



Land-Use Shifting from Settlement into Commercial in Caturtunggal, Sleman

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Abstract

Caturtunggal area is a residential area that is growing rapidly, especially in commercial activities. Current commercial activities have expanded into residential areas. Caturtunggal is one of the regions with an educational function and has become a new center of growth in Sleman Regency with the presence of Gadjah Mada University (UGM) and Yogyakarta State University (UNY). The development of commercial activities in the region to facilitate trade activities and services between people in need such as students (demand) and people who sell services (supply) that can create workers in urban areas so that they can contribute to the regional economy and Gross Regional Domestic Product (GRDP). The purpose of this study is to determine the development of changes in spatial use from settlements to commercial activities in the Education Area and formulate the factors that cause a shift in the use of space in the region. The method used in this research is quantitative methods and analysis techniques using spatial analysis, descriptive statistical analysis and factor analysis. The subject of this research is small-medium commercial activity in the Caturtunggal region. The results of this study were found as a phenomenon of 70% shift in the use of space to be commercially caused by 5 factors, namely economic factors, the existence of educational areas, locations, market preferences, and access.

Key words : land-use shifting , commercial, settlements, Caturtunggal educational areas

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INTRODUCTION

Urban development is a sure thing that causes physical changes in the city which are influenced by economic, political, and their population (Roth & Grant, 2015). One of the government's efforts in equitable development, especially in suburban areas, is by placing new growth centers in the region such as the placement of the education function. The existence of the education area will have an influence on the region, among others, increasing population and affecting the physical development of the city because it adds new activities and consequently will have an impact on the formation of supporting activities (Haryanto, Soetomo, & Buchori, 2016).

The development of the education area has caused land conversion to mixed land use to become uncontrolled (Shankar & Vidhya, 2013). This change will also affect social and economic. Changes in spatial use are changes in certain lands to other land uses caused by economic developments and population dynamics that always increase every year (Weng, 2002). In addition, the development of growth centers will spread and form spatial patterns (Kumar & Sangwan, 2013).

The physical development of the city and developments in the suburbs, shown by the development of retail businesses, which are mostly carried out by small-medium businesses. This development is spread in areas that are considered as potential locations. One of the driving factors that accelerate this development is the influence of the development of the democratic system of society in the sustainability of their lives including in the economic sector. This underlies the growth of community independence in developing their own

business related to the community's efforts to survive in the global economic conditions.

Housing is a basic need for city dwellers with socioeconomic characteristics (Almaden, 2014). Based on the Sleman Regency RTRW, Caturtunggal Village is an area with a regional function as an educational function which has 9 university including Gajah Mada University (UGM) and Yogyakarta State University (UNY). Based on the zoning regulations on the use of Sleman Regency, the Caturtunggal area has a mixed use zoning zone but is dominated by settlements.

The development of Caturtunggal Region due to the existence of the campus has led to the development of other sectors in the surrounding area, especially the trade and services sector. The emergence of commercial activities in residential areas is a natural phenomenon. However, this becomes unnatural because commercial activities develop in residential areas and cause land that was originally in the form of residential land allotments to be shifted into commercial activities.

Commercial activities are trading activities that include the sale or purchase of goods and services in order to obtain profits (Wicaksono, T., Sugiyanto, F. X., 2011). Commercial activities according to type of trade according to (Wardhana & Haryanto, 2016), are divided into trading activities for primary needed daily activities with high expenditure levels. Then, secondary trade such as clothing, household appliances, and tertiary trade such as jewelry, and other luxury trade. Commercial activities in the Caturtunggal Region can be seen in the following figure:



Figure 1. Commercial Activities in Caturtunggal

Source: Field Observation, 2019

The development of commercial activities, is influenced by several factors such as the economy, the environment, and the physical environment (Kaiser., et al 1995). Strategic and potential locations provide benefits for landowners and employment opportunities to use their homes as

commercial venues (Haryanto et al., 2016). In addition, limited land is also a factor that affects people as homes with strategic locations to use part or all of their home for commercial activities (Muhajir, 2012). In the development of retails in the form of small-medium businesses can form a commercial

area. This commercial development in the form of small-medium businesses that emerged is the result of people's creativity and innovation in developing the economy. Commercial activities become creative activities and something different or innovative efforts to get something for themselves and add value to society.

