Building and Locational Characteristics' Quality of Purpose-built Office and their Relationship with Rentals

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Purpose-built office (PBO) market in Malaysia has shown positive developments and increasing level of competitiveness. Many characteristics of PBO were unveiled by virtue of recent studies, market demand, technology growth and new guidelines such as office classification, green building and other related sustainable assessment in order to fulfill the property market participants need. As a result, the characteristics of Malaysian's PBO have become more complex. More importantly, the increasing complexity of characteristics would entail greater needs on their influence on the rental levels of the PBO space. Nevertheless, there is a lack of research in the country that had actually studied in detail the influence of both the building and locational characteristics on rental levels alone in Malaysia. Therefore, the purpose of this paper is to determine the building and locational characteristics of PBO and their relationship with rentals in the Malaysia's office property market. Integral to achieving this objective, various characteristics that cover all fields are grouped under eight categories namely presentation, management, functionality, services, access and circulation, location, green building and amenities. In line with the gap of knowledge in relation to the need to adopt a more consumer oriented approach and the utilisation of high level spatial technology to refine the measurement of variables, quantitative methods namely are Analytical Hierarchy Process (AHP) in combination with Geo-information System (GIS) were used to analyse the importance as well as the quality level of these characteristics. Correlation analysis was also applied to analyse the relationship between these characteristics of PBO and rental. In the context of benefiting from a plethora of variables, Golden Triangle area of Kuala Lumpur was selected to provide data on the PBO.

Keywords: Building; location; characteristics; purpose-built office; quality; rental.

1. Introduction

Based on the report that has been produced by Savills World Research Malaysia, in 2013 there has been a slight additional space in the new office into the market that has two million sq. ft. which can be seen as vacancy rate for the purpose built office (PBO) in Kuala Lumpur and has increased almost 30% (Savills, 2013). In the next two years this condition will be complicated because there is an estimation of eight million sq. ft. new office will be put into the market, where 5 million sq. ft. is expected to be completed in 2014 and another three million sq. ft. in 2015 (Savills, 2013) The new added high

office space will give more impact and pressure to existing stock which will no longer fulfill the needs and demands from modern corporate tenants. The urge has made the existing landlords chasing to get recognised and upgraded to PBO qualification status such as the Multimedia Super Corridor status (MSC status) or Certified Green Building (green building indices). Other than that, there has been an initiative where the commercial terms being introduced in the industry that has been applied by the existing landlords such as grading and classification in order to promote and gain attraction to their PBO. This positive improvement will help and control the vacancy rate from getting increase.

In terms of the rental rate aspect, Cushman & Wakefield report stated that from the net effective rent has gone towards gross asking rent where the market has shifted to tenant's market (Cushman & Wakefield, 2013). As a result, there are more offers from the existing landlords where there are more characteristics of PBO to get featured in order to meet the demands, especially to the modern corporate tenants. According to Colliers International (2012), there are various reports supported this matter that stated the ongoing proactive marketing effort and tenancy offerings can sustain the local PBO market performance. However, this matter has caused gaining two qualification statuses that are MSC status and Certified Green Building in the same area and there is more initiative promotions offered. Thus it have caused complication in characteristics of PBO especially in Kuala Lumpur. Based from the complication characteristics of PBO in Kuala Lumpur and less related studies in the local context, the studies will be more focused to the fundamental aspect whereby the identification building and locational characteristics' quality of PBO will be done in more detailed and relationship with rental. Also, in defining the relationship for two elements of characteristics of PBO with rental are customer oriented and with the help of the reliable measurement methods. Hence, it is expected on idea contribution to the property market participants in running their activities in much more efficient in order to increase market performance of PBO in Malaysia.

2. Background Literature

2.1 Identification Importance for Building and Locational Characteristics of Purpose-built Offices

In general, either established nor used can be done through literature research in identifying the existing building and locational characteristics of PBO. However the question here is how to identify and choose the suitable building and locational characteristics of PBO with the local surroundings especially that can give impact to property market in the research area. If terms of global context, characteristics identification of PBO have been done in a holistic way that have taken into account various factors can influence the rapid growth of property market such as in the United States (US), Australia, or in Hong Kong (Safian & Nawawi, 2013). The identification for a comprehensive building and locational characteristics of PBO is very important in the aspect of development and improvement of market performance PBO. Previous studies on office building occupation have shown different characteristics of PBO that affect the

decision (Adnan et. al, 2008). Hence, there are some importances in identifying the characteristics of office building from the global and local contexts from the following perspectives (Alexander, 1979); (Yusof, 1999); (Ho et. al, 2005a); (Ahmad & Isa, 2008); (NAPIC, 2008); (Adnan et. al, 2009); (Daud et. al, 2010).

- To give an idea for property market participants to develop tools for any building assessments (building performance, green building, sustainable, classification, intelligent building).
- To attract and retain tenants for existing office buildings.
- To improve the occupancy status of the existing and incoming supply.
- To fulfill their (building owners, investors, tenants, marketing agents) specific objective.
- To maximise the returns when office building was attractive.
- To show the competitive ability of each building to attract similar tenants.

A research done by Building Owners and Managers Association (BOMA) in the US has identified building characteristics of PBO in which it was divided into six categories comprising of rents, building finishes, systems standards and efficiency, building amenities, location/accessibility, and market perception (BOMA, 2007). Each of the characteristics was used as a guide in grading PBO as an indicator in determining the competitive ability of each building to attract similar tenants (Daud et. al, 2010). Meanwhile, (Ho et. al, 2005) has investigated six specific characteristics for Australia CBD office in which the quality level of each of these characteristics was measured and its relationship with rental was also identified. The research found that there is a profound relationship with rental. Property Council of Australia (PCA) has prepared a report, 'A Guide to Office Building Quality" in 1998 as a framework for characteristics of PBO that can be used as a guide for the PBO grading system (PCA, 1998). However, considering a research carried out in Hong Kong, they have developed a matrix grading system that is simpler whereby the characteristics of PBO chosen are the combination of facilities of the building, management, and the parking lots. This, however, is very different in comparison with other models from other countries that usually set element location as one of the most important characteristics of PBO in their framework. This is due the identification of characteristics done in Hong Kong was based on the current trend in which the PBO development was focused at areas or territories that is easier to access compared to the CBD areas that are too packed with development (Daud et. al, 2010).

