EVOLUTIONARY PATTERNS IN INDONESIAN SHOPPING CENTERS: THE CASE OF JAKARTA

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In the second term of 2006 Jakarta, the capital city of Indonesia experienced the largest retail growth in the Asian Pacific region. With more than 130 centers in 2010, the growth of Jakarta's shopping centers is not only reflected in numbers but also in their physical size. In part, this evolution of shopping centers reflects the globalization of shopping centers development and major retailers. The location, composition and design of such centers strongly resemble other shopping centers in the Asian Pacific and the United States. At the same time, however, other centers seem more unique to Indonesia. In that sense, it is rather difficult to univocally assign these centers to the categories used in the classification suggested by International Council on Shopping Center Classifications (ICSC). The purpose of this paper is to describe and analyze the evolution of shopping centers in Jakarta using data from 1960-2010. To identify patterns of evolution hierarchical cluster analysis was employed. The first step is to measure similarity and dissimilarity between samples. The second step is to label and explain the clusters that had been found. The findings suggest three clusters of evolutionary patterns; *classic* shopping center, modern contemporary shopping center, and modern local shopping center. In addition to the city-level description of the evolution of shopping centers in Jakarta, a more detailed account will be given of each cluster. The cluster study is meant to illustrate that the retail development process is dominantly driven by (semi-)copying behavior. New real estate developers in Jakarta tend to enlarge the size, change theme and feature of tenant in their response to increased competition.

Keywords: pattern of evolution, shopping center, classification, hierarchical cluster analysis

INTRODUCTION

Globally, the rapid growth in number of shopping centers has continued. Shopping centers have become more varied in terms of location, composition, and design (Coleman, 2006; DeLisle, 2009) and this also happened in Indonesia. Since 1991 the number of Indonesian shopping centers, especially in Jakarta had increased by 100% from the previous total number every ten years. The economic crisis that happened in 1997-1998 had brought no effect in the increasing number of centers.

Attempting to describe the evolution of these centres is hampered by the fact that Indonesia has no classification of shopping centers. The Indonesian Shopping Management Association (APPBI) does not have a complete data record of shopping centers in Jakarta. Existing data is based on various categorizations, and not all shopping centers are APBI members. Consequently, researchers are faced with the challenge of how to organize the historical data of shopping centers in Jakarta from 1960-2010 and analyze the pattern of evolution. The International Council on Shopping Center Classifications (ICSC) who launched a Global Shopping center Directory, performs limited research on Asian shopping centers (Japan & India are the Asian countries listed in the 2010 report). Since classifying shopping centers formats is complex in light of many definitions and categories (Pitt,

2009; DeLisle, 2007; Guy, 1998), common classification criteria for shopping centers must be resolved in the global market (DeLisle, ICSC Research, 2009).

In Indonesia, terms such as *shopping center*, *plaza*, *mall*, *and International Trade Center* do not have a major difference as to the Indonesian Trade's regulation Department they all categorize "modern private markets or shopping centers". The translation of "modern private market or shopping centers" given by Indonesian Ministry of Trade's regulation on Licensing for Private Shopping is; "*as a place for doing business, trade, recreation, eat, etc. The place is provided for groups, individuals, companies or cooperatives to sell goods and or services, located in the building/space that integrates*" (Perda No.2/2002). Applying that common definition of shopping center, Herlambang (2006) and Shau & Martin (2008) identified almost 130 shopping centers in Jakarta. Those numbers are still in debate, since not all of them can be classified as shopping centers using the global term.

Considering the absence of a classification, the objectives of this paper are twofold. First, we will identify the key variables in developing a classification of Indonesian shopping centers. Second, based on the resulting classification we will evaluate the pattern of evolution of Indonesian shopping centers. Jakarta will be used as a case study.

Background information on Jakarta

The capital city of Indonesia, DKI Jakarta, has an area of 704 km2 and 9.6 million people¹. Indicating that Jakarta is the most developed city among the other cities in Indonesia, especially in shopping centers industries, this research uses Jakarta as a case study. It is divided into five *kota* or *kotamadya* ("cities" - formerly <u>municipalities</u>) and kepulauan seribu (thousands islands); North Jakarta, East Jakarta, South Jakarta, West Jakarta and Central Jakarta. North Jakarta is the area that borders the sea. This area is mostly occupied by businesses and includes some exclusive real estate on the waterfront, especially for the Chinese who are running businesses there. West Jakarta has the highest concentration of small-scale industries in Jakarta as well as the highest population density, shown in Table.1. It includes Chinatown, which continues from North. South Jakarta, originally planned as a satellite. It has an image as a high-class area since colonial times. The lowest growth of development in Jakarta is in East Jakarta. Some moderate to lower value real estate and industries can be found there. The final part, Central Jakarta, is known as Batavia from the Dutch colonization. In more recent times, Central Jakarta has become the main business area with many office buildings. Figure 1 is a map of the cities of Jakarta with its 5 districts. Table 1 shows the population density of Jakarta's districts in 2010.