The Caturtunggal area as an educational area will grow rapidly and accompanied by a growing small-medium business that is to meet the demands of the community, especially students. Therefore, it has an impact on the expansion of commercial activities which have begun to enter residential areas that have turned into commercial areas. In addition, the phenomenon of changes in spatial use is influenced by the limited available land that affects the development of facilities and other environmental infrastructure, which leads to competition for strategic locations along with land price increases (Nidyasari, 2011). Therefore, the phenomenon of shifting the use of residential space into commercial activities in the Caturtunggal Region needs to be examined so that it can be seen the extent to which the existence of campuses, especially UGM and UNY, is a reference in the growth of commercial activities in the Caturtunggal Region. This research was conducted to see how the development of commercial activities in the Chesstunggal Region is related to the existence of tertiary education areas and to identify what factors influence the development of commercial activities.

METHOD

This study examines the phenomenon of shifting of settlement uses into commercial areas in Caturtunggal, using quantitative methods. The analysis technique used in this study are spatial analysis, descriptive statistical analysis and factor analysis. Spatial analysis is

done using satellite image while quantitative descriptive analysis will be displayed using the form of diagrams, graphs, tables and brief descriptions. The analysis in this study is divided into four analyzes. The first analysis is the analysis of residential land use. Then the second one is the analysis of commercial characteristics in the Caturtunggal settlement area based on distribution patterns and forms of commercial activity. In this analysis, the research area is divided into two zones to determine the different characteristics of each zone. Mapped satellite image data is used to reveal the pattern of commercial activities that occur and how they are developed. The third analysis is the analysis of the shift in space utilization from settlement to commercial which aims to find out how much the shift has occurred in Caturtunggal by looking at the patterns, functions of buildings, and the physical conditions of commercial buildings.

Furthermore, the fourth analysis is factor analysis, which aims to analyze the factors that influence the commercial development of the Caturtunggal Area with the existence of universities and other factors that influence the development of commercial land use in the region. Finally, this study aims to find the relationship between existing commercial activities and the shift in land use that occurs and the factors that influence it.

The data used was obtained by using questionnaires on respondents, namely the owners or employees of existing commercial activities. For sampling obtained by using the Slovin formula with a population of 580 commercial activities. This amount was obtained after conducting a survey of the calculation of commercial activity quickly in the Caturtunggal area.

Slovin's Formula:

$$n = \frac{N}{1 + (N(d)^2)}$$

$$n = \frac{580}{1 + (580(10\%)^2)}$$

$$n = 86 \text{ samples}$$

After using the Slovin formula, it was obtained a sample of 86 business actors with an error rate of 10% so that the level of confidence was 90%. The sampling technique that will be used in the sample taken is purposive sampling and area sampling and the respondent who was the source of the data was clearly a commercial activity in the area of Caturtunggal and did not collect data from non-commercial activities.

RESULTS AND DISCUSSION

Based on the zoning pattern of space utilization which refers to Regent Regulation Number 44 of 2017 concerning Control of Spatial Use, the Caturtunggal Area is an area with mix-used land designation, but is dominated by settlements. The development of the Caturtunggal Area took place very quickly, begins with the presence of Gadjah Mada University in 1949, which led to the development of several commercial activities in the vicinity. Then followed by the presence of Yogyakarta State University which before was known as IKIP Yogyakarta in early 2000 so that the regional development occurred more rapidly, especially in the trade and service sectors that are in nature to meet the life needs of the students.

Caturtunggal area is directly adjacent to Gejayan Street, Agro Street, Kaliurang Street, and the Ringroad North Road, which has a hierarchy of roads that are higher than the roads in the area, which the government

planned as a corridor to accommodate commercial activities. There is also a zoning of the trading corridor inside the residential area, which is precisely in the corridor of Jalan Gambir-Karangasem Baru. Where the existing conditions already have a commercial that has stood along the corridor.

The development of the universities will increase the number of students, so it will increase the demand of the needs of these students. This will lead to high market demand which then causes commercial activities to emerge and develop sporadically into settlements. So that the land planned as a settlement turned into land for commercial activities. This can be said as a phenomenon of shifting residential space use into a commercial, where residential space utilization slowly shifts to a commercial function or a mixed function (commercial and home). So, based on the identification above, it proves that the development of spatial use in the Caturtunggal Area is not in accordance with what was planned beforehand.

After identifying the spatial utilization in general and comparing it with the planned spatial pattern of existing space utilization, then the next step is to identify commercial activities that exist in the Caturtunggal Area. The purpose is to determine the type and classification of commercial activities both trade and service activities. The classification is based on trade commodities according to Gallion, A., Eisner, (1983) and services according to Law No.7 of 2014.

