

Factors and Impacts to Abandoned Housing Projects in Malaysia

Siti Nur Afiqah Zuhairi^{1*}, Rozlin Zainal¹, Norul Rafidah Redzuan^{1,2}, Zarina Shamsudin³, Sharifah Meryam Shareh Musa¹

¹ Center of Project, Property & Facilities Management Services (ProFMs), Faculty of Technology Management and Business, Universiti Tun Hussein Onn Malaysia, Batu Pahat, 86400, MALAYSIA

² Kolej Vokasional Tun Hussein Onn, Batu Pahat, 83000, MALAYSIA

³ Malaysian Real Estate Institute (MyREI), Faculty of Technology Management and Business, Universiti Tun Hussein Onn Malaysia, Batu Pahat, 86400, MALAYSIA

*Corresponding Author: gp210119@student.uthm.edu.my

DOI: <https://doi.org/10.30880/ijscet.2024.15.01.010>

Article Info

Received: 07 February 2024

Accepted: 07 February 2024

Available online: 26 February 2024

Keywords

Abandoned housing, abandon's factor, abandon's impacts, framework

Abstract

Nowadays, the challenges in confronting the abandonment scenario in housing provision only foresee on buyer as the primary victim without looking at the real root causes through the project development initiator, property developer. The significance of the study is attained as housing abandonment today takes an endless time to be completed, though some still need to tediously resort to rehabilitation programs. This paper introduces the study on the contributing factors, and their impacts, and assesses their correlation relationship before developing a relationship framework. The study used a quantitative approach to obtain responsive feedback through distributed questionnaire, which revealing the perspective of Malaysia's blacklisted property developers. By utilizing the relationship framework that highlights the most correlated factors and their impacts, the research findings serve as the best indicator for an effective mechanism controlled referred by authorities as well as constructional practitioner pertaining to the growing rate of housing abandonment in Malaysia.

1. Introduction

According to each country's Statistical Office reported in the year 2011 adapted from Khazanah Research Institute (KRI) by Ismail, Jalil & Megat (2015) the percentage of home ownership in Malaysia indicates about 72.5%, which is marginally lower than Singapore (87.2%). Yet, despite everything, it still reflects a higher rate when contrasted with the homeownership percentage in Australia (68.1%), the United Kingdom (67.4%), and the United States (66.5 %). However, this has still not spared Malaysia from facing critical challenges in the housing sector provision. Therefore, a deep case study was proposed to be further explored, particularly in looking at the growing of abandoned issues in the construction industry that seem to remain unsolved today. Dahlan & Hilal (2006) support that one of the most niggling enigmas today is the growing issue of the abandoned housing project. Dahlan (2008) found that abandoned housing projects are one of the constant problematic housing issues in Malaysia and many other countries have experienced the same including, the United States, Spain, Russia, Dubai, and Kuwait as highlighted by Ariffin et al. (2018). Sun Daily (2020) shows the status of abandoned private housing projects ranging from 2009 to June 30, 2020, where a total of 281 private housing projects in Peninsular Malaysia were classified as abandoned, indirectly equivalent to 73,959 housing units and 48,810 buyers. On the other hand, a report by KPKT (2020) identified 11,152 buyers as

victims of abandoned property in the current year, 2020. Moreover, Abandoned Issues have been a part of the top three types of complaints, with a percentage of (14%) after the Strata Tittles (30%) and Management & Maintenance (24%) underestimated by National House Buyers Association since 2006. This clearly shows how the abandoned housing projects issues have overgrown in Malaysia's construction industry. The abandonment of housing projects has adverse effects on parties such as the developer, contractor, consultant, and client, especially in terms of relationship, reliability, and reputation-wise accordance to Ariffin et al. (2018). The significant issue that has been highlighted here is, does the abandoned housing projects issue occurred really caused by the property developer. What brought curiosity was what it took for the housing project to be abandoned for a long period. To whom the blame should be put and is it consonant dan fair enough to put the client or buyer in an unsolved dilemma? Until now, none of the speculation or assumption has matched and confirmed the struggles of reviving the abandoned project until today. The effectiveness of the proposed development framework constructed at the end of the research was in the hope of portraying a clear overview and justification in the efforts to revive and mitigate the issues in abandoned housing projects. Moreover, the development of a relationship framework will indirectly help for future readiness towards the implementation of sustainable housing development, especially through future improvement of housing rehabilitation program assistance. This is supported by Tan (2011) who argued that sustainable housing provision needs to be economically viable, socially acceptable, and technically feasible through its proper housing policy and program regardless of any housing challenges that Malaysia faces, either at a housing state of under supply, overhang, or abandonment. Therefore, this has further sought the research objective to identify the contributing factors, impacts and look further at its correlation relationship before the development of a relationship framework framed as a final product.