Through this understanding, as a result of lack of such researches especially in the local context, the identification of both elements for PBO characteristics, which are building and location, needs to be done more specific and more thorough. It needs to consider the environmental condition, the market, and fulfill the will of the property market participants. The thorough selection of building and locational characteristics will in turn contribute to the increase in PBO market accomplishment in Malaysia. In order to ensure that it works, the focus of this research is to discuss the methods of selection of PBO characteristics, as well as the methods of evaluating the quality level of PBO characteristics that are more reliable in the local context particularly in the area of Kuala Lumpur city.

2.2 The measurement of Building and locational Characteristics' Quality for Purpose-built Office

As a result without the standards for quality measurement of PBO in Malaysia, the ranking development for building and locational characteristics of PBO in the local context is much needed as a foundation and guideline to evaluate the quality level of each PBO characteristic. However, before the ranking for building and locational characteristics are built, the researcher has to study few literature reviews regarding the building and locational characteristics of PBO from the previous studies, office classifications, office grading, standards and related guidelines. Based on the studies done, the researcher has identified and listed all characteristics of PBO that have been used according to several categories as a basic framework before specific selection being done. According to the studies done by Gerber & Harris, (1983); Gibbs & Earley (1994); Scott & Huntington (2002); Paesani (2004), they have clearly proven that literature review was primarily used in developing the eventual preliminary model or framework. By having the preliminary framework it will facilitate the selection of a more specific towards suitable use for building and locational characteristics of PBO, specifically in the local context of this research. During analysing previous studies, Ustinovichius et. al, (2007) applied the method especially in selecting the characteristics for the PBO whereas Adnan et. al, (2012) was using the Multi-Criteria Decision Making (MCDM) method. Ho et. al, (2005) and Wong & Li (2008) had used the Analytical Hierarchy Process (AHP) method and Adnan et. al, (2009) has chosen the AHP method from the selected characteristics by the panel expert through focus group. By applying the focus group method, it can be seen that suitable decision is given with the research objective because the selection of PBO characteristics can be made based on the point of view by the expert panels to choose suitable PBO characteristics in the local context. However, there are a number of related studies have differences in terms of process interview and process of gaining data. All of these techniques have their unique approach and design such as Social Choice Theory, Creative Problem-Solving Process, Nominal Group Technique, Delphi Method as well as Voting System.

The understanding of each technique is very important because it cannot be applied in every case. Basically, these techniques require expertise, goals, and duration of time. However, Horn (2006), insisted that the capability of experts to make decisions immensely influences a discussion result. This is due to their limitation in overcoming systematic mistakes that normally take place during a discussion for instance characteristics of the minds of each expert or the perceptions of the experts upon an outcome of a discussion. Most of these decision making techniques in the interviews introduce psychology, human judgment or decision making, which is very difficult to monitor (Josephson Institute of Ethics, 2005). To avoid these problems, the selection of a suitable decision making technique is very crucial. This research, however, reveals that Delphi Method is suitable in experts' decision-making in the interview to develop and validate building and locational characteristics of PBO. Delphi studies are procedures that include the preparation, an interview in two or more rounds and some resolutions and application or implementation when the interview is finished (Cuhls,

2003). In order to realising the application of Delphi method in this research, an anonymous interview is done to each panel respectively.

With the built of building and locational characteristics' ranking of PBO, it will ease the quality level evaluation for each PBO characteristics. Hence, this research has adapted the Building Quality Index (BQI) method where eight main characteristics have become as fundamental matter in evaluating the PBO quality level. From the previous studies been done by Susilawati, et. al, (2003) and Ho, et. al, (2005), they have applied BQI method to identify the quality level for a particular building whereas Bennett & Isaacs (2011) and Marino, et. al, (2012), each has used the BQI method to identify the level of comfort and livability for a particular building. Based on the researches conducted, there is a similarity with the research due to the lack of standard for quality measurement, thus BQI method was chosen as one of the reliable methods to measure the quality level of a building and it is not limited to a certain criteria or characteristics. Nevertheless, the difference in this research compared to the previous researches is from the aspect of the evaluation techniques used. Most of the past researches conducted the quality evaluation based on the perception and feedbacks of the occupants and tenants (Susilawati, et. al, 2003: Bennett & Isaacs, 2011: Zadkarim & Emari, 2011; Marino, et al. 2012) or through the experts responses and panels of evaluators (Ho, et al. 2005; Cole, 2006). However, in this research, the evaluation of quality level was done by the researcher in which it was based on the building and locational characteristics' ranking of PBO through observation where for building characteristic, building inspection method and informal interview were conducted while for locational characteristics, the GIS software application was used. This unique evaluation process has distinguished this research with the past researches in which the quality level for building and locational characteristics of PBO, which is very subjective, has been measured more thoroughly and objectively. Through the occupants' perceptions of the importance of building and locational characteristics of PBO, enhanced with the comprehensive evaluation process of these characteristics, has produced a BLQI index quality value for a PBO. In conclusion, the development of the BLQI quality index has contributed to variations of characteristics of PBO being evaluated and measure in an equation although the use of specific measurement following each characteristics were also used.

3. Methodology

3.1 Study Area

The research focus is based on 34 samples (based on cluster sampling) PBO that is in the Golden Triangle (GT) area in Kuala Lumpur. The GT area in Kuala Lumpur is chosen as a research area mainly because it is a denser center property development and trade activities as well as the fastest commercial focus in Malaysia. The focus for this research is comprised of the PBO building development that consists of Jalan P.Ramlee, Jalan Raja Chulan, Jalan Sultan Ismail and Jalan Imbi. Figure 1 shows PBO sample in the selected GT area.

