

The Green Building Concept: Is that a Trend

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Abstract

The building industry is an important element contributes to the economy of the country. However, evidently revealed, building industry contributed to the environmental impact in so many ways. Due to that, nowadays most of the building projects adopting the concept of green building. Similarly, to Malaysia, whereby the green building concept has seen been accepted in the building industry. It is proven by referring to the database of the Green Building Index (GBI Malaysia) that recorded some increasing numbers of buildings being certified day by day. Not only that, the green building concept indicated a positive escalation especially towards commercial and residential industry. In conjunction with the growing number of green building in Malaysia, several questions has arisen which one of that is whether it just because of trend or because of the benefit received from that. Therefore, this study is conducted mainly to investigate the reason of the corporation involved in green building concept industry. This study used a qualitative method whereby, semi structured interview been chosen as the best data collection method. With that, six participants from difference sector were selected to generalise the results. Results shows green at the early stage of involvement in green building concept most of the corporation initially go for the trend and trail the current evolution of the building industry in the world. However, recently building concept is embedded by the corporation because of the benefits that the corporation received that indirectly boosted and support the business operations. Nevertheless, the government, non-government association (NGOs) and corporations still need to increase the effort to mould and embedded the green culture for every Malaysian people because the level of awareness in implementation of green building concept is still at the early stage.

Keywords: Corporate Real Estate, Corporation, Green Building, Trend

1.0 Introduction

Green building nowadays has seen as trend in building development industry. All over the world shows an increasing number of green buildings were develop day by day. This phenomenon similarly happened in Malaysia, whereby, the database of green building certification list revealed that from time to time there are increasing numbers of green building

development especially at the urban centre like Kuala Lumpur, Selangor, Penang, Putrajaya and Johor. Not only that, for the past eight years starting from 2009, Malaysia has already established 4 green rating tools that are green building index (GBI), Green Pass, “*Penarafan Hijau*”, and GreenRE. This showed an eagerness of Malaysia in supporting the green development. Indirectly, demonstrate the right path of Malaysia in order to achieve its medium and long term goal of 10th and 11th national plan.

In conjunction with the growing green building and green rating tools in Malaysia, several questions has arisen which one of that is whether it just because of trend or because of the benefit received from that. Therefore, this study is conducted mainly to investigate the reason of the corporation involved in green building concept industry.

2.0 Literature Review

In relation to the National Plan that encourage growing of green building development in Malaysia, there are several issues were found that is whether the Malaysian people has aware the importance and benefit of green building development and embedded the green culture in their daily routine or the green building has develop due to the intention to embarked on the current development trend.

2.1 Green building still at a very stage of awareness

In conjunction with these issues, an awareness element is look as the main stuffs should be gone through to investigate on the readiness of the Malaysia people involving in green building concept development. Apparently, previous research revealed that the desired and the proudness of green building is excellence. However the implementation is very poor. Supported by Umar et. al, (2012) that initiates public is aware on growing problem on sustainability but minor efforts are developed from them in implementing this. Similarly discussed in Nazirah Zainul Abidin (2010) where the finding of her questionnaire research shows that, majority of the respondents considered themselves to have moderate to good knowledge of sustainable concepts. If this the results representing Malaysian people towards green building concept, its shows that, a lot of things need to do in order to inculcate the green culture of their people.

Despondently, on year 2009, Azlan et.al found majority of building industry people have lack experience, lower level of understanding on the green building rating system. The finding is agreed by Fauzi et. al (2016). This evidence showed that not only end user still not aware on the green building concept, however the key player in green building development also experience a poor knowledge on green building. Aliagha et.al (2013) had commented that, Malaysian green tax incentive inherent but not significantly attractive, lack of public awareness, database and information technology, and professional knowledge. No wonder most of the key players still face the difficulty to digest on the matters.