¹ Badan Pusat Statistik Republik Indonesia (Statistics Indonesia), 2010

Jakarta is a tropical and humid city, with temperatures ranging between of 24C to 34C. In order to create convenience temperature all of the shopping centers are enclosed-malls².



Figure 1. The City map of Jakarta

Table. 1 Population density in Jakarta's district

City	Area	Population	Density
	(km2)	(people)	
North Jakarta	142,20	1.468.840	10.329/km2
East Jakarta	187,73	2.393.788	12.7512/km2
South Jakarta	145,73	1.995.214	13.691/km2
West Jakarta	126,15	2.322.232	18.408/km2
Central	47,90	861.531	17.986/km2
Jakarta			

Source: http://www.jakarta.go.id/jakv1/

Source: http://en.wikipedia.org/wiki/Jakarta

Shopping Centers Definition and Classification

The term shopping center has been evolving since the early 1950s. Basically a shopping center according to Kowinski (1986) is a special space, which is achieved by enclosure, protection and control. In recent times, the term has become more complex as new types of shopping centers have emerged that do not replace the existing formats of shopping, but add to the diversity of shopping facilities (Pitt, 2009; Coleman, 2006). Many different approaches have been suggested to classify shopping centers; size (DeLisle, 2009; Neo, 2005; Guy, 1998); function (Guy, 1998); center ownership and tenancy arrangements (Neo 2005, Guy 1998); retail offering or trip purpose (Guy, 1998); tenant mix or product orientation (Coleman 2006), catchment area or location (DeLisle, 2009,Coleman 2006, Guy 1998); themes (DeLisle, 2009), or physical form (Guy, 1998)

ICSC is one of the councils which develops classification system across the world. The association of shopping centers and researchers in Indonesia frequently uses ICSC's classification as their reference, although the emergence of shopping centers format in Indonesia is somewhat different from the Western format. As there is no one classification system which is universally applicable, even within one geographical area and time period (Guy,1998), it is appropriate first to understand the growth of the shopping centers business in Jakarta.

² Only two shopping centers, Cilandak Town Square and La Piazza, are open-air centers; semi-covered and without artificial ventilations.

The Growth of Jakarta Shopping Center Business

The growth of the Indonesian shopping center business started in Jakarta in 1961 with a 7 floor shopping centre, called Sarinah. Subsequently, Jakarta had 4 phases of evolution inextricably linked to city growth development. It started in the inner city. Soon after some highways were constructed in the inner city, and new shopping centers were built next to junctions or close to the gate of these highways. Then, in 1995s the expansion of shopping centers became out of control, some occupying green spaces, public areas, as well as military properties. The more recent phase started in the 2000s, the successful centers turned out to be triggers to some developers to construct new shopping centers within the same area. The growth in numbers of Jakarta shopping centers is shown in Figure 2.



Figure 2. The growth numbers of Jakarta shopping centre (Source: Herlambang, 2009)

The possibilities to build new shopping centers were due to the weakness of planning control from the government and moreover the government also supported the developer to construct more buildings especially during 2001-2010 (Herlambang, 2009). By mapping the growth of Jakarta shopping centers periodically according to the size and location, it can be clearly seen that size cannot always be a benchmark either of range of services or location, as shown in Figure 3.





Figure 3 The Growth of Jakarta shopping centers from 1961-2010

From the same figure it can be seen that in the last period (2001-2010) new centers showed a tendency to be located close to the existing center(s) of the same or large size.