2. Literature Review

2.1 Abandoned Housing Projects Scenario in Malaysia

Undeniably, the issue of abandoned housing projects today has indirectly undermined Malaysia's housing delivery system's success. Moreover, the abandonment scenario has been observed as an indicator of real estate market failure, a symptom of urban disinvestment, and the product of urban shrinking (Gospodini, 2012). Despite several efforts outlined by the government to curb the abandonment problem, it still exists in the country. Dahlan (2014) highlights that the problems associated with abandoned housing projects in Malaysia have been plaguing long enough at a scale that deserves great attention. The current forecast by Malaysia Housing and Local Government (MHLG), specifically through the Abandoned Housing Project Rehabilitation Department, reveals new insights on abandoned housing status, whereby despite increasing numbers of buyers, there is still a number of abandoned housings that fails to be fully revived. Therefore, it is important to deeply understand current abandoned housing issues in Malaysia, especially through the latest supporting analysis of secondary data obtained.

According to the latest statistic revealed MHLG through the (KPKT Selected Statistic, 2022), it was reported that the state of Selangor had the most numbers of abandoned projects, with 44/110 projects identified as abandoned. There were approximately 13,250/21,593 houses that were abandoned and 7,989/14,067 buyers who were impacted. Apart from that, statistic for the year shows that there is no abandoned housing projects found in Perlis and Putrajaya (refer Table 1).

Table 1 Abandoned housing projects by state statistics (2023)

State	Number of Projects	Number of Units	Number of Buyers
Johor	8	2,595	2119
Kedah	2	520	317
Kelantan	21	1,215	1,067
Melaka	1	79	4
Negeri Sembilan	4	593	557
Pahang	7	911	501
Perak	6	404	307
Perlis	-	-	-
Pulau Pinang	2	119	65
Selangor	44	13,250	7,989
Terengganu	13	1349	1,097
W.P. Kuala Lumpur	2	558	44
W.P. Putrajaya	-	-	-
Total	110	21,593	14,067

2.2 Factors of Abandonment in Housing Projects

In most of the literature discussed by Arifin et al. (2018), Yahya & Komar (2016), and Yap (2013), the main factors that lead to the housing project's abandonment can be classified into 5 categories (i) Financial Problem, (ii) Economic Condition, (iii) Unfavourable Government Policies, (iv) Inefficiency of Housing Delivery System and (v) Inefficiency of Project Management (Mismanagement). Prior to each factor classification mentioned above, the researcher had extensively discussed further related variables as in Table 2.

Rusli (2006) indicates that financial problems are the causes of abandonment in the housing project. Financial matters are the most important factor in the construction industry since a housing project cannot proceed without sufficient financial resources. The ability of project completion pulls the great attention of the parties involved, as a failure to have sufficient funding as cited by Abdul Rahman, Wang & Ariffin (2015) may lead to late payment to the contractor, unstable finance by the third party, over budget, and bankruptcy by the developer. In addition, Mohamad (2020) agreed on the mismanagement of funds that jeopardized most project cash flow into financial problems.

Mansur, Hamid & Yusof (2016) highlighted that the poor economic condition had pushed uncontrolled increment in price of the raw materials, rise of labour wages and the different gaps in home price competition. Cheah (2008) also responds to an increment in prices of raw materials such as steel and cement while Ibrahim (2006) stresses the competition of new residential projects that affects the sales and the cash flow of a project. In addition, the higher imposition of interest charges has indirectly discouraged potential home buyers from buying residential properties and contributed to the project profit reduction (Yap, 2013). Next, the financial crisis is also getting influent by bad economic conditions as it might trap the developer to wind up their organization, especially when they are incapable of coping with high operational costs (Abdul Rahman, Wang & Ariffin, 2015).

Yap (2013) opined that unfavourable government policies caused projects to be abandoned, especially through sell then build system, as the policy aimed to sell the house first before it is built. Besides that, Ibrahim (2006) found that the limitation of the jurisdiction of the Tribunal for Homebuyer Claims is one of the causes of abandoned housing projects, while Chen (2007) and Khalid (2010) found that the government's requirement for private housing developers to build 30% of low-cost houses has contributed to the abandonment of some housing projects. In addition, it is always an endless misery for the developer to handle ever-changing rules and policies promulgated by the government, Nuruddin, Bakar & Jaafar (2015). They also added that the current and future projects' progress and planning were likely to be interrupted due to the inefficiency of the one-stop centre (OCS) in the event of late issuance of approval and license application to the designated development project.

Next, refer to the inefficiency of the housing delivery system factor. As such, Ibrahim (2006) opined that there was a lack of enforcement of control and monitoring by the government as a cause of abandoned housing projects. In addition, he also mentioned that there should be stricter licensing for developers, a better system to detect abandonment of housing projects, harsher punishment for errant developers, and less bureaucracy in the approval process of housing plans. Contrarily, Chen (2007) argues that the inefficient delivery system exists that causes the abandoned housing project problem to rise instead of unfavourable government policies.

