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The Challenges in Upholding Sustainability Practices in the Property Development Sector

Nik Faizah Nik Mahmood1 and Herwina Rosnan2*
1. Sime Darby Property Berhad, 47301 Petaling Jaya, Malaysia. nik.faizah@simedarbyproperty.com
2. Arshad Ayub Graduate Business School, Universiti Teknologi MARA, 40450 Shah Alam, Malaysia. herwina@uitm.edu.my

*Corresponding Author

Abstract

The construction industry is one of the main sources of air, water, and noise pollution that contribute to global greenhouse gas emissions. Governments in both developing and developed countries are establishing sustainability-related policies to promote high compliance by organizations in making sure that businesses are conducted while taking into consideration having the three pillars of sustainability evenly balanced namely prosperity (profit), people (community/ society) and planet (environment/ mother nature). In addition, other stakeholders such as non-governmental organizations (NGOs) are also pursuing the sustainability agenda by proposing environmental, social and governance (ESG)–related policies to policy makers in their effort to woo and influence companies into transforming the way they conduct their current businesses in a more sustainable way. However, this industry has progressed little in terms of environmental performance, and the number of projects that have adopted environmental sustainability is limited. Within the construction industry, this study focuses on the property development sector. Hence, the main objective of this study is to investigate the challenges and issues faced by property developers in upholding sustainable practices. A qualitative research approach is used for this study. Data were collected from seven companies that were willing to participate in the study. The analysis was conducted using grounded theory analysis techniques. The findings identified high investment cost, teamwork and support, bandwagon effect, awareness and acceptance, and engagement are among the main challenges to upholding sustainability practices. The study contributes to a better understanding of the phenomenon and would benefit policymakers in enhancing their programs to achieve national sustainability-related Key Performance Indicators (KPIs).

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1.0 INTRODUCTION

The significant increase in the growth of economies has put the environment and natural resources in it on the way to destruction. The sustainability concept has gained much interest over the years across many industries. The masses have come to realize that mother earth is slowly being polluted and damaged by activities made by irresponsible parties. High profits in the short run are usually the most common driver of those unscrupulous activities that continue to negatively affect the surrounding environment. Unfortunately, many organizations fail to understand that having sustainability concepts as part of their business strategies would result in better monetary returns and the organizations' image and branding would certainly be enhanced besides protecting the environment at the same time (Razali and Adnan, 2015).

In general, the construction industry is one of the main sources of air, water, and noise pollution (Rheude, & Röder, 2022; Yusof, Abidin, Zailani, Govindan, and Iranmanesh, 2016). This industry has progressed little in terms of environmental performance, and the number of projects that have adopted environmental sustainability is limited (Shi, Ye, Lu and Hu, 2014; Zainul Abidin, Yusof and Othman, 2013). The construction industry is pressured to deliver projects that reduce greenhouse gas (GHG) emissions in terms of absolute value, instead of intensity despite an increase in revenue. The sector has been consistently criticized over the past decades for contributing largely to GHG, hence the need to embrace sustainability practices (Ikudayisi et. al., 2022).

The property development sector falls under the construction industry. Cities are one of the major contributors to global greenhouse gas (GHG) emissions which account for approximately 75% of global energy consumption and up to 80% of global greenhouse gas emissions (Dulal & Akbar, 2013). In particular, the property development industry contributed a sizeable impact to the change of environment due to development and construction activities in making way to the burgeoning urbanization population. According to the Construction Industry Transformation Programme (CITP) 2016 – 2020, Malaysia's aim to become one of the fast-growing economies by year 2020 should be well attained in a "resilient, low-carbon, resource-efficient, and socially-inclusive manner" (CITP, 2015). Today, to continue supporting the same target, CIDB has come up with Construction 4.0 Strategic Plan (2021 – 2025) and has taken the initiative to create tools to assist construction industry players to incorporate sustainability elements in a more cohesive and seamless manner with the establishment of Sustainable Construction Excellence Centre (MAMPAN) to drive sustainable construction in the country with innovative initiatives in the pipeline.

CITP (2015) described the Malaysian construction practices today are inefficient and harmful to the environment. Hence, this Construction Industry Transformation Plan program has been developed with the intention to place the country's environmentally sustainable construction as the benchmark for neighboring developing countries. Also, according to CITP (2015), the construction industry productivity level in this country is ranked one of the lowest compared to other industries in the Malaysian economy. The construction industry rated low when compared with other developing countries, with lagging indicators in terms of modern technology adoption within their business processes.

