor financial planning and cash flow mismanagement. d. Inadequate funding sources. e. Fund mismanagement	a. Tender b. Construction
2	Regulatory and Policy Constraints	a. Abdul-Rahman et al. (2016); b. Rudy F.C.B. Sirau, et al. (2024); c. Nuarrual Hilal Md Dahlan (2022); d. Saidah An'nisaa et al. (2020) e. Kunasekaran (2024); f. Obakin et al. (2024)	a. Inefficiency in legal frameworks b. Stringent requirements (e.g., low-cost housing) c. Challenges in complying with authority d. Bureaucratic red tape and regulatory delays	a. Inception b. Construction
3	Economic Instabilities	a. Zuhairi et al. (2024); b. Abdul-Rahman et al. (2016) c. Kunasekaran (2024); d. Obakin et al. (2024); e. Adil et al. (2019)	a. Unfavourable market conditions b. Inflation and economic downturns c. High competition leading to low profitability d. Currency depreciation	a. Inception b. Tender c. Construction
4	Stakeholder Engagement	a. Abdul-Rahman et al. (2016); b. Rudy F.C.B. Sirau, et al. (2024); c. Edward Nana-Addy et al. (2022)	a. Poor communication among stakeholders b. Conflicts between developers and contractors	a. Inception b. Construction c. Post-Construction

continued

		d. Kunasekaran (2024); e. Obakin et al. (2024)	c. Stake holder issues beyond the control of the contractor d. Disputes over project scope and deliverables	
5	Technical and Operational Challenges	a. Muhammad Firkrool Hamdan et al. (2024); b. Zuhairi et al. (2024) c. Abdul-Rahman et al. (2016) d. Edward Nana-Addy et al. (2022) e. Rudy F.C.B. Sirau, et al. (2024) f. Adil et al. (2019)	a. Poor site assessments and management b. Subpar design and material quality c. Strict quality control and a dedicated maintenance team d. Incompetent workforce and lack of skilled labour	a. Design b. Tender c. Construction
6	Systemic Limitations	a. Abdul-Rahman et al. (2016) b. Kunasekaran (2024); c. Obakin et al. (2024)	a. Deficiencies in the Current Selling System (CSS) b. Inadequate project monitoring mechanisms c. Poor contract management	a. Initiation b. Construction
7	Unforeseen External Risks	a. Abdul-Rahman et al. (2016) b. Kunasekaran (2024); c. Obakin et al. (2024)	a. Related to site clearing, bankruptcy, conflict d. External factors (natural disasters, political instability)	a. Construction

RESULTS AND DISCUSSION

The study identified several critical factors contributing to construction project abandonment, which were categorized based on their frequency of occurrence in the reviewed literature. The most frequently cited factors include financial challenges, such as insufficient funding, rising material costs, and poor cash flow management. These issues were often exacerbated by economic volatility, contributing to delays and even project halts. Additionally, regulatory and policy constraints, including inefficiencies in legal frameworks, bureaucratic delays, and stringent requirements, were also commonly cited. These regulatory challenges were found to significantly delay projects, particularly during the tender and construction phases. Moreover, technical and operational challenges, including poor site assessments, inadequate design, subpar material quality, and the lack of a skilled workforce, were frequently mentioned as major contributors to project abandonment.

The moderately cited factors included economic instabilities such as inflation, market downturns, and currency depreciation, which increased financial risks and made it difficult for contractors to sustain project funding. Stakeholder engagement issues, including poor communication, conflicts between developers and contractors, and disputes over project scope, were also identified as contributing factors. These challenges were especially prevalent during the inception, tender, and construction phases, and they led to project delays, making it more difficult to reach successful project completion. Lastly, systemic limitations such as poor project monitoring mechanisms and inadequate contract management were less frequently mentioned but still contributed to the abandonment of construction projects. These limitations hindered effective oversight and delayed decision-making processes. Additionally, unforeseen external risks, including natural disasters, political instability, and bankruptcy, while less commonly cited, were found to abruptly halt construction projects, particularly during the construction phase.