The inefficiency of project management (mismanagement) is also considered one of the causes of abandoned housing projects, and it has occurred chiefly because of the lack of experience of the developer (Ibrahim, 2006). For instance, Kaur (2011) stresses the lack of feasibility studies of the market and inaccurate market research, which result in an inaccurate forecast of demand and supply of specific properties. Besides, Ibrahim (2006) indicates that unattractive marketing strategies lead to a less attractive scheme for a housing project and that lowers the percentage of the housing project sales capabilities. Next, Yahya & Komar (2016) best describe fraud as occurring whenever the developers claim the housing projects are on schedule and continue to send progress billing to the buyers. However, in reality, the actual housing projects are already late and may be abandoned. In addition, Kaur (2011) believes that poor financial management could occur when there is an insufficient source of cash flow, particularly for a housing developer that takes any changes in their housing development plans. Undoubtedly, developers usually have more than one project in their hands, and failure to properly allocate the budget for all their projects might increase the chances of a project into abandoned.

To sum up, the researcher has shown Table 2 as the summary of the identified literature and categorized them into five main factors of abandonment in housing projects.

Table 2 Literature summary on factors contributing to housing abandonment

No.	References	Factors That Cause the Abandoned in the Housing Provision
1	Financial problem Rusli (2006), Abdul	1. Insufficient of financial sources

		Rahman, Wang & Ariffin (2015), Mohamad (2020)	<ol style="list-style-type: none"> 2. Late payment imposed to the contractor 3. Late payment imposed to sub contractor 4. Unstable finance by third-party 5. Over budget 6. Bankruptcy by developer 7. Mismanagement of funds
2	Economic condition	Yap (2013), Abdul Rahman, Wang & Ariffin (2015), Mansur, Hamid & Yusof (2016), Cheah (2008), Ibrahim (2006)	<ol style="list-style-type: none"> 1. Increase in raw material price 2. Raise of labour wage 3. Gaps in house price competitor 4. Higher imposition of interest charges 5. Financial crisis - Inflation 6. Financial crisis - Natural disaster 7. Financial crisis - Disease outbreak
3	Unfavourable government policies	Yap (2013), Ibrahim (2006), Chen (2007), Khalid (2010)	<ol style="list-style-type: none"> 1. Inefficiency of sell then build system 2. Limitation of the tribunal for homebuyer claims 3. Requirement to build 30% of low-cost houses 4. Unstandardized policy and strict regulation from authorities 5. Inefficiency of the One Stop Centre (OSC)
4	Inefficiency of the housing delivery system	Ibrahim (2006), Chen (2007)	<ol style="list-style-type: none"> 1. Lack of enforcement of control 2. Lack of monitoring by the government 3. Non-stricter licensing for developers 4. Incompatible punishment for errant developers 5. Bureaucracy in the approval process of housing provision plans 6. Unfavourable government policies
5	Inefficiency of project management (Mismanagement)	Yahya & Komar (2016), Ibrahim (2006), Kaur (2011)	<ol style="list-style-type: none"> 1. Lack of proper feasibility studies 2. Unattractive marketing strategies 3. Fraud 4. Poor financial management

2.3 Impacts of Abandoned Housing Project

The researcher has also measured the impacts of the abandoned housing project by focusing on the three variables, which include (i) Self-Impacts (Developer), (ii) Economic and Social Impacts, and as well as (iii) Environmental Impacts. The impacts listed have as well profound in the research carried out by Ariffin et al. (2018), Abdul Rahman, Wang & Ariffin (2015), Yap, Tan & Chia (2010).

Undeniable, the property developer itself (self-impact) gets hindered on its own caused of actions upon the project abandonment on their hands. Abdul Rahman, Wang & Ariffin (2015) supported that the incapability of a project to be completed within the stipulated time frame had indirectly indicated a poor reputation for managing risk within construction industry players. Besides, Abdul Hadi, Salleh & Tan (2014) indicated that bankruptcy developer gains huge monetary losses due to the unpayable debt left behind by their abandoned projects. Next, another consequence for a developer to be dragged off by their abandoned project was through the compound imposed, as, upon conviction, a developer is liable to a fine of not less than RM250,000 and not more than RM500,000 or imprisonment for a term not exceeding three years or to bot, Leng (2018). The compound imposed was a huge burden to developers, especially when they were charged at the time, they were declared bankrupt. Besides, Olalusi & Otunola (2012) specify that the waste of resources coming from abandoned projects includes previous capital, material, and human power acquired during project development. Lastly, Developers that own a cause of action on its abandonment project are prohibited from applying for licenses and permits for the next development project, Cheng (2019).