Based on the results of the study, most of the commercial activities that dominate the Caturtunggal area are trading in form of primary commodities, namely food stalls and also service activities such as laundry and boarding. The types of commercial activities that emerge in this area are indicated because people take advantage of the opportunity because the existence of universities will result

in many students and increase the value of the land, so they use their land to maximize profits by changing part or all of their residential space to move to commercial activities that has the character of supporting educational activities.

The characteristics of commercial activities in the area of Caturtunggal is divided into 2 zones based on a zone grouping. This

aims to find out in more detail the differences in the characteristics of commercial activities in the region. *n this study it was found that commercial activities in the Caturtunggal area were compatible with the classification determined according to Gallion, A., Eisner, (1983). The following are the results of the analysis of the characteristics of zones A and B can be seen in the table as follows.

Table 1 . The Characteristics Analysis of Commercial Activities in the Area of Caturtunggal Based on Grouping 2 Zones

Zone	Commercial Characteristic	Use of Space	Effect of Campus Proximity	Effect of Proximity of Public Facilities / Main Access
Zone A	Commercial activities that dominate in zone A are trade in primary commodities and housing services with leased or contracted with a dominant operational time of around 13-17 hours per day. Existing commercial activities on average have been operating for 6-10 years. In addition, most of the reasons for establishing a business along with the selection of locations are based on the presence of universities in the surrounding environment.	Most commercial buildings in zone A are used as business premises. The land in zone A of the community greatly maximizes its space for commercial functions so that it is able to fulfill the incoming demand.	The influence of the presence of the campus is felt because the location of zone A is near and directly adjacent to the campus. This can be seen from the types of retail / commercials that have arisen, namely to support educational activities such as protective, printing and commercial support for the main needs such as food stalls, food stalls, cellphone counters, support, and boarding houses. The distribution of commercial activities in zone A is distributed and completed following the road where this road is a connecting road between the campus and the settlement.	The commercial presence in the main corridor of Jalan Kaliurang and Jalan Gejayan as the main road which is quite marked with commercial on Jalan Kenari (directly to Jalan Kaliurang) and gg. Megatruh (directly to Jalan Kaliurang) with mixed functions and commercial functions only. The commercial activities that appear on this road are published by commercial types of environmental scale and support the needs of students such as coffee, food stalls, minimarkets and cafes.
Zone B	The commercial activities that won zone B were primary	Most commercial buildings in	The influence of educational area in zone B space is take effect but	The commercial presence in the main corridor of Jalan

Zone	Commercial Characteristic	Use of Space	Effect of Campus Proximity	Effect of Proximity of Public Facilities / Main Access
	<p>commercial trade and housing services. Business services such as photocopying are rarely found in this zone. More of them are private property with a dominant operating time of around 13-17 hours per day. Existing commercial activities have been operating for 6-10 years on average. In addition, most of the reasons for establishing a business together with the selection of locations at universities in the immediate neighborhood are also supported near residential areas.</p>	<p>zone B are dominated by mixed functions, namely home and commercial.</p>	<p>not as high as in zone A, because zone B has a greater distance from campus. Types of commercial activities in zone B meet the primary needs of students, namely boarding houses, food stalls, cafes / restaurants, food stalls, and laundry. However, commercial support for educational activities such as protection and installation in this zone is less than zone A. Distribution of commercial activities in zone B is distributed and coordinated on the road network where the road is directly adjacent to the corridors of Kaliurang Road and Gejayan Road.</p>	<p>Kaliurang and Jalan Gejayan greatly affects commercial developments in zone B, such as the commercial appearance along Jalan Cempaka (bordering Jalan Gejayan) and Jalan Wuni (bordering Jalan Kaliurang) which are indicated to arise due to the influence of proximity to the main road access . The emerging commercial has a scale for outside areas such as cafes / restaurants, distros, perfume shops, motorbike washers, homestays / hotels and also scales for in commercial scale areas such as food stalls, food stalls, and snack shops. The commercial building functions that appear in this road corridor only consist of commercial functions</p>

Source: Study Analysis, 2019

The phenomenon of land-use shifting from settlements to commercial space is happening in densely populated areas which are supported by a high market demand, especially in educational areas. It is because the existence of universities will cause other sectors around the area grow rapidly especially in economic sector. Limited land and high land prices are also one of the causes that encourage a shift in spatial use. Some business people prefer to use the space they have to gain some profits rather than to rent or buy another space with aim to increase their economic level.

Based on the field survey and the research that has been done, the researchers found that the Caturtunggal area has experienced a phenomenon of shifting spatial use. Some of the landowners in the Caturtunggal area have changed the function of the building into a commercial activity where it originally had a function of using it as a home.