Unlike in the United States and European countries, since 1992 the type of ownership of Indonesian shopping center business management does not only include single ownership management and real estate investment trusts properties (REIT), but in addition also business units with layered systems of property (*strata-lot-title*). In single ownership management and REIT tenants lease the units, but in strata-lot-title ownership management tenants have the rights of their unit strata title (Neo, 2005). A strata title is a type of property ownership in which tenants of multilevel buildings own their unit but also share joint ownership of common areas (Neo, 2005). Strata-lot-title gives freedom to the tenants to manage and to make their own decisions with regard to the properties. As a consequence, it is difficult for management to determine tenant mix. In reality, this kind of ownership generates speculators and in some cases the units could be sold out in a very short period. After all the units were sold, the developer's task is just maintenance with no authority in the centers' management (Rahman, 2011). Generally, strata-lot-title systems are owned by the (*International*) *Trade Center* (TC). Unlike the general terms of the Trade Center, Indonesian TC could be classified as shopping centers in that these places have anchors and retail merchandise is directly sold to the customers.

In practices, it happened that one developer had more than one shopping center and had signed agreements with anchor tenants or companies who hold some franchise brands³. In the last cases definitely the company also has authority of management as it occupies at least 30% of the centers (Sjohirin, 2010; Santosa, 2010; Rahman, 2010).

³ There are at least two big companies in Indonesia with each of the company hold over 30 of various franchise brands (department store, supermarket, branded boutique and retail, food and beverage, entertainment)

With those unique characteristics this research will focus on enclosed shopping centers, which have at least one anchor tenant or supermarket.

Hierarchical Cluster Analysis (HCA)

To identify clusters of shopping centers, this research uses cluster analysis to measure similarity and dissimilarity. More specifically, a bottom-up hierarchical clustering method is applied. Clustering is achieved on the basis of a measure of 'distance' or '(dis)similarity' between centers. Typically, in clustering methods, all shopping centers within a cluster are considered to be equally belonging to the cluster. As output of HCA, a hierarchical tree diagram, called a dendrogram, shows the process of linkages. The clusters are linked at an increasing level of dissimilarity. The goal of the clustering algorithm is to join objects together into successively larger clusters, using some measure of similarity or distance. With the aid of the dendrogram, the total number of clusters can be recognized, and the hierarchical structure of the data is depicted.

Methods

Data were collected from APPBI (Indonesian Shopping Management Association), some websites of Indonesian Real Estate, articles and reports from property consultants. First, all names of shopping centers that were found in the data were cross-checked in the field. The data were completed with some keys data concerning ICSC variables on classification criteria to classify the shopping centers: *size, design, themes, feature of tenants* (DeLisle, 2009), and *timeline*.

Size

Size of a shopping center is a common criterion in many classification systems. In this research, ground floor area (GFA) was used.

Design

The variable classifies design features or physical form (DeLisle, 2009; Coleman 2006) such as the shape, location of anchors, and number of floors. In addition to the type of design, the collected data in this research was all related to enclosed-malls - addressing they were all vertical buildings with artificially lit and ventilated enclosed spaces. The physical form then was differentiated by number of floors: low-rise buildings (up to 4 floors), high-rise buildings (5 to 10 floors), and skyscrapers (over 10 floor).

Feature of Tenants

In many respects, shopping centers can be viewed as establishments that feature an "assortment of goods and services" (DeLisle, 2007). In this research, features of tenants were analyzed in terms of the *price points tenants represented* (according to price and assortment of goods and services). Five types were identified: *HE-class (high-end)* price points, which consist of international designer brand shops (boutique/*haute couture*) ; *A-class* price points, which consist of international brand shops (mass production); *B-class* price points, which consist of national brands shops; *C-class* price points, which consist of local brand shop; *Trade Center-class* price points, which consist of wholesalers and distribution outlets.

Themes

The themes or market positioning strategies classify the orientation of the shopping center ⁴ (DeLisle 2009, Coleman 2006), but could also be targeted toward specific demographics segments of the market using price, value and amenities as differentiating factors. Attached facilities within the building are studied to understand *market positioning strategy*: only as *shopping centers*; *lifestyle center*, which has many specialty stores, dining and entertainment, *specialist centers*, which offer one major category of trade combine with other tenants leisure to support; *mixed use*, real estate with some combination of retail, office, hotel, residential, recreation or other functions; *entertainment centers*, which have a special sport area such as basketball hall, bowling alley, swimming pool, or convention hall.

As management of shopping centers has the responsibility to decide on positioning strategies, Neo (2006) classified shopping centers according to type of ownership; *single ownership management, strata-title-lot, mixed of single ownership & strata-title-lot ownership, and REIT ownership.*

Timeline

Timeline was not considered in the hierarchical cluster analysis. However, data was collected. Years of establishment were divided into 5 time period between 1961-2010; *period 1* between 1961-1970, *period 2* between 1971-1980; *period 3* between 1981-1990; *period 4* between 1991-2000, and *period 5* between 2001-2010.