The core values outlined "Sustainability & Resiliency" in the Construction 4.0 Strategic Plan (2021 – 2025). Sustainability in construction means reduction on its impact to the environment. This includes using recyclable resources, reducing waste and energy consumption, creating environment-friendly offices and conserving the environment. Resilience, on the other hand, means moving towards the ability to withstand against natural and manmade disasters and disturbance.

Today, property developers are pressured by stakeholders (investors, homebuyers) to at least have a certain percentage of sustainability elements in their products and services to their sustainability commitment and how much they could give back to the community as well as to minimize the negative impact to the environment from the earthworks and other related business processes in opening new townships and property building. According to Potts (2010), financial and economic uncertainties ahead coupled with increasing rates of climate change are driving organizations and governments alike into pursuing sustainable business practices and policy change with regard to sustainable development.

Governments in both developing and developed countries are establishing sustainability-related policies to promote high compliance by organizations in making sure that businesses are conducted while taking into consideration having the three pillars of sustainability evenly balanced namely prosperity (profit), people (community/ society) and planet (environment/ mother nature). In addition, other stakeholders such as non-governmental organizations (NGOs) are also pursuing the sustainability agenda by proposing environmental, social and governance (ESG)–related policies to policy makers in their effort to woo and influence companies into transforming the way they conduct their current businesses in a more sustainable way.

On the same note of companies giving back to the community or the overall society, Gimenez, Sierra and Rodon (2012) stressed that organizations should take full responsibility of their employees' welfare such as health and safety and also the well-being of the surrounding community which is part of showing ESG commitment towards the society at large.

With regard to innovation and creativity, the United Nations stated in 2015 that their current goal of the 2030 agenda also focused heavily on the urgency to cultivate the innovation culture and encourage inclusivity in promoting sustainable industrialization (Nam, 2015). This is to ensure that businesses drive sustainability-led innovation garages or lab in order to inculcate employees into having the same sustainability agenda while thinking outside-the-box for new wild ideas. Promoting diversity and inclusivity also poses a great challenge for businesses to comply to these basic human rights, a key social element under the sustainability umbrella.

According to Bakri & Abbas (2020), sustainability is considered a significant element in the property development industry. However, implementing sustainability initiatives and achieving sustainability goals set posed to be a real challenge that has been debated from as far back as three decades ago. Hence, the main objective of this study is to investigate the challenges and issues faced by property developers in upholding sustainable practices.

2.0 LITERATURE REVIEW

Sustainability and sustainable development have become important concepts and goals across science and society. Sustainability, connected to desirable long-term conditions, is an inherently applied pursuit in geography and other fields. According to Harrington (2016), an integrative statement of essential concepts on which sustainability studies and applications are being built has been lacking. Based on the literature, a number of key ideas or theoretical concepts were discussed, including the importance of choice, place, scale, systems, limits, change, connected concepts, and the identity of sustainability. The rural context is used to present examples illustrating key ideas for sustainability, but the concepts apply broadly to applications and research related to improving the directions of environmental and social changes within local, regional, and global systems under the influence of human actions.

Sustainable construction is the subset of the above philosophy which explained the main task of the construction industry with the aim to achieve the level of sustainability set (Abidin, 2009). Malaysia needs to comply with the environmentally sustainable practices to indicate that the country has low carbon emission and high usage of sustainable building materials. Areas such as irresponsibly dumping of construction materials and demolition waste need to be fixed urgently to prevent from errant construction companies to further aggravate the environment.

Olawumi, et. al (2018) stated that the built environment faces numerous challenges in its quest to be more productive and sustainable, and to the adoption of smart and creative processes for carrying out various operations. The authors concluded that the three key challenges are industry players' resistance to transforming from their current conventional work practices, a longer period of time taken to adapt to the new innovative technologies, and the lack of understanding of the processes and workflows required by new technology and sustainability. In another research on a similar topic within the same year, Olawumi & Chan (2018) evaluated the perceived benefits of embracing technology by integrating sustainability practices into construction projects. The authors concluded with three most important benefits including the ability for project managers to enhance overall project efficiency which in turn improves quality. Secondly, improve the ability to simulate building performances and energy usage with regards to achieving minimum incorporation of sustainability elements in their products. Thirdly, technology's ability to facilitate better product designs and offer multiple design alternatives. A study by Rheude, & Röder (2022) found that the building sector in Germany still has very high greenhouse gas emissions. In their study, they calculated the material used in shell construction from 2012 to 2022. Despite the high emission of greenhouse gases, the study posited that overall sustainability impact is better in recent years compared to the beginning of their study period. This relatively better sustainability performance can be attributed to a more efficient used of the available resources.