Aliagha added, the green building concept still largely driven by the public sector. While, private sectors includes property developers and investors especially those in urban out circuit have

not yet ready to commit. According to many real estate researches, location is still an ultimate factor that real estate players considered compared to green agenda

Nazirah Zainul Abidin (2010) found, only top property developers want to be the first to set the trend, due to the world market heading towards the green building, only big companies and professional developer aware of sustainability and willing to perform green building. If this happened, it will create a big problem in the future especially to manage the building. This is due to the fact that green office buildings are very complex to manage as compared to conventional buildings. The need to have an experienced people to manage the building is crucial. Therefore, supposed the green building concept should be clearly blended from the top to bottom management in order to make it well implemented and the building can function as supposed its function.

2.2 Green building concepts just a trend

An opinion of green building concept is just as a trend sometime been agreed by several general public in the world. An article found, written the green building development shown a positive explosive but the actual adoption and practice implementation still remains surprising slow. Agreed by Deuble & de Dear (2012) that found occupants satisfaction level in the green building is associated with the environmental believe. Most of the common people normally will feel uncomfortable and dissatisfied living in the green building. This is due to the design and features that is limited fulfilling the requirement of the green building. However, living in the green building will not give any problems for those believed and appreciated a green and environment. Green building normally stressed on cost minimization through lower operation and maintenance cost, energy efficiency and also low carbon emission (Yen et al., 2016). This is the trend normally green building will reflects. The design of the green building sometime overlook on the social benefit of human factor.

Added by Yen et al. (2016), the miss design on this important factor lead to the fail implementation of the green building and caused the building performance not in a supposed way. Supported by the research done by Abbaszadeh et al. (2006), that found most of the also suggested management to accommodate sound privacy layout and cubicle design. Not only that, the lighting system also was suggested to be improved.

3.0 Methodology

The research was conducted through semi structured interview with seven experts in green building. Two of the participants are the architects who experience in designing green building and also certified as green building facilitator that facilitate interested clients to develop green building. While, another three participants are property manager of the green building office that have certified with platinum green building index (GBI) certification and another two participant from business management background and green building consultant. The interview session were recorded and then transcribed. Then, the transcribed data were analysing based on thematic contents analysis using Atlas.ti software version 8.

4.0 Data Analysis, Results and Discussions

The data analysis and finding are divided into three main elements of 1-awareness on green building concept, 2-the green building concept is just a trend, and 3-the readiness on application of green building concept in Malaysia.

4.1 Green building still at a very stage of awareness

Based on network of relationship, as seen in Figure 1, it is revealed that some of the Malaysian people are aware on the green building concept and some of them are not. Those aware on green building concept believe that green building concept assist in reduce a pollution by Participant 4 in Quotation 2 (P4:Q2) and reduce cost by Participant 7 in Quotation 3 (P7:Q3). Agreed by (P4:Q1) that stated green building able to save cost especially on water and electricity. For instance, the electricity bills of the building has reduce from RM400,000 per year to RM 250,000 per year as equal to the deduction from 220 kw/hour/sqm/year to 90kw/hour/sqm/year. This proved the green building concept absolutely reduce the long term management cost (P1:Q10).

Nevertheless, still many of the Malaysian people are not aware on the green building concept. This can be viewed from the statement given by Participant 3, in Quotation 6 (P3:Q6) where not 100% of the people aware on green building concept. Supported by (P5:Q3) and (P2:Q4). Even though they are not fully aware on the green building concept, oppose, they know on the benefit of green building concept in general such as environmental friendly (P3:Q8), and energy efficiency (P3:Q9). This is may be due to the effort of them to seek advice from the experts on the matters that they are not really understood as stated by (P2:Q4).

