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# Assessment On Abandoned Housing Project: Impact and Revitalization in Malaysia

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Abstract: The housing development sector was a key factor in the growth of Malaysia's economic income since 1970s due to rapid urbanization. Unfortunately, housing construction in Malaysia still facing the abandonment issues due to financial constraints and many other factors. Abandoned housing project give a huge impact to the environment and socio economic to the stakeholder involved directly or indirectly. The purpose of this study is to overview the impact of abandoned housing project and to study the best solution in preventing the issues. Through extensive literature review from previous study and semi-structured interview session with 10 expert panels, several factors and impacts had been listed. A qualitative research methodology was conducted for data collection through an extensive literature review, semi-structured interviews and discussions with expert panels. From the discussion, the abandoned housing project give an impact to all parties and the proper financial management, amend the development concept, study the market signal properly, amend the initial policy of housing development and finally takeover the problematic development by the government is the best solution in preventing it.

**Keywords:** Abandoned housing project, impact, solution

#### 1. Introduction

Housing is one of the basic needs of human life. Everyone needs a shelter to have a proper rest, feel comfortable and safe. Thus the incomplete housing construction will have affected the home buyer to own one of their basic necessity [1]. The incomplete housing construction also known as an abandoned housing is one of the problems in construction industry in Malaysia. The Ministry of Housing and Local Government (MHLG) define the abandoned housing project is when the project not complete within the sales and purchase agreement (SPA) and there is no significant activity within 6 months continuously, the winding up petition was registered in the high court undersection 218 of company act, the developer is placed under the receiver and manager, the developer acknowledge to the controller of housing their incapability to finish the project and the project is certified abandoned by the MHLG [2].

One of the numerous major problems from projects sick are predicted leads to be abandoned projects. The abandoned housing project will have an impact on a variety of construction stakeholders, including the developer, contractor, buyer, government agency, and the financing body for the project. To certain extend, public fund would be extended to revive selected abandoned projects [3]. Starting from year 1970's, the numbers of abandoned housing project have been increased [4]. In June 2018, 59 housing project has been listed as a new abandoned housing project in Malaysia[5].

Latest, in June 2020 MHLG has reported 281 numbers of housing project has been listed as abandoned project. Reviews conducted on the issue discovered multiple factors contributing towards abandoned housing projects and its impact. It is important to gain a better understanding regarding the main causal factor of the matter and identify suitable

actions that should be taken to prevent or minimize its reverberations on local socioeconomic. Hence, this study scope of research will focus on the abandoned housing projects in Peninsular Malaysia. The aim of this paper is to obtain a suitable solution to abandoned housing projects.

#### 2. Literature Review

#### 2.1 Factor Contribute to Abandoned Housing Project

In Malaysia, housing development is expending since the independent day and the issues of abandoned housing project are one of the headache matters for this industry [6]. The issue of abandoned housing projects has become more pressing as a result of the global financial crisis [7]. There are many factors that contribute to the abandoned housing project. The main factors are the financial constraints faced by the developer [8]. It is proven since one of the success factor for any development during the implementation phase is the adequate finance [9], [10].

Beside that lack of experiences and skill in handling the project is also the factor that contribute to abandoned housing project [11]. The improper project management and cost control may lead to additional expenses and the project tend to be abandoned [7], [11], [12]. The statement is supported with lack of project management knowledge will cause a problem to the main contractor to handle the project and coordinate the construction site activities smoothly [13], [14]. Moreover, lack of market study will result low market demand from buyers and it will give a pressure to small developer that using the sell then build (STB) construction method [7]. The author added, the developer will abandon nonprofit development instead of carrying the total loss. In addition, the improper feasibility study will lessen the smoothness of project run and it also will cause an abandoned housing project due to additional cost incurred [15].

MHLG reported in early 2018 there were 326 numbers of housing project announced as abandoned which is included 270 numbers of landed, 7 numbers of strata landed and 49 numbers of high rise project by housing types as shown in Fig. 1 [16]. It has indirectly indicated that the problem of abandoned housing should be addressed to ensure that this housing issue is solved and restored for the sake of the importance of the housing industry in Malaysia. Abandoned housing projects can cause many problems either in environmental aspect, society or socio-economic of nation. Thus, the impact of abandoned housing projects needs to be clarified to provide knowledge and awareness to the nation. Furthermore, a suitable solution in preventing or minimizing this problem will help the stakeholder involved.

