Developing the Grading Instrument for the Super Regional Shopping Centres in Malaysia

By

Zukarnain Zakaria

Malaysia-Japan International Institute of Technology, Universiti Teknologi Malaysia

m-zukar@utm.my

Abstract

In the past two decades, the shopping centres industry in Malaysia has grew significantly in term of number and types. However, so far there is no official classification and grading system was developed for shopping centres in Malaysia. The absent of official grading system may create an issue of asymmetric information in the industry. The information about the grade is also important to the policy makers and shopping centres' customers. In practice, industry normally have their own grading system, which may base on one of combination of mall's attributes. In most of the cases, one variable, which is sales per square foot has been used to measure mall's performance hence its grade. However, this approach ignores other important variables that may significantly contribute to the mall's quality and grade. Therefore, the objective of this paper is to develop a grading instrument that could be used to grade the shopping centres in Malaysia with special focus on large size shopping centres; with the Net Lettable Size of more than one million square feet. Specifically, this paper proposed a grading instrument which is based on mall's score on four main-attributes; anchor tenants and the quality of tenants, location, facilities and value-added services, and branding and marketing. From the four main-attributes, a total of 23 sub-attributes has been identified, and mall's total scores on these 23 sub-attributes will be used to assign grade to the mall. There are four levels of grade was proposed; A, B, C, and D. Mall's that achieved at least 80% of the maximum total score will be assigned as Grade A, while mall with total score less than 50% will be considered as Grade D. The proposed grading instrument has been tested by conducting a pilot study on two randomly selected regional malls in Klang Valley. The findings from the pilot study indicated that the proposed instrument is capable to differentiate the grade of comparable shopping centres involved in the study. In conclusion, this paper argued that the development of grading instrument should be in-line with its purpose. Different attributes used in the grading system reflect different aspect of quality of the shopping centre. Since the instrument proposed by this paper is not based on the sales turnover, it's not reflects the business performance of the shopping centre.

# 1.	INTRODUCTION

The shopping centres in Malaysia has grew rapidly in the past two decades in term of number and total space. In 2016, the total space of shopping centres in Malaysia has increased to 14,638,030 square metres as compared to only 2,624,569 square metres in 1996 (NAPIC). Meanwhile, a total of 27 new malls are expected to be ready in greater Kuala Lumpur by 2021, and this will bring the total number of malls in greater Kuala Lumpur to 197. In line with this development, the types of shopping centres in Malaysia have also grown with the names such as Centre, Commons, Crossings, Lifestyle Centres, Malls, Markets, Marts, Mega-Malls, Mixed-Use, Outlets, Parkways, Places, Plazas, Promenades, Shops, Squares, Super Centres, Town Centres, Urban Retail, and Villages.

With the rapid growth of shopping centres industry in Malaysia, it is important to have a standard grading system for the centres. However, currently there is no standard grading system for shopping centres in Malaysia. In fact, as far as we can ascertain, no countries have produced a standard grading system for their shopping centres. The absent of standard grading system for shopping centres has contributed to the asymmetric information problems in the industry. The existence of standard grading system could reduce this problem, hence could increase the efficiency of decision-making in the industry. In addition, having a standard grading is important to the policy makers, which could help them in designing the strategies to further develop the shopping centres industry in this country.

Having a standard grading system for shopping centres could also benefit the industry. For instance, shopping centre's investors can use the grading information to rank their portfolio holdings and shed low-scoring properties. Lenders can also use it in a similar manner, while retailers can use the grading information to evaluate the setting of their stores. In practice, real estate companies or professionals have their own grading system, which used various parameters to grade the malls. They normally distinguish the grade of malls by single or combination of indicators such as size, age, sales per square foot, anchor tenants, or trade area demographics.

Developing a grading system that accepted by all industry players is very difficult, which involved several issues. The most critical issue is to determine attribute(s) to be used as indicator for grade. Literature clearly expressed that the indicator should be based on retail sales per square foot (Niemira, 2009). This, however, disregard other importance attributes of the shopping mall. Therefore, many argued that the grading criteria should include several indicators such as rent per square foot, occupancy rate, customer traffic, and sales per capita. In addition, there is also suggestion to include qualitative factors such as quality of anchors, appearance, architecture, and available services and amenities. For example, the US-based real estate research company, Green Street Advisors assigns grade to malls based on factors such as location, nearby competition, anchor quality and demographics.

Sales per square foot is a good indicator for the mall's retail performance, hence this grading system is useful for investment decision making. Meanwhile, grading system

that developed based on rental rate could be useful for rental rate determination. In other words, the attribute used as indicator for grading normally depend on the purpose of the grading. This paper, however, argues that the grading system for shopping centres should not base on one specific attribute/variable only. In other words, there is a need to develop a grading instrument that include all important attributes; the attributes that contribute to the overall quality of the shopping centre, which could enhance the mall competitive advantages, hence its sales performance.

Therefore, the objective of this paper is to develop the instrument to grade the shopping centres in Malaysia. Since there are many types/categories of shopping malls, focus of this paper is on large size shopping centres with Net Leasable Area (NLA) of more than 1 million square feet (we call it super-regional centre). These types of shopping centres are not only large, but they are targeting for domestic and international customers. Thus, developing the grade for this type of shopping centres is important to policy makers as well as the industry.

Since different category of shopping malls has different set of quality attributes and parameters, the grading instrument that developed for super-regional centres cannot be applied to other categories of shopping centres. In the process of developing the instrument, a pilot study is conducted to test and evaluate the validity of the instrument. Regarding this, the second objective of this paper is to test the proposed grading instrument by conducting a pilot study on two super-regional shopping centres in Klang Valley; iOi City Mall and Suria KLCC.

This paper is organised in 5 sections. The next section presents the literature review that discuss previous studies especially on the grading approach for shopping centres. The third section presents the methodology of the study. In this section, focus is given on the development of the grading instrument. This is followed by a section that presents the result from a pilot study, where the proposed grading instrument will be tested and evaluated based on the data from two randomly selected super-regional malls. The last section of this paper provides the findings and the conclusion of the study.

2.0   Literature Review

2.1   Shopping Centres – Definition and Grading

Shopping centre as defined by International Council of Shopping Centres (ICSC) is a group of retail and other establishments that is planned, developed, owned and managed as a single property, typically with an on-site parking. Similarly, ICSC's Asia-Pacific defines shopping centre as a group of retail and other commercial establishments that is planned, developed and managed as a single property, comprising of commercial multi-branded rental units and common areas. ICSC's Asia-Pacific, however, clearly stated that a shopping centre must have a minimum retail NLA of 20,000 square feet. Meanwhile, according to ICSC's Pan-European, a shopping centre must have a minimum Gross Leasable Area (GLA) of 5,000 square meters (Lambert, 2006).