Based on the analysis of the land-use shifting of settlement to commercial space, it can be seen the commercial activities developed and how many commercial activities with mixed functions by looking at the use of residential space in terms of functions and physical conditions of buildings. The proportion of results will be displayed on the graph as follows :

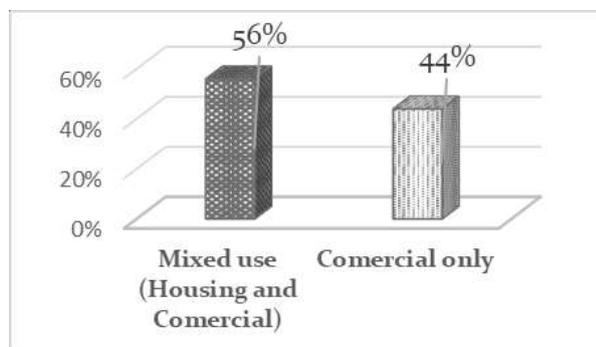


Figure 2. Percentage of the Commercial Building Function in Caturtunggal

Source: Study Analysis, 2019

Based on the graph above, it can be seen that if seen in a comprehensive manner the commercial activities seen from the function of the building are dominated by the function of buildings with mixed functions (residential and commercial). The percentage of building functions with mixed functions (occupancy and commercial) is equal to 56% of all commercial activities in the region, while the remaining 44% have functions as commercial functions only.

The many functions of commercial buildings as a mixed business indicate that the commercial activities in the Caturtunggal area are activities that arise as a result of the creativity of the people who rent or use part of the land in their homes to open businesses because they aim to gain profits from others. In addition, economic factors are also one of the factors that make some people use their space to make a profit by opening a business. The large number of functions of the building as a place of business alone indicates that existing commercial activities are still relatively new. According to field surveys that have been conducted, most homeowners have added or changed the functions of their own homes to become businesses because of the high price of land in the area along with the development of the campus.

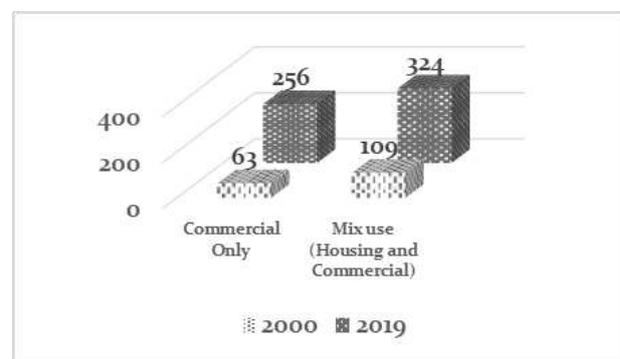


Figure 3. Space Use Change into Commercial in Caturtunggal Area 2000-2019 (unit)

Source: Study Analysis, 2019

Based on the graph, it can be seen that in approximately 19 years, the shift in residential space utilization into commercial activities in the Caturtunggal area has increased to more than 100%. Based on the results of the survey conducted by the researchers, data obtained in 2019 as many as 215 houses experienced changes in building functions which were originally in the form of residential switching functions into mixed functions (residential and commercial). This is indicated by a shift in physical changes in buildings such as increasing the number of buildings, increasing the height of buildings, and others.

Besides that there was also an increase in commercial functions from 2000 to 2019 as many as 193 commercial activities. On the other hand, this shift in spatial use is also characterized by changes in the type of commercial. This is because in the Caturtunggal area there have been several buildings with commercial functions that are intentionally used specifically to accommodate commercial activities in the Caturtunggal Area, along with the development of regions and campuses, causing people to change their space into buildings with special commercial functions, and invest because they have value higher by leasing to other business owners.

