

# TENANT PLACEMENT STRATEGY WITHIN MALL IN JAKARTA

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## ABSTRACT

Jakarta is a city that has the largest amount of shopping center in the world and has been names as “The Capital City of the World’s Shopping Center”. The high competition has become a challenge for the mall’s manager to choose the right tenant placement strategy in order to increase the profits of both tenants and mall’s management. Broadly, the tenant placement strategy could be divided into two core strategies, dispersion strategy and departmentalization strategy. This research argues that the tenant placement strategy is affected by the height of the mall and mall’s configuration. The research’s purpose is to analyze the influence of the variables such as total level, level, level gross leasable area, total unit, unit, complexity, net leasable area ratio, and total gross leasable area on the degree of departmentalization. The research subject is mall’s floor on the mall located in Jakarta who takes place around business district that not only has four floor levels or more but also has total gross leasable area more than 100.000 m2. Based on these criteria and using judgmental sampling technique, there were 51 observations that included in the research. The data that used are the result of the ArcGis analysis which is then processed by statistic software called eViews. The result of the research shows that the tenant placement strategy is affected by the configuration of the mall as a whole, not by the floor level of the mall individually. The degree of departmentalization is affected positively by the total gross leasable area of the mall. This finding could be used as the suggestion for the mall’s management to increase the mall’s productivity by choosing the right tenant placement strategy in order to increase the profits of both tenants and mall’s management.

**Keywords:** mall height, mall configuration, departmentalization, complexity, tenant placement strategy, tenant mix

## ABSTRAK

Jakarta adalah kota yang memiliki jumlah pusat perbelanjaan terbesar di dunia dan telah dinamai "Ibukota Pusat Perbelanjaan Dunia". Persaingan yang tinggi telah menjadi tantangan bagi manajer mal untuk memilih strategi penempatan penyewa yang tepat untuk meningkatkan keuntungan penyewa dan manajemen mal. Secara umum, strategi penempatan penyewa dapat dibagi menjadi dua strategi inti, strategi dispersi dan strategi departemen. Penelitian ini berpendapat bahwa strategi penempatan penyewa dipengaruhi oleh ketinggian mal dan konfigurasi mal. Tujuan penelitian ini adalah untuk menganalisis pengaruh variabel seperti level total, level, gross leasable area, total unit, unit, kompleksitas, rasio net keasable area, dan total luas leasable bruto pada tingkat departemen. Subjek penelitian adalah lantai mal di mal yang berlokasi di Jakarta yang berlokasi di sekitar kawasan bisnis yang tidak hanya memiliki empat lantai atau lebih, tetapi juga memiliki total gross leasable area lebih dari 100.000 m2. Berdasarkan kriteria ini dan menggunakan teknik judgemental sampling, ada 51 pengamatan yang termasuk dalam penelitian. Data yang digunakan adalah hasil analisis ArcGis yang kemudian diproses dengan menggunakan eViews. Hasil penelitian menunjukkan bahwa strategi penempatan penyewa dipengaruhi oleh konfigurasi mal secara keseluruhan, bukan oleh tingkat lantai mal secara individual. Tingkat departemenisasi dipengaruhi secara positif oleh total gross leasable area. Temuan ini dapat digunakan sebagai saran bagi manajemen mal untuk meningkatkan produktivitas mal dengan memilih strategi penempatan penyewa yang tepat untuk meningkatkan keuntungan penyewa dan manajemen mal.

**Kata kunci:** tinggi mal, konfigurasi mal, departemen, kompleksitas, strategi penempatan penyewa, campuran penyewa

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## 1. Introduction

Indonesian economic growth is forecasted to grow in 2020 with the increment of Gross Domestic Product (GDP) Growth from 5,17% in 2018 to 5.18% in 2019 which is different from the last four years that show the decrement on every year, (Asian Development Bank, 2019). But in contrast to the economic growth, the growth of retail business in Indonesia shows the increment every year despite of the economic growth that shows the decrement. Global Retail Development Index (GRDI) shows Indonesia occupied 12th position, 8th position in 2017 which is the highest rank that Indonesia has ever got, up three places from the previous year. However in 2019 Indonesia occupied 5<sup>th</sup> position (Kearney,2019).

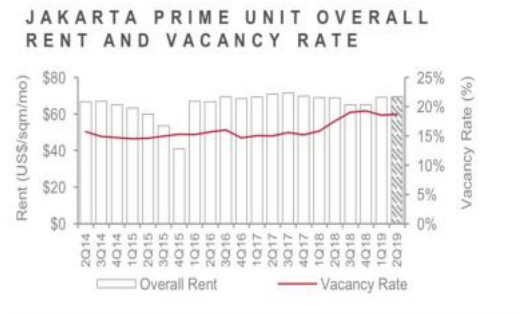
Indonesia has become one of the countries in Southeast Asia that attract the attention of foreign retailers to enter. Foreign retailers are not only still seeing Indonesian retail market positively but also have high interest to enter the Indonesian market itself. It could be seen from the opening of new retail outlets like in fashion and food sectors (Maulana, 2015).

Besides that, the growth of retail business in Indonesia also attracts the developers or shopping centers especially Jakarta. On the fourth quarter of 2019, there are about 4.453.000 m<sup>2</sup> retail space (Cushman & Wakefield, 2019) with more than 175 shopping centers which will continue to increase as the completion of the development project of the new shopping center which has been running, (Cushman & Wakefield, 2019).

Since Jakarta has the highest number of shopping center with the high amount of retail space in the world, it makes Jakarta called as “The Capital City of World Shopping Center”. If synchronized with an area of Vatican, the total area of retail space in Jakarta is as

much as nine times the size of the Vatican (Lamudi, 2014). Besides that, even though the supply, demand and occupancy rate of Jakarta retail business increase every year, the supply of retail business in Jakarta bigger than the demand itself (Cushman & Wakefield, 2019).

**Figure 1. Supply and Demand of Retail Business in Jakarta**



Source : Cushman and Wakefield (2019)

Figure 1 shows the greater number of supply than the number of demand in Jakarta retail business. It is become a challenge for mall's manager to draw up the right strategy to attract consumers as much as possible which is related to the profitability of both tenants located inside the mall and mall's management whose profit could be seen from the leasing activity and others.

## 2. Literature Review

### 2.1 Retail Location

In the retail world, location is an important factor that needs attention. The importance of this factor is seen because location is included in 3 important factors in the retail world, namely, location, location, location (Cox & Brittain, 2004). In line with Cox and Britain, Levy and Weitz (2012) also stated that three reasons why location is a very important factor. First, location is one of the most influential considerations in customer decision making in selecting retail outlets. Second, location has strategic importance because it can be used to develop sustainable competitive

advantage. For example, when a retailer gets a very good location which is the most attractive location for its consumers, competitors cannot easily imitate this advantage and are forced to choose another location. Third, location selection has risks because when retailers choose a location, they must make a large investment to buy the location and develop or must commit to leasing the location in the long run over a period of five to 15 years.

Levy and Weitz (2012) broadly divides it into three types of locations, namely, freestanding, business district, and shopping centers with trade offs involving each business area, location occupancy costs, freestanding type and business area are put into one category, unplanned area. As for the shopping center is divided into six types of shopping centers with a variety of areas, ranging from 30 m<sup>2</sup> to the largest with an area of 1,000 m<sup>2</sup> for the type of mall. Freestanding is a retail location for individuals or retail outlets that are isolated and do not have connections with other retailer but may be located near the freestanding location of other retailers or shopping centers (Berman *et al.*, 2018). While the business district is a traditional business center area in the city or city center. And shopping centers are groups of retailers and other commercial businesses that are planned, developed, owned, and managed as one property.

