

The Housing Industry and Implementation of Sustainable Development Practices (Affordable)

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Abstract: The implementation of sustainable development practices (affordable) is indeed a must in the housing industry in Malaysia in general. Sustainable development practices promotes positive activities that will ensure fairness, effectiveness, divergence, less disparity, less discrimination, inexpensive, reasonable priced, pleasant design, serenity, mutual comfort and many other characteristics to the future house buyers. The developer and house buyers must converge at a point where no one is short changed due to limitation in the applicarion mechanism of sustainable development practices in the housing industry. The objective of the study is to investigate the relationships between affordable and implementation of sustainable development practices in the housing industry. This study adopted both qualitative and quantitative methods to triangulate the findings. The quantitative survey method, as the dominant approach, was used to collect data using convenience sampling from 384 respondents living in Kedah, Malaysia. Meanwhile, interviews were conducted purposively on a total of 10 representatives from active developers operating in Kedah, Malaysia. Pearson correlations were used analyse the data to answer the objective of the study. In general, the findings showed that the score for affordable in the sustainable development practices and implementation in the housing industry is good with an average value between 4.02 and 4.26. The results of Pearson correlation analysis show implementation of sustainable development practice (affordable) that is also significant at level $p \leq 0.01$ and $r = 0.143$. This means that the implementation of sustainable development practice (affordable) is good but the prevailing relationship is still weak or low (approximately 14.3%). The findings of interviews conducted with informants from the developer shows that their engagement is good, particularly with implementation of sustainable development practice (affordable). Therefore, this study suggests that a comprehensive channels should be established, whether formally or informally to ensure the role of various parties can be increased more effectively in ensure the implementation of sustainable development practice (affordable) in the housing industry Kedah, Malaysia.

Keywords: Implementation, Sustainable development practices, Housing industry

1. Introduction

F I Zaidi, (2018) Illias Said, (2018), Millad Samari et al., (2012), M Saikah et al., (2017), Nancy Green Leigh and Edward J. Blakely (2016) and Olusola Oladapo Makinde, (2014) explain that reasonable development concepts circulates around economic, environmental, and social policies have been widely discussed globally.

The housing industry by nature is intricate and consumes natural resources which adversely produce impact on the natural environment. Moreover, housing industry constitutes to economic activities and influences the economy in such a way that it is an important component of social development and quality of life.

Therefore sustainable development is the key ingredient of progress and governance in housing industry which cannot be exempted. Involvement and knowledge of all stakeholders is essential in creating sustainable housing development. In most countries, providing an affordable house has been an outstanding issue globally. In addressing this endeavour, programmes for affordable housing were introduced to improve household access to new houses and on the other end maintain their wellbeing. Hence, affordable can be defined as inexpensive, reasonably priced, within one's financial means, having a cost that is not too high, ownership accessible to buyers from the median household income and below. Thus, the operational definition of affordable used in this study related to maximum satisfaction with minimum cost related to implementation of sustainable practices in the housing industry. This paper is part of a study conducted among house buyers and developers on implementation of sustainable development practices in the housing industry in the District of Kubang Pasu, Kedah, Malaysia.

1.1 The Problem Statement

How does implementation of sustainable development practice (affordable) effect the housing industry in Malaysia? As explained in the previous section affordable (sustainable development practice) has many facets but largely can be concluded for the purpose of this study as maximum satisfaction with minimum cost. So, the definition of affordable need to be 'fine-tuned' according to the needs of housing industry in Malaysia. The housing industry faces various challenges due to demand and supply factors. The industry also needs to accommodate changes according to development of new technology. The classical approach is the affordable concept will be associated with price of the houses related to the buyer's purchasing power. As long as the buyer willingness to pay towards his desired price, the developer will deliver the house according to the buyer's taste. So how does the sustainable practice can play an effective role if the demand and supply is very active in the housing industry in Malaysia? Until now sustainable development practices in the housing industry among the developer is only a choice and not a mandatory. Meanwhile Construction Industry Development Board of Malaysia has guidelines for the organization members. The sustainable development guidelines practices for developers are not specifically spelled out. Although the relevant federal ministry or agencies has rules and regulations as well as guidelines to be monitored by the developers during construction of any buildings, there are no specific guidelines for sustainable development practices. Thus, the bigger picture is a comprehensive approach which includes the damage to the environment (natural). At present the damage or the negative impact on the environment is not accounted in the 'affordable' concept. The more devastation to the natural habitat then the more expensive the houses should be. Construction industry key players should move from their historic preoragative methods to embrace new methods that gives substantial importance to environment impacts in their projects. Previously the environmental effects of housing development have not been their priority. Lately, there is tremendous awareness spreading among construction practitioners on the issue of sustainable development. Globally this awareness is spreading due to the depletion of non-renewable resources, global warming and extreme destruction to the ecology which brings about biodiversity impacts. Efforts are directed to building sustainably in the construction world. Therefore, wider initiatives are taken to integrate the environmental impact of the construction industry.. So, the housing industry needs to rectify and address the pressing issues related sustainable development.