Figure 1: Sample PBO in Golden Triangle (GT) area

3.2 Development of building and Locational Characteristics' Ranking for Purpose-built Office

Delphi method was done by a semi-structured interview in which there were 10 selected expert panels to be interviewed regarding the preliminary framework for the ranking development of the building and locational characteristics of the PBO. The feedbacks from the expert panels were analysed thoroughly and the interview sessions were done in 3 rounds. Even though 2 of the expert panels eventually withdrew, the results and findings of this research managed to be produced that is the ranking for the building and locational characteristics of the PBO. Table 1 shows the number of responses received from these expert panels who were involved in this research according to their areas of expertise respectively.

Table 1: Total of Responses Received from the Expert Panels

Fields	Details	Number of expert selected	Number of expert responded	Total
Property Valuation	Values (Government & Private Sector)	2	2	2
Property Management	Property Managers	2	2	2
Architecture	Architects	2	1	1
Estate Agency	Estate Agents	2	2	2
Building Surveying	Building Surveyors	2	1	1
		100%	80%	8

The analysis process that involves the Delphi method is very subjective. In this particular study, the researcher used a qualitative interview approach in which all the responses and opinions of the expert panels were concluded as a whole so that we can achieve a general result. Therefore this means that even though the interview sessions in this Delphi method were done anonymously, the results achieved will be consolidated and concluded in general. This is done in order to meet the requirements and conditions of the Delphi method itself; to avoid any bias or issues and matters that could be embarrassing or insulting to the selected expert panels. Each result that were achieved will be collected, concluded, improved and later given back to the expert panels for them to either give their consent, present their new opinion regarding the matter or remain with their original opinion. This matter may involve several rounds of interview until a final decision is reached unanimously. This matter happened during this study and it can be referred to in the Table 2 below.

Table 2: Analysis on the Delphi Method Process

	Preliminary Interview + Round 1	**Round 2**	**Round 3**	**Result**
Instrument	Literature reviews preliminary framework (Original)	Ranking Framework (1st Draft)	Ranking Framework (2nd Draft)	
Data base for ranking framework	Literature review	Result from round one & Literature	Result from round two	Ranking Framework (Final)
Duration	Four weeks	Eight weeks	Two weeks	
Number of expert selected	10	9	8	
Number of expert responded	9	8	8	
Findings	Preliminary interview & Identification of building and locational characteristic's ranking for PBO	Revised framework	Finalised and validation	
Data analysis	Summarized, literatures & Amendment	Summarized, literatures & Amendment	Minor Amendment	

In this case, in order to adapt with this particular research and to also expose the ideas and unique approaches done, the Delphi method application was seen to cause findings and results that were thoroughly analysed and obtained from this research, to have a distinct and its very own uniqueness Kompleks Antarabangsa as the following:

- The expert panels had chosen and ranked each of the building and locational characteristics based on the point of view according to the expertise in their respective fields.
- Each of the ranking elements was not limited to any physical and non-physical aspects.
- Each of the feedbacks received by the expert panels were analyzed through the blended method in which during the next round, it would be required to do the process again. The process would be repeated again in order to enhance the findings until it becomes satisfactory.
- The ranking for the building and locational characteristics of the PBO that was developed can be used in a sustainable manner.

- The ranking for the building and locational characteristics that was developed according to the current demands, this research and the demand of activities for the property market participants requires it.

The results of this research which is the ranking for the building and locational characteristics of the PBO will be used as an observational instrument in order to assess the quality of certain PBO characteristics especially in terms of its rental aspect and it will be seen in the Appendix.

3.3 Building And Locational Characteristics' Quality Level Of Purpose-Built Offices (PBO)

Based on the Appendix, there are eight selected characteristics of PBO that are presentation, management, functionality, services, access & circulation, location, green building and amenities where each of the characteristics have five sub-characteristics. As to what has been discussed, the method involved in identifying quality level of each PBO characteristic is through BQI method. However the BQI involvement in this research has expand where the process to gain data and number of PBO characteristic have been upkeep and renewed in more detailed and thus it is named as Building and locational Quality Index (BLQI). In order to realise the use of BLQI, two elements must first be identified that are weightage of importance and PBO characteristic score assessed. The application of AHP method is used to get the weightage of importance score for each PBO characteristic in the research area. In this case, to get the research findings that are more natural and not interested, the selected PBO occupants are as respondents in order to get the primary data regarding importance on each PBO characteristics. There are 10 PBO occupants involved to represent each sample of PBO whereby 340 respondents are involved in all 34 PBO samples.

In order to get the core building value and PBO locational characteristics on the other hand, there are two observation methods done where it was through building inspection to get the score for building characteristics of PBO, whereby network analysis is to get the score of PBO characteristics on location. Network analysis was conducted using GIS software that is Quantum GIS version 1.8.0 Lisboa. Figure 2 shows the spatial data for PBO sample in the study area and elements involved in the surrounding buildings.