## 2.2 Mall and Mall Type.

The Mall is a shopping center, with a climate that can be controlled and has lighting consisting of retail outlets on one or both sides of the pedestrian corridor (Levy & Weitz, 2012). Whereas the International Council of Shopping Center (ICSC) defines the mall as a group of retailers and other commercial businesses that are planned, developed, owned, and managed as a property consisting of

commercial rental units with various brands (ICSC, n.d.). According to Levy and Weitz (2012), malls can be classified as Regional Malls with an area of less than 800,000 m<sup>2</sup> or Super-regional Malls with an area of more than 800,000 m<sup>2</sup>. There is no difference between these two types of malls, the only difference is that the Super-regional Mall has a larger area with anchor tenants and retail outlets more than the Regional Mall which has smaller coverage compared to the Super-regional Mall. Similar to (Berman *et al.*, 2018). ICSC divides malls into more detailed classifications namely Regional, Super-regional and Mega-Mall (ICSC, n.d.).

The types and categories of retail above do not have fundamental differences in Indonesia. This is because the Indonesian Department of Trade Regulations categorizes everything as a modern shopping center. Based on the Minister of Trade Regulation R.I. Number 70 / M-DAG / PER / 12/2013, a shopping center is "a certain area consisting of one or several buildings that are erected vertically or horizontally, which are sold or leased to business actors or self-managed to carry out trading activities of goods (Ministry of Trade of the Republic of Indonesia, 2013). In addition, the Urban Land Institute divides malls into five classifications based on the GLA (Gross Leasable Area) of the mall (Vernor *et al.*, 2009). The classification division is as follows Furthermore, there are two core strategies in tenant placement that could be implemented in the mall. First strategy is dispersion where tenant with the same retail category will be widely distributed; while in contrast, the second strategy is departmentalization where tenant with the same retail category will be placed in group or clustered in a particular area (Yuo & Lizieri, 2013).

This research focused on the third principles that said non-anchor tenants

with the same retail category should be distributed dispersedly rather than being clustered in a single location. This research argued that tenant placement strategy is affected by the height of the mall and mall configuration. This research was conducted in Jakarta since Jakarta has the highest number of shopping center with the high amount of retail space in the world and called as “The Capital City of World Shopping Center” that the greater number of supply than the number of demand of retail business area made the high competition arise among the existing malls which related to mall’s profitability.

The research subject is focus on the floor plan of the large-scale mall that located around the business district in Jakarta that have more than four floor level with GLA more than 100,000 m<sup>2</sup>. Then, the empirical analysis using data from large-scale mall in Jakarta with total 51 detailed floor plan from 7 mall such as Plaza Indonesia (7), Grand Indonesia-East Mall (10), Grand Indonesia-West Mall (8), Plaza Senayan (6), Senayan City (8), Kota Kasablanka Mall (5) and LotteShopping Avenue (7). The detailed floor plans were digitized using geographical information system (GIS) software called ArcGis which able to provide the combination of spatial data (GLA, net leasable area, etc.) and non-spatial data (tenant’s retail category). These data are not only used to identify the degree of departmentalization and the degree of complexity, but also used to investigate whether tenant placement strategy is affected by the mall configuration and to identify what is the factor influenced the departmentalization strategy.

### **2.3 Mall Management and Tenant Mix**

Retail is a set of business activity that added value on the product or services that sold for the consumer’s personal used or consumer’s family used (Levy & Weitz, 2012) and mall is the most successful retail format on the 20th century (Carter, 2009). International Council of Shopping Center or ICSC (n.d) define mall as an agglomeration of various category of retailers and other commercial establishment that is planned, developed and managed as a single property which consist of rental units with variety of brands. As an agglomeration of retailers, the mall’s productivity is affected by the product variety which means the higher the product variety inside the mall, the higher the mall’s productivity (Arakawa, 2006).

Urban Land Institute categorize the mall into five classification based on the leading tenant or anchor tenant in the mall (Vernor *et al.*, 2009). Roy and Masih (2007) stated that globally, mall management broadly includes five points. They are positioning, zoning (tenant mix formulation and tenant placement in the mall), promotion and marketing, facility management (infrastructure, traffic and ambience management) and the last one is finance management. But in this research the focus attention is on the zoning.

Positioning in the mall management refers to the determination of the categories of services to be offered to consumers based on demographics, psychographics, income level, competition, and extensive market research. In addition, positioning can also be interpreted as determining the location of the mall is where a good location is determined by factors such as the easy road access, is located in an area with visibility good, and other factors considered as a key condition for a mall because of the location of the mall unable to move, in contrast with the tenant mix or

other factors that may change later on (Roy & Masih, 2007)

Promotions and marketing activities in a mall is a form of mall management. Activities like festivals, exhibitions, celebrity visits can increase the number of visitors and traffic mall which can also be accompanied by the level of sales. Then, facilities management refers to the integration of consumers or visitors, place, processes and technology that exist in the mall. This management also defined as the utilization of available resources in order to be optimally meeting the needs. Broadly speaking, the management of these facilities includes the management of infrastructure, ambience management, and traffic management. Fourth, finance management which management all matter related to the financing, monitoring and controlling all financial transaction and activities (Roy & Masih, 2007).

The last one is Zoning that define as the formulation of appropriate tenant mix and its placement inside the mall. Zoning refers to the division of mall space into zones placement of a wide range of retailers where the success of a mall depends on the success of its tenants. It also could be interpreted into the financial feasibility of tenants in the mall. The right tenant mix could form an assemblage that generate optimal sales, rental, service to the community and financiability of the shopping mall (Roy & Masih, 2007).

Tenant mix is one of the crucial factors in determining the success of the mall (Burnaz & Topcu, 2011) which was also noticed by the manager of mall and the researcher on the long term due to significant construction and development of the mall (You *et al.*, 2004). Tenant mix could be define as the combination of retail outlets that can fill the space available in the mall (Roy & Masih, 2007), but it also could be defined as the

group of tenants (Burnaz & Topcu, 2011; Yuo *et al.*, 2004).

According to Anikeeff (1996), tenant mix is more important in retail businesses compare to other commercial business. Because of that, the management of the mall should be able to choose the right and appropriate tenant mix which also could be used not only to build and maintain the image of the mall but also to attract more visitors and consumers (Burnaz & Topcu, 2011).

#### **2.4 Special Theory on Planning Tenant Mix**

There some theory that related to the selection and formulation of tenant mix at the mall such as central place theory, retail demand externalities and bid rent theory. Central place theory is one of the theories retail location that introduced by Chris-taller in the mid-1930s which have an ability to analyze the problem on complex location under very simplified condition. In this theory, there are two factors that considered managing the complexity in spatial decision making, which range and thresholds. The range is the maximum distance that will be taken by the consumer to buy a product which according to Christaller, 1933 is equal to the distance to the nearest shopping center that provides the product. The maximum range is the point where the total price of the product is equal to the value of such products to the consumer, so the surplus is zero. While the threshold is the minimum requirement necessary for a store to remain economically viable. In other words, the analysis of the threshold determines the number and location of shopping centers using the minimum return required by retailers in order to break even (Eppli & Benjamin, 1994). Furthermore, there is retail demand externalities theory that related to the selection and formulation of tenant mix. Retail demand externalities believes that

on the large-scale shopping center, non-anchor tenants receive additional demand externalities from the additional traffic that generated by anchor tenants. The sales of non-anchor tenants are increasing when the anchor tenants exist at the shopping center (Eppli & Benjamin, 1994).

The third one is bid rent theory which refer to the relationship between price and distance of the property to a business district, the closer the property to the business district, the more willing the owner to pay more in which this concept is used to maximize the profitability (Choi, 2013). The concept of bid rent theory could be implemented on mall management where the owners face the constant challenge of how to fill the empty area in the mall, which in this case the non-anchor tenant act as the property located outside the business district (Carter & Vandell, 2005).