In Malaysia, National Property Information Centre (NAPIC) defines shopping centres as a group of shop that used for retail activities, planned, developed and operated as several units in the single centre, and has a walkway. This definition, excludes hypermarket and arcade. However, there is no minimum size specified under the NAPIC's definition of shopping centre. Regarding the characteristics, shopping centre should be easily accessible by traffic as well as by walking and has both anchor tenants and mixed tenants.

Literature on the shopping centres grading system is very limited. Most of the grading system are produced by the professional real estate advisors or agencies, for example, Green Street Advisor. Green Street grades for shopping centres are raging from A++ to D (altogether, there are 11 grades). However, the methodology used by Green Street it's not publicly available. According to Green Street, within the Klang Valley, Grade A malls are Suria KLCC, KL Pavilion, Sunway Pyramid, 1Utama and Mid Valley Megamall (The Star Online, 6th May, 2017).

In the USA, PricewaterhouseCoopers (PwC) uses expert opinions from retail real-estate-industry professionals to create a grading system for regional malls. PwC survey-based grading system has been revised in mid-2009, but the grading system is still based on sales-per-square-feet, which is its shorthand for a host of factors that would impact the sales performance. The revised version, however, reduced and updated the segmentation of its regional mall grading scheme by dropping the "C+" and "D" grades and established a higher sales threshold for fortress A and B+ malls.

ICSC Research has conducted a survey among its members on 16th March to 9th April 2009 to assess the opinion of industry players towards PwC's mall grading system. A total of 1,004 members have responded to the survey. The results showed that four out of five members agreed that retail-property grading was an effective summary tool to compare the different between shopping centres. The survey found that 60% of the respondents thought that the application was effective. However, the respondents did not agree that grading is solely based on sales.

Consequently, there were number of suggestions put forth by the members to develop an effective grading system. Most of the suggestions were regarding the need to regionalise the system. Additionally, respondents suggested broadening the criteria to include rent per square feet, centre occupancy, customer traffic and sales per capita to capture the differences in regional populations and trade areas. Qualitative factors such as the quality of anchors, appearance, architecture and available services and amenities were also suggested. However, the respondents the difficulty of obtaining all those metrics and standardising them for cross-centre comparison, thus opined that shopping centres should be graded by sales they generate per square foot (Niemira, 2009).

Meanwhile, Kerfoot (1999) has proposed a mall-grading using an A-B-C-D grading matrix that captured population in the trade area, the number of anchors, small-tenant occupancy and competition. According to him, the threshold population of a viable regional mall is 250,000 within a 70 percent trade area; while successful regional malls should typically have 500,000 people or more within their trade areas. In addition, there are two other trade area characteristics that influence grading; income and growth. A

stable growing population base is critical to a shopping centre's long-term prospects; hence, malls in Class A do not have declining trade area population bases.

With regards to tenants, Kerfoot (1999) stated that Class A and better shopping malls must have strong anchors. According to Kerfoot, the strongest malls should have the flagship stores of the market share leaders. Moreover, the ratio of anchor sales to small tenant sales should be generally consistent, and the ratio of small tenants' sales to rent should also be consistent. From an owner's perspective, small tenants are key, as they pay quite a large bulk of the rent. However, strong total rent is driven by high occupancy, which in turn is driven by strong sales per square foot. Therefore, occupancy and sales per square foot are the key measures of the small tenants in a mall. Rent alone could be misleading if the occupancy and sales per square foot levels are not strong enough to support the lease roll.

Finally, Kerfoot (1999) argued that the quality of competition amongst shopping centres determine how much of the trade area that the mall captures. There are two types of competition to consider; existing and future. Class A malls are basically immune to both types, whereas Class B malls have come to terms with the existing competition but could be vulnerable to new competition. Class C malls, on the other hand, are losing to existing competition, and new competition would only make matters worse. Meanwhile, Class D malls have already lost, and their only chance is to start over and become the new competition. The quality and quantity of the mall competition can easily be determined by the quality and quantity of its anchors. In addition, Kerfoot (2009) also suggested other factors to be considered, such as annual capital expenditures, centre GLA, market size (versus trade area size), the local economy and sales from tourism from beyond the trade area.

2.3   Factors Determine Shopping Centre Rental Rate

Empirical research considering the determinants of shopping centre rent levels has been centred on the developed countries such as the USA, the UK and Australia (e.g. Benjamin et al., 1990, 1992; Mejia and Benjamin, 2002; Des Rosiers et al., 2005; Hanna et al., 2007; Yuo et al., 2011; Vernon, 2012). Most of these studies are grounded in the established theoretical foundation of central place theory, agglomeration and demand-externality to examine the impact of characteristics and location of the retail property on the levels of retail rent achieved. The studies provide considerable insights into the mechanics of rental price determination.

Sirmans and Guidry (1993) studied the determinants of retail rents for shopping centres in Baton Rouge, Louisiana and found that the ability of a shopping centre to draw customers is one of the foremost determinants on rentals. The customer drawing power mainly comprises shopping centre size, age, ceiling height, retail mix, anchor tenants and so forth. It is argued that large shopping centre normally has better image and is expected to attract more customers due to its large retail space, which is more competitive than a small one.

Meanwhile, Ke and Wang (2015) study in Wuhan, China found that the ceiling height, closeness to metro line station, being situated in commercial central area, vacancy rate and income have significant impact on rental level. In contrast, they found that size, age, parking space and anchor tenant were found not significant. They also found the retail mix has a significant negative impact on rent. In contrast, Gatzlaff et al. (1994) that examined the effect of anchor tenant loss on shopping centre rent found that non-anchor tenant rent decline by estimated 25% after the loss of an anchor. The finding indicates that the existence and high-performance anchor tenant plays important factor in rental rate determination.

Rosiers et al. (2005) suggested that the space agglomeration of large centre is relatively sufficient to meet consumers' multiple needs due to its product diversity. Gatzlaff et al. (1994) also stated that it is easier for large shopping centres to form spatial concentration of tenants and shoppers, bringing more retail sales, thus extracting higher rentals from tenants. Compared to small stores, shoppers are more willing to choose large centres as their destination and spend more time there (Kirkup and Rafiq, 1994).

Tay et al. (1999) assert that shopping centre's styles and the age of a shopping centre inversely affects the rents charged to retailers. Compared to newer centres, older ones suffer from a series of problems, such as inappropriate tenant mix, physical neglect, as well as older facilities. Therefore, when facing with strong competition from newer shopping centres, older ones have to lower the rental levels to retain tenants (Benjamin et al., 1990). Similarly, Sirmans and Guidry (1993) in their research conclude that older shopping centres need more daily maintenance, therefore taking an adverse effect on tenants that have signed leasing contracts. The older centres, however, may have certain advantages of customer awareness and loyalty, thus new opened centres have to lower rentals to attract tenants.