2. Objective, Hypothesis and Methodology

The objective of the study is to determine the correlation between implementation and sustainable

development practices (affordable) in the housing industry at Kubang Pasu, Kedah, Malaysia. The hypotheses are illustrated as below.

General Hypothesis

H₁ There is a significant general correlation between implementation and sustainable development practices in the housing industry

Advance Hypothesis

H₂ There is a significant correlation between implementation and affordable

This study adopted the social qualitative and quantitative which both the primary and secondary data. There are two main stages in the study which is elaborated below.

Stage 1: Stage 1 involves preparatory work for data collection which is literature review, indepth interviews and observation. The information obtained from the various data sources will be triangulated and validated to obtain a modulation. This helps in futher findings and suggestions.

Stage 2: The data collected will be qualitatively analysed to identify the issues and problems. The sample size is 384 for public (qualitative-random), and 10 for developers (quantitative-purposive) collected throughout Kedah, Malaysia.

3. Findings and Discussion

The analysis illustrated in the Table 1 (min 4.42) shows that the tested items has very strong relationship with sustainable development practices (affordable) in the housing industry. The lowest min value recorded was 4.42 for the item “sustainable development practices must be reflected in the quality of houses” indicates that house buyers still value quality houses. The highest min value registered was 4.53 for the item “do not understand how sustainable practices in the housing industry influences economy”. Surprisingly house buyers do not know or understand the importance of sustainable development practices in the economy of the nation. The median registered a value of 4.0, shows that house buyers still belief that sustainable development practices does not influence strongly the prices of a house. The value of SD 0.529 indicates there is not much difference between the items tested in the study (Table 1).

The above findings is further strengthen by the study of Yusra Mouzugh, David Bryde and Maher Al-Shaer (2014). They purported that a good partnership between the public and the private sectors will eventually bring about realization of sustainable development through activities such as infrastructure, affordable housing and leisure/ tourism. It has been realized that public cannot be solely responsible in contributing up-front capital. Granting of approvals, the development processes and the provision of infrastructures are essential to create a more convenient approach for private sector companies to invest in different initiatives. The private sector can bring valuable knowledge and expertise in terms of sustainable development that is both efficient and effective. This will require the careful management of Public Private Partnerships (PPPs). Selection of partners is an essential part of the management which can demonstrate the ability to perform on sustainability-related criteria as well as technical ability.

Table 1. Affordable and the Sustainable Development Practices

Test Item	Scale	Frequency (%)	Min	Median	SD
Houses with green development characteristics are expensive.	HNA	0 (0.0)	4.44	4.00	0.540
	NA	0 (0.1)			
	LA	8 (1.8)			
	A	200 (52.1)			
	HA	176 (45.9)			
Urban houses are too costly	HNA	0 (0.0)	4.47	4.00	0.510
	NA	0 (0.0)			
	LA	2 (0.5)			
	A	200 (52.1)			
	HA	182 (47.4)			
Relationship between prices and sustainable development practices are not clear.	HNA	0 (0.0)	4.40	4.00	0.503
	NA	0 (0.0)			
	LA	3 (0.7)			
	A	226 (58.9)			
	HA	155 (40.4)			
Do not understand how sustainable practices in the housing industry influences economy.	HNA	0 (0.0)	4.53	5.00	0.525
	NA	0 (0.0)			
	LA	5 (1.3)			
	A	170 (44.2)			
	HA	209 (54.5)			
Urban houses must be equipped with sustainable development characteristics.	HNA	0 (0.0)	4.48	4.00	0.510
	NA	0 (0.0)			
	LA	2 (0.5)			
	A	195 (50.9)			
	HA	187 (48.6)			
Sustainable development practices must be reflected in the quality of houses.	HNA	0 (0.0)	4.28	4.00	0.518
	NA	3 (0.7)			
	LA	5 (1.3)			
	A	258 (67.2)			
	HA	118 (30.8)			
Housing Board must control and determine the house prices.	HNA	0 (0.0)	4.36	4.00	0.506
	NA	0 (0.0)			
	LA	5 (1.3)			
	A	237 (61.8)			
	HA	142 (36.9)			
Always concern about sustainable development characteristics and not the price of the houses.	HNA	0 (0.0)	4.33	4.00	0.492
	NA	0 (0.0)			
	LA	4 (1.0)			
	A	250 (65.1)			