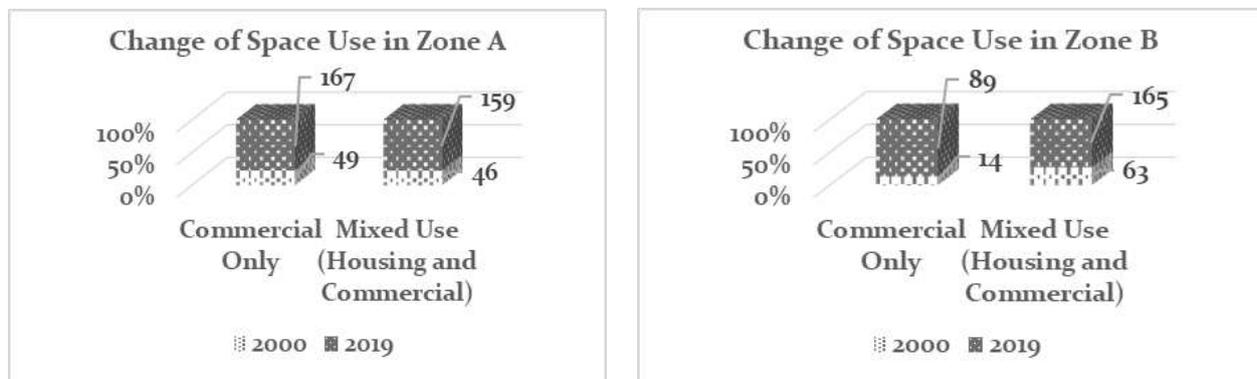


Figure 4. Space Use Change into Commercial in Zone A and Zone B of Caturtunggal Area 2000-2019 (unit)

Source: Study Analysis, 2019

Space shift is only a commercial function that occurs in zone A because zone A has a location that is close to the campus and also has proximity to the main road access, namely Jalan Kaliurang, Jalan Agro, and Jalan Gejayan. The distance of zone A to the existence of the campus has influenced the development of commercial activities, because the existence of UGM which is the oldest campus in Indonesia, has made some buildings become commercial so that the campus will increase the value of land in the surrounding area. Therefore, the community took the initiative to change its residential function to be invested by renting to other people to do business.

The space shift that occurs in zone B is dominated by changes in the function of residential space into mixed functions (residential and commercial). This is because existing commercial activities that have emerged as a starting point in zone A are mixed commercial activities such as boarding houses, food stalls, and food stalls. This is because the location of zone B is far from the existence of the campus so that the commercial activities that emerge are supporting the activities of students who reside. In addition, there are also several commercial activities that do not support educational activities in zone B, but the

commercial shifts because they have easy access, which is directly adjacent to Jalan Gejayan and Jalan Kaliurang. The existence of commercial activities in the road corridor has affected the community to change their

occupancy to be used as a good commercial area scale such as, food stalls, laundry as well as commercial activities outside the area such as cafes, boutiques and pet shops.