## **2.5 Tenant Placement Strategy within Mall**

As an agglomeration of retailers, the mall's productivity is affected by the product variety which means the higher the product variety inside the mall, the higher the mall's productivity (Arakawa, 2006). Because of that, to maximize the operational performance, whole area in the mall should be used effectively and efficiently.

Yuo and Lizieri (2013) has identified two core strategies in tenant placement that could be implemented in the mall, dispersion and departmentalization. Dispersion is the strategy where tenants with the same retail category will be widely distributed. While in contrast, departmentalization is strategy where tenants with the same retail category will be placed in group or clustered in a particular area.

Based on the prior research on shopping center that mostly located on

suburban or out of town area, Yuo and Lizieri (2013) said that there are three consensuses on basic location and space allocation principles as follow:

1. The configuration of the floor plan should allow the maximize number of consumers to pass as much as possible existing outlets or units inside the mall.
2. The mall should be dumbbell shaped or extended to I, L, Y, X, or Z shape with the anchor tenant located in the mall ends and non-anchor tenants located along the corridors that connect the existing anchor tenants in order to maximize the number of foot fall.
3. Non-anchor tenants that have the same retail category should be distributed dispersedly rather than being clustered in a single location.

However, there are some difficulties arise in implementing the principles above on the mall that located in urban area with a high population density. Besides, the observations on the development of multi-level shopping centers that located in Asia's big cities that exhibited similar characteristic which located in town with high prices of land, unusual land shapes and mixed-used development such as station has established a mall with a high level as in Taiwan where the amount of the average level of seventy mall is ten levels (Yiu *et al.*, 2008). Because of that, it will be difficult to implement and maintain the first two principles in Asia in-city malls that have complex mall configuration (Yuo & Lizieri, 2013).

It is difficult to implement and maintain the first two consensuses on basic location and space allocation principles, this research focused on the third principles that said non-anchor tenants with the same retail category should be distributed dispersedly rather than being clustered in a single location.



**Table 1. Sample of the Research**

No.	Name of the Mall	Size of the mall (GLA in m <sup>2</sup> )	Total Floor Level
1.	Plaza Indonesia B,1,2,3,4,5,6	133,779.607	7
2.	Grand Indonesia-East Mall LG, G, UG, 1,2,3,3A, 5,6,8,	110,170.854	10
3.	Grand Indonesia-West Mall LG, G, UG, 1,2,3,3A, 5	105,882.767	8
4.	Plaza Senayan LB,1,2,3,4,5	103,619.235	6
5.	Senayan City LG,G,1,2,3,4,5,6	153,428.881	8
6.	Kota Kasablanka Mall LG,G,UG,1,2	165,286.339	5
7.	Lotte Shopping Avenue LG,G,1,2,3,4,5	138,754.016	7
	Total		51

The purpose of the research is to examine the relationship between the configurations of the mall with the tendency of tenants with the same retail category to be clustered in a particular area which is also called as a degree of departmentalization.

The objective of tenant placement strategy is generating high spillover effect and maximizing the profit of tenants that agglomerated in one area. Focusing on the impact of product's searching process that made by consumers, the spillover effect which is an additional effect arising from the spread of consumers that buying a product in a wide variety of outlets, suggesting strategies dispersion will be effective in maximizing footfall (the number of people who enters the store or the shopping area in a given time) in all types of existing outlets (Yuo & Lizieri, 2013).

In order to maximizing the spillover effect, the dispersion strategy should fulfill the requirement where the mall should have the simple mall configuration, simple pedestrian path and low degree of complexity that make consumer could pass through the significant number of tenants. Simple mall configuration that support by the low degree of complexity enable the consumer to pass through almost all of the tenant which enable the mall that only has

one or two level to use dispersion strategy easily (You & Lizieri, 2013).

However, there are some difficulties arise in implementing the principles above on the mall that located in urban area with a high population density such as Hong Kong, Singapore and China because of the shape of its mall that has multi-level structures (You & Lizieri, 2013). Besides, the observations on the development of multi-level shopping centers that located in Asia's big cities that exhibited similar characteristic which located in town with high prices of land, unusual land shapes and mixed-used development such as station has established a mall with a high level as in Taiwan where the amount of the average level of seventy mall is ten levels (Yiu *et al.*, 2008).

Because of that, it will be difficult to implement and maintain the first two principles in Asia in-city malls that have complex mall configuration (Yuo & Lizieri, 2013). There is an assumption that the tenant placement strategy on the mall depend on the total number of floor level and the mall configuration. So that, the managers of low-rise mall with simple mall configuration tends to use dispersion strategy. In contrast, managers of high-rise mall that have high degree of complexity tend to use departmentalization strategy. In specific, the higher the total number of floor level, the smaller the single floor area, in addition the higher the degree of complexity of consumer path circulation,



finally the higher the degree of departmentalization on the mall. Then, to test the assumption, Department used as the dependent variable and some independents variables are Total Level, Level, Total GLA, Level GLA, Unit, Total Unit, NLA Ratio, and Complexity. The dependent variable, Department, is measure by using the degree of departmentalization. The measurement is based on the proximity of a tenant to another tenant with the same retail category to be clustered in a particular area by using distance of five meters as the threshold (Yuo & Lizieri, 2013).

$$\text{Department}_{kj} = \frac{\sum_i f_{5ij}}{F_j}$$

Department<sub>kj</sub>:

Degree of Departmentalization which tenants with retail category *i* agglomerated within floor *j* in mall *k*.

*f*<sub>5ij</sub>: Total floor area where more than three tenants with the retail category *i* clustered within five meters within floor *j*.

*F*<sub>*j*</sub>: Total floor area for floor *j*

*j*: floor level

*i*: Retail Category

Furthermore, Complexity, an independent variable that measures the density rate of the single floor level is measure by using the Inter-Connection Density (ICD) concept that introduce by O'Neill on 1991 which is the average number of connections that can be passed by consumer on every decision point on the floor.

$$\text{Complexity}_j = \frac{P_j \times D_j}{F_j}$$

Complexity<sub>*j*</sub>:

Degree of complexity on floor *j*

*D*<sub>*j*</sub>: Total number of link on floor *j*

*P*<sub>*j*</sub>: Total number of decision point on floor *j*

*F*<sub>*j*</sub>: Total floor area on floor *j*

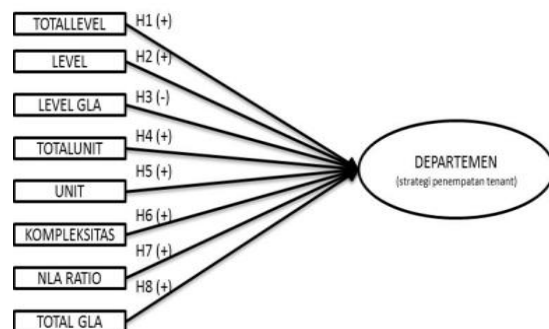
*j*: floor level

Furthermore, the multiple regression analysis is conducted to examine the relationship between the mall configurations with the degree of departmentalization.

**Table 2. Research Variable**

Name of Variable	Definition
DEPARTMENT	Degree of departmentalization
TOTAL LEVEL	Total number of floor levels in the mall
LEVEL	The floor level within the mall
UNIT	Number of units on the floor level
TOTAL UNIT	The total number of retail units within the whole mall
TOTAL GLA	Size of the mall in GLA
LEVEL GLA	Size of the level in GLA
NLA RATIO	Ratio of NLA to GLA of the floor level
COMPLEXITY	Degree of complexity or density rate of the floor level

### 3. Reseach Model



Total Level and Level are expected to have positive relationship to degree of departmentalization. For vertical mall, the higher the floor level, the more likely tenants with the same retail category to be clustered (Yuo & Lizieri, 2013).