Data on 106 shopping centers was collected and analyzed using hierarchical cluster analysis to find relatively homogeneous clusters of shopping centers. More specifically, the complete linkage method was used to identify the clusters. Data was first standardized. Due to gaps in the data, only 88

⁴ For example a center based largely on quality clothing becomes a fashion center; entertainment-oriented centers, lifestyle centers, outlet centers, power centers, convenience centers, high-end centers, discount centers, value centers, resort centers, and other recreational centers

shopping centers could be included in this analysis. The clusters that were found will be labeled and described in detail below.

Results

In this section, we describe the shopping center clusters that resulted from the hierarchical cluster analysis. The dendrogram depicted in Figure 4 shows the results of the clustering process using size, number of floors, feature of tenants, theme of ownership, and market positioning strategy as input. The horizontal axis represents the level of (dis)similarity at which two shopping centers are joined into a cluster. Of course, it is also possible that a shopping centers is joined with a cluster formed earlier during the clustering process, or that two clusters are joined to make up a larger cluster. On the vertical axis, it is indicated with objects are joined. Table 2 shows the distinctness of each cluster according to its size, number of floors, feature of tenants and range spectrum of tenants, theme of ownership, market positioning strategy, and timeline. The vertical red line shown in Figure 4 suggests that 3 clusters are a good way to describe the variability in shopping centers. These can be labeled as *classic shopping center, modern contemporary shopping center*, and *modern local shopping center*. To give some ideas of the plans and building design, pictures of each cluster are shown in Figure 5.

Profile of Cluster 1: classic shopping center

This cluster consists of 45 shopping centers. The type of ownership is single ownership management. The market position of this cluster is shopping center. Feature of tenant's range spectrum is presented by all class price point tenants (HE-class, A-class, B-class, C-class, TC-class), but *B-class* price point is the major feature of tenants. The average size (GFA) of the shopping centers in this cluster is 60.126 m2 and the average number of floors is 6. These centers were built between 1971 and 2010, but most expansion of this segment took place between 2001 and 2010.

Dharmawangsa Square	Pondok Indah Mall II	Pasaraya Blok M
Mall Kelapa Gading 2	Pondok Indah Mall I	Mega Pasaraya Seibu
Mall Kelapa Gading 3	Puri Indah Mall	Pusat Grosir Cililitan 2
Mall Kelapa Gading 1	Kalibata Plaza	Jatinegara Plaza
Mall Kelapa Gading 5	Slipi Jaya Plaza	Koja Plaza
Daan Mogot Mall	Mall Cilandak	Pusat Grosir Cililitan 1
Kramat Jati Indah Plaza	ITC Roxy Mas	Blok M Square
D'best Fatmawati	Mall Blok M	ITC Cempaka Mas
Menteng Huis KF	Kelapa Gading Trade Center	ITC Mangga Dua
Plaza Cibubur	Emporium Pluit Mall	Arion Mall
Matahari Puri Mall	Melawai Plaza	Sunter Mall
La Piazza	Pasaraya Grande	Pulogadung Trade Center
Cilandak Town Square	Pasaraya Manggarai	Tamini Square
Setiabudi One	Pejaten Village	Cibubur Junction
Plaza Senayan	Blok M Plaza	

The names of the shopping centers in this cluster are:

Profile of cluster 2: modern contemporary shopping center

This cluster consists of 21 shopping centers. All have single ownership management. The market position of this cluster is mixed-use. Feature of tenant's range spectrum is presented by 4 classes of price point tenants (HE-class, A-class, B-class, C-class), the *A-class* price point being the most important. The average size (GFA) of the shopping centers in this cluster is 75.130 m2 and the average number of floors is 7. Time of development is almost similar to that of cluster 1. The difference is that in this cluster one center was built in 1961.

The names of the shopping centers in this cluster are:

Belleza Shopping Arc	Ratu Plaza	Mall Taman Anggrek
Mall of Indonesia	Pluit Mega Mall	Pluit Junction
Plaza Indonesia	Mall Pasar Festival	Mall Ciputra
The Arcade @Oakwood	Rasuna Epicentrum Walk	Central Park
Pacific Place	Jakarta Design Centre	Gandaria City
Golden Truly Gn Sahari	Sarinah	Grand Indonesia ST
Plaza Mebel TC	fX Mall	Senayan City

Profile of cluster 3: modern local shopping centre

This cluster consists of 22 shopping centers. The type of ownership is mix of ownership management (single ownership and strata-title ownership). The market position of this cluster is mixed-use. Feature of tenant's range spectrum is presented only by 2 classes of price points tenants (B-class, TC-class). The *TC-class* price point is the major one. The average size (GFA) of the shopping centers in this cluster is 80.448 m2 and the average number of floors is 8. These centers started to be built from 1981, but most were developed after 2001.

