

Valuation of Green Commercial Office Building: A Preliminary Study of Malaysian Valuers' Insight

Tuti Haryati Jasimin, Hishamuddin Mohd Ali

Abstract—Malaysia's green building development is gaining momentum and green buildings have become a key focus area, especially within the commercial sector with the encouragement of government legislation and policy. Due to the emerging awareness among the market players' views of the benefits associated with the ownership of green buildings in Malaysia, there is a need for valuers to incorporate consideration of sustainability into their assessments of property market value to ensure the green buildings continue to increase in the market. This paper analyses the valuers' current perception on the valuation practices with regard to the green issues in Malaysia. The study was based on a survey of registered real estate valuers and the experts whose work related to valuation in the Klang Valley area to rate their view regarding the perception on valuation of green building. The findings present evidence that even though Malaysian valuers have limited knowledge of green buildings, they recognise the importance of incorporating the green features in the valuation process. The inclusion of incorporating the green features in valuations in practice was hindered by the inadequacy of sufficient transaction data in the market. Furthermore, valuers experienced difficulty in identifying what are the various input parameters of green building and how to adjust it in order to reflect the benefit of sustainability features correctly in the valuation process. This paper focuses on the present challenges confronted by Malaysian valuers with regards to incorporating the green features in their valuation.

Keywords—Green commercial office building, Malaysia, valuers' perception, valuation.

I. INTRODUCTION

THE development of green buildings is drawing Malaysian property market due to abundance of benefits of it [1]. The history and trend towards green building had rapidly grown in status, in response to the growing concerns about climate change and environmental degradation. The most remarkable change has occurred within the corporate environment as companies become more aware of the need for increased environmental concern and green building [2]. Green buildings are efficient in their use of energy, water and other resource, and are designed to create better environment for occupants. Additionally, the features in a green building help reduce the maintenance costs for its occupants due to the efficient use of resources. With the increasing of petrol prices and electric tariff in Peninsular Malaysia recently, it would lead to the incremental cost of operation in Malaysia generally. Consequently, it would result in the increased of awareness of green buildings where the developers and property buyers will see the great value in green building and

are showing more interest in sustainable development as green designs are the direction to pursue to achieve sustainable development [3]. Like in Singapore, where electricity supply is fully privatised, high prices have led to a much swifter adoption of green buildings.

Despite the infancy of the market, Malaysia's green building movement is gaining momentum and green buildings have become a key focus area especially within the commercial sector. This was because the market of green buildings in Malaysia is being encouraged through government legislation and policy, although the investment by the private sector has been slow to develop due to the lack of evidential proof of the economic viability of sustainable buildings. Malaysian government gave full support to Green Building Index (GBI), one of the earliest initiatives in the green technology programme, introduced in 2009 by a group of Malaysian architects and engineers. In the year 2010 budget, priority was given to either environment-friendly product or service. The fund of not less than RM 1.5 billion to be given as soft loans, tax exemption for building owners who obtain the new GBI certificate, buyers of buildings with GBI certificates will also be exempted from stem duty (valid for sales executed between Oct. 2009 until Dec 31 2013). In early 2013, Kuala Lumpur City Hall stipulated regulation that every commercial office building to be constructed must meet the requirements of green features with at least 'GBI Gold' level or equivalent. It shows that the encouraging response from market players has been a turning point for the rapid development of green office building in Malaysia.

According to the survey conducted by [4], on factors influencing office building occupation decision among tenants within the centre of Kuala Lumpur. The results indicate that the occupants' willingness to pay the office building due to the building features, services and management, such as responsible management and maintenance team, security and access control, car park provision and accessibility, building image and identity and modern IT and communication systems. Therefore, due to the emerging awareness among the market participants' views of the benefits associated with the ownership of sustainable buildings in Malaysia, there is a need for appraisers to incorporate consideration of sustainability into their assessments of property market value [5]-[11]. This is to ensure the green building continues to increase in the market [12], [13]. Reference [14] mentioned that, whenever the purpose is to estimate Market Value, then sustainability criteria (and their relative importance) on which to base valuations should be derived from market evidence. In this case, the recognition of appraisers is not just being a market

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reflector, but is a person who has the ability to influence the market.