	HA	130 (33.9)				
New designs of houses does not promote sustainable development characteristics.	HNA	0 (0.0)		4.43	4.00	0.538
	NA	0 (0.3)				
	LA	6 (1.4)				
	A	207 (53.8)				
	HA	171 (44.5)				
Developers are much concern about profits than incorporating sustainable development practices in the housing industry.	HNA	0 (0.0)		4.44	4.00	0.527
	NA	0 (0.)				
	LA	5 (1.6)				
	A	204 (53.0)				
	HA	175 (45.4)				
Sustainable development is not a priority to the authorities in the housing industry.	HNA	0 (0.0)		4.50	5.00	0.653
	NA	0 (0.0)				
	LA	34 (8.8)				
	A	126 (32.8)				
	HA	224 (58.4)				
Average				4.42	4.00	0.529

Note: N = 384; Overall Min = 4.42

HNA Highly Not Agreeable NA Not Agreeable LA Less Agreeable
 A Agreeable HA Highly Agreeable

The result of the study shows a strong relationship between construct affordable with implementation of sustainable development practices in the housing industry at Kubang Pasu District, Kedah. Thus, answering the objective of the study, ‘the correlation between implementation and affordable in the context of sustainable development in the housing industry’, there is a positive correlation.

The analysis to test the correlation (Table 2) between dependant variable, Y (Sustainable development practices) and dependant variable X (Implementation) is significant at level of $p \leq 0.01$ and accepts the objective of the study. Thus, there is significant correlation between Affordable (Y) and Implementation (X) in the housing industry at Kubang Pasu DitRICT, Kedah. The findings also shows that all the hypothesis (general and advance) were accepted due to the significant of the findings at the level of $p \leq 0.01$. Tested items on Affordable (Y) recognizes the importance of how items such as inexpensive, reasonable priced, within financial means and ownership influences the Implementation (X) process in the housing industry at Kubang Pasu, Kedah, Malaysia.

Table 2. The correlation between Implementation and Sustainable Practices (Affordable)

Relationship between sustainable development practices (Y) and Implementation (X)	Implementation (X)	
Affordable Y	r Sig. Hypothesis	0.097** 0.007 Accepted

Sustainable Development Practices (Y)	Implementation (X)	
	r	0.143**
	Sig. Hypothesis	0.000 Accepted

Note: N= 384 ** significant p < 0.01

The findings of the qualitative study also supported that sustainable practices are important to materialise implementation process in the housing industry at Kubang Pasu District, Kedah. Interestingly the respondents (developers) respondent moderately towards items on affordable and implementation of sustainable development practices in the housing industry at Kubang Pasu District, Kedah. The findings suggests that the respondents were very concerned about the house price will be higher if sustainable development practices are implemented. They also not sure how house price mechanism works if sustainable development practices are implemented in the housing industry at Kubang Pasu District, Kedah. Practically the findings also incline towards profit orientated because the developer’s main concern is how their business can be sustained in the longer term. The also feel that the authority should conduct various programs especially design for the developer in order to educate them about the benefit of the sustainable development practices in the housing industry.

The above findings are supported by the study by S H a Hamid, S a Mahayuddin and S Z H Syed Jamaludin (2017). The need for integration of affordable housing and sustainable practice becomes more imperative as the concern relating to economics and the environment increases. Actually this study shows that the implementation of affordable and sustainable housing development in Malaysia is at large in a low level. Therefore the challenges of integration of affordable and sustainable housing in Malaysia need to be addressed urgently. Apart from economical aspect to ultimately create a better wellbeing and quality of life among the population, sustainable development in the housing industry requires the commitment from stakeholders to pursue development in a more sustainable manner. Moreover, awareness and knowledge should be enhanced and delivered to project stakeholders. Sufficient incentives, rebates and training should provided to the relevant public authorities to encourage more efforts in applying sustainability concepts. On the other end strict measures can also take by the government in ensuring the implementation of the integration of affordable and sustainable practices by enforcing strict rules and regulations. Hence, the integration of affordable and sustainable housing is not a practice of a single party, but requires the involvement of all relevant parties to increase the quality of life among sustainable communities. Thus, development of strategies of integrated affordable and sustainable housing is crucial in Malaysian Construction Industry.