H<sub>1</sub>: Total floor level of the mall positively affected the degree of departmentalization

H<sub>2</sub>: The level of the floor positively affected the degree of departmentalization

Since this research focus on the large-scale mall, the researcher expects the smaller the size of single floor area, the more level are required which enable the degree of departmentalization to increase. Consequently, Level GLA which is the size of gross leasable area of individual floor should be negatively related to departmentalization of the mall (Yuo & Lizieri, 2013).

H<sub>3</sub>: The size of the single floor area in GLA negatively affected the degree of departmentalization.

Furthermore, the basic model suggested that the high degree of complexity support the implementation of departmentalization strategy which can show clear retail area to consumer that enable to decrease searching cost and comparison cost of consumer's shopping cost. Because of that, total number of units within the whole mall (Total Unit), total number of units in the single floor level (Unit), and complexity expected to positively affected the degree of departmentalization (Yuo & Lizieri, 2013).

H<sub>4</sub>: The total number of retail units within the whole mall positively affected the degree of departmentalization

H<sub>5</sub>: The total number of units on the floor level positively affected the degree of departmentalization

H<sub>6</sub>: The degree of complexity on individual floor level positively affected the degree of departmentalization

Another two control variables are NLA Ratio and Total GLA. NLA Ratio is a ratio that measure effective floor area which has significant influence on aggregate center value where the ratio of effective floor tends to affect the degree of departmentalization. Furthermore, low

ratio of effective floor tends to associate to the floor complexity (Yuo & Lizieri, 2013). In addition, Total GLA which describes the total size of the whole mall is expected to positively affect the degree of departmentalization because the larger mall, the more unit that the mall has. The implementation of the dispersion strategy on a large mall expected to increase searching cost and comparison cost of consumer's shopping cost. Thus, the implementation of the departmentalization strategy could decrease these costs and generate higher turnover (Yuo & Lizieri, 2013).

H<sub>7</sub>: The ratio of NLA to GLA of the individual floor level negatively affected the degree of departmentalization

H<sub>8</sub>: The size of the whole mall in GLA positively affected the degree of departmentalization

Preliminary tests of variable also conducted to check the existence of multicollinearity problems and heteroscedasticity problem. The model was run on software called eViews using least square method. The result showed there was no indication that the basic model of multiple regressions should be separated into sub-model to avoid multicollinearity, as well as heteroscedasticity problems. Multicollinearity is exist when the value of VIF is more than 10 (Hair, 2010) and heteroscedasticity is exist when the Prob F value is less than 0.05.

## 4. Analysis and Discussion

### 4.1.1 Plaza Indonesia

The Plaza Indonesia has Total Lease Area 137.775 m<sup>2</sup>, net Lease Area is 75.500 m<sup>2</sup>, the number of floors is 7, Total number of Retail categories 63 and Total Tenant 465, dominated by Fashion, Food and Beverage. The table below will explain how the tenant is structured and

calculate the Department and complexity of each floor.

**Tabel 3. Plaza Indonesia**

FL	GLA	NLA	T.T	R.C	DEP	D.P	LINKS	COMP
LB	11.795 m <sup>2</sup>	8.899 m <sup>2</sup>	67	12	0,18281	14	38	0,0451
1 <sup>st</sup> fl	31.306 m <sup>2</sup>	17.209 m <sup>2</sup>	83	7	0,62381	35	99	0,11067
2 <sup>nd</sup> fl	29.400 m <sup>2</sup>	14.828 m <sup>2</sup>	73	8	0,56017	27	74	0,0703
3 <sup>rd</sup> fl	31.576 m <sup>2</sup>	14.328 m <sup>2</sup>	114	18	0,47259	32	83	0,08411
4 <sup>th</sup> fl	19.662 m <sup>2</sup>	10.394 m <sup>2</sup>	46	9	0,46694	23	68	0,07954
5 <sup>th</sup> fl	9.995 m <sup>2</sup>	5.588 m <sup>2</sup>	73	7	0,68380	12	32	0,03841
6 <sup>th</sup> fl	5.041 m <sup>2</sup>	4.254 m <sup>2</sup>	9	2	0,00988	4	8	0,00634

FL: Floor. GLA: Gross lease Area NLA: Net Lease Area, TT: Total Tenant RC: Retail Categories, DEP: Department, DP: Decision Point COMP: COMPLEXITY.  
Source: Data Processing (2019)

The results above it can be explained the value of 0 indicates that there is no grouping formed in the placement of existing tenants, in other words, the low value indicates a tendency towards dispersion strategies in tenant placement. Whereas on the contrary, the value of 0.990 shows that tenants are placed in groups based on their respective retail categories or in other words there is a tendency to use departmental strategies in placing existing tenants. The higher the value of departmental level of a floor, the higher the tendency of mall management to place tenants in groups according to the retail category of each tenant. Complexity which states the level of density of a floor level in the mall. The higher value of the complexity of a floor level indicates that the circulation of visitor movements on that floor is increasingly complex due to the existence of many branching points of the road. This variable calculation is done by covering the number of decision points, links and floor area level. From the descriptive statistics table it is show that

the maximum level of complexity of a floor reaches a number 0,23. Whereas the level of complexity of minimum is number 0,0001 which indicate that the circulation of visitors on the floor is very simple, and for the average value the level of complexity 0,04 When seen from the results of Table.2 above, the good Departments are Floor 5 and Floor 1, where the results are close to 1, then it shows the grouping of tenant according to catagories, while for the high level of Complexity is Floor 1, while the low Complexity level is Floor 6 and 5th floor.

#### 4.1.2 Grand Indonesia West Mall

The Grand Indonesia West has Total Gross Lease Area 107.442 m<sup>2</sup>, Net Lease Area is 70.697 m<sup>2</sup>, the number of Floor is 10, Total number of Retail catagories 50 and Total Tenants 155, dominated by Fashion, life Style, Food and Beverage. The table below will explain how the tenants is structured and calculate the Department and Complexity of each Floor.

**Table 4. Grand Indonesia West Mall**

FL	GLA	NLA	T.T	R.C	DEP	D.P	LINKS	COMP
LG	13,446 m2	10,478 m2	26	8	0,21415	4	10	0,00297
G	13,446 m2	8,369 m2	6	1	0,11679	6	18	0,00932
UG	11,064 m2	8,444 m2	22	7	0,10248	11	32	0,03181
1 <sup>st</sup> fl	10,900 m2	8,292 m2	19	5	0,09502	9	26	0,02146
2 <sup>nd</sup> fl	11,223 m2	8,261 m2	17	6	0,16043	9	26	0,02084
3 <sup>rd</sup> fl	11,274 m2	8,266 m2	18	7	0,13412	9	26	0,02075
3 <sup>rd</sup> A.fl	10,981 m2	5,467 m2	22	3	0,91353	8	24	0,01748
5 <sup>th</sup> fl	11,241 m2	5,590 m2	15	4	0,31444	6	17	0,00907
6 <sup>th</sup> fl	4,346 m2	828 m2	1	2	0	3	9	0,00621
8 <sup>th</sup> fl	9,521 m2	6,902 m2	2	2	0	3	9	0,00283

Source: Data Processing (2019)

Judging from the data above, the floor with regular departmentation level is floor 3.A and the floor that is not very complex is floor 8 and LG and at this mall the level of complexity is very low for each floor.

#### 4.1.3 Grand Indonesia East Mall

The Plaza Grand Indonesia East Mall has Total Lease Area 110.168 m<sup>2</sup>,

net Lease Area is 68.278 m<sup>2</sup>, the number of floors is 8, Total number of Retail categories 53 and Total Tenant 177, dominated by Fashion, Entertainment, Food and Beverage. The table below will explain how the tenant is structured and calculate the Department and complexity of each floor.