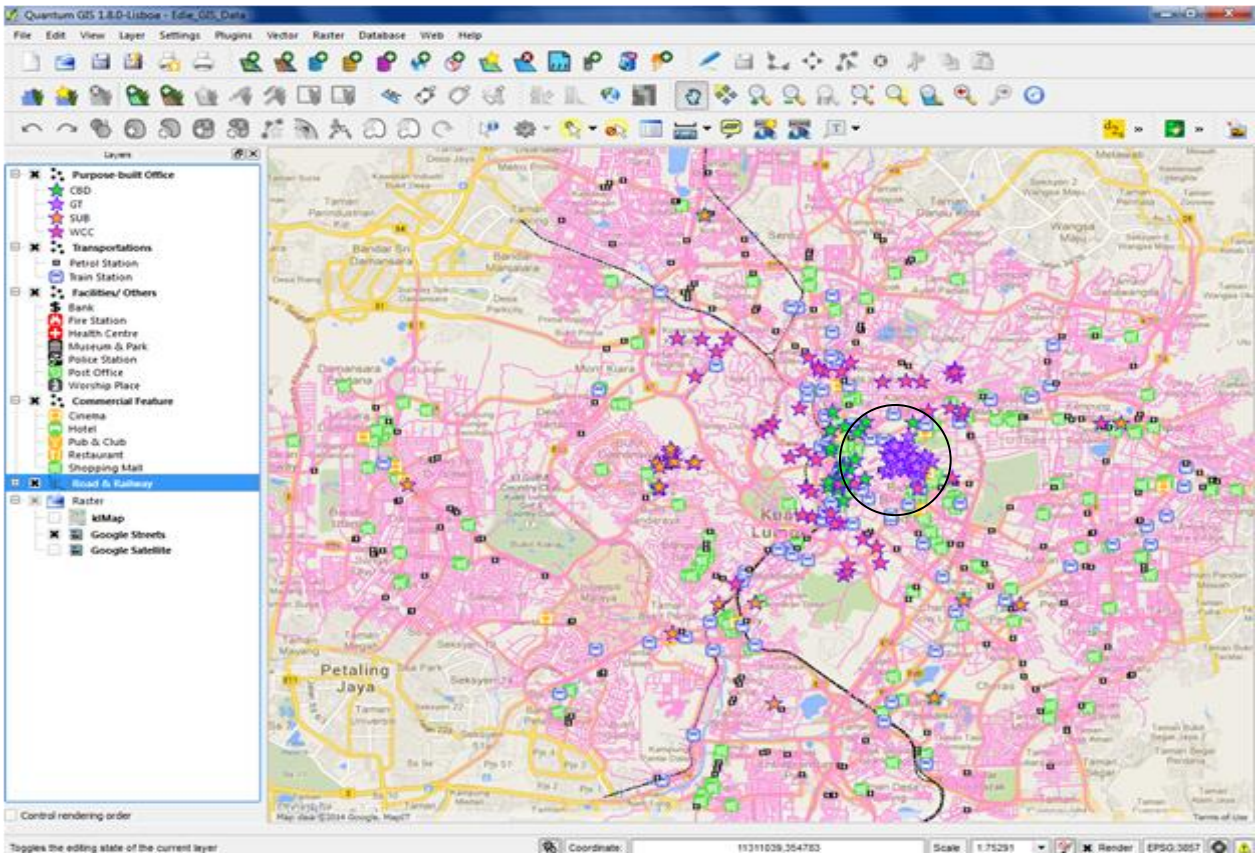

Figure 2: Spatial Data within the researched area

However, both elements using observation method are different from one another, but it is still the same evaluation method based on the raking for building and locational characteristics of PBO (refer to Appendix). Therefore, the results from importance and weightage of each building and locational score characteristics of PBO will produce an index that is more comprehensive in which they take into account the perception of the consumer (occupants) of PBO (via weightage of importance) as well as the PBO quality in more detail (by calculating the score BLQI). Indirectly, the findings of BLQI will be used to get the relationship between rentals which will be discussed in the final topic. Table 3 shows a BLQI calculation example for one sample of PBO in the research area which is at Kompleks Antarabangsa.

Table 3: Analysis of BLQI in Kompleks Antarabangsa

Building And Locational Characteristics' Quality Index Of Purpose-Built Office					
GOLDEN TRIANGLE (KOMPLEKS ANTARABANGSA)					
Building And Locational Characteristics Of Purpose-Built Office	Raw Score A (0-3)	Sub-Characteristic Weightage B (0-1.00)	Sub-Characteristic Weightage Score A * B (0-3.00)	Characteristic Weightage C (0-1.00)	Characteristic Weightage Score [∑(A * B) * C] (0-3.00)
Presentation				0.1891	
External design	2	0.3541	0.7082		
Finishing	2	0.3848	0.7696		
Lobby design	3	0.1658	0.4974		

Number of storey	2	0.0469	0.0938		
Age of building	2	0.0484	0.0968		
Total ∑		1	2.1658		**0.40955278**
Management				0.1355	
Security	2	0.4973	0.9946		
Maintenance policy	2	0.1346	0.2692		
Cleaning services	2	0.2714	0.5428		
Energy saving & recycle policy	1	0.0350	0.035		
CBMS	2	0.0617	0.1234		
Total ∑		1	1.965		**0.2662575**
Functionality				0.0501	
Floor size	2	0.4168	0.8336		
Floor ceiling height	2	0.1110	0.222		
Space efficiency	2	0.2309	0.4618		
Column layout	2	0.1183	0.2366		
Floor loading	2	0.1230	0.246		
Total ∑		1	2		**0.1002**
Services				0.0712	
Toilet facilities	2	0.1651	0.3302		
Electrical & IT services	2	0.2959	0.5918		
Work environment	2	0.2776	0.5552		
HVAC	2	0.2383	0.4766		
Ease of services upgrading and maintenance	2	0.0231	0.0462		
Total ∑		1	2		**0.1424**
Access & Circulation				0.1480	
Lift performance	2	0.1452	0.2904		
Lift design	2	0.1189	0.2378		
Number of car park	2	0.5697	1.1394		
Car park ingress/ egress from building	2	0.1342	0.2684		
Building way finding	3	0.0320	0.096		
Total ∑		1	2.032		**0.300736**
Location				0.2867	
Location of commercial feature	3	0.0680	0.204		
Availability of transport options	3	0.5646	1.6938		
Transportation distance	3	0.2690	0.807		
Vehicle flow	2	0.0643	0.1286		
Efficiency of property market	3	0.0341	0.1023		
Total ∑		1	2.9357		**0.84166519**
Green Building				0.0213	
Indoor environment quality	2	0.4709	0.9418		
Sustainable site planning	1	0.1533	0.1533		
Material & resources	1	0.0685	0.0685		
Water efficiency	1	0.0450	0.045		
Innovation	2	0.2623	0.5246		
Total ∑		1	1.7332		**0.03691716**
Amenities				0.0981	
Landscape	2	0.0667	0.1334		
Bank, postal & other retail	2	0.2416	0.4832		
Gym & health club	1	0.0382	0.0382		
Restaurants & café	2	0.3604	0.7208		
Pantry, player room & children nursery	2	0.2931	0.5862		
Total ∑		1	1.9618	1	**0.19245258**
Total BLQI					**2.29018121**
BLQI Percentage [(X/3)*100]					**76.34%**

4. Results and Findings

In order to obtain research findings, BLQI values attained from 34 PBO in each researched area and rental data (Ringgit Malaysia per square feet) were analysed through correlation to find the relationship between one another. Table 4 shows the analysis findings for each characteristics of PBO as the following.