Apparently, social and economic impacts were not excluded from housing abandonment impact as Mallach (2006) opined that abandonment contributes to the increasing danger of health, safety, building collapse, and incidence of fire disaster. Besides, Chan (2009) and Perumal (2009) highlight security that has indirectly been threatening whenever the housing project slumps into abandoned, as the place becomes attractive to people like drug users, criminals, and vagrants to occupy the abandoned sites. Abdul Hadi, Salleh & Tan (2014) in their opinion, verify that the land abandoned in housing projects are potentially turned into discarded places or shelters for gambling, sexual activity, drug users, gangster activity, and the accommodation of vagrants. On the

other hand, some abandoned projects were uplifted as gathering or meeting places in which they could meet and plan their criminal activities safely, Akindele (2013). He also added that the abandoned housing project sometimes acts as a center to keep the stolen goods temporarily. Coherently, the activities that relate to social security mentioned above, reflect on bad reputation of those places which indirectly affects the value and the price of that land vicinity. This statement has been supported, as the depressing value of the nearby property has always been triggered with the declaration of any abandonment of housing project, Han (2014). Furthermore, the abandonment in housing also surprises the economic cycle as most construction industry players tend to instantly detach themselves from the intended housing project once it is announced as abandoned. Hence, it reflects on the unemployment rate of the worker to increase, and Ng (2009) revealed on the affected industries or parties include the suppliers of construction material, transportation industries, contactors as well as consultants.

Lastly, the impact on the environmental aspect was drawn, and it is clearly portrayed as Bavani (2009) and Stuard (2009) both claim that some abandoned buildings in housing projects have pools of stagnant water that serve as a breeding ground for mosquitoes, and it has indirectly threatened to the health. As such, Kaur (2014) agrees that the virus of dengue fever spread by mosquitoes can cause illness or death to the community affected. Next, the abandonment of housing projects allows for illegal garbage dumps, Bavani (2009). The situation has adhered effect on the air quality and sometimes produces a stinky odor. It is even more disgusting when the rubbish attracts insects like flies or rats that could interfere with health. In fact, as it takes a long period for the abandoned housing project to get on track, there is a possibility that the abandoned sites will become overgrown with undergrowth, Bavani (2009). Therefore, there is no excuse for abandoned sites in housing projects to become the best place for breeding grounds for such venomous animals as snakes and scorpions.

To sum up, the researcher has shown Table 3 as the summary of the identified literature and categorized them into three main impacts of abandonment in housing projects.

Table 3 Literature summary on impacts contributing to housing abandonment

No.	References	Impacts of Abandoned in the Housing Provision
1	Self-impacts Abdul Rahman, Wang & Ariffin (2015), Abdul Hadi, Salleh & Tan (2014), Leng (2018), Olalusi & Otunola (2012), Cheng (2019)	<ol style="list-style-type: none"> 1. Bad reputation 2. Uncountable financial loss 3. Imposition of compound / fined 4. Wastage of valuable resources 5. Suspension of sales licences and permits
2	Social & Economic impacts Abdul Hadi, Salleh & Tan (2014), Mallach (2006), Chan (2009), Perumal (2009), Akindele (2013), Han (2014), Bavani (2009)	<ol style="list-style-type: none"> 1. Depressing value of nearby property 2. Unemployment rate of worker increase 3. Interruption of construction player chain - suppliers of construction materials 4. Interruption of construction player chain - transportation companies 5. Interruption of construction player chain - contractors 6. Interruption of construction player chain - consultants 7. Imbalanced of social security - drug users 8. Imbalanced of social security - criminals 9. Imbalanced of social security - vagrants to occupy 10. Danger of public health - building collapse 11. Danger of public health - incidence of fire disaster 12. Turn into discarded places / sheltering - gambling 13. Turn into discarded places / sheltering - sexual activity 14. Turn into discarded places / sheltering - drug users 15. Turn into discarded places / sheltering - gangster activity 16. Turn into discarded places / sheltering - centre to temporarily keep stolen goods
3	Environmental impacts Bavani (2009), Stuart (2009), Kaur (2014)	<ol style="list-style-type: none"> 1. Pools of stagnant water - breeding of mosquitoes 2. Pools of stagnant water - dengue fever spread 3. Illegal garbage dump - air pollution

4. Illegal garbage dump - odour pollution
 5. Illegal garbage dump – flies
 6. Illegal garbage dump – rats
 7. Overgrown with undergrowth
 8. Breeding of venomous animals
-

3. Methodology

The extensive research study aimed to gain an overview from the property developer's perspective on abandonment in a housing project in Peninsular Malaysia. Inherently, 54 sets of questionnaires were distributed as it has adequately represented the actual population sample which reflects 119 units of the overall population size of blacklisted property developer adhere within the period of time from the year 2009 until 2021. Technically, the response rate received was 67% by accommodating different construction practitioners as a respondent, including construction managers, engineers, architects, and contractors. The Statistical Package for Social Sciences (SPSS) was used to precede the data analysis in quantitative method. The analysis used in this research was mainly carried out by using Descriptive Analysis through a range of mean scores, Ghaffar (1999) and supported by Pearson Correlation Analysis varies correlation index Pallant (2007). Basically, there were three parts in questionnaire designation, whereby Part A focuses on respondent's demographic profile, Part B focuses on 29 contributing factors that cause abandoned in the housing provision while Part C focuses on 29 contributing impacts of abandoned in the housing provision. The respondent's demographic profile includes gender, race, duration involve in construction industries, type of project involved, experience of possible event while handling any project in pipeline and project financing options.