Shopping centre's design and configuration has been also considered in the literature. Hui et al. (2007) in their study in Hong Kong found that shopping centres with taller ceiling height can draw more attention from shoppers. In such a shopping centre, customers feel more comfortable and would like to stay longer and spend more there, which could potentially motivate property owners to raise the rent. Vernon (2012) discovered that architectural design or configuration is another key factor in determining shopping centre rents. The mainstream configurations of shopping centres consist of mall, cluster, L-shape, U-shape, as well as linear-shape (Sirmans and Guidry, 1993; Brown, 1999).

The enclosed mall offers a wider range of services and goods, including entertainment, dining, and leisure. Hence, the rents charged by malls are expected to be higher than that of other configurations. The cluster centre can be defined as a department store surrounded by a group of small retailers (O'Roarty et al., 1998). As it has relatively poor shopping environment, the rent in cluster centre is normally lower than that in malls. Meanwhile, both L-shaped and U-shaped configurations are designed to restrict the centres' length and face public parking space. These types of layouts affect consumers' walking path and tenants' visibility to people (Mejia and Benjamin, 2002). This

study indicated that L-shaped and U-shaped centres have lower rentals compared to malls and clusters.

Des Rosiers et al. (2005) observed that location has been playing a significant role in rent setting process, especially for retail space. The overall level of rents charged by a shopping centre will depend on its location relative to other competitors or regional markets. Locational elements that include "site-specific physical" and "geographically linked locational" characteristics largely contribute to the value of shopping centres (Forgey and Goebel, 1995). Tay et al. (1999) suggested the centres situated at desirable sites have higher rental premiums. Mejia and Benjamin (2002) further emphasized a highly visible and easily accessible site is essential for shoppers. The better the accessibility, the bigger the success achieved by landlords and tenants, while other factors remain unchanged.

Some studies assert that rentals are normally expected to be high where there is dense population, big traffic count and high visibility. To be specific, when shopping centres are built in neighbourhood or near residence, especially with high income and purchasing power, they will attract a big volume of consumers daily and thus increase sales; when these centres are located nearby metro entrances, bus stations, train stations or other transports, the great traffic flow will bring them with more successful opportunities (Hui et al., 2007).

Des Rosiers et al. (2005) stated that high shopper traffic level is a prerequisite to the success of a shopping centre. When the centres are highly visible, especially located on main roads or intersections, shoppers travelling on adjacent roadways can easily reach there. According to Ordway et al. (1988), satisfying visibility performs positively to lower vacancy. Harris and Ullman (1945) argued that shopping centres located at traditional trade areas are more likely to have high rentals than other new business districts. Therefore, the landlords of shopping centres located in desirable sites have bigger bargaining power in rent setting process than tenants.

The retail mix is important for shopping centre sales as highlighted by Kirkup and Rafig (1994). They argued that tenant mix affects the overall image of a shopping centre. Anikeeff (1996) argued that retail mix was more important to shopping centres than to any other type of commercial property. Miceli et al. (1998) discussed this issue by looking at the shopping centre owner's decision to mix substitute and complement retailers. In their view, shopping centre's landlords may at first consider limiting the entry of substitute retailers to let stores achieve monopoly rents and meet the consumers' multipurpose shopping needs more effectively. However, they noted that landlords' goal was not just in one store's profit but in the inter-store externalities associated with multiple stores.

Baen (1999) examined the effects of technology on retail sales and the resulting impacts on commercial property values. He indicated that e-commerce is causing a leakage of traditional retail sales, and this has profound impact on percentages rents and retail property values. Baen concluded that traditional malls and retailing are being challenged by e-commerce, so that their profitability and values as investment grade real

estate may someday be compromised. Borsuk (1997) dealt with the implications of information technology (IT) on retail real estate. He claimed that IT requires developers and investors to examine any property owned or considered for purchase and consider its adaptive use potential.

At a macro level, the rental rates of shopping centres can be influenced by market conditions such as economic development, rate of local employment, size of disposable income, occupancy rate, supply and demand (Ibanez and Pennington-Cross, 2013; Hendershott et al., 2002). For instance, Miceli et al. (1998) found that rents of shopping centres vary in different districts due to different in their level of economy developments. Specifically, areas with high GDP, retail sales normally command higher rental rates than those with low GDP level.

Occupancy rate is another key determinant for shopping centre rents. If economy in recession, business in the shopping centre is becoming more difficult to run, hence lots of retailers have to move out, leaving a huge vacant space. Consequently, landlords have to lower the rents to retain those remaining tenants (Eppli and Benjamin, 1994). Meanwhile from demand and supply perspective, although the supply of commercial property is relatively fixed in a short term, if the supply exceeds market demand, the rent will potentially decrease; in turn, if the demand is larger than market supply, the rent will rise.

3.   METHODOLOGY

3.1   Research Design

This paper has two main objectives. The first objective is to develop the grading instrument for shopping centres. This objective involves several tasks, which include to identify the sub-attributes to be used for grading, to determine the measurement of the selected sub-attributes, to develop the marking scheme or scoring system for each sub-attribute, and finally to develop the grading system. In the second objective, a pilot study is conducted on two selected super-regional shopping centres in Klang Valley. The purpose of this pilot study is to evaluate the suitability and validity of the proposed grading instrument.

3.2   Grading Instrument

3.2.1   Grading Attributes

The first step in developing the grading instrument for shopping centres is to identify the appropriate main- and sub-attributes to be used as grading indicators. Due to the data limitation, this paper will not use sales turnover or rental rates per square feet as indicator for grade. Instead, this paper uses more comprehensive attributes as grading indicator. In identifying the attributes, this paper relies on literature especially studies on the factors that influence shopping centres' rental rates. Based on the literature review,

this study has identified four main attributes for grading; anchor tenants and the quality of tenants, location, facilities and value-added services, and branding and marketing.

For each main-attribute, the relevant sub-attributes will be identified. Specifically, this study has identified three (3) sub-attributes related to main-attribute anchor tenants and tenants' quality, three (3) sub-attributes for location, twelve (12) sub-attributes for facilities and value-added services, and five (5) sub-attributes on branding and marketing. In other words, the grading instrument proposed by this paper is based on a total of 23 sub-attributes. In the process of constructing a reliable grading system, it is very important to ensure that all sub-attributes can be measured objectively. Therefore, most of the sub-attributes are quantitative variables. This study will minimise the usage of qualitative sub-attributes.