**Tabel 5. Grand Indonesia East Mall**

FL	GLA	NLA	T.T	R.C	DEP	D.P	LINKS	COMP
LG	11,253 m2	7,468 m2	14	8	0,06750	2	4	0,00071
G	11,553 m2	6,933 m2	8	4	0,10660	7	18	0,01090
UG	11,628 m2	7,771 m2	4	3	0	5	14	0,00601
1 <sup>st</sup> fl	14,990 m2	10,469 m2	18	7	0,21021	5	15	0,00500
2 <sup>nd</sup> fl	15,442 m2	11,122 m2	32	6	0,21076	13	38	0,03199
3 <sup>rd</sup> fl	15,478 m2	7,837 m2	61	13	0,41742	20	58	0,07494
3 <sup>rd</sup> A.fl	14,798 m2	9,110 m2	22	5	0,39554	10	28	0,01892
5 <sup>th</sup> fl	15,026 m2	7,568 m2	18	7	0,1776	7	21	0,00978

Source: Data Processing (2019)

From the table above it can be seen that the most uncomplicated floor is LG and each floor has a low level of complexity while a good Department level is the 3rd and 3rd A floors.

#### 4.1.4 Plaza Senayan

The Plaza Senayan, has Total Lease Area 83.434 m<sup>2</sup>, net Lease Area is 53.471

m<sup>2</sup>, the number of floor is 4, Total number of Retail categories 32 and Total Tenant 202, dominated by Fashion, Life Style, Food and Beverage. The table below will explain how the tenants is structured and calculate the Department and complexity of each floor.

**Tabel 6. Plaza Senayan**

FL	GLA	NLA	T.T	R.C	DEP	D.P	LNKS	COMP
LB	7,796 m <sup>2</sup>	5,495 m <sup>2</sup>	23	5	0.16861	18	42	0.09696
1 <sup>st</sup> fl	27,719 m <sup>2</sup>	18,384 m <sup>2</sup>	64	9	0.28230	23	65	0.05393
2 <sup>nd</sup> fl	24,373 m <sup>2</sup>	15,282 m <sup>2</sup>	57	7	0.35624	32	94	0.12341
3 <sup>rd</sup> fl	23,946 m <sup>2</sup>	14,310 m <sup>2</sup>	58	11	0.21015	27	84	0.09471

Source: Data Processing (2019)

When seen from the table above, the Plaza Mall Senayan is very simple and simple where good Departmentation is only on the 2nd floor and the level of complexity is also low.

#### 4.1.5 Senayan City Mall

Senayan City Mall, has Total Lease Area 153.496 m<sup>2</sup>, net Lease Area is

83.404 m<sup>2</sup>, the number of floor is 8, Total number of Retail categories 24 and Total Tenant 286, dominated by Entertainment, Fashion, Life Life Style, Food and Beverage. The table below will explain how the tenant is structured and calculate the Department and complexity of each floor.

**Tabel 7. Senayan City Mall**

FL	GLA	NLA	T.T	R.C	DEP	D.P	LNKS	COMP
LG	28,101 m <sup>2</sup>	16,874 m <sup>2</sup>	71	3	0.75298	20	64	0.04554
G	17,587 m <sup>2</sup>	9,682 m <sup>2</sup>	28	3	0.83755	16	46	0.04184
1 <sup>st</sup> fl	16,532 m <sup>2</sup>	9,563 m <sup>2</sup>	24	2	0.90376	13	40	0.03145
2 <sup>nd</sup> fl	17,558 m <sup>2</sup>	10,891 m <sup>2</sup>	37	3	0.82147	11	32	0.02004
3 <sup>rd</sup> fl	17,879 m <sup>2</sup>	11,146 m <sup>2</sup>	45	3	0.45981	11	32	0.01968
4 <sup>th</sup> fl	18,005 m <sup>2</sup>	11,182 m <sup>2</sup>	35	4	0.59241	11	32	0.01954
5 <sup>th</sup> fl	19,069 m <sup>2</sup>	8,460 m <sup>2</sup>	39	3	0.45912	13	38	0.02590
6 <sup>th</sup> fl	18,693 m <sup>2</sup>	5,606 m <sup>2</sup>	7	3	0.08082	3	8	0.00128

Source: Data Processing (2019)

When viewed from the data above, Senayan City has very good Departmentation arrangements on each floor of the daiatur according to tenant grouping, and also has a low average level of complexity.

#### 4.1.6 Kota Kasablanka Mall

Kota Kasablanka Mall has Total Lease Area 165.282 m<sup>2</sup>, Net Lease Area

105.771 m<sup>2</sup>, the number of floor 5, Total number of Retail categories 49 and Total Tenant 411, dominated by Entertainment, Fashion, Life Life Style, Food and Beverage. The table below will explain how the tenant is structured and calculate the Department and complexity of each floor.

**Tabel 8. Kota Kasablanka Mall**

FL	GLA	NLA	T.T	R.C	DEP	D.P	LINKS	COMP
LG	33,520 m <sup>2</sup>	22,251 m <sup>2</sup>	121	10	0.34901	40	130	0.15166
G	34,907 m <sup>2</sup>	22,251 m <sup>2</sup>	61	6	0.65762	44	130	0.16385
UG	35,949 m <sup>2</sup>	19,157 m <sup>2</sup>	103	11	0.50396	42	127	0.14837
1 <sup>st</sup> fl	30,545 m <sup>2</sup>	20,500 m <sup>2</sup>	60	10	0.53750	19	56	0.03483
2 <sup>nd</sup> fl	30,361 m <sup>2</sup>	21,612 m <sup>2</sup>	66	12	0.24551	12	34	0.01343

Source: Data Processing (2019)

#### 4.1.7 Lotte Shopping Avenue

Lotte Shopping Avenue has Total Lease Area 138.750 m<sup>2</sup>, net Lease Area 75.769 m<sup>2</sup>, the number of floor 7, Total number of Retail categories 33 and Total Tenant 501, dominated by Entertainment,

Fashion, Life Life Style, Food and Beverage. The table below will explain how the tenant is structured and calculate the Department and complexity of each floor.

**Tabel 9. Lotte Shopping Avenue**

FL	GLA	NLA	T.T	R.C	DEP	D.P	LINKS	COMP
LG	8,020 m <sup>2</sup>	4,404 m <sup>2</sup>	35	2	0.98998	10	22	0.02742
G	19,339 m <sup>2</sup>	9,705 m <sup>2</sup>	113	4	0.42447	31	98	0.15708
1 <sup>st</sup> fl	20,859 m <sup>2</sup>	10,387 m <sup>2</sup>	108	5	0.59991	39	124	0.23183
2 <sup>nd</sup> fl	19,985 m <sup>2</sup>	10,290 m <sup>2</sup>	126	7	0.46958	38	117	0.02246
3 <sup>rd</sup> fl	23,437 m <sup>2</sup>	13,418 m <sup>2</sup>	74	4	0.85048	17	53	0.03844
4 <sup>th</sup> fl	23,441 m <sup>2</sup>	15,574 m <sup>2</sup>	23	2	0.78203	5	14	0.00298
5 <sup>th</sup> fl	23,669 m <sup>2</sup>	11,991 m <sup>2</sup>	4	2	0	1	3	0.00012

Source: Data Processing (2019)

When viewed from the table above, Lotte Shopping Avenue is very simple and simple where the Departmentation on the LG floor approaches number 1, 0.98998 and the complexity is also low.

#### 4.2 The Result of Hypothesis

The result from the regression confirmed that only one out of eight variables affected the departmentalization significantly, Total GLA that represent the total gross leasable area of the whole mall. Results of hypothesis testing are considered significant if the value of t-statistics greater than + 1.65 for a one-tailed and greater than +1.96 for two-tailed (Hair *et al.*,2010).