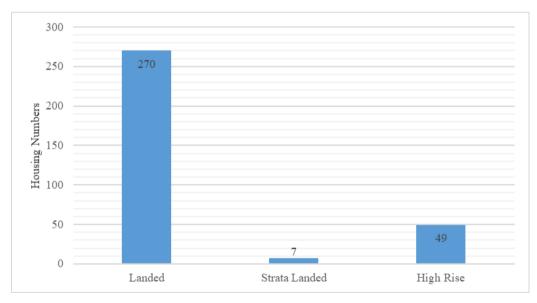


Fig. 1 - Abandoned housing project by house type [16]

#### 2.2 Impact of Abandoned Housing Project

The abandoned housing project will give a huge negative effect to stakeholder involved such as buyers, housing developer, government body as well as the environment. This problem will cause a burden to the purchaser. Previous research by [7] and [17] stated that, the purchaser will be suffering to pay back the loan and have to pay the quit rent also the council tax until the housing is rehabilitate even the purchaser cannot occupy the house since the house is incomplete and not ready to stayed. Usually, the purchaser will rent a house while waiting for their own house to be completed. It will double cost the purchaser for housing expenditure [18]. Most of the unlucky purchaser of housing abandonment will refuse to pay the housing loan and it will cause a problem for them to travel abroad since their name will be blacklisted by Royal Malaysian Custom Department (RMC). It will also cause the inability to the purchaser to

make any other loan by all bank in Malaysia [19]. Even worse, purchaser cannot claim any payment paid to the developer, they have no ability to revoke the SPA, cannot take legal action to against problematic developer and no compensation so they have to own fund to rehabilitated the abandoned housing [20].

The MHLG will blacklisting the default developer and their licensed will be suspended. The developer that causes an abandoned housing project also will be fined between RM 250,000 to RM 500,000 or imprisoned to not exceed 3 years or both (Act 118, section 18A). This impact will affect the company and also the board of director personally. MHLG stated that the licensed cannot be renewed and the developer are not allowed to do any other developer in the future. Moreover, the company unable to get any return for the deposit money and no profit return for that abandoned project [21]. This will cause a bad effect the company reputation and indirectly will cause a trouble to the employees [22]. The abandoned housing project will lessen the economic activities in Malaysia and it will affect the government economic growth return from the property sector as well as will not receive a property assessment [23]. It also will cause unemployed citizen thus will lowering the standard of living [24]. The bed reputation due to abandoned housing project will weaken the attraction of foreign investor to the involved country [25].

Abandoned housing project will be affecting the scenery and lower the land value of the surrounding area badly. The area of abandoned housing project will full with negative activity such as gambling, drug addict, gangster and vagrant [22]. The illegal squatters stayed in the abandoned housing area will frighten the surrounded resident [26]. The author also added the existence of illegal squatters make their resident unsafe and experienced robbery and stealing. Besides, the abandoned housing project will provide a danger area such as land slide [27], illegal garbage dumping and it will cause the existence of dangerous animal such as snake, animal cause disease such as mosquito and flies [28], [29].

#### 2.3 Revitalizations of Abandoned Housing Project

Several incentives have been done by the government in preventing and minimizing the problem of the abandoned housing project in Malaysia. The rehabilitation process is one of the government incentives to rescue the abandoned housing project. Fig. 2 shows the statistic of abandoned housing project in Malaysia since 2009 until 2018. Department of Housing Development (JPN) reported in 2018, 195 numbers of abandoned housing projects which includes 52,963 numbers of a house has been complete the rehabilitation process, 46 numbers of project still under planning and 13 numbers of new project have just been listed as abandoned on that year.