3.2.2 Measurements and Scoring System

After the sub-attributes were identified, the next step is to measure and to assign score to the sub-attributes. For this, each sub-attribute will be ranked into four score levels. The scores are constructed in such a way that highest score (4 marks) will be given to the highest quality, while lowest score (1 mark) reflects the lowest quality. Technically, the scores for the attribute are ranked into four levels because the proposed grading system is consisting of four grades (A, B, C and D). Meanwhile, sub-attributes which are dummy variable will be measured using nominal scale (Yes =1, No = 0). Operationally, 1 mark will be given if the centre has the facility/service and, 0 if the facility/service is unavailable.

Table 1 presents the description about the sub-attributes, and the propose threshold level to rank the respective attribute. In assigning the score, 3 marks is given if mall achieves the standard quality in the respective sub-attribute, while 1 mark is given if the mall has a facility listed in the grading list. Meanwhile, 4 marks indicate that the quality of the attribute that the mall has is higher than standard. The main issue here is to determine the threshold level that can be considered as standard. Since there is no literature can be used as a reference for this, most of the threshold levels use to rank the sub-attributes in this study were determined arbitrarily. Table 2 provides the detail of the threshold levels and score of the sub-attributes.

Table 1: Main- and sub-attribute description, justification and measurement for grading

Main Attribute	Sub-Attribute	Description/Justification	Measurement
		The existence of anchor tenants could attract other retailers to the shopping mall, hence increase the occupancy rate and the varieties of retail mix at the mall. Therefore, number of anchor tenants at the shopping mall could positively contribute to high traffic, hence sales turnover. In the case of Super Regional centre, the mall is expected to have between 3 to 6 anchor tenants. However, there are cases where malls have less than 3 anchor tenants. There are also malls that have more than 6 anchor tenants.	Ordinal scale

Anchor tenant/ High-end/ branded outlet	No. of anchor tenant	Therefore, about this attribute, highest mark (4) will be given to the mall that have more than 6 anchor tenants, while lowest mark (1) is given to mall that have less than 3 anchor tenants.	1 – 4
	No. of reputable anchor	Is not only about the number of anchor tenant, but more importantly is the number of reputable anchors. This is in line with Kerfoot's (2009) suggestion that better shopping malls must have strong and reputable anchors. Regarding this attribute, highest mark (4) will be given to the mall that have at least 2 reputable anchor tenants, while lowest mark (1) is given to the mall that don't have reputable anchor. (Note: In this study well known international retail outlets are considered as reputable anchor tenant. Example of reputable anchor tenant is such as Isetan and Mark & Spencer)	Ordinal scale 1 – 4
	No. of high-end/premier/luxury brand outlet	In line with the target market of Super Regional centre, which is local and international tourist, number of high-end/premier luxury brand outlets is important to attract customers with high purchasing power. In addition, the spill over from the high-end/premier/luxury brand tenant would attract other high quality international retailers to the mall; hence increase traffic and the occupancy rates, and subsequently sales turnover. Although there are number of luxury brand outlets, in this study, 5 premium luxury brands (designer) outlet have been identified and considered; Louis Vuitton, Channel, Gucci, Prada, and Varsace. In Malaysia, retail investors normally refer to Louis Vuitton only, where shopping mall that has Louis Vuitton outlet is considered as premium shopping mall. For this attribute, mall that has more than 3 premier luxury brand outlets listed above will be given 4 full marks, while 1 mark will be given to the mall that do not have premier luxury brand outlet.	Ordinal scale 1 – 4
Location	Distance to nearby commercial area	The catchments area or target drive time for Super Regional centre is more than one-hour drive time or market coverage of more than 70km radius. However, located within or near to prime commercial area will give significant advantage to the mall due to positive complementary and competition effects, high population and traffic flow. This could positively contribute to higher sales turnover. Therefore, mall that located within commercial area will be assigned a full 4 marks, while mall that located beyond the one-hour drive time (more than 70km) from the nearest prime commercial area will only be given 1 mark. (Note: Equivalent distant in km is calculated based on average speed of 70km/h)	Ordinal scale 1 – 4
	Distance to the nearest LRT/Train station	Super Regional centre serves as dominant shopping venue for the region with catchments area of more than one-hour drive time. Based on these criteria, private transportation could be the most appropriate mode of transportation to the mall. However, in Klang Valley, located near to LRT/train station will give a great advantage to the shopping mall in term of accessibility. High accessibility could positively contribute to high traffic into the mall, subsequently sales turnover. Due to this, mall that located within 15 minutes walking distant (or less than 1200 metres) from the nearest LRT/train station will get 4 marks, while malls that located more than 45 minutes walking distant (more than 3600 metres) will be given 1 mark. (Note: The cut-off for walking distant is determined arbitrarily. As a guide, the accepted threshold for walking to local facilities is 400 meters while 800 meters is a suggested threshold for walking to a town centre. While, equivalent distant in km is calculated based on the assumption of 80 meters=one minute (Japan standard)).	Ordinal scale 1 – 4
		Super Regional centre serves as dominant shopping venue for the region within a certain radius, with catchments area of more than one-hour drive time. Based on these criteria, private car could be the most appropriate mode of	

		transportation to the mall. Like in the case of LRT/Train station, located near to bus station will give a great advantage to the shopping mall in term of accessibility. In other words, located near to public transportation increases mall accessibility, hence higher traffic. Due to this, mall that located within 15 minutes walking distant (or less than 1200 metres) from the nearest bus station will get 4 marks, while malls that located more than 45 minutes walking distant (more than 3600 metres) will be given 1 mark. (Note: The walking distant cut-off is determined arbitrarily. As a guide, the accepted threshold for walking to local facilities is 400 meters while 800 meters is a suggested threshold for walking to a town centre. Equivalent distant in km is estimated based on the assumption of 80 meters=one minute (Japan standard)).	Ordinal scale 1 – 4
	Number of parking lot	Since car is a main mode of transportation to the Super Regional centre, having enough space for parking is very important to customers visiting the mall. Easy to get parking is one of the factors considered by the customers in choosing the shopping mall to visit. In Malaysia, Jabatan Perancang Bandar dan Wilayah has issued a guideline on the minimum requirement of parking lots for shopping malls, which is 1 unit of parking lot for every 46 meters NLA. For this indicator, mall that provides 10% exceeding the minimum requirement of 1 parking lot for every 46 square meters NLA will be give 4 marks, while 1 mark will be given to the mall that only meet the minimum requirement or less. (Note: The percentage is determined arbitrarily. Local council (PBT) may have different set of minimum requirements)	Ordinal scale 1 – 4
	Number of parking for disable/ Women/ Family	Having special parking lot for disable is stated as requirement by Jabatan Perancang Bandar and Wilayah, Malaysia. Specifically, shopping malls are required to allocate 2% of the total parking lots to disable. Providing more than minimum requirement parking lots for disable persons may indicate the shopping mall has higher corporate social responsibility (CSR) or offering better value-added service facility to the customers. In addition, better shopping mall should also provide special parking lots for women/ family. With respect to this indicator, malls that allocate more than 2% of their total parking lots to disable, and on top of that provide special parking lots for women/family will be given 4 marks, while malls that allocate less than 2% of their total parking lots for disable parking, will be given 1 mark. (Note: The percentage is determined arbitrarily. Local council (PBT) may have different set of minimum requirements)	Ordinal scale 1 – 4
	Parking payment method	Currently, there are 4 parking payment methods applied at the shopping centres: Valet Parking, Touch n Go, Autopay Machine, and Payment Counter. Modern shopping malls should have the latest parking payment technology and method. Traditional method for collecting parking payment is through counter that normally located at the exit point. Having an autopay machine is considered as a requirement for Super Regional centre, due to the size of the centre and number of parking lots. Valet parking can be considered as extra service to the customers, which can increase the image of the mall and customers' shopping experience. For this variable, 4 marks will be given to the mall that provide autopay machine, have a Touch n Go facility, and valet parking on top of counter payment. While, 1 mark is given to Super Regional centre that only provide counter payment. (Note: Better shopping mall is expected to have all methods of payment)	Ordinal scale 1 – 4
		Number of parking lots should be comparable with the number of entrance points to the parking lots to avoid congestion and long queue to enter or exit the parking lot. However, as far as we can ascertain, there is no specific minimum requirement for this. Crommelin (1972) in his study in the US suggested a retail commercial facility with a 1250 parking spaces, should have two lanes if inbound ticket dispensers with gate are used. If cashiers collect	