It is debated that success in achieving more sustainable development in property and construction, mostly depends on progresses on integrating sustainability issues, namely the environment, social and economic into the property valuation theory and practice [14]. Real estate appraisal's main goal is to determinate value of the building. Hence, it represents a significant link between market value, property performance and the adoption of sustainability in real estate [15]. Thus, if major sustainability-related benefits/risks associated with ownership and uses of properties are not captured in property valuations, there is a risk that investment decisions (supplied by uninformed mainstream financial professionals) are being made based on incorrect and inaccurate valuations [14]. Unless and until valuers began to reflect and account for sustainability features in the values of green property, investors may not be motivated to incorporate sustainability features into property development [15].

According to Malaysian Valuation Standard, market value is defined as "the estimated amount for which the property should exchange on the date of valuation between a willing buyer and a willing seller in an arm's length transaction after proper marketing wherein the parties had each acted knowledgeably, prudently and without compulsion" [16]. This definition in line with the RICS Valuation Standard recently amended, which is due to publish in 2014 [11]. All relevant factors should be analysed and evaluated with regard to the purpose of the valuation [17], [31].

Sustainability and green building also require the appraiser to recognize the influence of a new market force (sustainability) and understand a new set of property characteristics (green features) [18]. Thus, in a meantime, appraisers need to know how to address sustainability impacts within the most possible price market value definition. They also must know to what degree green features should (or should not) be valued [19]. As yet, not every market believes green features increase the market value and it must be stressed that only aspects that have an impact on prices are reflected [18], [20]. No matter which valuation technique is used, it is critical that the appraiser first understand whether the market values the green feature for which the appraiser is adjusting. Moreover, the valuations need to account for sustainability issues only to the extent to which these issues affect the competitive position of property assets in the marketplace.

Through a preliminary study, this paper investigated to what level Malaysian valuers engage with green issues, when a commercial valuation is conducted. Valuers do need to share their thoughts and information related to this rising issue. Integration of green/sustainability into valuation is rather in an early stage, thus much effort needs to be done by the market participants, especially the valuers.

II. METHODOLOGY

This study is based on the survey on registered real estate valuers and the experts whose work related to valuation in the

Klang Valley area via email, post and face-to-face survey. The respondents were chosen by random sampling approach. Based on the information received from the Board of Valuers, Appraisers and Estate Agents Malaysia, there are 206 valuation firms located in Klang Valley area. Since the Klang Valley area has the majority of green commercial office building construction and has the highest concentration of government, private and commercial buildings in Malaysia, this indirectly makes the valuers in Klang Valley area to be more exposed to the varying characteristics of commercial building and valuation issues.

There are two hundred (200) questionnaires were distributed in all out, of which 20 were properly completed and returned which mostly are collected through face-to-face interview. This represents 10% return rate. The response rate is relatively low because they are not keen to share their experience due to the lack of knowledge in green building valuation. Although response rate is low, it still shows some insights about the valuation of integrating green/sustainability issues. Based on the answered questions by these respondents, we can assume that the valuers who have not responded to this survey would have a similar attitude with the respondents towards this issue.

In view of the nature of the study, a close-ended questionnaire in two sections was designed. Section I deals with the respondents' personal and professional data. Section II solicits information on the respondents' perception of the sustainability/green issues. Questions in this section addressed on valuers' perception on the valuation of green building. The respondents were asked to rate (on a 5-point rating Likert scale, with 1 being "Strongly Disagree" and 5 being "Strongly Agree") their view with each statement in the questionnaire survey regarding the perception on valuation of green building.

III. DATA PRESENTATION

The data analyses for both sections in this questionnaire survey were presented using descriptive statistics such as frequency, mean and standard deviation. All analyses were carried out with the aid of IBM SPSS Statistic 20 for analysing the rating data from the questionnaire. Descriptive analysis is chosen because it is a study to explain the purpose of certain incident or situation. This type of analysis is simple and easy to understand by the reader.