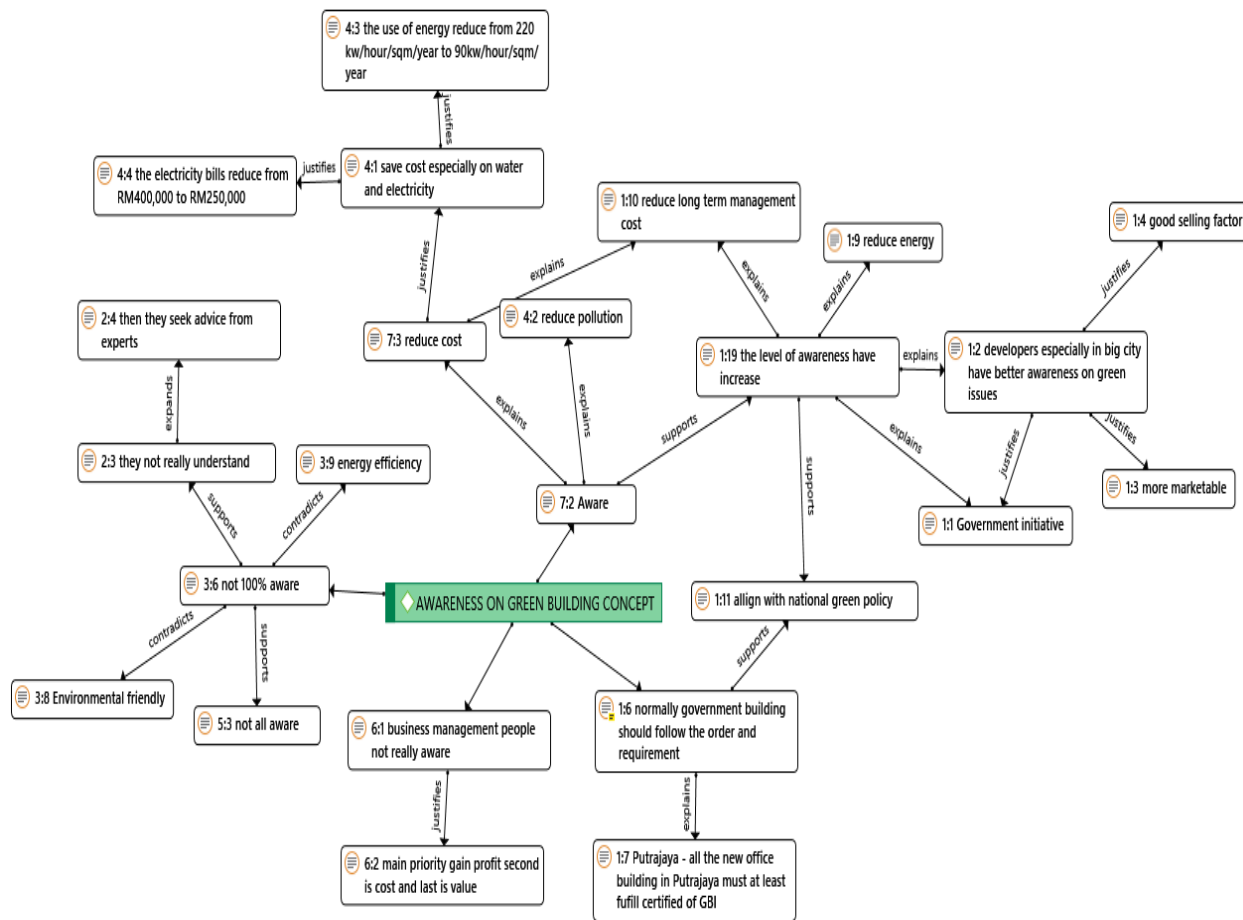


Figure 1: Awareness on Green Building Concept

Furthermore, the available evidence shows the awareness on green building concept by the business minded people is very low as stated by (P6:Q1). This is due to the business management always focus on profit generation as their main priority as well as cost minimization and value creation rather than real estate factors as mention by (P6:Q2).

Agreed by (P1:Q6) that identified normally government building are required to follow and support to the government agenda as per National Green Policy, 10th and 11th National Plan that aim Malaysia to be a country with a green technology that directly supported the world agenda to reduce the global warming issue. For instance, Putrajaya required all of the new office building must at least achieve fifty percent of green building element that enable all the building been certified with a minimum certification by GBI as per explains by (P1:Q7).