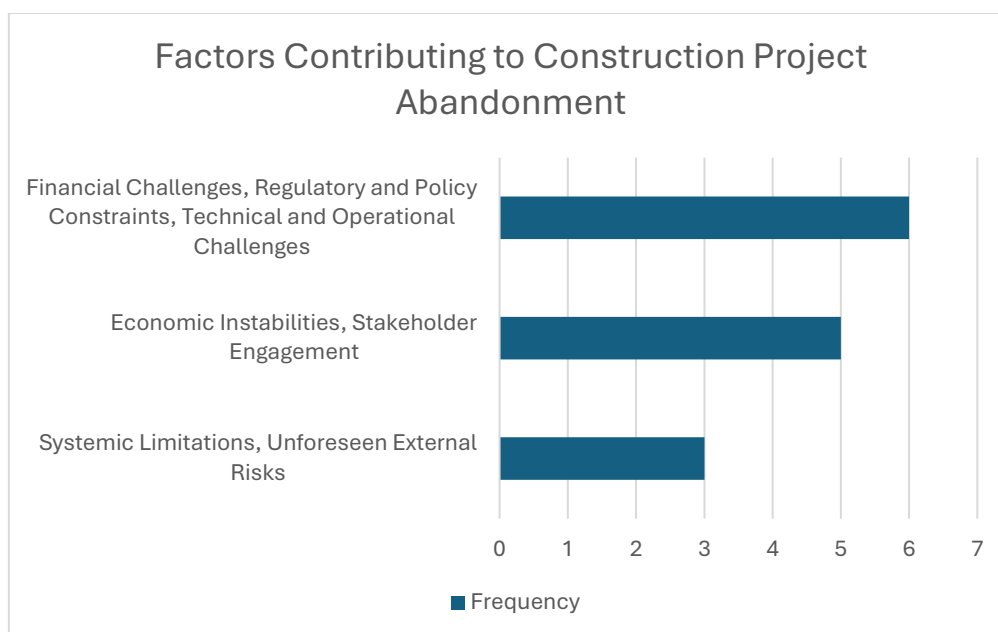


Figure 1. Factors Contributing to Construction Project Abandonment

The findings of this study underscore several critical factors influencing project abandonment in the Malaysian construction industry. These factors can be broadly categorized into financial challenges, regulatory and policy constraints, economic instabilities, stakeholder engagement, technical and operational challenges, systemic limitations, and unforeseen external risks. Each of these categories presents significant barriers to project completion and contributes to the prolonged abandonment of construction projects.

3.1 Financial Challenges

Financial constraints are among the most commonly cited reasons for project abandonment. Insufficient financial resources, rising material costs, and poor financial planning lead to delayed construction and sometimes halted projects altogether. The challenges related to cash flow mismanagement and inadequate funding sources are often exacerbated by the volatility in economic conditions. As reported by Zuhairi et al. (2024) and Abdul-Rahman et al. (2016), improper financial management during the tender and construction phases often leads to severe delays or project suspension, especially in the face of economic downturns.

3.2 Regulatory and Policy Constraints

Regulatory and policy constraints also play a crucial role in hindering project progress. Inefficiencies in legal frameworks, stringent requirements for low-cost housing, and bureaucratic red tape are some of the key issues that delay construction timelines. Nuarrual Hilal Md Dahlan (2022) and Saidah An'nisaa et al. (2020) found that delays in obtaining regulatory approvals often lead to significant project setbacks during the inception and construction phases.

3.3 Economic Instabilities

Economic conditions such as inflation, high competition, and unfavorable market conditions also contribute to project abandonment. As Zuhairi et al. (2024) highlighted, currency depreciation and economic downturns significantly increase the financial risks associated with construction projects. In many cases, contractors are unable to sustain project funding due to the reduced profitability caused by these economic instabilities.