Here are the results of hypothesis testing in this study; The result showed that the size of the whole mall in terms of gross leasable area is positively affected the degree of departmentalization. The t-statistic value of Total GLA which is greater than 1.65 (1.8255663) indicated that the variable has significant influence. The positive coefficient value of Total GLA (5.05E-06) indicates the variable affected the department positively. In conclusion, the size of the whole mall positively affected the determination of departmentalization strategy in tenant placement strategy within mall.

**Tabel 10. Summary of The Result of Hypotheses Testing**

Hypothesis	T-Statistic	Significant	Summary
H <sub>1</sub> : Total Number of mall floor levels has a positive effect on department level	0.011858	Not Significant	Rejected
H <sub>2</sub> : Position of the mall floor level has a positive effect on department level	-0.763583	Not Significant	Rejected
H <sub>3</sub> : Gross area of the leased area (gross leasable area) at each level has a negative effect on the level of departmentalization	-0.417018	Not Significant	Rejected
H <sub>4</sub> : Number of units in the mall as a whole has a positive effect on the level of departmentalization.	0.397995	Not Significant	Rejected
H <sub>5</sub> : Number of units at each mall floor level has a positive effect on departmental level	0.309525	Not Significant	Rejected
H <sub>6</sub> : Level of complexity of each level of the mall floor has a positive effect on the level of departmentalization.	-0.099862	Not Significant	Rejected
H <sub>7</sub> : Ratio between net area leased (net leasable area) and the gross leasable area at each level of the mall floor has a negative effect on the level of departmentalization	-0.604957	Not Significant	Rejected
H <sub>8</sub> : Size of the mall as a whole in terms of the gross area leased (gross leasable area) affects the level of departmentalization.	1.825663	Significant	Accept (+)

Source: Data processing (2019)

### 4.3 Discussion

The hypothesis test described above, it was found that there were two hypotheses that were accepted and six hypotheses that were rejected. The following is a summary of the results of hypothesis testing: 1). The total number of mall floor levels has a positive effect on departmental level. 2). The total level variable which represents the total number of floors owned by a mall threader. Departmental variables that represent the level of tendency to use the departmental strategy in tenant placement, show the results of the hypothesis test that is not significant. Hypothesis test shows the t-statistic value of 0.011858. This t-statistic value smaller than 1.65 cannot statistically be used to predict the use of departmental strategy in a mall. The results of this hypothesis test prove that the total number of mall floors that show the height of a mall does not

affect the tenant placement strategy with the same retail category in groups. Mall which is a place for grouping retailers and other commercial businesses that are planned, developed, owned, and managed as a property consisting of commercial rental units with various brands (ICSC, nd) can increase their productivity by increasing their tenant variations (Arakawa, 2006) which success depends on the success of the tenants in it. The formulation of the selection of the right tenant mix and its placement in the mall or zoning which is one of the five things covered in mall management in general needs to be considered (Roy & Masih, 2007). Tenant mix is one of the crucial factors in determining the success of a mall (Roy & Masih, 2007). Therefore, mall managers also need to pay attention to the strategies used in the placement of existing tenant mix because it can affect the goal of maximizing mall turnover that

can be seen by mall owners in terms of rental income. In placing tenants in a mall, there are two strategies that can be implemented by mall managers. First is the dispersion strategy where tenants with the same retail category are placed spread out in the mall. While the second is a departmental strategy where tenants with the same retail category are placed in groups in a certain area (Yuo & Lizieri, 2013).

One consensus on the basis of location and the principle of space allocation that is the focus of this study is that non-anchor tenants who belong to the same category should be placed spread out in malls rather than having to be placed in groups in certain locations. However, there are difficulties in implementing it in a city center with a high population density because there is a tendency to form multi-storey malls (Yuo & Lizieri, 2013). In addition, large cities in Asia with similar characteristics where malls are located in cities with high land prices, unusual landforms, and development with combined functions have made the malls built multilevel (Yiu *et al.*, 2008). For malls that only have one or two storeys, you might be able to use this strategy easily. However, as explained earlier, it will be difficult to implement it in malls that have high levels of floors with mall configurations that tend to be complex. The use of dispersion strategies in the form of a mall like this can cause the costs or costs incurred by consumers to make comparisons and look for a product to increase. Thus, implementing a departmental strategy can reduce these costs and result in higher turnover. There is a suspicion that the choice of tenant placement strategy in a mall depends on the height and configuration of the mall. Where mall managers who are low-level with simple and standard configurations prefer dispersion strategies, conversely high-

level mall managers with high complexity prefer departmental strategies. However, the results of hypothesis testing stated that mall height does not affect the use of departmental strategy by mall managers in placing tenants with the same retail category in groups.

#### **4.4 The position of the mall**

The position of the mall floor level has a positive effect on departmental level the level variable that represents the position of the mall floor level to the department variable which represents the level of tendency to use the departmental strategy in the placement of tenants, shows the results of the hypothesis test that is not significant. Hypothesis test results indicate the t-statistic value of -0.763583. This t-statistic value smaller than 1.65 cannot statistically be used to predict the use of departmental strategy in a mall. The results of this hypothesis test prove that the position of the mall floor level does not affect the tenant placement strategy with the same retail category in groups.

As explained earlier, based on the basic consensus of the location and the principle of space allocation, height and configuration of the mall is thought to have an influence on the departmental departmental level of a mall due to difficulties in implementing the consensus at malls located in the center of the city with high population density due to the tendency of form multilevel malls (Yuo & Lizieri, 2013) and mall locations within cities with high land prices and even unusual forms of land (Yiu *et al.*, 2008). One configuration that is thought to have an influence on the departmental level is the position of the floor level in a mall. Therefore, the position of the floor level is thought to have a positive relationship with the level of departmentation where for vertical malls it is possible to use a departmental



strategy to reduce searching costs and consumer cost comparison. However, the results of the hypothesis test show that the position of the floor level in a mall does not affect the use of departmental strategy by mall managers in placing tenants with the same retail category in groups.

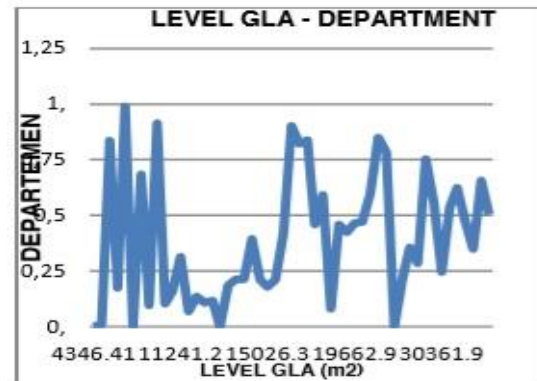
#### 4.5 Gross Leasable Area

The gross area of the leased area at each level has a negative effect on the level of departmentalization. Examination of the GLA level variable that represents the gross area of the leased area or also known as the gross leasable area of each floor level against department variables that represents the level of tendency to use departmental strategy in tenant placement, shows the results of the hypothesis test that is not significant. Hypothesis test results indicate the t -statistic value of -0.417018. This t-statistic value smaller than 1.65 cannot statistically be used to predict the use of departmental strategy in a mall. The results of this hypothesis test prove that the gross leasable area at each level of the mall floor does not affect the tenant placement strategy with the same retail category in groups.