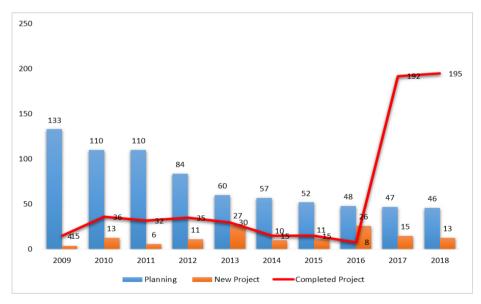


Fig. 2 - The statistic of abandoned housing project in Malaysia 2009 until 2018 [16]

One can see the government is quite often amending the regulation and act in the Housing Development (Control and Licensing) Act 1966 (Act118) to comply with the current situation in housing development, more firmness to the developer side and defending the unlucky buyer. For example, the amendment of Act 118 section 6 that been discuss before and the amendment of Section 8A, the victim of housing abandonment can terminate the Sale and Purchase Agreement (SPA) at any time if the developers refuse to carry out delay for a continuous period of 6 months or more after the execution of SPA.

Moreover, a progress reports every 6 months for every development should be submitted to MHLG. MHLG will regularly do a site visit and compare the report submitted by the developer which from here, the MHLG can control and monitor the site progress thus help the developer from project delay or abandoned. Other than that, the regulation for a developer to open a new account specifically for one project in 1991 can help the MHLG to do financially statement

account audit for a specific project. From the audit, MHLG can analyse the developer financial status. Another solution in preventing the abandoned housing project and make sure only a financially strong and capable developer commence any development by implementing the Build Then Sell (BTS) concepts. Instead of using the traditional housing development concept, it is Sell Then Build (STB) where it is more beneficially to the developer compared to the purchaser. In BTS concept the purchaser only pay 10% of the housing price as a deposit and another 90% pay after the project is completed instead of paying by progressing work done by the contractor as per STB concept [30], [31].

In ninth Malaysian Plan in March 2006, the Government was promoting the Public-Private Partnership (PPP) concept as an intention of improving the housing development and indirectly can prevent the abandoned housing project [32]. PPP as a private sector take over to financing, constructing or managing a project in return for a promised stream of payment directly from the government (public) or indirectly from users over the projected life of the project or some other specified period of time [33].

#### 3. Methodology

Extensive literature review has been carried out at the first placed to understand and distinguished between factor contributed and the impact of abandoned housing project to Malaysia. Next, a semi-structure with five (5) experts panel of housing development projects from several professional backgrounds with experiences in handling abandoned housing project was conducted. Divers of professional backgrounds with over 10 years experienced in housing development was chosen as an expert respondent for this semi structured interview. Expert judgement is the frequently act as referenced tool or instrument in the project construction [34]. Therefore, the answers collected from the respondents during interview sessions will be used to validate the factors contributing towards abandoned housing projects gathered in literature review. The interview session was transcript into interview script before conducted the analysis. The deductive and inductive method used during analysis to determine the pattern of all responses. The respondents had expressed information on the factors that lead their previous project being listed as abandoned housing project. Moreover, from that crucial experiences the respondent also suggesting action to be taken to prevent and mitigate the abandoned housing project. In response to compilation of data generated from the questionnaire, data analysis will be carried out with the help of computer software namely statistical package social sciences statistic (SPSS).

# 4. Findings and Discussion

## 4.1 Expert Background

The qualification of the respondents for the interview session were made based on their knowledge, experiences, and involvement in abandoned housing project in Peninsular Malaysia. The information from their personal experiences on the factors contributing towards abandoned housing will be utilized to develop the Abandoned probability of three categories of project status. Table 1 shows the details of each respondent involved in the semi-structured interviews. The first respondent labelled as E1 is a professional civil and structural engineer who owns a civil and structural consultancy firm and practices designing for residential, commercials, and infrastructure development. The second and third respondents, E2 and E3, are directors of housing developer firms, experienced in the development of several types of housing and commercial projects. Lastly, the respondents labelled as E4 and E5 are directors and project managers for grade G7 main contractors. All of the interviewees had an uncountable experience in housing and commercial developments.