4. Result

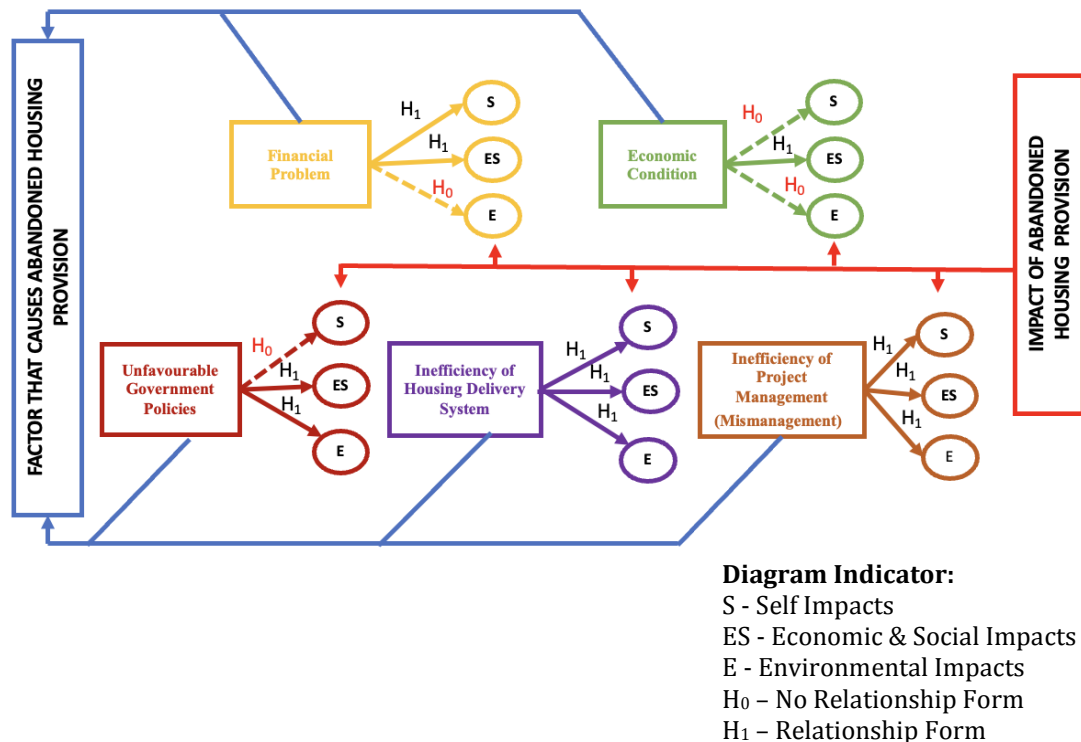
4.1 Correlation Relationship Between Factors and Impacts of Abandonment in Housing Provision

In order to determine the relationship between the contributing factors and the impacts of abandoned housing, thus Pearson's Correlation was used to examine the relationship between the factors (i) financial problem, (ii) economic condition, (iii) unfavourable government policies, (iv) inefficiency of housing delivery system and (v) inefficiency of project management (mismanagement) and its impacts of the abandoned scenario in the housing provision (i) self-impact, (ii) economic and social impacts and (iii) environmental impact. Ideally, the Pearson correlation was used to describe the strength and direction of the linear relationship between the independent and dependent variables. The negative or positive sign refers to the direction, while the value = 1 indicates the perfect strength of the relationship between two variables [38]. The range of value of the correlation coefficient (r) is from -1 to +1. The value of -1 means that the two variables have a perfect negative correlation, whereas the value of +1 means that the two variables have a perfect positive correlation. Should the value of the correlation coefficient is 0, it shows that the two variables do no correlate at all.

Therefore, in supporting the correlation analysis method, the hypothesis statement is derived where (H_0) denoted that there is no relationship formed between the contributing factors and its impacts, while (H_1) denoted that there is a relationship form between the contributing factors and its impacts of the abandoned scenario. As such, the outcome of the analysis presented in Table 4 (numeric and diagram) revealed that, the financial problem factor has a statistically significant relationship toward self-impact and economic & social impacts but not towards environmental impacts. The relationship was positive, moderate in strength and statistically significant where $r(36) = 0.450$, $p = 0.006$ for self-impacts and $r(36) = 0.405$, $p = 0.014$ for economic & social impacts. Next, the economic condition factor has only shown a statistically significant relationship with economic and social impacts whereby $r(36) = 0.371$, $p = 0.26$. On the contrary, there was a statistically significant relationship between unfavourable government policies and economic and social impacts, $r(36) = 0.355$, $p = 0.33$ and environmental impacts, $r(36) = 0.343$, $p = 0.040$. Lastly, both factors of the inefficiency of the housing delivery system and inefficiency of project management (mismanagement) mark the statistically significant relationship with the self-impacts, economic & social impacts and environmental impacts with $r(36) = 0.469$, $p = 0.004$, $r(36) = 0.496$, $p = 0.002$, $r(36) = 0.432$, $p = 0.009$ and $r(36) = 0.589$, $p = 0.000$, $r(36) = 0.641$, $p = 0.000$ and $r(36) = 0.630$, $p = 0.000$ respectively.