Most companies perceive that in order for them to effectively practice environmental sustainability, they will have to be prepared to incur high investment which might be difficult to break even in the near future, "a legal and social obligation requiring investments that may never be recovered—rather than as an opportunity" (Metz, Burek, Hultgren, Kogan and Schwartz, 2016). They believe it will add to costs and will not deliver immediate financial benefits (Nidumolu, Prahald and Rangaswami, 2009). Furthermore, suppliers cannot provide green inputs or transparency; sustainable manufacturing will demand new equipment and processes; and customers will not pay more for eco-friendly products during a recession (Nidumolu et al., 2009). In addition, the importance of green supplier was emphasized by Ibrahim et al. (2022) which hypothesized that green supply chain affects organizational performance. A content analysis by Ahmad Bakri, Rosman and Ismail (2021) stated that real estate agent incorporates green and nature as their unique selling point in their current marketing strategy despite a claimed by Nidumolu et al. (2009) that customers are not paying for eco-friendly products during recession.

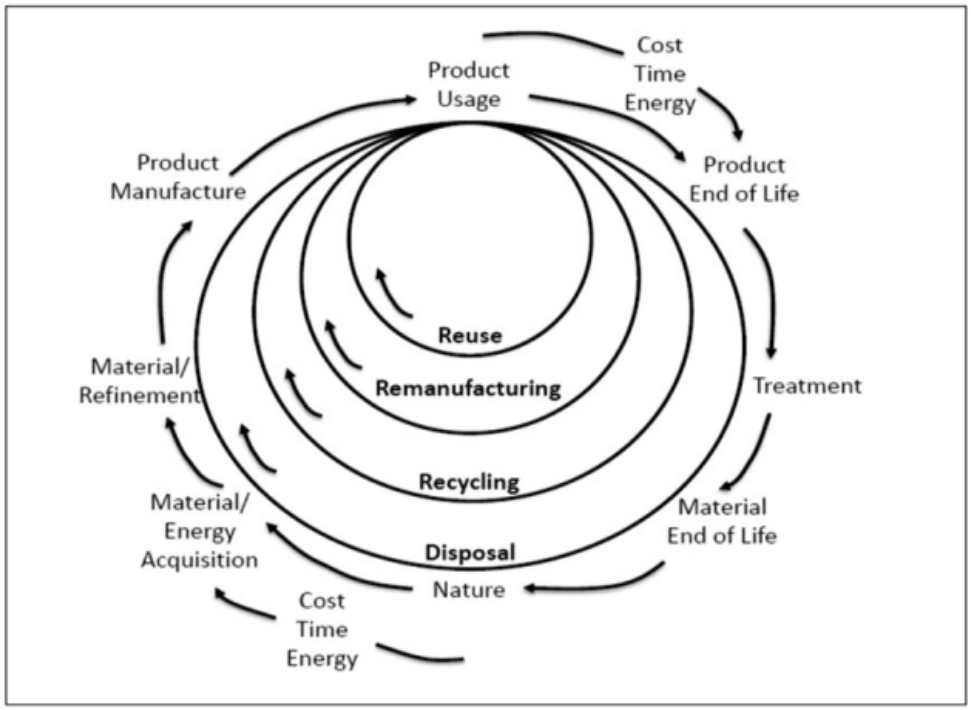

Figure 2.1: Circular Economy (Korhonen et al., 2018)

According to Newell and Manaf (2008), there are some Malaysian property developers are seen to be displaying their commitment in leading the sustainable property agenda, however, the study shown that the overall property industry sector in Malaysia has room for improvement to further align with the international best practice in the sustainability arena. Projects on sustainability in Malaysia are mostly at pioneering stage, indicating that Malaysia construction industry is still at infancy when dealing with sustainability matters (Abidin, 2009). Subsequently, in 2015, based on a content analysis study, sustainability engagement in their workplace is far from the targets set.