	Number of entrance/ exit (in or out) to parking lot	variable fees, a total of 4 exit cashier lanes will be required. In this study, however, number of entrance/exit access points will be used instead of number of lanes. For this indicator, a full score of 4 marks will be given to the Hyper mall/Super Regional centre that have more than 4 entrance/exit access points to/from the parking lots. While, 1 mark will be given to the mall that only have single entrance and exit point. (Note: The number of entrance/exit points are determined arbitrarily)	Ordinal scale 1 – 4
Facilities and Service	Passenger elevator load capacity	Numbers of elevators (along with their size and speed) are depend on the design of the building, usable areas of each floor, number of floors, and height of each floor. Normally, the elevator system required is calculated based on population to be served, and passenger waiting time for an elevator. For shopping mall, however, the population size is hard to determine. Thus, focus will be on the capacity and waiting time. Regarding capacity, passenger elevators are manufactured with load capacity of 225kg, 300kg, 320kg, 400kg, 500kg, 630kg, 1000kg (10 persons), 1275kg (17 persons). Others capacity are also available, depends on manufacturer. For example, Otis Elevator and Mitsubishi also produce passenger elevator with duty load of 1600kg (21 persons). For the Super Regional centre, having a 1000kg (or 10 persons) load capacity elevators can be considered as a minimum requirement. While having elevators that can accommodate 21 persons that could increase customers' mobility in the mall can be considered as an advantage. Therefore, 4 marks will be given to the malls with the elevators load capacity of 1600kg (21 persons) or more. Mall with elevators load capacity less than 1000kg will be given 1 mark only. (Note: Information are collected through on-site observation and checked through internet. Elevator speed is not very crucial in the case of shopping centres. This is because shopping malls normally are less than 6 floors high as compared to office buildings, where having a high-speed elevator is very crucial. Technically, elevator will only go for high speed after 7th floor an above. Thus, this indicator is excluded from the grading process).	Ordinal scale 1 – 4
	Passenger elevator average waiting time	Waiting times recommended by standards and codes based on studies done many years for different types of building. For example, a waiting time of less than 20 seconds is excellent, and 40 seconds is poor for an office building and could be up to 90 seconds for apartments. However, as far as we can ascertain, there is no study been conducted about shopping mall. Normally people are more impatient in office buildings than residential ones. Shorter average passenger lift waiting time would increase customers' mobility from floor to floor, hence their shopping experience. This study uses office building waiting time as a basis. Thus, average waiting times of less than 20 seconds will be assigned a full 4 marks and 1 mark for the average waiting time more than 40 seconds. (Note: Average waiting time for each mall is calculated based on the data that collected at 3-time zones; morning, afternoon, and evening session of the day).	Ordinal scale 1 – 4

	Escalator load capacity	Escalator has three level of theoretical capacity; 600mm step width – 4500 persons per hour; 800 mm step width – 6750 persons per hour; 1000 mm step width – 9000 persons per hour. Based on the capacity range, mall that installed the escalator with capacity 6750 persons per hour escalator will be given 1 mark. Better super-regional centre normally will install higher capacity escalator due to high traffic. This will increase customers' mobility within the mall. Thus, higher score (4) will be given to the mall with escalator load capacity of 9000 persons per hour. (Note: Information are gathered through on-site observation and then checked through internet. In the exercise, escalator load capacity was changed to the ratio of number of escalator to the number of floor. This measurement is more appropriate to measure the degree of mobility in the shopping mall. This also because escalator load capacities are standard in the case of Super Regional centre. In addition, to get information on the escalator's load capacity is also very difficult. On the site observation, only brand of the escalator can be observed, but there is no information on the specific model of the escalator).	Ordinal scale 1 – 4
	Toilet physical appearance	Through on-site observation the scores for toilet physical appearance are given based on the following criteria. High quality fittings and accessories. Electronic sensor (4 marks). Standard accessories with good maintenance (3 marks). Fitting with good maintenance (2 marks). Standard fitting (1 mark) (Note: Information are gathered through on-site observation)	Ordinal scale 1 – 4
	Lighting quality	The lighting quality is very difficult to measure and highly subjective. However, based on site observation, the score will give according to the following criteria. Extremely well lighted from the outside, adequate lighting for parking lot, a well-lighted common and lift area (4 marks). Adequate lighting for parking lot, a well-lighted common and lift area (3 marks). Well lighted common and at lift area (2 marks). Well lighted at common area only (1 mark). (Note: Information are gathered through on-site observation)	Ordinal scale 1 – 4
	Type of value added facilities offered	-Prayer Room -ATM -Fitness centre -game arcade -common area -Baby changing room -Clinic -Children care centre -Motorized vehicles for disabilities -Bank -post office -Money changer counter -Free Wifi -Cinema -Bowling/Ice Skating -information counter	Nominal/ Dummy YES – 1 NO – 0