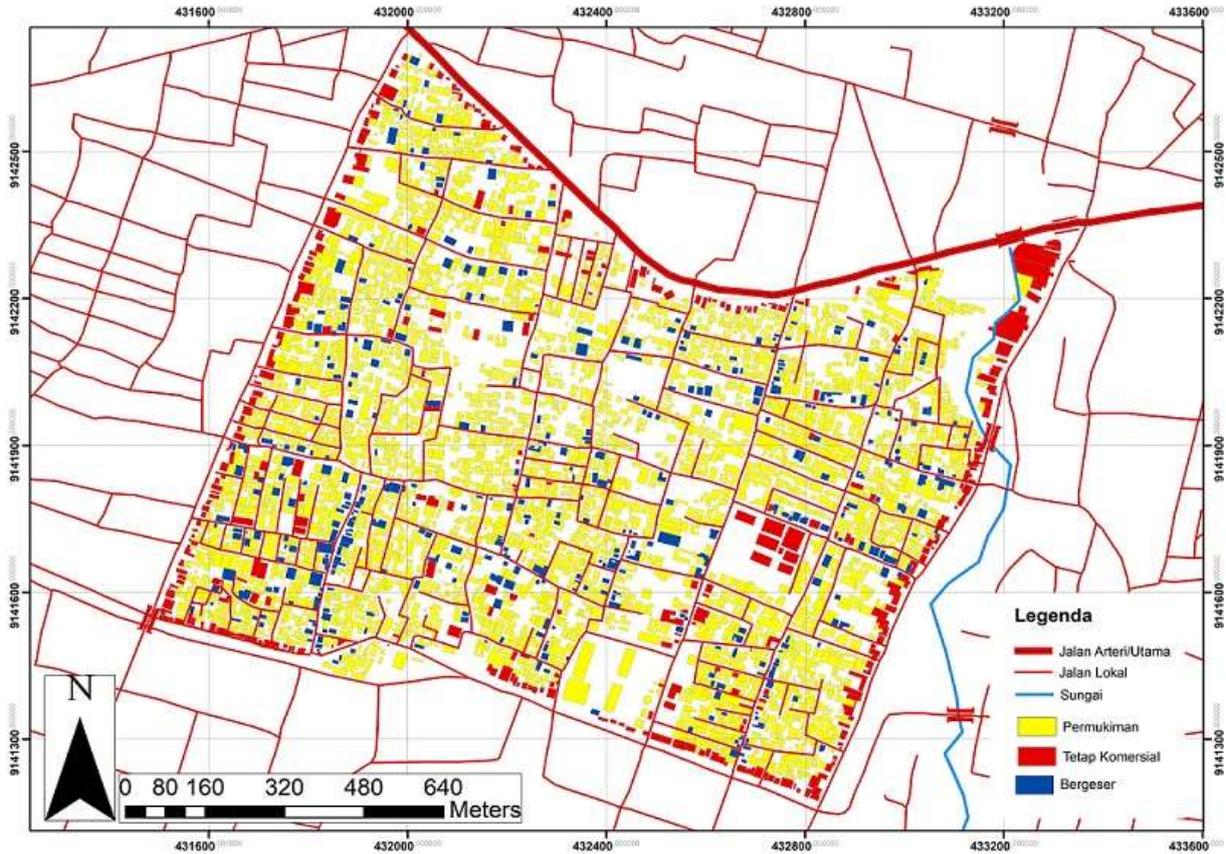


Figure 5. Land-Use Shifting in Caturtunggal Area

Source: Study Analysis, 2019

Based on the map of changes in space utilization above, it can be seen how many functions of the building have changed and which have not changed. At this time, Depok Sub-district has no RDTRK document. Therefore, in regulating zoning for spatial use, the government is using the reference to Regent Regulation No. 44 of 2017 concerning Spatial Use Control. Based on the government policy, most of the Caturtunggal Area has zoning for settlements. Zoning for commercial activities is only along the Kaliurang Street Corridor, Afandi Street and Agro Street only. But in reality what happens on the ground is that most of the Caturtunggal Region has a function as a commercial activity. Changes in

the Caturtunggal area often occur in settlements area. This is because the community utilizes their house land with the opportunity to create economic activities. In the last 20 years the changes that have occurred in the Caturtunggal area are quite fast. To find out the magnitude of the changes, it can be seen through the graph of the percentage change in residential space utilization to be commercial in the Caturtunggal Area of 2000 - 2019, Here is a graph in the last 20 years.

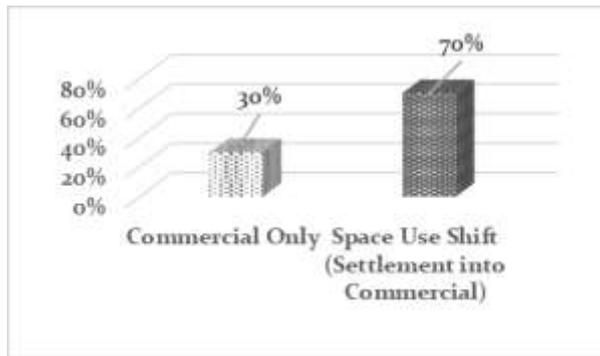


Figure 6. Percentage of Space Use Shift from Settlement Uses into Commercial Activities in Caturtunggal Area 2000 – 2019.

Source: Research Analysis, 2019

In the last 20 years, the Caturtunggal Region has experienced a shift of 70% or equivalent to 408 houses. This proves that in

this region the changes that occur are quite dominant compared to the original commercial data that has emerged in the region which shows a figure of 30% or equivalent to 172 commercial activities. This percentage is obtained from map data that has previously been presented. Changes that occur are marked by an increase in the number of mixed functions and the number of commercial buildings in the Caturtunggal Area. In addition, the changes that occur most of the existing commercial activities run without the official business permit or IMB. The IMB that is still in effect is with a residential function or even none at all.

Factors Analysis that Affecting Land-Use Shifting

Table 2. Scoring Mean Level of Influence

Variable	Mean	Level of Influence	Information
The existence of universities	4.27	Influential	This variable has a very high influence because the existence of higher education is the main factor that triggers the development of commercial activities.
Number of college students	4.38	Influential	This variable has a very high influence because the number of students in the Caturtunggal area becomes an opportunity for the community to open a business because the main target or target of the majority of business owners is for students.
Existence of Boarding House	4.34	Influential	This variable has an effect on the development of commercial activities because the boarding house is a temporary residence for students and students as the main target of the commercial activity.
Ease of Reaching Location	2.74	Less Influential	This variable is less influential in the development of commercial activities because the community considers the road conditions in the Caturtunggal area to make it easier for the movement to reach the location so it does not necessarily take this variable into account.