Abidin (2009) stressed in her survey that even though the property players were well aware of the importance in embracing sustainability in their workplace, minimum efforts were seen from them to ensure the success of the implementation. There is a dearth of literature that discussed on sustainability practices especially among property developers in Malaysia and what prevents the property developers from venturing further into sustainable development. The research gap is the lack of research focusing on solutions for organizations that can help catapult the permeation of sustainability elements in their business practices.

Despite the clear objective in transforming Malaysia economy base, to date the progress has been commented as moving slowly. It is mainly due to the poor engagements in the innovation ecosystem (Kian and Yusoff, 2015). Malaysia is still lacking in terms of strict enforcement from the government and policy makers. Also, lacking in monitoring of law and legislation has been identified as one of the main reasons why the low current level of implementation in sustainable construction practices among the Malaysian construction companies (Abidin, 2010).

According to Nazli and Salat (2013), most property developers in Malaysia did not fully disclose their sustainability data in their annual reports on their business activities towards preserving and protecting the environment impacted by their business activities. The author urged that the government of Malaysia should make the policy of reporting sustainable causes a mandatory in their annual reports as part of the compliance of being listed on Bursa Malaysia. They should be sharing detailed and comprehensive programs or initiatives pertaining to sustainability in a section of their annual reports for shareholders' reference. Also, the authors found inconsistency in reporting pattern which should be resolved by establishing sustainability reporting guideline for all property developers in Malaysia to comply.

The most recent study was about disposing face masks heavily consumed during the midst of the Covid-19 pandemic. It is about discovering a sustainable solution

by incorporated waste masks to convert into environmentally friendly and affordable green cement (Idrees et al., 2022). This way, property developers can practice circular economy in their business processes which not only resulted in protecting the environment but also construction materials which is improved by waste that resulted in stronger and higher durability concrete.

The current circular economy concept depicted in Figure 2.1 above shows the most inner circles are more economic since the demand requires less energy and resources (Korhonen et al., 2018). In the construction industry, more and more property developers are ensuring their contractors and other vendors within the property development value chain, to set up recycling centers at construction sites with yearly targets used towards net zero carbon goal by 2030.

Bossel (1999), Hörisch, Freeman and Schaltegger (2014) and James (2014) shared the sustainability framework commonalities of environmental concerns relating to resources and human factors. What would still need to be identified is the peculiarities of context and perhaps social and cultural influence that may somewhat different in diverse situations. Within the Malaysian context, there is still a need to determine whether such diversities may influence sustainability practices among the property developers and how these are being tackled by the stakeholders.

3.0 METHODOLOGY

Within the construction industry, the current study focuses on property development sector as this sector contributed a sizeable impact to the change of environment due to development and construction activities in making way to the burgeoning urbanization population. Cities are one of the major contributors to global greenhouse gas (GHG) emissions which account for approximately 75% of global energy consumption and up to 80% of global greenhouse gas emissions (Dulal & Akbar, 2013). A qualitative research approach is used for this study to understand local property developers' perspectives pertaining to the meaning of sustainability in their company. The focus is to gain an understanding of the challenges faced by companies in upholding sustainability practices. In-depth interviews were conducted with local property developers located within Klang Valley. The population of this study is 79 local property developers listed under Bursa Malaysia. Samples in qualitative research is not statistically drawn but rather a decided based on the ability to provide an in-depth understanding. In addition, qualitative research uses purposive sampling that seeks "information-rich" cases related to the phenomenon under investigation. The main criterion for the sample is a property developer company. A total of seven companies participated in this study that is sufficient to provide richness of data (Patton, 1990).

Data were analysed using the grounded theory analysis technique. Information gathered from the interview transcripts was coded and grouped together on a similar dimension which become a category. The process involved creating open coding, axial coding, and selective coding. Open coding is the interpretive process by which data are broken down analytically (Corbin & Strauss, 1990). Its sole purpose is to give insights to the researcher where events, actions, or any interactions are compared against each other for any similarities or differences. The first step in the coding process is to first analyse the interview transcription line by line. Axial coding is the second level of coding. In axial coding, categories are linked to sub-categories and more categories emerged while analysis is being carried out concurrently between series of interviews. This process is similar to open coding but at this stage, the researcher attempted to make connections between a category and its subcategories (Corbin & Strauss, 1990).

According to Williams & Moser (2019), the open, axial, and selective coding process enables the researcher to interact, constantly comparing data, applying data reduction, and consolidation techniques. The final step of data analysis was selective coding whereby at this stage, the researcher consolidated categories of codes together in order to form core categories. Selective coding is the process in which all categories are unified around a "core" category, and categories that need further explication are filled-in with descriptive detail (Corbin & Strauss, 1990).