		-Interactive map display -parking indicator light -parking display (space availability) -Easy parking -external recreational area -Travellator to parking lot -Car park lift (Note: A high quality mall is expected to have all the listed value-added facilities. Public phone is excluded from the list of value added facilities. This study found that this facility is no longer considered as basic facility at the shopping mall. Travellator is put under value added facilities (Yes or No) since its load capacity is standard. The speed of travellator is also standard (0.5m/sec)).	[Min=0; Max=23]
	Security	-Security monitoring and patrolling (24/7) -CCTV (inside the building) -CCTV (outside the building) -CCTV (parking lot) -Direct link to Fire Department/within 3km radius from nearest Fire Department -Direct link to Police Station/within 3km radius from nearest police station (Note: A better mall is expected to have a comprehensive security measures)	Nominal Dummy YES – 1 NO – 0 [Min = 0; Max = 6]
	Signage	As a Super Regional centre signage on the direction to the mall from the main road is important. This is because most of the customers use private transport to the mall. But, more importantly, is the signage inside the mall. Proper signage will help customers to find the shops or facilities easily, hence increase their shopping experience. Good shopping centres normally have signage on direction/location of shops/facilities in various locations in the shopping centre. The display sign is also clearly visible and legible. A full score of 4 points will be given to the mall that have a road signage, proper signage that clearly visible and legible be placed in various locations in the mall. One point will give if the mall does not have a road signage, internal signage not clearly visible and available at certain places only. (Note: Information are gathered through on-site observation)	Ordinal scale 1 – 4
	Retail mix	Retail mix is important to the shopping centre. Shopping centre that has variety of retails outlet could act as one stop centre, thus could attract more customers. Type of retail outlets in the shopping mall can be categorized into 13 types: electronic appliances, apparels, jewellery, toiletries, cosmetics, footwear, sportswear, toys, books, CD/DVDs, restaurant, furniture, home decoration. A shopping centre is said having a highest retail mix if it's has all type of retails outlet. Super Regional centre, similar with regional centre that focuses on general merchandise, but offer more variety of fashion apparel, and leisure/entertainment. Therefore, for this indicator, 4 marks will be given if the mall has all type of retails outlet. One mark is given if the mall only has less than 80% from the type of retails listed. (Note: The percentage is determined arbitrarily)	Ordinal scale 1 – 4

Branding and Marketing	Category of retailers	Class of shopping mall can be evaluated based on their target customers. If majority of tenants are high-end/luxury/branded retailers, obviously the shopping mall is targeting the high-income group or customers with high purchasing power. For Super Regional centres their target market is high- and middle-income group. Thus, in line with the target market, majority of the tenants should be a mixture of high-end/luxury and mid-range retailers. In this study, 4 marks will be given to the mall that has at least 55% high-end and mid-range retailers. While 1 mark is given if less than 35% of tenants are high-end and mid-range retailers. (Note: The percentages are determined arbitrarily)	Ordinal scale 1 – 4
	Billboards	Marketing is critically important for the shopping malls especially with the current over supply situation especially in the Klang Valley area. Billboard is one of the effective methods used for marketing. There are many type of billboards; digital billboard, printed billboards, and standard signboard. In term of placement, there is a billboard that placed on the side of the building or free standing. For the Super Regional centre, billboard should be a minimum requirement, while have a digital billboard could increase the image of the centre. Digital billboard not only more attractive, but also can display more information about the mall and the products. For this indicator, a full score of 4 marks will be given to the mall that have a digital billboard either on the side of the building or free standing. While, 1 will be given if mall only have a standard signboard. (Note: Information are gathered through on-site observation)	Ordinal scale 1 – 4
	Website	Today, internet is an important source of information and marketing tools, especially for the Gen Y. However, not many shopping centres in Malaysia are fully used this tool. Some of the shopping malls still don't have a website. Meanwhile, some although have a website, but information contents of the website are very general/limited. For the Super Regional centre, where their target customers are local and international tourists, having a website so that customers can access the information online is a requirement. For this indicator, malls that have a website with minimum information content (general information) will be given 1 mark. Meanwhile, mall with website that provide comprehensive information which included list of shops, floor map, etc on top of general information will be given a full score of 4 marks. (Note: Information about this indicator are gathered through internet)	Ordinal scale 1 – 4
	Promotion Activities	Promotion such as sales and special events are important in the retail industry. This includes decorating the mall for special festival such as Chinese New Year, Deepavali, Hari Raya Aidilfitri, and Christmas. The frequency of these activities at the shopping mall could positively contribute to the higher traffic; hence sales turnover of the mall. As a big size shopping centre, Super Regional centre is expected to conduct at least 6 promotional/special event activities per year. Meanwhile, mall that has more aggressive marketing efforts may perform promotional activities every month. For this variable, mall that performs at least 12 promotional activities (special event/festival decoration/sales) will be given 4 marks. While 1 mark will be given if the frequency of promotional activities that less than 8 per year. (Note: As far as we can ascertain, there is no study on the effective number of mall promotional activities per year that can be used as a guide for this indicator. Thus, the frequency for this indicator is determined arbitrarily)	Ordinal scale 1 – 4
TOTAL			[Min=21; Max= 113]

Table 2: Sub- attributes, threshold levels and scores

Main Attribute	Sub –Attribute	Criteria/ Threshold	s	Criteria/ Threshold	s	Criteria/ Threshold	s	Criteria/ Threshold	S
Anchor tenant/ High-end brand outlet	No. of anchor tenant	More than 5 anchor tenants	4	5 anchor tenants	3	3/4 anchor tenants	2	Less than 3 anchor tenants	1
	No. of reputable anchor tenant	More than 2 reputable anchor tenants	4	2 reputable anchor tenants	3	1 reputable anchor tenant	2	No reputable anchor tenant	1
	No. of high-end/premier luxury brand outlet	At least 3 high-end/premier luxury brand outlet	4	2 high-end/premier luxury brand outlets	3	1 high-end/premier luxury brand outlet	2	Don't have high-end/premier luxury brand outlet	1
Location	Distance to nearby commercial area	Located within commercial area	4	Within 20 minutes travel time from nearby commercial area (less than 24km)	3	Within 40 minutes travel time from nearby commercial area (24 - 47km)	2	More than 40 minutes travel time from nearby commercial area (more than 47km)	1
	Distance to the nearest LRT/Train station	Within 15 minutes walking distance (less than 1200m)	4	Within 30 minutes walking distance (1200 - 2400m)	3	Within 45 minutes walking distance (2400 - 3600m)	2	More than 45 minutes walking distance (more than 3600m)	1
	Distance to nearest bus station	Within 15 minutes walking distance (less than 1200m)	4	Within 30 minutes walking distance (1200 - 2400m)	3	Within 45 minutes walking distance (2400 - 3600m)	2	More than 45 minutes walking distance (more than 3600m)	1
	Number of parking lot	10% exceeding the minimum requirement of 1 parking lot for every 46 square meters NLA	4	5% exceeding the minimum requirement of 1 parking lot for every 46 square meters NLA	3	2.5% exceeding the minimum requirement of 1 parking lot for every 46 square meters NLA	2	Meet (or less than) the minimum requirement of 1 parking lot for every 46 square meters NLA	1
	Number of parking for Disable/ Women/ Family	More than 2% of total parking lots are allocated to disable. Have special parking lots for women/ family	4	More than 2% of total parking lots are allocated to disable. But, don't have special parking lots for women/family	3	Meet the 2% requirement	2	Less than 2% OR no specific parking lot for disable.	1
	Parking payment method	-Valet parking -Touch n Go -Autopay machine -Counter Payment	4	-Touch n Go -Autopay machine -Counter Payment	3	-Autopay machine -Counter Payment	2	-Counter payment	1
	Number of entrance/exit (in or out) to parking lot	At least 4 entrance/exit access points	4	3 entrance/ exit access points	3	2 entrance/exit access points	2	One entrance/exit access point.	1
	Passenger elevator Load capacity	At least 1600kg (21 persons)	4	1275kg (17 persons)	3	1000kg (10 persons)	2	Less than 1000kg	1
	Passenger elevator average waiting time	Less than 20 seconds	4	More than 20 but less than 30 seconds	3	More than 30 but less than 40 seconds	2	More than 40 seconds	1