<b>Respondent References</b>	Designation	Year of Experience
E1	Registered as professional Civil and Structural Engineer	More than 21 Years
E2	Housing Developer Director	More than 21 Years
E3	Housing Developer Director	More than 21 Years
E4	Main Contractor G7	15 Years – 20 Years
E5	Main Contractor G7	15 Years – 20 Years

Table 1 - The respondent background

# 4.2 Factor Contribute to The Abandoned Housing Project in Malaysia

As made evident by the previous research, the main issues on abandoned housing project is financial problem faced by the developer as shown in Table 2. As quoted by respondent E1 on the matter related to the financial problem faced by developer, "The whole life cycle in housing development required cost, the insufficient fund from the developer/client will affect the whole cycle. The insufficient fund will cause a late payment to the contractor initially and it will affect the contractor performance thus it causes a delay to the project schedule and lead the project to be listed as an abandoned housing project". The respondent highlighted the developer's financial struggle has a direct

impact on the contractor's performances thus contributing towards project delay to the extent of project abandonment. The finding is parallel with the previous study conducted by various researchers [1], [8], [15]. Besides, [35] similarly discovered that late payment by clients would affect the contractor's cash flow which subsequently affect the whole construction activity and contractor performances.

Table 2 - Factors contribute to the abandoned housing project

Respondent References	Responses	Factor theme
E1	Money is the main problem. The incapability of the developer to finance the project and lack of experience in housing development caused the project to be abandoned. The developer is totally dependent on the buyer to finance the project. Strict regulation and uncertain condition to the private developer from the local authority such as TNB, IWK	<ul> <li>Financial problem by developer</li> <li>Developer lack of experiences</li> <li>STB Method</li> <li>Lack of cooperation with local authority</li> </ul>
E2	The problem is from the incompetent contractor from the faulty tendering process. The contractor is limited in experience, managing two projects at one time and have a financially problem. The improper feasibility study and communication problem at site also lead to the cost and time overrun. The project also has a problem on getting the CF due to the uncertain conditions given by different officer from the local authority.	<ul> <li>Financial problem by contractor</li> <li>Incompetence contractor</li> <li>Improper feasibility study</li> <li>Communication problem.</li> <li>Faulty tender process.</li> <li>Lack of cooperation with local authority</li> </ul>
E3	The main contractor is inexperience in handling a big project and problem in managing their financial issues cause the sub-contractor keep on changing. Communication at site is inefficient and have a problem in getting a skill workers.	<ul> <li>Financial problem by contractor</li> <li>Incompetence contractor</li> <li>Communication problem</li> <li>Shortage of skill workers</li> </ul>
E4	The incompetence main contractor is the main causes. The management on site is so poor with the limited numbers of skilled workers and ineffective communication lead the project to face the cost and time overrun.	<ul> <li>Incompetence contractor</li> <li>Project control problem</li> <li>Communication problem</li> <li>Shortage of skill workers</li> </ul>
E5	The financial problem face by the developer make the project being listed as an abandoned housing project. The developer is depending on the house buyer to finance the project. Slow respond and strict condition from local authority cause the additional cost to the project.	<ul> <li>Financial problem by developer</li> <li>STB Method</li> <li>Lack of corporation from local authority.</li> </ul>

The second predominant contributing factor experienced is lack of corporation with local government. Quoting from respondent E2 and respondent E4, "the One-Stop Center (OSC) department system is not effective and inefficient cause a delay on the approval plan. The approval matter is quite costly and takes time, there are so many requirement and procedure need to comply before obtaining the approval plan". Moreover, [36] mentioned that the delay on the OSC department side is cause by the lack of skilled and technically knowledgeable officer. In addition, respondent E5 added that, "The unstandardized condition made by the local authority for my project cause a burden to me as a developer. There must be an additional cost and effect the work schedule for every comments and additional condition given by the local authority. The most irritating is the lengthy duration for an inspections and approvals from the local authority". While respondent E1, E3, and E5 claimed that "the local authority officer that are doing the inspection work is only a technical assistance and not a qualified engineer. Thus it causes inappropriate comments given during the inspections and the officer cannot give on-the spot decision". It is supported by [15] the premise which accounts unskilled officer from local authority, unclear procedure, unstandardized comments, and normal admiration problem by the local authority as factors which would affect the scheduling and expenses of a development project.

The following prevalence factor which contributed towards project abandonment is the traditional method of construction implemented for local housing development. Quoting the remarks made by respondent E4, "The financial problem happens when the developer is depending on the bridging loan from the end-financer(banker). Majority the Malaysian developer is still using the sell then build (STB) method in order to support their financial burden. The problem occurs when the developer failed to sell 80% from the total housing unit. As a main contractor, the

construction fund is from the client, the delay on interim payment will cause a problem for us to execute the construction work smoothly". The statement were supported by [7] who discovered that 30% of the initial development cost is supported by the bridging loan and developers which rely solely on it to complete the project will abandoned the project in case of cash flow issues.