A. Valuer's Personal and Professional Data

Most of the respondents, of which 70% and 30% are male and female respectively, hold a diploma (30%), first degree (55%), and a master's degree (15%). The relatively high proportion of male respondents reflects the labour force participation rate of males and females in the profession. The majority of the respondents (90%) were non-registered while only 10% of them were registered with the Malaysian Board of Valuer, Appraisers and Estate Agents. This trend shows that there are still many valuers, who are not ready to put themselves in a more professional level, even though most of the respondents (75%) had over 6 years working experience.

The valuers mostly are found to have partial knowledge with the topic of green building in Malaysia (70%), 25% of the participants have a limited knowledge while only 5% of the respondents have a good knowledge in green building. When the appraiser was asked about the integration of green features into valuation process, most of them (55%) just think about it due to its rising importance, 40% of the respondents considered the sustainability topic within the descriptive part of the valuation report and 5% of them never think about it.

B. Valuers's Perception on the Green Issues

The results of the survey relating to the valuers' perception of the sustainability/green issues are presented in the following figures.

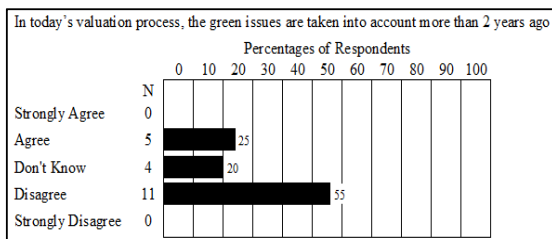


Fig. 1 Valuers' perception on incorporating the green issues into valuation

Based on Fig. 1, 55% of the respondents disagree that the green issues are taken into account in valuation for the past 2 years. Only 25% of the respondents agree with the statement while another 20% respondents do not know about that.

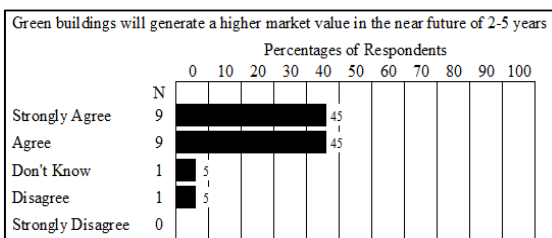


Fig. 2 Valuers' perception of the increment market value of green building

Fig. 2 depicts that 90% of the respondents believe that green building will generate higher market value than now in the near future of 2-5 years. The respondents also asked regarding the premium that could be obtained in green building compared to conventional building through certain parameters. As refer to Fig. 3, 60% of respondents agree or strongly agree with the parameter "low yield. Because the risk premium is lower"; 90% agree or strongly agree with the parameter. "Lower operation costs in comparison to conventional buildings"; 75% agree or strongly agree with "Higher rents, due to a "green" rent premium"; 75% agree or strongly agree with "Lower vacancy rate in comparison to conventional buildings"; 75% respondents agree or strongly agree that green building could get premium due to "Lower exit yield, due to slower depreciation".

Compared to conventional buildings, sustainable building could get premiums through:					
	Strongly Agree	Agree	Don't Know	Disagree	Strongly Disagree
i. Lower yield, because the risk premium is lower	15% (3)	45% (9)	5% (1)	35% (7)	0
ii. Lower operation costs in comparison to conventional buildings	35% (7)	55% (11)	5% (1)	5% (1)	0
iii. Higher rents due to a "green" rent premium	15% (3)	60% (12)	0	25% (5)	0
iv. Lower vacancy rate in comparison to conventional buildings	0	75% (15)	5% (1)	20% (4)	0
v. Lower exit yield due to slower depreciation	10% (2)	70% (14)	0	20% (4)	0

Fig. 3 Valuers' perception on the green building premium compared to conventional building

90% of the respondents agree and strongly agree on the willingness to pay and the market acceptance for the environment features have grown during the last two years. It shows that there is emerging awareness among the market participants' views of the benefits associated with the ownership of green buildings in Malaysia which valuers should be aware (Fig. 4).