Table 4 Correlation relationship between factors and impacts of abandonment in housing provision

No.	Factors/Impacts	Self Impacts	Economic & Social Impacts	Environmental Impacts
1	Financial Problem	H ₁ r (36) =.450, p = .006	H ₁ r (36) =.405, p = .014	H ₀ r (36) =.280, p = .098
2	Economic Condition	H ₀ r (36) =.255, p = .134	H ₁ r (36) =.371, p = .026	H ₀ r (36) =.248, p = .145
3	Unfavourable Government Policies	H ₀ r (36) =.260, p = .126	H ₁ r (36) =.355, p = .033	H ₁ r (36) =.343, p = .040
4	Inefficiency of Housing Delivery System	H ₁ r (36) =.469, p = .004	H ₁ r (36) =.496, p = .002	H ₁ r (36) =.432, p = .009
5	Inefficiency of Project Management (Mismanagement)	H ₁ r (36) =.589, p = .000	H ₁ r (36) =.641, p = .000	H ₁ r (36) =.630, p = .000



4.2 The Development of The Relationship Framework Between The Factors and Their Impacts on The Abandonment in The Housing Provision

The relationship framework was developed by integrating all H₁ findings with interpretation data into a formulated picture. The result shows the outcomes of the integration of all variables under each factor and its impact on the abandonment in the housing provision with regards to the blacklisted developer’s perspective, through the development of the relationship framework, thus Fig. 1 proves the expected result. Note that the development of the relationship framework was done based on the strength of the correlation relationship achieved in table 6 as the value of correlation coefficient (r) showed in between a range of -1 to +1 with the significant level (p-value) should be < 0.05.

As such, the outcome of the analysis revealed that the financial problem factor showed the strongest relationship with the sequence of self-impacts and economic & social impacts, respectively but not towards environmental impacts. The economic condition factor, on the other hand, only maps a strong relationship with economic (p=0.006) and social impacts, while the unfavorable government policies factor indicates a strong

relationship with economic & social impacts and followed by environmental impacts. Contrarily, the inefficiency of the housing delivery system factor showed a strong relationship with overall impact through a sequence of economic & social impacts, self-impacts, and environmental impacts meanwhile, the inefficiency of the project management (mismanagement) factors displays a strong relationship between the sequences of impacts respectively through economic & social impacts, environmental impacts, and self-impacts. The formation and verification of the framework, as in Figure 1, indirectly indicates the closest relationship between the most related factors and their impacts prior to any housing project that shows any characteristics or signs of an abandoned project.

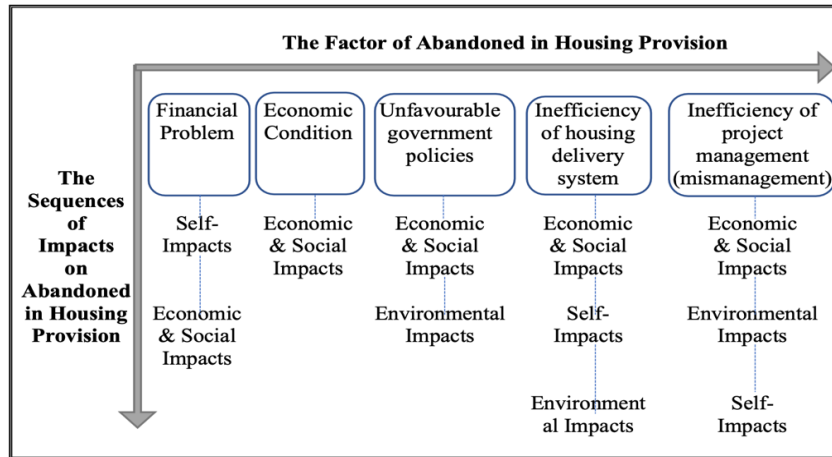


Fig. 1 The relationship framework between factors and their impacts of abandonment in the housing provision

5. Conclusion

All contributing factors that caused abandonment in housing provision show on high mean score range. Hence, reflecting on the first objective was successfully achieved. This can be clearly seen, as the research study revealed that the inefficiency of project management (mismanagement) factor had always been an argue to be the main reason behind the pitfall of blacklisted property developer as they tend to likely take wrong steps in handling appropriate financial management, conducting poor feasibilities study, fraud and even offering unattractive marketing strategies over the housing provision that they keen to handle.

Completely, all impacts abandonment in the housing provision that in housing provision also show on high mean score range. Hence, it can be said that the second objective was also achieved in this research study. This scenario can be proven, as the researcher’s study reveals that the majority of blacklisted property developer feel that they are much impacted through their own legacy (self-impacted) once the project under their care shows any sign of abandoned characteristic project. Therefore, such abandoned experiences impact them to confront bad reputation, uncountable financial loss, wastage of valuable resources, suspension of sales licences and permits as well as imposition of compound.