# 4.3 Solution Suggested for Each Factors of Abandoned Housing Project

The next question during the interview session explored the expert's perspective on abandoned housing issue mitigation strategy. A summary of responses from the experts is illustrated in Table 3. Based on the responses, all of the experts agreed that an appropriate source of finance by the developer and a good collaboration with the local authority are the key factors in solving the issue. Subsequently, proper management on site and improvement of technical knowledge of project participants including the authority staff also displayed substantial impact on project's progress. The experts also mentioned that strict process during tendering and awarding the project to contractor with proficient track record will prevent the occurrences of abandoned housing project. Moreover, the experts also suggest developers to improve their marketing strategy and appropriate study on the buyer's needs and demands to improve sale.

Table 3 - Solution in mitigating the abandoned housing project

	Table 5 - Solution in intugating the abandoned nousing project				
Respondent References	Responses	<b>Solution Theme</b>			
E1	<ul> <li>Join venture to improve the financial support.</li> <li>Improved the cooperation between developer and authority department.</li> <li>Improved the OSC system.</li> <li>Inexperience developer collaborate with experiences developer.</li> <li>Assign project control team.</li> <li>Proper and strict tendering process.</li> <li>Study the housing buyer demand.</li> <li>Continuous management &amp; communication training.</li> </ul>	<ul> <li>Financial factor</li> <li>External factor</li> <li>Project participant</li> <li>Project procurement</li> <li>Project management</li> </ul>			
E2	<ul> <li>Adequate financial sources by the developer.</li> <li>Ensure the capable and competence contractor before awarding the contract.</li> <li>Adequate planning &amp; feasibility study before executing the project.</li> <li>Loosen the conditions in getting the CCC by local authority.</li> <li>Proper tendering process &amp; BTS concept – Rewards given to developer.</li> <li>Amend the policy for low cost housing – depends on the location or urbanizations.</li> <li>Developer need to improve their marketing strategy.</li> </ul>	<ul> <li>Financial factor</li> <li>Project participant</li> <li>Management factor</li> <li>External factor</li> <li>Procurement factor</li> <li>Market signal</li> </ul>			
Е3	<ul> <li>Considering appropriate mode of financing.</li> <li>Collaboration between public and private developer.</li> <li>Strict action taken to the unethical developer.</li> <li>Developer used the BTS concept – in return government need to construct the infrastructure.</li> <li>Adequate feasibility study.</li> <li>Improved the management &amp; communication on site.</li> </ul>	<ul> <li>Financial factor</li> <li>Project participant</li> <li>External factor</li> <li>Procurement factor</li> <li>Management factor</li> </ul>			
E4	<ul> <li>Appropriate study the demand.</li> <li>Appropriate do the feasibility study.</li> <li>Manage the site acquisition problem before execution.</li> <li>Award the project to the good record contractor only.</li> <li>Strict tendering process.</li> <li>Improved the communication skills in construction site.</li> <li>More collaboration and loosen the condition from local authority.</li> </ul>	<ul> <li>Market signal</li> <li>Management factor</li> <li>Project participant</li> <li>Procurement factor</li> <li>Management factor</li> <li>External factor</li> </ul>			
E5	Make a "tabung warisan" among developer association.	Financial factor			

- Loosen the condition of bridging loan by end financer.
- Amend the regulation for *Bumiputra* quota & low cost house condition.
- External factor
- Market signal
- Standardise the condition from local authority.
- Improved management and technical knowledge among OSC staff.
- Developer need to improve the marketing strategy.

#### 5. Conclusion

Overall, the abandoned housing projects give a negative effect not only to the developer itself but also to the purchaser, economic of the country and the environment of the affected area. After the literature review been done it give the clear image of the causes and impact on abandoned housing project to Malaysia. Thus the solution must take placed to prevent or at least minimize the problem. This study conclude that the most preferable solution can be used in preventing abandoned housing with RII= 0.98 is proper financial management by the developer, amend the development concept, study the market signal properly, amend the initial policy of housing development and finally takeover the problematic development by the government.

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