Despite the fact that shows the awareness on green building concept is low, (P1:Q19) expressed the level of awareness have increased day by day especially by the developers in a big city. Result shows that the developers are aware on the government incentives that they will receive by implementing a green building concept as per (P1:Q8). Not only that, developers

also aware with the good selling factors from this concept (P1:Q4) and they also believed that the green building is more marketable nowadays. P1 added developers and investors also aware on the benefit of green building that help to reduce energy (P1:Q5) and reduce long term management cost (P1:Q10). However, they reluctant to involve due to the initial cost of green building construction is very high compared to the common building.

4.2 Green building concepts just a trend

According to the figure 2 on network of relationship, there are two opinions on the issue whether a green building concept is just a trend or not. From the analysis, noted that (P5:Q1) agreed that green building concept is just a trend. Supported by the statement given by (P3:Q2) where most of the shopping mall owners or investors look into green building as a trend to market their business and attract more visitors and also international trader. Agreed by (P2:Q3) that discover most of them are not really understand on the green building concept. (P3:Q10) added, not only shopping mall presume the green building concept is just a trend but also to the other commercial building. However (P3:Q10) stressed, it's only happened at the early stage of implementation of green building concept. After a few time awhile most of them includes the occupants of the building started to accept this operation. Despite the fact that green building concept is just presume as a trend, (P5:Q2) expand this is good for a corporate image.

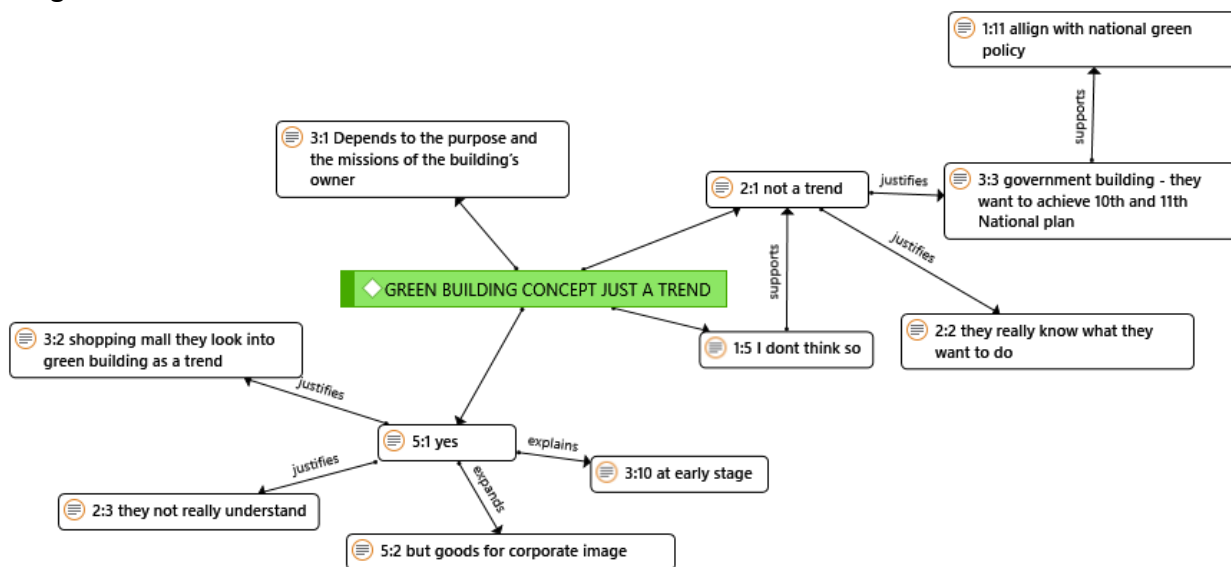


Figure 2: Green building Concept Just a Trend

Contrary from (P1:Q5) and (P2:Q1) that not agreed with the green building concept is just a trend. (P2:Q2) justified that they really know what they want to do. Supported by (P3:Q3) that reported government building should comply and enforced the green building concept in order to achieve 10th and 11th National Plan that directly aligned with the national green policy. Admitting some owners of the building or investors or developers presume that green building

concept just a trend and some not, (P3:Q1) acknowledge that this opinion is depends to the purpose and the missions of the building owner itself.