Gross leasable area at each floor level is one of the mall configurations that is suspected to have a negative influence on the departmental level of a mall. This is because research focuses on large-scale malls, so the smaller the gross leasable area at each level of the mall floor, the more floor levels needed, even the level of complexity can increase, so that there are consequences of variable levels that represent the gross leasable area of each level of the floor should negatively affect the departmental level of a mall (Yuo & Lizieri, 2013). However, the results of hypothesis testing prove that the gross leasable area at each level of the floor has no effect on the level of the department. Thus, the level of GLA, which in previous

research was confirmed to have a negative influence on the level of departmentalization, was stated to have no effect on the selection of departmental strategy in the mall by the mall manager in this study.

**Figure 4. Average Departmental Levels Based on Gross Leasable Area for Each Floor Level**



Source: Data processing (2019)

If seen further, apart from the results of the hypothesis test that has been done, the picture above can also prove that the level of departmentalization is not affected by the gross leasable area at each mall floor level where it appears that there is no consistency formed between the level of GLA with the level of departmentation seen from graph that goes up and down.

#### 4.6 The number of units in the mall as a whole has a positive effect on the level of departmentalization

Testing the total unit variable that represents the total number of units in the mall as a whole against the department variables that represent the level of tendency to use departmental strategy in the placement of tenants, shows the results of the hypothesis test that is not significant. Hypothesis test results indicate the t- statistic value of 0.397955. This t-statistic value smaller than 1.65 cannot statistically be used to predict the use of departmental strategy in a mall. The results of this hypothesis test prove that the total number of units in the mall

as a whole does not affect the tenant placement strategy with the same retail category in groups.

The total number of units in the mall as a whole is one of the mall configurations that is thought to have a positive influence on the departmental level of a mall. This is because malls that have a high number of total units are thought to have a high level of complexity that requires a high level of departmentalization to reduce costs must be spent by visitors when shopping namely searching costs and comparison costs. However, the results of hypothesis testing indicate that the number of units in the mall as a whole does not affect the departmental strategy by the mall manager in placing tenants with the same retail categories in groups, which is different from the results shown by previous studies which stated that the number of units in the mall as a whole overall has an influence on the departmental level.

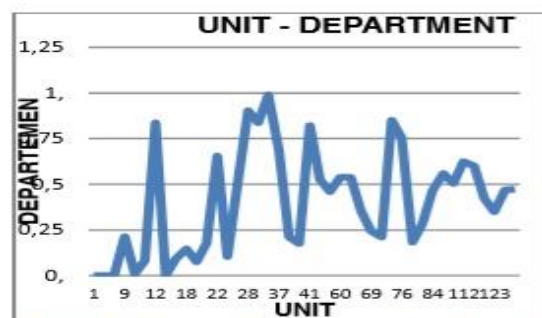
#### 4.7 The number of units at each mall floor level has a positive effect on departmental level.

Testing unit variables that represent the total number of units in the mall at each level of the floor of the department variables that represent the level of tendency to use departmental strategy in the placement of tenants, shows the results of the hypothesis test that is not significant. Hypothesis test results indicate the t- statistic value of 0.309525. This t-statistic value smaller than 1.65 cannot statistically be used to predict the use of departmental strategy in a mall. The results of this hypothesis test prove that the total number of units in the mall at each level does not affect the tenant placement strategy with the same retail category as a group.

This unit variable is one of the mall configurations that is thought to have an

influence on the departmental level of a mall. Same as the total unit variable, that when the total number of units on a floor is high, it requires the use of a high departmental strategy also in order to reduce the costs that must be spent by visitors when shopping namely searching costs and comparison costs. But the results of hypothesis testing prove that the total number of units in the mall at each level of the floor at each level of the floor has no effect on the level of the department. Nevertheless, the results of this study are the same as the results presented in previous studies where the unit variable also has no influence on the departmental level of a mall.

Figure 5. Average Departmental Levels Based on the Total Number of Units in Each Mall Floor Level



Source: Data processing (2019)

If seen further, apart from the results of the hypothesis test that has been done, the picture above can also prove that the level of departmentalization is not influenced by the total number of units at each level of the mall floor where it is seen that there is no consistency formed between units with the level of departmentation seen from the graph up and down.

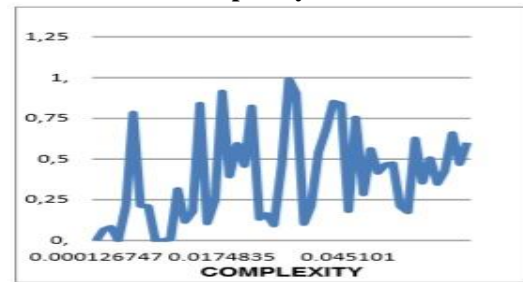
#### 4.8 The level of complexity of each level of the mall floor has a positive effect on the level of departmentalization.

The complexity variable which represents the level of complexity of a

mall to the department variable which represents the level of tendency to use the departmental strategy in the placement of tenants, shows the results of the hypothesis test that is not significant. Hypothesis test results indicate the t-statistic value of -0.099862. This t-statistic value smaller than 1.65 cannot statistically be used to predict the use of departmental strategy in a mall. The results of this hypothesis test prove that the level of complexity does not affect the tenant placement strategy with the same retail category in groups.

The high level of complexity supports the use of departmental strategies, thereby clearly showing retail areas for buyers and reducing their searching costs and comparison with shopping costs. In addition, tenant placement aims to produce a high spillover effect and maximize the benefits of grouping various types of tenants in one place (agglomeration). However, so that the spillover effect increases, mall managers are advised to use a dispersion strategy because this strategy is also effective in maximizing footfall in all existing tenants. However, for the maximum spillover effect produced, the dispersion strategy must meet the requirement that the mall has a mall configuration and simple pedestrian circulation, and a low level of complexity, so that consumers can pass through the store in significant numbers. But the test results confirm that the level of complexity has no influence on the use of departmental strategy in the mall.

**Figure 6. Comparison of Departmental Levels Based on Mall Complexity Level**



Source: Data processing (2019)

If seen further, apart from the results of the hypothesis test that has been done, the picture above can also prove that the level of departmentalization is not affected by the total number of units at each mall floor level where it appears that no consistency is formed between the level of complexity with the level of departmentation seen from the graph is going up.

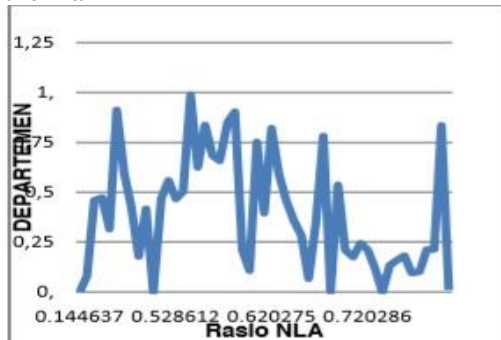
#### **4.9 The ratio between net leasable area and gross leasable area at each level of the mall floor has a negative effect on the level of departmentalization**

Finally, there are two other variables that act as control variables, namely the NLA ratio and the total GLA. The NLA ratio is a ratio to measure the effective floor area which can have a significant influence on the aggregate center value, where the effective floor ratio tends to influence the level of departmentalization. Furthermore, a low effective floor ratio tends to be associated with floor complexity.

Testing the ratio of NLA to department variables that represent the level of tendency to use the departmental strategy in tenant placement, shows the results of the hypothesis test that is not significant. Hypothesis test results indicate the t-statistic value of -0.604957. This t-statistic value smaller than 1.65 cannot statistically be used to predict the use of departmental strategy in a mall. The results of this hypothesis test prove

that the NLA ratio does not affect the tenant placement strategy with the same retail category in groups.