4.0 FINDINGS AND DISCUSSION

Although there are many studies on the topic of sustainability practices in Malaysia, the lack of understanding of the challenges and issues facing property developers is apparent. In consequence, the purpose of this study was to discover the factors that hinder local property developers from engaging the sustainability agenda. Seven informants were interviewed

for this study. They represent different property development companies in Malaysia. All of the informants had some sustainability element experience within their job scope.

The criteria of informants selected were as follows:

- Represent Malaysian property development company,
- Must have knowledge of the company's sustainability-related matters, and
- Willing to participate in this research and share work experience

The results of the interview data lead to an understanding of the challenges and issues facing property developers in Malaysia. These include teamwork and support, cost, bandwagon effect, and engagement.

4.1 Teamwork and Support

Pursuing sustainable agenda should be a teamwork effort. The major challenge of pursuing sustainability agenda is to convince others that sustainability agenda brings a positive impact on the company which leads to profitability. However, profitability seems to be the main goal of every project team. Furthermore, if it is not part of the company's Key Performance Indicators (KPIs) no one will bother to take extra mileage to incorporate sustainable practices. According to the informants, the mindset of "wasting time" is still lingering among the project teams. They fail to identify that sustainable practices would contribute to overall project efficiency, improve energy usage and facilitate better product designs through innovative technology.

4.2 Cost

The sustainability agenda is associated with spending extra costs. The findings show that most companies failed to see that sustainable practices contribute to return on investment (ROI). The property developers believe that sustainability agenda increases the cost of doing business. As a result of the higher cost of operation, it will make the products less competitive. Employees need to be assured that cost optimization is, indeed, part of the sustainability element.

4.3 Bandwagon Effect and Greenwashing

Sustainability seems to be a trend that companies must embrace in order to gain a reputation. Regardless of industry, most companies have developed their own sustainability pillar which can be evidently seen on their corporate websites. According to the informants, that is also the case for property developers. The term "sustainability" has become the buzzword, whether or not people understand it is another story. Sustainability practices are not embraced wholeheartedly and the sustainability agenda is a result of a bandwagon effect. To a certain degree, companies merely practising 'greenwashing'. In general, greenwashing is the idea that companies deliberately setting their activities as 'green' in order to look environmentally friendly. For the sake of corporate reputation many companies fell under corporate greenwashing. The lackadaisical attitude among employees towards the sustainability approach at the workplace makes the implementation of the sustainable approach unsuccessful.

4.4 Awareness and Acceptance

Some informants admitted that their companies' sustainability journey is still in its infancy stage. Furthermore, the company is a pretty lean organization whereby stakeholders who are involved in this sustainability discussion would be those from the design and planning department and people from the project. Due to the nature of the workload, it would be overwhelming for a jack of all trades to ensure all aspects are being considered in the overall project planning. However, the informants also argued that the responsibility to embrace sustainability agenda should lie on the person who is responsible for the project. A person who has the most control from the beginning of the project until the end would have a strong voice to ensure that the sustainability elements are being thought through thoroughly during the early design process and to track the project's progress so that it ends as earlier planned in terms of having sustainability design.

The responses from the smaller property developer were quite subdued at the beginning since the number of properties sold was in a small volume compared to their larger counterparts. However, in just the past few years, they admitted the sustainability wave has started to gain traction and caught the eyes of many companies to join

the bandwagon, so to speak. Companies have started to look towards the sustainability agenda in the sense that they are trying to make their development greener so in that sense their property is to maintain more of the green area.

4.5 Sustainability Conceptual Planning

Another observation with regards to the sustainability agenda amongst the management was that sustainability was more of an afterthought rather than putting thoughts during the earlier development planning stage. Here, it shows the low priority displayed within the project team. However, there are some great examples quoted that show the discussion of having green spaces in townships such as one of the great selling points would be having the neighbourhood area located close to the forest reserve area.