Facilities and services	Ratio number of escalator to the number of floor	More than 3, located at left, right, and centre of the mall.	4	At least 3, located at left, right, and centre of the mall.	3	2 located at left/right/centre of the mall.	2	1 located at left/right/centre of the mall.	1
	Toilet physical appearance	High quality fittings and accessories with electronic sensor	4	Standard accessories with good maintenance	3	Fitting with good maintenance	2	Standard fitting	1
	Lighting quality	Extremely well lighted from the outside at night. Adequate lighting for parking lot. A well-lighted common and lift area.	4	Adequate lighting for parking lot, a well-lighted common and lift area.	3	Well lighted common and at lift area	2	Well lighted at common area only	1

	Value added facilities	*Facility/Service*	10
		-Prayer Room	
		-ATM	
		-Fitness centre	
		-game arcade	
		-common area	
		-Baby changing room	
		-Clinic	
		-Children care centre	
		-Motorized vehicles for disabilities	
		-Bank	
		-post office	
		-Money changer counter	
		-Free Wifi	
		-Cinema	
		-Bowling/Ice Skating	
		-Information counter	
		-Interactive map display	
		-parking indicator light	
		-parking display (space availability)	
		-Easy parking system	
		-external recreational area	
		-Travellator to parking lot	
		-Car park lift	
	Security	*Security Method*	10
		-Security monitoring and patrolling (24/7)	
		-CCTV (inside the building)	
		-CCTV (outside the building)	
		-CCTV (parking lot)	
		-Direct link to Fire Department/within 3km radius from nearest Fire Department	
		-Direct link to Police Station/within 3km radius from nearest Police Station	

	Signage	There is a direction signage from the main road. Signages on direction/location of shops/facilities are available in various locations in the shopping centre. And, display sign is clearly visible and legible	4	There is a direction signage from the main road. Signages on direction/location of shops/facilities are available in various locations in the shopping centre.	3	There is a direction signage from the main road. Signages on direction/location of shops/facilities are available in certain location only.	2	There is no direction signage from the main road. Signages on direction/location of shops/facilities are limited. Display sign are not clearly visible and legible.	1

	Retail mix	Have all type of retails outlet	4	At least 90% retail mix	3	At least 80% retail mix	2	Less than 80% retail mix	1
	Category of retailers	At least 55% high-end/luxury, mid-range retailers	4	At least 45% are high-end retailers, mid-range retailers.	3	At least 35% are high-end retailers, mid-range retailers	2	Less than 35% are high-end retailers, mid-range retailers	1
Branding and Marketing	Billboards	Digital billboards and Printed billboard on the side of the building and/or free standing	4	Printed billboards on the side of the building and free standing	3	Printed billboards on the side of the building	2	Standard signboard	1
	Website	Shopping centre's website providing general information, list of shops, detail of floor map, list of events promotional activities, online shopping, etc	4	The website provides general information about the shopping mall, list of shops and floor map.	3	The website only provides general information about the shopping mall.	2	Have no website or website only provide with very limited information.	1
	Promotion Activities	Mall performs at least 12 promotional activities per year.	4	Mall performs at least 10 promotional activities per year.	3	Mall performs at least 8 promotional activities per year.	2	Mall performs less than 8 promotional activities per year.	1

3.2.3 Grading System

Next step is assigning the grade to the malls. Similar with Kerfoot (1999), this study proposes a grading system that consists only four grades: A, B, C, and D. Number of grades proposed by this study is also consistent with the PwC's grading system. In this study, the mall will be assigned to the respective grade based on their total scores on the sub-attributes discussed in Section 3.2.2. In brief, based on the scoring matrix, the maximum total score is 113, and the minimum score is 21 (Table 3). From the maximum and minimum total scores, the class range can be constructed and used to determine the grade of a shopping mall.

Table 3: Main attributes, sub-attributes and score

Category	Main Attribute	No. of sub-attribute (items)	Minimum total score	Maximum total score
Super regional centre (NLA > 1million square feet)	Anchor tenant and tenants' quality	3	3	12
	Location	3	3	12
	Facilities and service	12	10	69
	Branding and marketing	5	5	20
	TOTAL	**23**	**21**	**113**

In general, there are two approaches can be used to develop the class ranges. First, by constructing a four equal size classes range based on the minimum and maximum values of the total score. Secondly, by constructing the class ranges based on pre-determined percentage cut-off. In the second approach, first, the percentage of mall's total score to the maximum total score will be calculated. Then, the calculated value will be compared with the pre-determined percentage class ranges to determine grade. The main problem in this approach is to determine the appropriate percentage cut-off levels for each grade. For example, what is the minimum percentage score for a Grade A mall?

In practice, 80% is commonly used as a minimum score for Grade A. However, there are also cases where much higher or lower percentage has been used; indicating there is no standard and commonly accepted percentage levels for A. In most of the cases, the cut-off levels were determined subjectively, and mainly depend on the purpose the grade been constructed.

In this study, the second approach is preferable. Since no literatures are available to be used as a guide in determining the class limits, especially in the case of shopping centre, the class limits to some extent are determined arbitrarily. Specifically, to qualify for Grade A, a mall must get at least 80% of the maximum total overall score. A mall that gets less than 50% of the maximum total overall score will be assigned as Grade D. The details of the percentage cut-off levels for each grade are as presented in Table 5.