The names of the shopping centers in this cluster are:

Sport Mall Kelapa Gading	Plaza Glodok	Gadjah Mada Plaza
Trade Mall Taman Palem	ITC Fatmawati	Plaza Semanggi
Carrefour Cempaka Putih	ITC Kuningan	Lindeteves TC
STC Senayan	Mall Ambasador	Mangga Dua Square
Season City	ITC Harco Mas Mangga Dua	Metro Tanah Abang
Atrium Plaza Senen	Kelapa Gading Hypermall	WTC Mangga Dua
Kenari Mas Plaza	Mega Glodok Kemayoran	Mall Artha Gading
Grand ITC Permata Hijau	Thamrin City	

Among the three clusters, the *modern local shopping centre* cluster has more within dissimilarity of centers. The *classic shopping center* cluster tends to be more homogeneous.



Figure 4. Dendrogram for Complete Linkage Hierarchical Clustering of Jakarta Shopping centers

Table 3. Profile clusters of Jakarta shopping centers

	Classic shopping centers	Modern Contemporary shopping centers	Modern Local shopping centers
Number of cases	44 cases	21 cases	23 cases
Size m2 (GFA)	55.356 m2	75.130 m2	88.689 m2
Average number of floors	6 fl	7 fl	8 fl
Feature of tenants	B-class price point	A-class price point	Trade center-class price point
Range spectrum feature of tenants	HE – A – B – C – TC	HE – A – B - C	B - TC
Type of ownerships	Single ownership	All is single ownership	Mix of ownership
Market positioning strategies	Shopping center	Mixed-use	Mixed-use
Timeline	2000-2010	2000-2010	2000-2010
Range spectrum timeline	4 periods 1971-2010	4 periods 1961-1970; 1981-2020	3 periods 1981-2010







Figure 5a. Sample of a Classic shopping center Mall Puri Indah (1997) – West Jakarta 57.000 m2 5fl, A-class price point, Market positioning strategy: shopping center



Figure 5b. Sample of a Modern contemporary shopping center Mall Taman Anggrek (1996) – North Jakarta 60.000m2 7floors A-class price point, Mixed-use (mix with apartment)



Figure 5c. Sample of a Modern local shopping center Thamrin City (2006) – Central Jakarta 361.000m2 12floors, Trade center-class price point, mixed use (mix with apartment)

Discussion and Conclusion

This research documents the evolution pattern of shopping center in Jakarta. Using agglomerative clustering analysis, results suggest that size is significant in determining market strategy. The two types of *modern shopping centers*, which focus on the mixed-use market, are on average 37% bigger than *classic shopping centers* which focus only on the shopping center market. The *classic shopping centers* which focus only on the shopping center market. The *classic shopping center* cluster represents 50% of the shopping centers in Jakarta. As the largest of the clusters, this cluster is characterized by *B-class* price points and single ownership management. However, not all of the centers in this cluster are equally similar. Results indicated there are 6 groups of sub-clusters consisting of 2 to 11 shopping with a somewhat distinct pattern of similarity.

Clusters 2 and 3 are both labeled as *modern shopping centers*. The *modern shopping centers* change their strategy from pure shopping center to mixed-use (Coleman, 2006). By developing mixed-use the centers create their own market which is close to or comes from within the same area. The shopping centers in these clusters mostly were built between 1981-2010.

Cluster 2 has all single ownership management, meaning that management can determine the atmospherics and design visual presentations as well as the quality of maintenance. In general, the centers belonging to this cluster follow Western centers. Therefore, cluster 2 is labeled as *modern contemporary shopping centers*. Cluster 3 is labeled *modern local shopping centers* because the type of ownership is a combination of single ownership and strata-title-lot ownership. The *trade-center class* price point as the feature of tenants in shopping centers is rare in the world. It is a highly Indonesian characteristic.

With 24% of the shopping centers in this cluster, *modern contemporary shopping centers* are the smallest cluster in Jakarta. These shopping centers tend to copy *s* in both interior and exterior design Western centers.

The *modern local shopping center* has the narrowest range in price points. However, on average, these centers are the largest.

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