The final outcome of the research study, which referred to the relationship framework between the factors and their impacts on the abandonment in the housing provision, was made possible by accomplishing the objectives outlay in this study. To summarize, the outcomes of this study had taken a new outlook on handling abandoned housing development. It typically sees the existing purchaser as a primary victim alone without seeing the real possible challenges faced by housing developers before they are declared under blacklisted developer. Therefore, as the housing industry in Malaysia grows rapidly, thus all parties involved in the housing industry need to effectively collaborate and actively tackle the critical circumstances pertaining to abandoned housing projects. The researcher opined how much longer should we depend on white knights to rescue the abandoned project as the housing industry need both property developer and potential buyer to boost the economic cycles and fulfill the basic needs of life sustainably.

Acknowledgement

This research was supported by Universiti Tun Hussein Onn Malaysia (UTHM) through Research Enhancement-Graduate Grant (RE-GG) (Vot Q092).

References

- Abdul Hadi, A. N., Salleh N. H. B. M. & Tan G. M. (2014). Abandoned housing project: Issues and challenge. *Word Journal of The International Linguistic Association*, 7(46), pp. 1-22
- Abdul Rahman, H., Wang, C. & Ariffin, N. H. (2015). Identification of risks pertaining to abandoned housing

- projects in Malaysia. *Journal of Construction Engineering*, 12(56), pp. 1-12
- Akindele, O. (2013). Environmental effects of abandoned properties in Ogbomoso and Osogbo, Nigeria. *Ethiopian Journal of Environmental Studies and Management*, 6(6), pp. 707-716
- Ariffin, N. F., Md Jaafar, M. F., Ali M. I., Ramli, N. I., Muthusamy, K. & Abdul Shukor, L. N. H. (2018). Investigation on factors that contribute to the abandonment of building in construction industry in Malaysia. *E3S Web of Conference*, 34(01025), pp. 1-6. Retrieved August 27, 2023, from doi.org/10.1051/e3sconf/20183401025
- Bavani, M. (2009). Abandoned Jelatek fire station now an eyesore. The Star Online. Retrieved June 2, 2023, from <https://www.thestar.com.my/news/community/2009/06/02/abandoned-jelatek-fire-station-now-an-eyesore>
- Chan, L. L. (2009). Low-cost housing project abandoned after 90% completed. The Star Online. Retrieved August 6, 2023, from <https://www.thestar.com.my/news/nation/2009/08/06/lowcost-housing-project-abandoned-after-90-completed>
- Cheah, S. C. (2008). Signs of distress in the market. The Star Online. Retrieved June 23, 2023, from <https://biz.thestar.com.my/news/story>
- Chen, E. (2007) Far from being rotten. New Straits Times Property. Retrieved June 23, 2023, from <http://properties.emedia.com.my/listvp.php?propNewsID=162&CatID=V00>
- Cheng, T. L. (2019). Legacy of economic crises haunts housing market. The Star Online. Retrieved November 18, 2022, from <https://www.thestar.com.my/business/business-news/2019/11/18/legacy-of-economic-crises-haunts-housing-market>
- Dahlan, M. & Hilal, N. (2006). Abandoned housing projects in Malaysia: A legal perspective. *The Malayan Law Journal* (6) pp. 1-21
- Dahlan, N. H. M. (2008). The need to define 'abandoned housing project' in Peninsular Malaysia: An Analysis. *IJUM Law Journal* (16) pp. 85-107
- Dahlan, N. H. M. (2014). Abandoned housing projects in Malaysia: Legal issues relating to the housing developer's advertisement and sale permit. 6th International Borneo Business Conference (iBBC). Riverside Majistec Hotel, Kuching, Sarawak. August 20-21, 2014. Retrieved August 27, 2022, from <https://repo.uum.edu.my/id/eprint/12719/>
- Ghaffar, M. N. A. (1999). Penyelidikan Pendidikan. Universiti Teknologi Malaysia
- Gospodini, A. (2012). Economic Crisis and the Shrinking Greek Cities. Proceedings of 1st International Conference on Architecture & Urban Design. EPOKA University. 19-21 April 2012. pp. 685-702. Retrieved Mac 1, 2023, from <http://dspace.epoka.edu.al/bitstream/handle/1/260/127-567-1-PB.pdf?sequence=1&isAllowed=y>
- Han, H. S. (2014). The impact of abandoned properties on nearby property values. *Housing Policy Debate*, 24(2), pp. 311-334. Retrieved June 3, 2023, from doi:10.1080/10511482.2013.832350
- Ibrahim, F. (2006). Faktor-faktor kritikal bagi pemulihan projek perumahan terbengkalai. Universiti Teknologi Malaysia: Master Thesis
- Ismail, S., Jalil, I. N. & Megat M. P. M. (2015). Making housing more affordable. Khazanah Research Institute
- Kaur, M. (2014). In need of more action mosquitoes breeding sites must be cleared-to fight dengue menace. The Star Online. Retrieved January 4, 2023, from <https://www.thestar.com.my/metro/metro-news/2020/01/30/keep-premises-clean-to-prevent-mosquitoes-from-breeding-public-told>
- Kaur, S. (2011). Proposals to reduce number of abandoned housing projects. *Business Times*.
- Khalid, M. S. (2010). Abandoned housing development: The Malaysian experience. United Kingdom: Heriot-Watt University: PhD Thesis
- KPKT (2020). Selected Statistic 2020 Statistik Terpilih KPKT sehingga 30 September 2020. Retrieved February 21, 2021, from https://www.kpkt.gov.my/kpkt/resources/user_1/GALERI/PDF_PENERBITAN/PERANGKAAAN%20TERPILIH/Statistik_Terpilih_KPKT_Sehingga_September_2020.pdf
- KPKT (2022). Selected Statistic 2022 Statistik Terpilih KPKT sehingga 31 March 2022. Retrieved August 26, 2021, from https://www.kpkt.gov.my/kpkt/resources/user_1/GALERI/PDF_PENERBITAN/PERANGKAAAN%20TERPILIH/STATISTIK_TERPILIH_KPKT_SEHINGGA_MAC_2022.pdf
- Leng, T. A. (2018). How many rogue developers are there? *The Edge Market*.
- [1] Mallach, A. (2006) Bringing buildings back: From abandoned properties to community assets. Montclair, NJ: National Housing Institute
- Mansur, S. A., Hamid, A. A. & Yusof N. A. (2016). Rising trend in construction cost and housing price. *Journal of Advanced Research in Business and Management Studies*, 3(1), pp. 94-104
- Mohamad, N. N. (2020). Understanding abandoned housing projects in Malaysia and the protection for home buyers. *International Journal of Islamic Economics and Finance Research*, 3(2), pp. 77-90. Retrieved February 21, 2023, from <https://ijiefer.kuis.edu.my/ircief/article/view/41>
- Ng, A. (2009). Grappling with abandoned projects. The Star Online. Retrieved July 18, 2022, from