3.4 Stakeholder Engagement

Effective stakeholder engagement is critical for the successful completion of construction projects. Poor communication among stakeholders and conflicts between developers and contractors are often cited as major barriers to project success. Rudy F.C.B. Sirau et al. (2024) and Abdul-Rahman et al. (2016) emphasize that misunderstandings or disputes over project scope and deliverables contribute to the abandonment of construction projects. The inception and post-construction phases are particularly vulnerable to such conflicts, as stakeholders may have differing priorities and expectations.

3.5 Technical and Operational Challenges

Technical and operational issues, such as poor site assessments, subpar design, and material quality, are another significant barrier. Inadequate planning and an incompetent workforce contribute to project delays and abandonment. According to Muhammad Firkrool Hamdan et al. (2024) and Zuhairi et al. (2024), failures in quality control and lack of skilled labor in the construction phase often result in the project being abandoned midway through.

3.6 Systemic Limitations

Systemic limitations within the construction industry, including deficiencies in the current selling system and poor contract management, further complicate project completion. As Abdul-Rahman et al. (2016) suggest, inadequate project monitoring mechanisms and systemic inefficiencies result in significant delays during the initiation and construction phases. These limitations hinder the effective oversight of project progress and delay decision-making processes, making it harder to ensure successful completion.

3.7 Unforeseen External Risks

Finally, unforeseen external risks, such as natural disasters, political instability, or financial crises, often derail construction projects. According to Obakin et al. (2024), external factors such as bankruptcy, conflict, and site-related issues like clearing and zoning disputes can stop projects suddenly during the construction phase, causing abandonment. In light of these risks, comprehensive risk management plans are necessary to protect projects from these unpredictable external factors.

CONCLUSIONS

This study has identified several key factors contributing to construction project abandonment in Malaysia, including financial challenges, regulatory and policy constraints, economic instabilities, stakeholder engagement issues, technical and operational challenges, systemic limitations, and unforeseen external risks. Each of these factors presents significant barriers to project completion, especially during the tender and construction phases. Addressing these factors through better financial management, streamlined regulatory processes, improved stakeholder communication, and enhanced risk management strategies is essential to prevent future project abandonment.

This paper, as part of PhD research in construction management focusing on abandoned projects, offers a comprehensive analysis of the critical factors leading to project abandonment. Its key contributions include:

1. **Framework Development:** The paper proposes a conceptual framework to guide rescue contractors and stakeholders in identifying and addressing the root causes of project abandonment.
2. **Academic Contribution:** The study enhances the existing body of knowledge on construction project management and abandonment, providing a foundation for future research and policy formulation.

By addressing these aspects, this paper aims to support stakeholders in overcoming the challenges associated with abandoned projects, ultimately fostering a more resilient and efficient construction industry.

ACKNOWLEDGEMENT

The authors would like to express their sincere appreciation to the Department of Built Environment Studies and Technology, Faculty of Built Environment, Universiti Teknologi MARA, Perak Branch for the institutional support and facilities provided throughout this study. The authors also extend their gratitude to all participants and colleagues for generously contributing their time, insights, and constructive input.

CONFLICT OF INTEREST

The authors declare no conflicts of interest.

AUTHORS CONTRIBUTION

All listed authors made substantive contributions to the study, approved the final manuscript, and agreed to be accountable for the work in accordance with authorship standards. Contributions are described using the CRediT taxonomy as follows:

Mohd Dhiya Hafreez bin Kamil: Conceptualization, Methodology, Investigation (data collection), Formal analysis, Data curation, Writing, Original Draft. Mohd Najib Abd Rashid: Supervision, Validation, Writing, Review and Editing. Mohamed Rizal Mohamed: Supervision, Validation, Writing, Review and Editing.

AVAILABILITY OF DATA AND MATERIALS

1. Data available within the article or its supplementary materials.

DECLARATION OF GENERATIVE AI

During the preparation of this work, the author(s) used ChatGPT (OpenAI) to enhance the clarity and language of the writing. After using ChatGPT, the author(s) reviewed and edited the content as needed and take full responsibility for the content of the publication.

ETHIC STATEMENTS

Not applicable

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