Variable	Mean	Level of Influence	Information
Traffic Conditions	2.51	Less Influential	This variable is less influential because the traffic around the Caturtunggal area every day is not so crowded and is only crowded during certain hours because students and students have hours of erratic activity.
Strategic location	3.21	Enough Influential	This variable has an influence on commercial development because the business location factor greatly influences the income of the community, if it is closer to the campus and close to the road, income will increase.
Location Security	3.49	Enough Influential	This variable is influential because the majority of commercial activities require security in every effort, both crime security and security against disasters.
Support for Facilities and Infrastructure	3.56	Enough Influential	This variable is enough influential because most of the existing commercial requires adequate facilities and infrastructure services
Consumer Purchasing Power	3.32	Enough Influential	Influential because commercial activities in the Caturtunggal area require consumers with different purchasing power, from middle to lower to middle to upper.
Age and Gender of Consumers	3.2	Enough Influential	This variable is enough influential especially to commercial consumers with special targets, for example, men's clothing boutiques, special boarding for women and men of different buildings.
Existence of Similar Businesses	3.46	Enough Influential	This variable is enough influential because at first most of the business actors opened their businesses due to the presence of similar commercials in the vicinity, thus utilizing the situation.
Rental Price	3.26	Enough Influential	This variable is enough influential because rental prices affect businesses to open their businesses, this is related to the ability of the private economy to open a business.
Land Price	3.47	Enough Influential	This variable is enough influential because the price of land affects businesses to open their businesses, this is related to the ability of the private economy to open a business.
Local Government Policy	2.19	Less Influential	Policy variables are less influential because of the absence of certain rules governing existing commercial.

Source: Data Processed, 2019

Based on the results of the above calculations, it can be seen the results of the average score or mean of the variables that affect commercial development in the Caturtunggal Area, can be classified into three groups. This grouping is done by grouping variables that have an average value almost equal to one with the assumption that the influence of these variables on changes in residential space use to be commercial in the Single Chess Area is the same. Grouping these variables is the main faktor (consisting of

influential variables), supporting factors (consisting of variables that are quite influential), and additional factors (consisting of less influential variables).

Next to see the factors that are formed from all existing variables, the steps taken are analyzing using factor analysis assisted with SPSS software. Based on the analysis that has been carried out, out of the 14 variables available, 5 groups of factors are produced which influence the development of commercial activities in the Caturtunggal Area.

Table 3. The Influency Factors Based on SPSS Analysis

Parameter Code	Parameter Value					Factor Variable Formed
	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	
VKPT_1	0.791	-0.186	-0.043	0.142	0.162	Factor Variable "Existence of University"
VKPT_2	0.627	-0.250	0.041	0.528	-0.078	
VKPT_3	0.814	-0.066	-0.088	0.137	0.095	
VL_1	-0.415	0.551	-0.033	0.439	-0,319	Factor Variable "Location"
VL_2	-0.547	0.517	0.073	0.215	0.217	
VL_3	0.144	0.699	-0.151	0.281	0.240	
VL_4	-0.159	0.730	-0.035	-0.028	0.071	
VE_1	-0.242	-0.053	0.668	-0.178	-0.234	Factor Variable "Economic"
VE_2	-0.017	0.468	0.625	-0.027	-0.088	
VPP_1	-0.001	0.089	-0.001	0.836	-0.107	Factor Variable "Market Preference"
VPP_2	0.078	-0.143	0.006	0.699	-0.042	
VPP_3	-0.075	-0.529	0.177	0.656	0.312	
VA_1	-0.185	-0.079	0.418	-0.019	0.562	Factor Variable "Access"
VA_2	0.006	0.416	-0.159	-0.154	0.637	

Source: Data Processed

Note:

- | | | | |
|----------|---|---------|---------------------------------|
| VKPT_1 : | Existence of University | VE_1 : | Rental Price |
| VKPT_2 : | Number of college students | VE_2 : | Land Price |
| VKPT_3 : | Existence of Boarding House | VPP_1 : | Age and Gender of Consumers |
| VL_1 : | Strategic location | VPP_2 : | Consumer Purchasing Power |
| VL_2 : | Support for Facilities and Infrastructure | VPP_3 : | Existence of Similar Businesses |
| VL_3 : | Location Security | VA_1 : | Ease of Reaching Location |
| VL_4 : | Local Government Policy | VA_2 : | Traffic Conditions |

Based on the results of the factor analysis, it can be seen that the factors that influence changes in the use of space from housing to commercial activities in the Caturtunggal region consist of 5 factors. Each parameter that forms a factor variable has a shape greater than 0.5, which indicates that each of these parameters is feasible to form a variable. There are 5 variables that are formed, namely factors of tertiary education area (the existence of tertiary institutions, the number of students in the existence of boarding houses), location factors (strategic location, infrastructure, location security, local policy), economic factors (rental price and land sale price), market preference factors (age and gender of consumers, consumer purchasing power, and the presence of similar businesses), and accessibility factors (ease of reaching locations and traffic conditions). This is consistent with research conducted by (Wardhana & Haryanto, 2016), about the factors that influence changes in spatial use, where the existence of tertiary institutions as a growth center in a region has a very strong developmental influence on the surrounding area, among others causing many land conversion function, especially non-built land to built-up land, triggering the number of shops, the increasing density of an area by buildings, improving the quality of existing infrastructure, and the many mix-use functions of residential buildings (Samadikun et al., 2014).