Table 4: Class range and grade based on percentage score

PERCENTAGE SCORE (%)	GRADE
80 till 100	A
65 and less than 80	B
50 and less than 65	C
Less than 50	D

3.2.4 Harmonisation Process

In the process of assigning grade, there is a possibility that mall's percentage total score is at the border line of the lower limit of the next higher grade. For example, the mall that score 79.5% or above but less than 80% will be in grade B. In the case like this, a harmonisation process will be carried-out to determine the final grade of the mall. In the case like this, the final decision about mall's grade will be based on the decision criteria, which is location attribute. Location is chosen as decision attribute since it is the most significant factors that determine the shopping centres rental.

Therefore, if the mall under consideration percentage score on the location attributes is 80% or higher, the mall will be re-assigned to the next higher grade. This harmonisation process will only be carried-out in the case of less than the border line, but not in the case of more than the border line. In other words, this process only for upgrading the malls in which their score is slightly less than the border line, and not for downgrading the mall with percentage score slightly higher than the border line.

4.0   Pilot Study: KLCC and iOi City Mall Putrajaya

The suitability and validity of grading instrument and grading system developed in the previous section will be evaluated by conducting a pilot study on two selected super-regional malls in Klang Valley; Suria KLCC and iOi City Mall Putrajaya. The brief background of the malls involved in the pilot study is presented in Table 5. Statistics in Table 5 clearly shows that, in term of NLA size, iOi City Mall is much larger than Suria KLCC. The most obvious different between these two super regional malls is location. Suria KLCC is in the city centre, exactly in the heart of prime commercial area of Kuala Lumpur, while iOi City Mall is located 28km away from the Kuala Lumpur city centre.

In term of anchor tenant, both shopping centres in the pilot study have five anchor tenants. Suria KLCC, however, have more prestigious anchor tenants (Isetan and Mark & Spencer). Monthly rental rates range of Suria KLCC is also far higher than iOi City Mall, with the maximum rental rate 4.5 times of the maximum rental rate for iOi City Mall. Based on the rental rate alone, clearly shows that these two malls are from two different leagues, where Suria KLCC obviously is at the higher position than the iOi City Mall. However, grading the shopping malls solely based on the rental rate is inappropriate, and could produce a bias result.

Table 5: Profile of the malls involved in the pilot study

PROFILE	MALL	
Name	Suria KLCC	iOi City Mall Putrajaya
Location	Kuala Lumpur City Centre	Sepang, Selangor
NLA	1,141,039sf	1,400,188sf
Year of start operation	1998	2014
Number of Floor	6	4
Number of Anchor tenants	5	5
List of anchor tenant(s)	Isetan; Parkson; Tanjung Golden Village (TGV); Marks & Spencer; Signature level 2 food court	Home Pro; Index living mall; Golden Screen Cinemas; Parkson; Tesco
Monthly rental*	RM20 – RM90 psf per month [(a)]	RM5 – RM20 psf per month [(b)]

*(a) Pavilion Reit Annual report (2014). (b) Business News (2016)

The data for the pilot study were collected using questionnaire. For data collection, there are two set of questionnaires were used. The first set consists of questions where information need to be gathered through face-to-face interview with the management of the shopping centre, while the second set consists of questions where data are gathered through site observation. On top of this, the required information was also gathered from the internet as well as the pamphlet issued by the respective shopping centre. Based on the data collected, the score of each sub-attribute listed in the grading matrix were determined, and subsequently the total score was computed.

Table 6 presents the score for Suria KLCC and iOi City Mall with regard to the quality of sub-attributes used in the grading system proposed by this study. The findings from the survey show that Suria KLCC total score is 91.2%, while for iOi City Mall, the total score is 73.5%. The results are consistent with our earlier expectation that Suria KLCC is at much higher grade compared with IOI City Mall. Table 6 shows that Suria KLCC is superior to iOi City mall in term of anchor tenant reputation, location, and the quality of facilities and services. Both malls, however, are similar in term of branding and marketing activities. This finding indicates that the proposed grading instrument used in the grading process can differentiate malls with different levels of quantitative and qualitative quality sub-attributes.

Table 6: Results of pilot study

Mall	Main Attribute (score)				Total score	Percentage (%)	Grade
	Anchor tenant number and reputation	Location	Facilities & Services	Branding and Marketing			
SURIA KLCC	10/12	12/12	63/69	18/20	103/113	91.2	A
iOi City Mall	6/12	7/12	53/69	17/20	83/113	73.5	B

5.0   Discussion and Conclusion

There are many variables that can contribute to the quality of shopping mall, hence the mall's grade. However, not all variables can be included in the grading criteria due to several limitations. For instance, this study excluded indicators such as sales turnover and occupancy rates. These indicators are excluded not only because unavailability of data, but also due to the nature of the variables, which is very volatile and easily affected by business cycle. These variables can be a good indicator for mall's performance but not very suitable to represent the quality of the mall.

In selecting the attributes, this study tries to minimize the usage of attributes that cannot be measured quantitatively or objectively. Some important attributes, however, are qualitative in nature. Due to this, value judgement needs to be used to evaluate the quality of the attributes. To minimize the value judgement or perception bias in the grading process, in this study, these qualitative attributes were measured by using nominal scale or dummy.

In this study, the shopping centre is graded based on four main attributes; number of anchor tenant and the quality of tenants, location, facilities and value-added services, and branding and marketing. From these main-attributes, a total of 23 sub-attributes have been identified. The quality of the sub-attributes has been ranked with minimum score of

1 for the lowest level of quality, and maximum score of 4 for the highest level of quality. Meanwhile, attributes which are in form of dummy variables will be measured using nominal scale (Yes =1, No = 0).

The proposed grading system consists of grade A, B, C, and D. To qualify for Grade A, a mall must get at least 80% of the maximum total score. A mall that gets less than 50% of the maximum total overall score will be assigned as Grade D. A pilot study was carried-out to test the validity of the proposed grading instrument on two super regional centres. The results from the pilot study showed that the proposed grading instrument is capable to grade the malls with acceptable level of accuracy.

This study also recommends a harmonisation process to be conducted to determine the grade if mall's score is at the border line. For this purpose, this study recommends the final decision should be based on location attribute since it is the most significant attribute that determine shopping centres rental rate in Malaysia. This harmonisation process, however, is only apply in the case of less than the border line, but not in the case of more than the border line. In other words, this process is to upgrade the malls that have total score slightly less than the border line.

In conclusion, the development of grading instrument should be consistent with its purpose. Different attributes used in the grading system reflect different aspect of quality of the shopping centre. The grade may also be used for different purpose in decision making. Since the instrument proposed by this study is not based on the sales turnover, it's not reflects the business performance of the shopping centre. Therefore, the results from this grading instrument should be used cautiously to avoid misinterpretation.

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