4.6 Engagement

According to the informants, a comprehensive understanding of this subject matter is crucial in making others understand and appreciate how sustainability can help, rather than burden them. For relatively small property companies, they do not have much exposure despite the company having been established for more than fifteen years. This is because small companies could not afford to have a dedicated person to ensure sustainable practices are being implemented throughout the company. Most of the functions are being outsourced even their legal department. Some business model is feasible to only leave the core business such as property development within the company's permanent employees. When this happens, they are more likely to engage consultants to run the sustainability agenda into their projects and depend heavily on the consultant's suggestions and recommendations. So, in this type of situation, the level of awareness is low or almost non-existence in terms of environmental concerns. The focus was mainly to sell, build and deliver houses on time with zero defects. They also admitted that not all companies have this sustainability agenda lined up as part of their core strategy.

4.7 Other factors

An elaborative issue highlighted by the informants pertaining to the houses that they built. According to the informant, during the development stage, the company embedded certain sustainability features and the sustainability team did give their input during the design review meeting (DRM). However, they realized that they did not really put much thought into marketing the sustainability features as part of their strong Unique Selling Point (USP). Based on the interviewee's observation, they did not shout about the sustainability features to set them apart from their competitors. Hence, the customers are not aware and keep on querying the property developer about what is so sustainable about their houses as customers unable to see the value.

Informants also claimed that it is a challenge to convince fellow colleagues especially when sustainability is not written in the strategic blueprint. In fact, resistance to accept new ideas is common in the workplace.

The difficulty of getting the buy-in from the management despite this sustainability agenda having been around for a number of years has been a great challenge to uphold sustainability agenda. It is quite hard to convince the management when it comes to justifying an initiative in terms of dollars and cents. As for the interviewee, sustainability benefits are always the soft type that cannot be simply concluded by saying that if a certain initiative is done, this is the profit, which is not as simple as that. The benefits go beyond that and are usually long-term that will be reaped in many years to come with great impact. As the informant put in:

The informants further explain that indeed, sustainability is not a short-term agenda, companies have to understand that it is very much long term. The trend now is about the likes of sustainability and greenery so the management needs to be able to recognize that this is something that they could sell in the long term and reap handsome profits at the end of the day. However, as of now, the mentality is still far behind, as if living in the 90s whereby the focus was solely on the products and the features, rather than the additional items such as where the materials come from or the origin of certain building materials such as timber or whether they should consider procuring green cement for future development, where this mindset would have to change for the better future."

Another issue is that clients and stakeholders have a limited budget to implement sustainable features into the development. The site constraints make it difficult to have sustainable features in a building such as Rainwater Harvesting Tank and Photo-Voltaic panels. From these statements, we can observe the current attitude toward saving the environment are still foreign in the designers' minds.

Furthermore, size of the companies influences sustainability practice. The differences lie in the culture of a small property developer company compared to giant and more established companies. Additional help is needed to get the sustainability message across the organization. The corporate communications department should take more roles in embracing and communicating the sustainability messages into the minds of all the stakeholders.

5.0 CONCLUSION

In terms of issues and challenges, the common thematic responses were due to high investment costs in upholding the sustainability agenda, lack of awareness and acceptance, the bandwagon effect, teamwork and support, and engagement among stakeholders. The main contribution of this thesis would benefit policymakers in enhancing their programs to achieve national sustainability related to Key Performance Indicators (KPIs). Also, to assist industry players to re-align in accordance with the requirements set by the sustainability framework guidelines such as Dow Jones Sustainability Index (DJSI), Carbon Disclosure Project (CDP), and Global Reporting Initiative (GRI) Standards, among other ESG indices.

The suggestion for this to be successful would be to start with the establishment of a policy where sustainability is being encouraged and incentivized so that many property developers would follow suit. This is aligned with what Lyon and Montgomery (2015) and Sun and Zhang (2019) have shared in their findings that some researchers argued that greenwashing should be handled through government regulations. MyCrest from CIDB is the unit looking at sustainability for property developers to adhere to. Certainly, there were doubts and unsure feelings about the sustainability concept being infused into the projects whether it is viable or merely putting a show of being "green". Strong confidence can be felt among informants that this sustainability effect will take off better if a policy is in place and incentives by the authority to encourage sustainability planning. Another good sustainability practice would be to call suppliers for presentations to clarify their products to ensure they meet the green labelling scheme requirements. Constant engagement with suppliers to ensure partners are on board with the green agenda. There has to be a balance between having the sustainability element which should be introduced as a means to reduce cost and time.

One main limitation of qualitative approach is that the results from qualitative research methodology could not be quantified or benchmarked against other studies in a direct way (Bolton and Hannon, 2016). Hence, the results would be quite specific in the context of property developers in Malaysia only.

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