Conclusion

Implementation of sustainable development practices in the housing industry warrants a different dimension from the developer’s and house buyers’ perspective. The developers must equip themselves on sustainable development practices because the future is sustainable development. At the same time house buyers also must boldly and bravely exercise their demand on property units which displays sustainable characteristics. The relevant authority must play a vital role so that sustainable development practices observed seriously in the housing industry. This is parallel to nation’s intention to blend the sustainable development goals in every aspect of developments giving preferences to economic and social structure of the society.

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References

- [1]. F I Zaidi, E M A Zawawi, R M Nordin and E M Ahnuar. (2018). An empirical analysis of Strategy implementation process and performance of construction companies. Retrieved from https://www.researchgate.net/publication/323674554_An_empirical_analysis_of_strategy_implementation_process_and_performance_of_construction_companies on 20 July 2018
- [2]. Illias Said, Fazdliel Aswad Ibrahim, Mohd Wira Mohd Shafiei, and Radzi Ismail (2018). Green Homes Development: Factors Affecting Housing Developers' Readiness. *ARPN Journal of Engineering and Applied Sciences*.9 (6):971-980.
- [3]. Leigh, Nancy & Edward J. Blakely, and. (2017). *Planning Local Economic Development*, 6th edition.
- [4]. Oladapo Makinde, Olusola. (2014). Housing delivery system, need and demand. *Environment, Development and Sustainability*. 16. 10.1007/s10668-013-9474-9.
- [5]. Raman Mariyappan, (2015). Field Base Teaching: A Malaysian Experience. *Journal of Educational and Social Research*, [S.l.], v. 5, n. 1 S1, p. 121, may. 2015. ISSN 2240-0524
- [6]. Raman Mariyappan, and Tuan Pah Rokiah Syed Hussain (2016). The Paradigm Shift of Managing Hilly Terrains Developments in Malaysia. *International Journal of Humanities and Social Science Invention* ISSN (Online): 2319 – 7722, ISSN (Print): 2319 – 7714 ,Vol. 5 (10). pp.54-58
- [7]. Raman Mariyappan , Mogan Periasamy & Hamidi Ismail. (2017). Relationship between health care measures and individual background during haze disaster. *Proceeding of International Conference on Humanities, Language, Culture & Business, Penang 2017 19-20 March 2017*, ISBN: 978-967-14835-0-3
- [8]. Raman Mariyappan and Tuan Pah Rokiah Syed Hussain (2017) The effects of moral values of public, private sector and non-governmental organizations in managing the highlands developments in Malaysia. *Journal of Humanities, Language, Culture and Business (HLCB)* Vol. 1: no. 3 (2017) page 100-107, eISSN: 01268147
- [9]. Saikah, M & Kasim, Narimah & Zainal, Rozlin & Sarpin, Norliana & Abd Rahim, Mohd Hilmi Izwan. (2017). Potential implementation of light steel housing system for affordable housing project in Malaysia. *IOP Conference Series: Materials Science and Engineering*. 271. 012106. 10.1088/1757-899X/271/1/012106.
- [10]. Samari, Milad. (2012). Sustainable Development in Iran: a Case Study of Implementation of Sustainable Factors in Housing Development in Iran.
- [11]. Yusra Mouzughhi, David Bryde and Maher Al-Shaer (2014). The Role of Real Estate in Sustainable Development in Developing Countries: The Case of the Kingdom of Bahrain. Retrieved from *Sustainability* 2014, 6(4), 1709-1728; <https://doi.org/10.3390/su6041709> on 25 July, 2018.
- [12]. Z H Syed Jamaludin, S & Mahayuddin, Siti Akhtar & H A Hamid, S. (2018). Challenges of Integrating Affordable and Sustainable Housing in Malaysia. *IOP Conference Series: Earth and Environmental Science*. 140. 012001. 10.1088/1755-1315/140/1/012001