Table 4: The Relationships between characteristics of Purpose-built Office

Building and Locational Characteristics' Quality of Purpose-built Office and their Relationship with Rentals	
Characteristic	**Pearson Correlation**
BLQI (overall)	0.626
Presentation	0.705
Management	0.550
Functionality	0.442
Services	0.622
Access & Circulation	0.499
Location	0.057
Green Building	0.391
Amenities	0.297

Table 4 shows the research findings obtained from the correlation analysis conducted. In general, the research findings have shown that the relationship between BLQI with rental in GT area is positive in which 0.626 correlation was obtained. Through a detailed analysis, presentation characteristic achieved the highest in correlation compared to other characteristics, which is by 0.705. Characteristics of management, functionality, access & circulation, services, and green building also obtained a positive connection with rental with correlation between 0.392 and 0.622. Nevertheless, location and amenities characteristics show a weak correlation with each obtaining 0.057 and 0.297 respectively. Through observation, GT area is a crowded commercial area equipped with a good road network, complete facilities, a remarkable, commercial neighbourhood which in turn cause the current factors such as location and amenities to be of low priority for the market participants. On the other hand, factors like presentation, services, and management need to be given close attention as they give significant impact toward rental values. A further subsequent research must be carried out to compare the findings between the GT areas with other areas around Kuala Lumpur such as Centre Business District (CBD), Within City Centre (WCC), and Suburban (SUB).

5. Conclusion

Each and every characteristics of PBO are of different varieties and the evaluation on quality level over these PBO characteristics requires a certain measurement that is more specific and detailed. This evaluation does not merely rely on the measurements made, but the feedback of the occupants of PBO is also to be taken into account that includes their opinions on the importance of each characteristic of PBO evaluated. This research proves that combination of user-oriented elements along with a more transparent evaluation method has produced a quality index value for building and locational characteristics of PBO that is more reliable which is the BLQI. This means that the BLQI quality index produced has become an indicator to identify the quality

level of each PBO sample in this research. In conclusion, this research would give an idea to the property market participants in getting the relationship between building and locational characteristics of PBO with rental in a much more comprehensive way based on the built up ranking in terms of the local context.

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Appendix: Building and Locational Characteristics Ranking of Purpose-built Office

CHARACTERISTIC	RANKING (BLQI Score)	REMARKS	ELEMENTS
PRESENTATION			
External design	3	EXCELLENT (7 out of 7 elements)	1. Buildings oriented towards the main street. 2. Main entrances of the building facing the street. 3. High-quality materials (preferable glass & steel). 4. Remarkable design (commercial office) 5. Window expressions visible to the street. 6. External finish provided for all sides of a building. 7. Front facades and facades visible from a public.
	2	MODERATE (4-6 out of 7 elements)	
	1	POOR (1-3 out of 7 elements)	
	0	NONE (0 out of 7 elements)	
Finishing	3	EXCELLENT (10 out of 10 elements)	1. Painted plaster wall with white/ bright colour (general area). 2. Glass wall (tenant suites). 3. Moveable wall systems in office space (tenant suites). 4. Use wall covering (tenant suites). 5. Ceramic/ terrazzo tiles (general area). 6. Carpet tiles/ resilient floor (tenant suites). 7. Provide adjustable window coverings. 8. Glass doors are used at entrances to tenant suites. 9. Solid core wood door (general area). 10. Suspended acoustical materials ceiling (tenant suites).
	2	MODERATE (7-9 out of 10 elements)	
	1	POOR (4-6 out of 10 elements)	
	0	NONE (0-3 out of 10 elements)	
Lobby design	3	EXCELLENT (10 out of 10 elements)	1. Lobby design includes foyers. 2. Provide reception area. 3. Provide security screening. 4. Provide both secure and non-secure areas (for public). 5. Provide one main entrance for staff, visitors, and the public. 6. Provide a second entrance for employees only. 7. Provide single person entry barriers with electric card readers. 8. Floors: durable non slip finish such as non-slip ceramic floor tiles. 9. Walls: glazed tiles, specialised paint coatings or other good quality linings. 10. Signage: provision for signage and provision of directory boards.
	2	MODERATE (7-9 out of 10 elements)	
	1	POOR (4-6 out of 10 elements)	
	0	NONE (0-3 out of 10 elements)	
Number of storey	3	EXCELLENT (3 out of 3 elements)	1. High-rise (above 12). 2. At least 75% provision for office use. 3. At least 25% provision for others (car park/ shopping complex/retails/ penthouse/ residential).
	2	MODERATE (2 out of 3 elements)	
	1	POOR (1 out of 3 elements)	
	0	NONE (0 out of 3 elements)	
Age of building (based on state of repair)	3	EXCELLENT	Newly constructed (completed after January 1st 2000).
	2	MODERATE	Fully reconstructed
	1	POOR	Renovated/ reconstructed.
	0	NONE	These buildings have not gone through any renovation or modernization.
MANAGEMENT			
Security	3	EXCELLENT (5 out of 5 elements)	1. 24-hours security. 2. Provide CCTV at all entrance points and parking. 3. Round-the-clock security. 4. Electronic card access for tenants/employees. 5. Safe access and circulation to and from the building.
	2	MODERATE (2-4 out of 5 elements)	
	1	POOR (1 out of 5 elements)	
	0	NONE (0 out of 5 elements)	
Maintenance Policy	3	EXCELLENT (6 out of 6 elements)	1. At least 50% of permanent building maintenance team is on-board.