- <https://www.thestar.com.my/business/business-news/2009/07/18/grappling-with-abandoned-projects>
Nuruddin, A. R., Bakar, S. P. S. A. & Jaafar, M. (2015). Unveiling the challenges faced by Malaysian housing developers through government policy changes. *Journal of Construction in Developing Countries*, 20(2), pp. 37-52. Retrieved July 18, 2022, from <https://core.ac.uk/download/pdf/199244286.pdf>
- Olalusi, O. & Otunola, A. (2012). Abandonment of building projects in Nigeria: A review of causes and solutions International Conference on Chemical, Civil and Environment Engineering (ICCEE'2012). Dubai, UAE. March 24-25, 2012, pp. 253-255. Retrieved June 15, 2022, from <https://citeseerx.ist.psu.edu/document?repid=rep1&type=pdf&doi=03917f23e404dc061c4dc7f087fa4fae983e484c>
- Pallant, J. (2007). *SPSS survival manual - A step by step guide to data analysis using SPSS*. New York: McGraw Hill Open University Press
- Perumal, E. (2009). Residents irked by abandoned flats. *The Star Online*. Retrieved June 20, 2022, from <http://thestar.com.my/metro/story.asp?file=/2009/8/1/central/4427852&sec=central>
- Rusli, N. (2006). *Salah urus risiko dalam pembangunan projek perumahan: Kajian ke atas projek perumahan terbengkalai di Malaysia*. Universiti Teknologi Malaysia: Master Thesis
- Stuart, M. (2009). Abandoned project poses risk. *The Star Online*. Retrieved March 31, 2022, from <https://www.thestar.com.my/news/community/2009/03/31/abandoned-project-poses-risks>
- Sun Daily (2020). 281 private housing projects abandoned since 2009. *The Sun Daily*. Retrieved July 29, 2022, from <https://www.thesundaily.my/local/281-private-housing-projects-abandoned-since-2009-ME3215439>
- Tan, T. H. (2011). Sustainability and housing provision in Malaysia. *Journal of Strategic Innovation and Sustainability*, 7(1), pp. 62-71. Retrieved April 4, 2022, from <http://t.www.na-businesspress.com/ISIS/TanWeb.pdf>
- Yahya, M. A. & Komar M. Z. H. S. (2016). Factors of failure for abandoned housing projects. *International Journal of Business and Technopreneurship*, 60(3). pp. 393-402. Retrieved June 3, 2023, from <http://dspace.unimap.edu.my/xmlui/bitstream/handle/123456789/50022/Factors%20of%20Failure%20for%20Abandoned%20Housing%20Projects.pdf?sequence=1&isAllowed=y>
- Yap, E. H. (2013). *Causes of abandoned construction projects in Malaysia*. Universiti Tunku Abdul Rahman: Phd Thesis
- Yap, E. H., Tan, H. C. & Chia, F. C. (2010). Causes of abandoned construction projects. 15th Annual Symposium on Advancement of Construction Management and Real Estate: Towards Sustainable Development of International Metropolis. Johor Bharu, Johor. August 6-7, 2010, pp. 398-407. Retrieved June 20, 2022, from <https://researchportal.hw.ac.uk/en/publications/causes-of-abandoned-construction-projects>