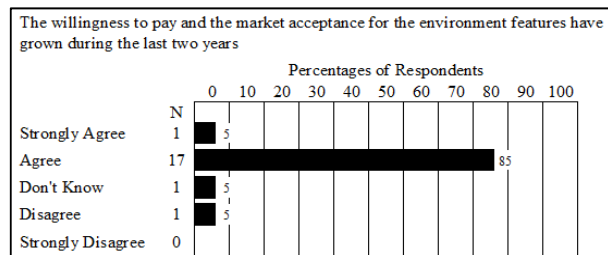


Fig. 4 Valuers' perception on the willingness to pay and the market acceptance for the features

With respect to the topic for integration of green issues in the valuation process, 80% of the respondents agree and strongly agree that presently, there is no difference in valuing green building and they would use the same market evidence, while 20% of respondents disagree with the statement (Fig. 5).

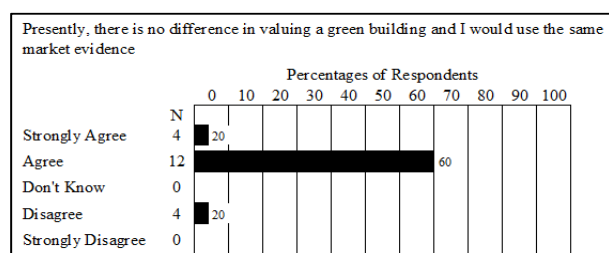


Fig. 5 Valuers' perception on the valuation between green building and conventional building

The respondents were also asked about their perception on incorporating green features in the valuation process and 95% respondents agree or strongly agree with the statement (Fig. 6).

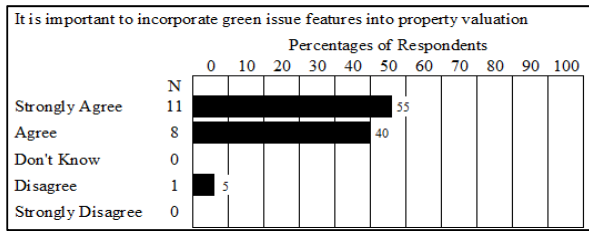


Fig. 6 Valuers' perception on incorporating green features in the valuation process

Based on Fig. 7, 55% of respondents are agreeing and strongly agree that the data on energy efficiency (energy performance certificates) of buildings are available here in Malaysia especially in Kuala Lumpur during the process of property valuation. However, not all property owners are keen on sharing financial data about those properties.

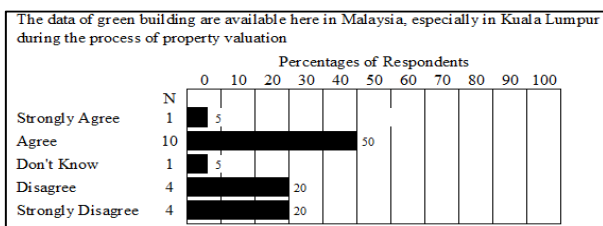


Fig. 7 Valuers' perception on the availability of green building in Malaysia

The barrier of incorporating green features into valuation:					
	Strongly Agree	Agree	Don't Know	Disagree	Strongly Disagree
i. Limited knowledge to precisely report on green factors in the valuation process	10% (2)	80% (16)	10% (2)	0	0
ii. There is a lack of current heuristics in valuation practice pertaining to sustainability	10% (2)	75% (15)	10% (2)	5% (1)	0
iii. Valuers do not know what are the various input parameters of green building and how to adjust it in order to reflect the benefit of sustainability features correctly in the valuation process	15% (3)	65% (13)	10% (2)	10% (2)	0
iv. Lack of standardized, conceptual approach to valuing green buildings	15% (3)	50% (10)	5% (1)	30% (6)	0
v. Lack of well-defined terms relevant to valuation professionals	15% (3)	40% (8)	5% (1)	25% (5)	15% (3)

Fig. 8 Valuers' perception on the barrier of incorporating green features into valuation