	2	MODERATE (3-5 out of 6 elements)	2. 24 hours services. 3. Large number of maintenance staff. 4. Hiring contractor. 5. Well-known property management (not less than 5 building under management). 6. Provide a designated building maintenance office that is fully equipped with facilities (including tools and instrumentation) and inventory storage.
	1	POOR (1-2 out of 6 elements)	
	0	NONE (0 out of 6 elements)	
Cleaning services	3	EXCELLENT (5 out of 5 elements)	1. At least 50% of permanent building cleaning team is on-board. 2. Provide cleaning services scheduled 3. Large number of maintenance staff 4. Hiring contractor 5. Well-known cleaning services company (not less than 5 building under management).
	2	MODERATE (2-4 out of 5 elements)	
	1	POOR (1 out of 5 elements)	
	0	NONE (0 out of 5 elements)	
Energy saving/ recycle policy	3	EXCELLENT (3 out of 3 elements)	1. Buildings that have gain recognition from GBIM. 2. Buildings that practiced or adopted the standards (MS 152); or follow certain policies which are related to the energy saving/energy efficiency & recycle policy. 3. There is an awareness campaign or program relating to energy saving/energy efficiency/recycle policy inside the building.
	2	MODERATE (2 out of 3 elements)	
	1	POOR (1 out of 3 elements)	
	0	NONE (0 out of 3 elements)	
Computerise building management system	3	EXCELLENT (6 out of 6 elements)	1. Provide high quality control room. 2. Provide power system. 3. Provide electric power control system. 4. Provide HVAC system. 5. Provide security and observation system. 6. Provide magnetic card and access system.
	2	MODERATE (3-5 out of 6 elements)	
	1	POOR (1-2 out of 6 elements)	
	0	NONE (0 out of 6 elements)	
FUNCTIONALITY			
Floor size	3	EXCELLENT	Generally > 50,000 sqm (NFA).
	2	MODERATE	Between 30,000 – 49,999 sqm (NFA).
	1	POOR	Between 10,000 – 29,999 sqm (NFA).
	0	NONE	Below 10,000 sqm (NFA).
Floor ceiling height	3	EXCELLENT (3 out of 3 elements)	1. Office area – no less than 2700mm. 2. Lobby area – no less than 3000mm. 3. Other area – no less than 2700mm.
	2	MODERATE (2 out of 3 elements)	
	1	POOR (1 out of 3 elements)	
	0	NONE (0 out of 3 elements)	
Space efficiency	3	EXCELLENT	Space efficiency ratio above 59% (NFA/GFA).
	2	MODERATE	Space efficiency ratio 56 – 58% (NFA/GFA).
	1	POOR	Space efficiency ratio 53 – 55% (NFA/GFA).
	0	NONE	Space efficiency ratio below 53% (NFA/GFA).
Column layout	3	EXCELLENT (5 out of 5 elements)	1. Open office space type. 2. Limited height furniture partitions. 3. Distance between pillars at least 6m. 4. Larger space allocation (minimum of 1 person /10sq m). 5. Provide easier distribution of natural light, heating, and cooling to the working areas.
	2	MODERATE (2-4 out of 5 elements)	
	1	POOR (1 out of 5 elements)	
	0	NONE (0 out of 5 elements)	
Floor loading	3	EXCELLENT (3 out of 3 elements)	1. Minimum size of work station (live load & dead load) 1 person /10sq m. 2. There are no noise/vibration due to footfall/extreme activities (health club, traffic moving, etc.)/maintenance in the building. 3. There are no floor vibrations due to the activities outside of the building such as traffic moving/railway (light/heavy railway)/etc.
	2	MODERATE (2 out of 3 elements)	
	1	POOR (1 out of 3 elements)	
	0	NONE (0 out of 3 elements)	
SERVICES			
Toilet Facilities	3	EXCELLENT (8 out of 8 elements)	1. Provide toilets on each floor. 2. High quality toilet facilities (hygienic, durable, high quality and easily maintained finishes and fitments, select products for fixings which are robust, tamper-proof, concealed and have no
	2	MODERATE (5-7 out of 8 elements)	
	1	POOR (2-4 out of 8 elements)	