**Figure 7. Departmentalization Level Comparison Based on the Comparison of Net Area and Gross Area Ratio for Leased Area in the Mall**



Source: Data processing (2019)

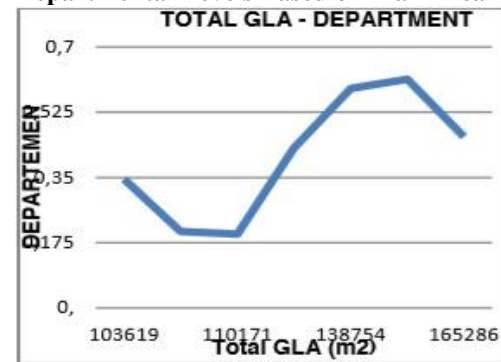
If seen further, apart from the results of the hypothesis test that has been done, the picture above can also prove that the NLA ratio is not affected by the total number of units at each mall floor level where it appears that there is no consistency formed between the NLA ratio and the level of departmentation seen from graph that goes up and down.

#### 4.10 The size of the mall as a whole in terms of gross leasable area affects the level of departmentalization

Furthermore, the total GLA variable which is also included as a control variable in which the testing of department variables which represents the level of tendency to use departmental strategy in tenant placement, shows the results of a significant hypothesis test. Hypothesis test results indicate the t-statistic value of 1.825663. This t-statistic value greater than 1.65 can be used statistically to predict the use of departmental strategy in a mall. So, the results of this hypothesis test prove that the total GLA affects tenant placement strategies with the same retail category in groups.

Then, the t-statistic value analysis also shows a positive value (1.825663) which shows that the total GLA affects the department positively. It can be concluded that the total GLA has a positive effect on departmentalization. From the above analysis, this future hypothesis can be accepted where the wider a mall, the more mall managers tend to use the departmental strategy to place tenants with the same retail category in groups.

**Figure 8. Comparison of Average Departmental Levels Based on Mall Area**



Source: Data processing (2019)

Figure above shows that there was an increase in the level of departmentalization as the area of the mall increased. Even though there has been a decrease in the departmental level in 165,286 m<sup>2</sup>, we can still see that the average departmental level is still high above 0.4. This is different from previous research which states that this variable does not have a significant effect on the departmental level of a mall.

**Figure 9. The Average Degree of Departmentalization based on Size of the Whole Mall in terms of Gross Leasable Area**



Source: Data processing (2019)

Figure 9 above showed that there is an increased level of departmentalization when the mall area increases. Despite the decrease in the level of departmentalization degree on 165 286 m<sup>2</sup>, we can still see that the average level of departmentalization is still high at above 0.4. This is in contrast with previous research that states that this variable does not have a significant effect on the level of departmentalization a mall. As mentioned before, based on the prior research on shopping center that mostly located on suburban or out of town area, You and Lizieri (2013) said that there are three consensus on basic location and space allocation principles but there are some difficulties arise in implementing the principles above on the mall that located in urban area with a high population density such as Hong Kong, Singapore and China because of the shape of its mall that has multi-level structures (Yuo & Lizieri, 2013). Besides, the observations on the development of multi-level shopping centers that located in Asia's big cities that exhibited similar characteristic which located in town with high prices of land, unusual land shapes and mixed-used development such as station has established a mall with a high level as in Taiwan where the amount of the average level of seventy mall is ten levels (Yiu *et al.*, 2008). Because of that, it will be difficult to implement and maintain the first two principles in Asia

in-city malls that have complex mall configuration (Yuo & Lizieri, 2013).

Since it is difficult to implement and maintain the first two consensus on basic location and space allocation principles, this research focused on the third principles that said non-anchor tenants with the same retail category should be distributed dispersedly rather than being clustered in a single location. This research argued that tenant placement strategy is affected by the height of the mall and mall configuration. As an agglomeration of retailers, the mall's productivity is affected by the product variety which means the higher the product variety inside the mall, the higher the mall's productivity (Arakawa, 2006). Because of that, to maximize the operational performance, whole area in the mall should be used effectively and efficiently. Besides that, the success of a mall depends on the success of its tenants. The right tenant mix could form an assemblage that generate optimal sales, rental, service to the community and financiability of the shopping mall (Roy & Masih, 2007). Since tenant mix is one of the crucial factors in determining the success of the mall, mall managers pay high attention and concern on the tenant placement strategy.

However height of the mall that represent by the total floor level as well as other mall configuration such as level, level of the floor, the size of the single floor area in GLA, total number of units in single floor area and whole mall, degree of complexity and NLA ratio that expected to have a relationship to degree of departmentalization were confirm by this research that those variables is not influence the degree of departmentalization which represent the used of departmentalization strategy on tenant placement strategy by the mall manager.

## 5. Conclusion

This research focuses on large-scale mall around the business district in Jakarta, which has four floor levels or more with gross leasable area of more than 100,000 m<sup>2</sup>. In total, there are seven malls which has a total floor levels ranging from five to ten floors with a total sample 51 floor plan consisting of 2.468 retail stores units. Jakarta selected as the study site because Jakarta has been named as the "Capital Shopping Center of the World" since it has the largest mall in the world. The high competitions that exist in Jakarta make the research appropriate to conduct in Jakarta. Based on the result, the research could be concluded that from the height of mall and mall configuration which expected to influence the used of departmentalization strategy on tenant placement in the mall, only size of the whole mall in terms of gross leasable area that positively affected the departmentalization strategy. The larger the mall, the higher tendency of the tenants with same retail category to be clustered in a particular area. The size of the mall area that is so big supports departmentalization strategies to be used by the mall manager because it could show clear retail area for consumers and reduce searching cost and comparison cost of their shopping cost.

The height of the mall and other mall configuration such as height of the mall that represent by the total floor level and other mall configuration such as level, level of the floor, the size of the single floor area in GLA, total number of units in single floor area and whole mall, degree of complexity and NLA ratio are not influence the degree of departmentalization. Although, the level of the floor is not influence the departmentalization strategy, but when viewed from the departmentalization analysis by using ArcGIS, on the floor with high floor level position or the

position of the highest level of the floor in the mall, mall managers tend to use dispersion strategy which anchor tenant like cinema will be placed to attract consumer to go upstairs. Placement of anchor tenant in the top floor level can increase retail demand externalities in the mall because of the non-anchor tenants get demand externality of the additional traffic generated by the anchor tenant that could attract consumers to go upstairs. Besides the presence of anchor tenants also affect the revenue increment for non-anchor tenants in the mall.

### 5.1 Managerial Implication

The result show that the implementation of departmentalization strategy on tenant placement in the mall are affected by the condition of the mall as a whole not from the condition of the single individual floor level. Furthermore, it also show that the third consensus on basic location and space allocation principles which is the focus of the research that said non-anchor tenants that have the same retail category should be distributed dispersedly rather than being clustered in a single location, is difficult to implement on the multi-level mall. The implementation of dispersion strategy on the high-rise mall could lead into the increment of searching cost and comparison cost of consumer's shopping cost. Thus, the implementation of departmentalization strategy can reduce costs and generate higher turnover.

Limitation of Research Besides that, this study has some limitations where the sample in this study focuses on a mall located near the business district in Jakarta with a total of seven malls and total sample of 51 observations, so the result cannot be generalized. With this number of observations, there is still a possibility of differences in the results if the sample taken from the mall observation that is not located on the

business district area such as residential areas and suburban area. Then, this study only investigated the influence of height of the mall (total floor mall) and the configuration of the mall such as floor level, gross leasable area of single floor area, the number of units in the whole mall, the number of units in every level floor mall, the level of complexity of each level floor of the mall, net leasable area ratio at each level of the floor and the size of the whole mall in terms gross leasable area, to the level of departmentalization

that describes the tendency of tenants with the same retail category to be clustered in a particular area. That advice can be given for further research to improve the limitations outlined above, in which research can be done by examining the malls where located in residential areas and suburban area that could make the research can be generalized. In addition, further research needs to consider the geographical factors and cultural factors that may affect consumer spending patterns.

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