4.3 Readiness on application of green building concept

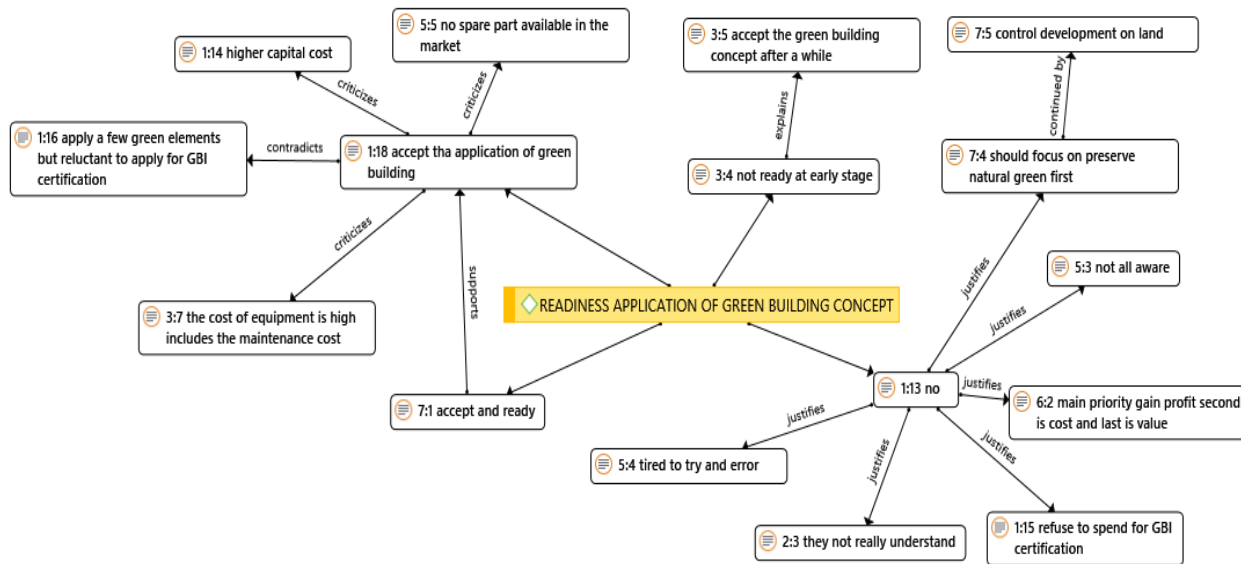


Figure 3: Readiness on application of green building concept

Referring to the readiness on application and implementation of green building concept also shown two opinions given by the participants. Some prove it is ready as per recorded by (P7:Q1) and (P1:Q18) and some argued as per recorded by (P3:Q1) and (P1:Q13). Highlighting on readiness of Malaysian people in implementing green building concept, the network of relationship shows that event though the participants agreed but they also criticize on the existing and weaknesses of the current green building practice as mention by (P1:Q14), that higher capital cost is required for green building concept. Agreed by (P3:Q7) the cost of the equipment is high as well as the maintenance cost. This is due to the most of the equipment use are imported. Similar as the statement describe by (P5:Q5) where no spare part are available in the local market. Result also discovered that some of the buildings adopt a few green building elements but the owner reluctant to apply for GBI certification. It may be due to the cost involved for the application.

As regard to the disagreement on the readiness of implementation green building concept in Malaysia, these are some justification of the statement towards the opinion as identified by (P6:Q2) green elements is not the main point for the business entity, they always think to strengthen their profit, cost and value. In other hand, most of the Malaysian still not really aware on the green building concept (P5:Q3) and they are not really understand green concept itself (P2:Q3). Due to that the property managers face a difficulty to manage and maintain an existing green building. Some time it cause them tired to try and error in solving so many

problems during handling the green building (P5:Q4). Contrary to the opinion by other participants, participant 7 stressed that Malaysia should focus on preserve natural green resources before largely involving in green development. (P7:Q5) expanded that, control the development on land is must in order to support the environment.