	0	NONE (0-1 out of 8 elements)	sharp edges or corners). 3. Provide separate entries to suites for different sexes. 4. Provide an airlock between the tenancy area and toilets. 5. Floors: non-slip ceramic tiles, non-slip rubber or non-slip finish applied to polished concrete. 6. Walls: glazed ceramic tiles to a minimum of 1.2m. 7. Ceilings: painted plasterboard. 8. Locate toilet rooms adjacent to lobbies, elevator cores, cafeterias, conference/training facilities, auditoriums, and other large assembly areas.
Electrical & IT sevices	3	EXCELLENT (9 out of 9 elements)	Electrical: 1. Provide dual power supply with automatic switch or provide generator power supply system emergency backup. 2. Provide electrical plans for power point/socket in the tenant suites. 3. Provide enough main power point/socket in the tenant suites. 4. Flexibility for light switching (easier to light only occupied areas). 5. Sub-metering in tenant spaces. 6. Provide tenant generator power (available on request). IT: 7. Buildings under the MSC status. 8. Provide fiber optics. 9. Provide wifi network inside the building area.
	2	MODERATE (6-8 out of 9 elements)	
	1	POOR (3-5 out of 9 elements)	
	0	NONE (0-2 out of 9 elements)	
Work environment	3	EXCELLENT (5 out of 5 elements)	1. Open-plan office design. 2. Modern high quality windows providing ample (good) natural lighting. 3. Visible and rational window grid. 4. Good views (KLCC, KL Tower, etc). 5. Well-design system furniture.
	2	MODERATE (2-4 out of 5 elements)	
	1	POOR (1 out of 5 elements)	
	0	NONE (0 out of 5 elements)	
Heating, Ventilation & Air Conditioning	3	EXCELLENT (7 out of 7 elements)	1. Designed in accordance with ASHRAE/ other approved equivalent standard/s. 2. 4/2-pipe systems of air-conditioning and ventilation 3. Good system controls. 4. Provide split-system air-conditioning in tenant suites. 5. Provide system revisions for better indoor air quality. 6. Provide economizer system. 7. Low noise system operation.
	2	MODERATE (4-6 out of 7 elements)	
	1	POOR (1-3 out of 7 elements)	
	0	NONE (0 out of 7 elements)	
Ease of services upgrading & maintenance	3	EXCELLENT (7 out of 7 elements)	1. Provide flexible partition wall. 2. Provide flexible system ceiling. 3. Provide a special area for updating and renewal works. 4. Adopt the interchangeable facade system/self-cleaning facade. 5. Preparing a notice effectively to the occupants before any maintenance work is done. 6. Providing gondola for maintenance, which would be use to clean the window glass and inspections of the exterior of the building. 7. Preparing a special lift for related maintenance works.
	2	MODERATE (4-6 out of 7 elements)	
	1	POOR (1-3 out of 7 elements)	
	0	NONE (0 out of 7 elements)	
ACCESS & CIRCULATION			
Lift performance	3	EXCELLENT (4 out of 4 elements)	1. Maximum waiting time of lifts around 30 seconds (High-speed). 2. Minimum of 4 goods lifts. 3. Minimum capacities of 1,590 kg for passenger lifts. 4. High quality ride with low noise.
	2	MODERATE (2-3 out of 4 elements)	
	1	POOR (1 out of 4 elements)	
	0	NONE (0 out of 4 elements)	
Lift design	3	EXCELLENT (9 out of 9 elements)	1. Provide separate modern passenger and cargo lifts. 2. Passenger lifts must be sized to qualify for the disabled. 3. Integrated with lift and entry lobby finishes. 4. Durable interior finishes (anti-scratch).
	2	MODERATE (6-8 out of 9 elements)	
	1	POOR (3-5 out of 9 elements)	
	0	NONE (0-2 out of 9 elements)	

			5. Provide CCTV/ security access cards. 6. Walls – use timber, steel, glass (minimized paint finishes). 7. Floor – ceramic tiles and/or carpet or other hardwearing finish to floors. 8. Ceiling – flush plasterboard, with feature lighting with an average power density. 9. Lift doors – stainless steel.
Number of car park	3	EXCELLENT (5 out of 5 elements)	1. Provide minimum 1 parking space per tenant of building. 2. Preferably under cover and secure. 3. Provide enough parking spaces for occupants/ visitors (multi-storey car park). 4. Provide parking space for rental. 5. Individually line marked and numbered.
	2	MODERATE (2-4 out of 5 elements)	
	1	POOR (1 out of 5 elements)	
	0	NONE (0 out of 5 elements)	
Car park ingress/ egress from building	3	EXCELLENT (7 out of 7 elements)	1. Car park located to the rear/side of building. 2. Provide clearly visible signage to/within car park facility. 3. Provide video surveillance & CCTV. 4. One-way circulatory movement of traffic around the car park areas. 5. Accessible from the street level and tenancy at all times. 6. Provide pedestrian/ wheelchair access. 7. Provide automatic parking ticket system (entrances/exits).
	2	MODERATE (4-6 out of 7 elements)	
	1	POOR (1-3 out of 7 elements)	
	0	NONE (0 out of 7 elements)	
Building way finding	3	EXCELLENT (4 out of 4 elements)	1. Excellent quality access to/from an attractive street setting. 2. Provide static traffic control (signage, road marking) as required. 3. Provide street level access for people and vehicles. 4. Provide secure vehicle access at locations to prevent congestion with other vehicles or activity, particularly during peak times of day or year (e.g. for couriers, at the loading bay, for waste collection, for bicycles and for car parking).
	2	MODERATE (2-3 out of 4 elements)	
	1	POOR (1 out of 4 elements)	
	0	NONE (0 out of 4 elements)	
LOCATION			
Location of commercial feature	3	EXCELLENT (5 out of 5 elements)	1. Proximity to iconic commercial landmarks (KLCC/ etc). 2. Neighbouring buildings (minimum of five existing PBOs). 3. Proximity to shopping complexes/ retail outlets. 4. Proximity to hotels. 5. Proximity to restaurants/ café. * Distance below 500 meters/ 5 minutes walk.
	2	MODERATE (2-4 out of 5 elements)	
	1	POOR (1 out of 5 elements)	
	0	NONE (0 out of 5 elements)	
Availability of transport options	3	EXCELLENT (4 out of 4 elements)	1. Availability of taxi stops. 2. Availability of bus stops. 3. Availability of light-rail/ heavy-rail stations. 4. Availability of public car parks. * Within radius of 250 meters.
	2	MODERATE (2-3 out of 4 elements)	
	1	POOR (1 out of 4 elements)	
	0	NONE (0 out of 4 elements)	
Transportation distance	3	EXCELLENT (6 out of 6 elements)	1. Proximity to taxi stops. 2. Proximity to bus stops. 3. Proximity to Pudu Sentral (main bus station terminus). 4. Proximity to light-rail/ heavy-rail stations. 5. Proximity to KI-Sentral (intermodal transportation hub). 6. Proximity to public car parks. * Distance below 500 meters / 5 minutes walk.
	2	MODERATE (3-5 out of 6 elements)	
	1	POOR (1-2 out of 6 elements)	
	0	NONE (0 out of 6 elements)	
Vehicle flow	3	EXCELLENT (5 out of 5 elements)	1. Divided high-ways/ One-way street. 2. Vehicular access points (visitors). 3. Vehicular access points (tenants/occupants). 4. Vehicular access points (goods & services). 5. Pedestrian access points. * Within radius of 250 meters.
	2	MODERATE (2-4 out of 5 elements)	
	1	POOR (1 out of 5 elements)	
	0	NONE (0 out of 5 elements)	
Efficiency of property markets	3	EXCELLENT (11 out of 11 elements)	1. Proximity to main road. 2. Proximity to public transports (minimum of 2 options).
	2	MODERATE (5-10 out of 11 elements)	