The perception of valuers regarding the barrier of incorporating green features into valuation is obtained through certain indicators as stated in Fig. 8. 80% of the respondents agree and strongly agree that they do not know what the various input parameters of green building are and how to adjust it in order to reflect the benefit of sustainability features correctly in the valuation process. 85% of the respondents agree and strongly agree that there is a lack of current heuristics in valuation practice pertaining to sustainability while 90% of the respondents recognized that they have

limited knowledge on sustainability and its role within the property market. 65% of the respondents also agree and strongly agree that there is a lack of standardized and conceptual approach to valuing green buildings and 55% of the respondents agree and strongly agree that there is also a lack of well-defined terms relevant to valuation professionals.

IV. DISCUSSION OF RESULTS

A. Knowledge on Green Issues

Since in Malaysia, unlike any other part of the world which is more advanced in the green initiative, there is scarce evidence of data into sales and lease transactions for green commercial office building that exhibit green features [21], thus the factors and their attributes incorporated in green commercial office building are often difficult to be attained. This is because green building is a relatively new entity in Malaysia compared to advanced countries with green initiatives such as the UK, US and Australia. Consequently, the preliminary study results indicated that the valuers are mostly (90% of the respondents) found to have partial and limited knowledge with the topic of green building in Malaysia, and only 5% of them have a good knowledge in green building. Due to the raising importance of green building in Malaysia, a total of 55% from the respondent just think about the integration of green features into the valuation process, while 40% of the respondent considered the sustainability topic within the descriptive part of the valuation report and 5% from them never think about it. Some of the respondents mentioned that they make a comment about the effect it has to rents, costs and vacancies and due to the fewest number of green buildings, integrating green features into valuation will be a problem in the coming years.

The infancy market has caused insufficient evidences on the financial performance of green buildings (i.e. Market evidence, sales data and lease transactions) in the commercial real estate market [22], [23] and a hindrance to the inclusion of green features in valuation practice [12], [24], [25]. Despite these difficulties, valuers must endeavour to evaluate the emerging impact of these sustainability factors as they will influence the decision of space occupiers with regard to deciding on the leasing options and on the acceptable level of rental [7]. Reference [19] mentioned that if appraisers are currently unable to reflect sustainability issues within their estimates of market value in an appropriate and comprehensive manner, it can be argued that property assets are mispriced at the moment.

Reference [26] argued that given the paucity of empirical evidence (for most regional and local submarkets) and the quantification of cause-and-effect chains, the final valuation result still strongly depends on the valuation professional qualitative judgement. If the valuer cannot quantify the sustainability impact in case of lack of market data or non-transparent market, then it should be mentioned in the descriptive part of the valuation report to reveal the impact of the green building to their value [5] through analysis of reliable sources of information [26]. Such information related

to sustainability compared to its peers may help customers' decision-making process and increase transparency.

B. Valuers' Perception on Incorporating the Green Issues into Valuation

A global phenomenon where the situation that property valuers have yet to fully incorporate green building features in their valuation [20], seems to be occurring in Malaysia. It refers to the result that shows 55% of the respondents disagree that the green issues are taken into account in valuation for the past 2 years. The valuers also mentioned that when it comes to the valuation of green building, there is no different compared to conventional building's valuation and they would use the same market evidence.

The relative infancy of green buildings will require appraisers to rely far more on their training and their acquired detailed understanding of the individual property being valued and its specific green features rather than on a body of transactions and standard assumptions [27].

According to [28], the appraisers should be able to reflect the behaviour of markets and forecast the future benefits of a property in terms of its ability to maintain rental income and benefit from rental growth. They should also be aware of sustainability features and the implications this could have on property values in the short, medium and longer term [19], [11]. Thus, appraisers need to better understand and account for the differences between conventional and sustainable buildings, as they need to estimate how sustainable building features affect property risks and returns, and they need to find measures to monitor the increasing change in market participant's preferences building features [19]. However, appraisers have been blamed for failing to produce financial justifications for investing in sustainability in commercial real estate [29].