5.0 Conclusions

This paper has investigated 3 main elements to identify whether the green building concept in Malaysia is just a trend. It includes the element of awareness on green building concept, the green building concept is just a trend, and the readiness on application of green building concept in Malaysia. In conclusion, the awareness of Malaysian people towards a green building concept can be summarizing still at the surface level. A lot of incentive internally should be establish and enforced in order to educate on the benefits of the green building concept and also stressed out what will happened if this thing being abandoned. Finding of this study on the trend can be concluded that at early stage involvement in green building concept most of the corporation initially go for the trend and intention to fulfilled the government plan but the perception slowly change to the positive objective of the involvement when they can see a lot of benefit received from the commitment given. Lastly, on the readiness of implementing green building concept in Malaysia, can be highlighted, it is still at the early stage of readiness. If Malaysia really committed to enforced and encourage on the involvement towards green building concept, a lot of research and development on green technology especially on green building materials and green equipment should be emphasize to overcome a lack of available local resources. With local product, cost can be reduce and easily to manage.

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References

- Abbaszadeh, S., Zagreus, L., Lehrer, D., & Huizenga, C. (2006). Occupant Satisfaction with Indoor Environmental Quality in Green Buildings. *Healthy Buildings*, 3, 365–370.
- Aliagha, G. U., Hashim, M., Sanni, A. O., & Ali, K. N. (2013). Review of Green Building Demand Factors for Malaysia. *Journal of Energy Technologies and Policy*, 3(11), 471–478. Retrieved

- from <http://www.iiste.org/Journals/index.php/JETP/article/view/8596>
- Azlan, Z. S., Zulkefli, N. S., Zainudin, N., & Tamyez, P. F. (2009). Awareness of Green Building Index (GBI) Implementation among Malaysian Contractors, 2009.
- Chua, S. C., & Oh, T. H. (2011). Green progress and prospect in Malaysia. *Renewable and Sustainable Energy Reviews*, 15(6), 2850–2861. <http://doi.org/10.1016/j.rser.2011.03.008>
- Deuble, M. P., & de Dear, R. J. (2012). Green occupants for green buildings: The missing link? *Building and Environment*, 56, 21–27. <http://doi.org/10.1016/j.buildenv.2012.02.029>
- Fauzi, N. S., Zainuddin, A., Nadiah, S., Ali, M., & Nawawi, A. H. (2016). A preliminary framework for corporate real estate sustainable management. *International Building Conference Control*, 62. <http://doi.org/10.1051/mateconf/20166600062>
- Nazirah Zainul Abidin. (2010). Sustainable Construction in Malaysia – Developers ’ Awareness. *Proceedings of World Academy of Science, Engineering and Technology*, 5(2), 122–129.
- Rao, P., Holt, D., & Rao, P. (2005). *Do green supply chains lead to competitiveness and*. <http://doi.org/10.1108/01443570510613956>
- Rashid, M., Spreckelmeyer, K., & Angrisano, N. J. (2012). Green buildings, environmental awareness, and organizational image. *Journal of Corporate Real Estate*, 14(1), 21–49. <http://doi.org/10.1108/14630011211231428>
- Umar, U. A., & Khamidi, M. F. (2012). Determined the Level of Green Building Public Awareness : Application and Strategies Determined the Level of Green Building Public Awareness : Application and Strategies, (June). <http://doi.org/10.13140/2.1.5095.6480>
- Yen, T. K., Mohammad, I. S., Jalil, R. A., Hakim, A., Mohammed, B., & Estate, R. (2016). Review Human Factors Issues in Malaysian Green Building Development : a Review. *Malaysia Journal of Human Factors and Ergonomics*, 1(1), 27–32.
- Zawawi, N. A. W. A., Isa, A. M., & Samuelson, R. D. (n.d.). Green buildings in Malaysia towards greener environment : challenges for policy makers. <http://doi.org/10.1088/1755-1315/16/1/012121>