	1	POOR (2-4 out of 11 elements)	3. Proximity to iconic landmarks (KLCC, KL Tower, National Mosque, National Museum, etc). 4. Neighbouring buildings (minimum of five existing PBOs). 5. Proximity to shopping complexes/ retail outlets. 6. Proximity to hotels. 7. Proximity to restaurants/ café. 8. Proximity to clubs. 9. Proximity to recreation facilities. 10. Proximity to public utilities (hospital, police station, post office, petrol station, worship, etc). 11. Proximity to education facilities (college, school, university, etc). * Distance below 500 meters / 5 minutes walk.
	0	NONE (0-1 out of 11 elements)	
GREEN BUILDING			
Indoor environment quality	3	EXCELLENT (8 out of 8 elements)	1. Received both the confirmation and recognition from GBIM. 2. HVAC designed in accordance with ASHRAE/ other approved equivalent standard/s. 3. Prohibit smoking in the building. 4. Internal noise levels at an appropriate level. 5. Provide good levels of daylighting for building occupants. 6. Baseline building office lighting not to be over designed. 7. Implement an Indoor Air Quality (IAQ) Management Plan. 8. Conduct an occupancy comfort survey of building occupants.
	2	MODERATE (5-7 out of 8 elements)	
	1	POOR (2-4 out of 8 elements)	
	0	NONE (0-1 out of 8 elements)	
Sustainable site planning	3	EXCELLENT (5 out of 5 elements)	1. Received both the confirmation and recognition from GBIM. 2. Employ environmentally sensitive building interior/exterior management plan (non-polluting methods and chemicals for cleaning of building exterior). 3. Encourage use of green vehicles (campaign/ awareness/ etc). 4. Provide preferred parking for carpools or vanpools. 5. Provide document Green building design features and strategies for user information and guide to sustain performance during occupancy.
	2	MODERATE (2-4 out of 5 elements)	
	1	POOR (1 out of 5 elements)	
	0	NONE (0 out of 5 elements)	
Material & resources	3	EXCELLENT (4 out of 4 elements)	1. Received both the confirmation and recognition from GBIM. 2. A building management system, which practices and encourages the usage/purchase of materials/products that are reusable in order to reduce waste. 3. A waste management system that is systematic and periodic from inside the building to the landfill site. 4. Use environmental-friendly Refrigerants and Clean Agents.
	2	MODERATE (2-3 out of 4 elements)	
	1	POOR (1 out of 4 elements)	
	0	NONE (0 out of 4 elements)	
Water efficiency	3	EXCELLENT (5 out of 5 elements)	1. Received both the confirmation and recognition from GBIM. 2. There is a system to collect the rainwater. 3. There is a system to recycle the water. 4. Using less water for landscape irrigation. 5. Having an awareness campaign on water conservation.
	2	MODERATE (2-4 out of 5 elements)	
	1	POOR (1 out of 5 elements)	
	0	NONE (0 out of 5 elements)	
Innovation	3	EXCELLENT (7 out of 7 elements)	1. Received the confirmation and recognition from GBIM. 2. Usage of IBS for the retrofit components. 3. There is the use of solar thermal technology system/solar thermal cooling. 4. There is an energy saving system for the HVAC. 5. There is an advance system for air filtration technology. 6. There is a self-cleaning façade system. 7. There is a good and advanced ventilation system for the car park (CO_2/CO sensors).
	2	MODERATE (4-6 out of 7 elements)	
	1	POOR (1-3 out of 7 elements)	
	0	NONE (0 out of 7 elements)	
AMENITIES			
Landscape	3	EXCELLENT (4 out of 4 elements)	1. Availability of landscaping outside of the building (foyer). 2. Availability of landscaping inside of the building (lobby/foyer). 3. Availability of landscaping in the parking area. 4. Availability of landscaping in the tenant suites/ general area.
	2	MODERATE (2-3 out of 4 elements)	
	1	POOR (1 out of 4 elements)	
	0	NONE (0 out of 4 elements)	
Bank, postal, other	3	EXCELLENT (7 out of 7 elements)	1. Availability of banks

retails	2	MODERATE (4-6 out of 7 elements)	2. Availability of ATM machines 3. Availability of post office/ post boxes. 4. Availability of courier services. 5. Availability of convenience stores (7-eleven/ etc). 6. Availability of laundries. 7. Availability of stationeries.
	1	POOR (1-3 out of 7 elements)	
	0	NONE (0 out of 7 elements)	
Gym, sport, health club	3	EXCELLENT (4 out of 4 elements)	1. Availability of sport/health/ fitness clubs. 2. Availability of tennis/squash/ etc. courts. 3. Availability of swimming pool. 4. Availability of spa/ salon/ etc.
	2	MODERATE (2-3 out of 4 elements)	
	1	POOR (1 out of 4 elements)	
	0	NONE (0 out of 4 elements)	
Restaurant & café	3	EXCELLENT (5 out of 5 elements)	1. Availability of high class/ 5-stars restaurants. 2. Availability of cafés/ kopitiams 3. Availability of food courts. 4. Availability of fast food restaurants. 5. Availability of bakery/ other convenience stores.
	2	MODERATE (2-4 out of 5 elements)	
	1	POOR (1 out of 5 elements)	
	0	NONE (0 out of 5 elements)	
Pantry, prayer room, children nursery	3	EXCELLENT (5 out of 5 elements)	1. Availability of pantries (tenant suites/ general area). 2. Availability of prayer rooms/ surau. 3. Availability of children nursery. 4. Availability of rest rooms. 5. Availability of staff/ guest lounge.
	2	MODERATE (2-4 out of 5 elements)	
	1	POOR (1 out of 5 elements)	
	0	NONE (0 out of 5 elements)	