C. Valuers' Awareness on Incorporating Green Features into Property Valuation

Even though the appraisers are globally found that they have limited knowledge on green buildings, there is already a growing awareness of the need to incorporate the green features into real estate valuation practice [15]. The respondents in this preliminary study show their awareness on incorporating green features into property valuation with the high response rate of 95%. Additionally, 90% of the respondents also believe that green building will generate higher market value than now in the near future of 2-5 years, according to green building premium, obtained through certain parameters. The parameters are "low yield, because the risk premium is lower" (60% of respondents rate). "Lower operation costs in comparison to conventional buildings" (90% of respondents rate); "Higher rents, due to a green rent premium" (75% of respondents rate); "Lower vacancy rate in comparison to conventional buildings" (75% of respondents rate) and "Lower exit yield, due to slower depreciation" (75% of respondents rate).

The valuers moreover realized that there is a growing awareness on the willingness to pay and the market acceptance

for the environment features (90% of response rate). This is supported by the survey conducted by [4] on factors. Influencing office building occupation decision among tenants within the centre of Kuala Lumpur, the results indicate that the occupants' willingness to pay the office building due to the building features, services and management, such as responsible management and maintenance team, security and access control, car park provision and accessibility, building image and identity and modern IT and communication systems. It shows there is evolving awareness among the occupant on the willingness to pay for environmentally sustainable offices.

Due to this emerging awareness among the market participants, the emphasizing for appraisers to incorporate consideration of sustainability into their market value assessments of green commercial office building should be aware. This matter has also been agreed by a number of researchers in their studies such as [5]-[11]. This is to ensure that green building continues to increase in the market [12], [13].

D. Valuer' Perception on the Barrier of Incorporating Green Features into Valuation

There are a number of barriers incorporate green features into the evaluation faced by valuers. Limited knowledge and skills to precisely report on green factors in the valuation process is identified among the massive barrier incorporating them into valuation process which supported by Warren-Myers (2010) as cited in [24], [15]. This situation occurred due to the limited of data into sales and lease transactions for green commercial office building that exhibit green features [21], hence the factors and their attributes incorporated in green commercial office building are often difficult to be attained. Another factor contributes to the ultimate barrier incorporating green features into valuation process is due to the lack of current heuristics in valuation practice pertaining to sustainability (85% of respondents rate). This was because the valuers valued the green property similar to the conventional building and they would use the same market evidence. Consequently, the results indicate that 80% of the respondents do not know what the various input parameters of green building are and how to adjust it in order to reflect the benefit of sustainability features correctly in the valuation process. There is also a lack of standardized and conceptual approach to valuing green buildings (65% of respondents rate) and lack of well-defined terms relevant to valuation professionals (55% of respondents rate). All these barriers lead to the primary difficulty for appraisers to understand the current metrics and tools used by industry to assess sustainability, and how is this then incorporated into the valuation process [18], [10].

Thus, as [24] noted "it is important to appraisers undertake the assessment of sustainability accurately, especially if they are planning to incorporate within assessments, because they have responsibilities to report specifically". The precision of that appraisal will depend on the skills and ability of appraisers in understanding the factors that influence value. Hence, in order to respond appropriately, as markets change,

appraisers should continually seek to enhance their knowledge of sustainability.

V.CONCLUSION

As response to the above situation, valuation professionals and their professional bodies also must deal with a new reality of changing value perceptions and systems among market participants due to the steadily growing interest in sustainability issues of various groups of property market performers [30]. It was because if the market participants recognise additional benefits in the ownership of sustainable buildings, valuers have to consider this in assessing a property's market value [6]-[9].

It is well known that the value of property is affected by the situation in the relevant market segment, the supply and the demand for a type of property, suitability or vice versa, market volatility, the competitive environment, expectations and anticipated changes, trends, types and size of risk, economic, social, demographic and physical effects. All relevant factors should be analysed and they do need to be considered during the assessment of market value with regard to the purpose of the appraisal [31], particularly if the market actors (buyers, sellers, property owners and tenants) are addressing these issues in their own processes of buying, selling, leasing or occupying [10].

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