Spatially, the existence of university influenced the development of the region include the emergence of many food outlets to meet the demand for food needs, especially for students, many commercial activities such as hotels and banks, an increase in the transportation system, increasing the houses and apartments, and increasing the quality of infrastructure (Ehinmowo & Eludoyin, 2010). The existence of the education area (university) will also affect the economic aspects of the surrounding area, such as the price of land and land rent, the economic development of the

local community in the form of small and medium enterprises, which use a little space of their house or the whole house to open a business and looking for profit. This is due to the high demand to meet the needs of the community, especially students such as primary needs, secondary needs, and tertiary needs. According to Kaiser et al., (1995), several factors can influence the development of commercial activities one of which is the economy, in the context of economic theory, land is determined by the urban land market so that it affects the price and development of commercial activities; social value of society, influencing the development of commercial activities due to ecological processes in the physical city and organizational processes in the social structure of society; public interest, influential in the development of commercial activities because the interests of the community must take precedence.

In addition, the majority of respondents have perceptions about land prices, although it is always increasing, but that still affordable for the business actors in Caturtunggal region. Land rent in the Caturtunggal area is between 10 - 85 million per year. This encourages the phenomenon of changes in the use of space is quite significant and spread in the Chesstunggal region. Therefore, along the corridor and in the Caturtunggal region, land prices will continue to rise every year so that there will be many changes in the function of buildings because landowners will sell or lease business premises to take advantage of opportunities. However, the phenomenon of changes in spatial use in Caturtunggal is that the majority of business operators operate their businesses without a business permit, but they still use housing permits. So that some of the commercial activities in the Caturtunggal Region are not legally in accordance with government regulations. In addition, the government is still neglecting or not having a policy related to the phenomenon of shifting the use of commercial

space where commercial activities are still ongoing.

CONCLUSSION

There are differences in the implementation of the spatial utilization plan that has been determined by the government where the Caturtunggal area should be an area dominated by settlements. This shift in spatial use occurs along with the development of the existence of universities around the area. The mismatch of space utilization that occurs is the incompatibility of space functions that should be used as settlements but developing commercial activities into the settlements, where commercial activities are dominated by commercial activities in the form of housing services and primary commodities.

Based on its commercial characteristics, there are differences in commercial characteristics in zone A and Zone B, especially in the types of retail available in each region, characteristics of patterns of commercial development and business land ownership. The difference in commercial characteristics is influenced by the distance between the location and the college area and is influenced by the proximity to the main access or public facilities, namely the existence of commercial corridors on Kaliurang Street, Gejayan Street, and Agro Street (Mataram Sewers). If in zone A, which is adjacent to the college, it has a commercial, the majority of which is rent / contract land, if zone B is privately owned. The number of commercial proportions also different in each of these zones.

Based on the graph above, it can be seen that in the last 20 years, the Caturtunggal area has experienced a shift of 70% or equivalent to 408 houses. This proves that in this region the changes that occur are quite dominant compared to the original commercial data that has emerged in the region which shows a figure

of 30% or equivalent to 172 commercial activities. This percentage is obtained from map data that has previously been presented. The shift occurs marked by the shifting of building functions from the original occupation into a commercial function or mixed function in one building, residential and commercial, where some commercial activities with mixed functions do not work without the IMB as a business activity, but still use IMB as a residence. So that some commercial activities in the Caturtunggal area are legally not in accordance with government regulations. In addition, the government is still carrying out omissions related to the shift in the use of commercial space where commercial activities are still ongoing.

Then, for the analysis of the factors that have been done, there are 3 formulations of the level of influence of each variable on the development of commercial activities, namely the main factors (influential), supporting factors (quite influential), and additional factors (less influential). In addition, the results of factor analysis also resulted in the formation of 5 groups of factors which were thought to influence the shifting phenomenon of residential space utilization into commercial areas in Caturtunggal, namely education area factors, market preference factors, location factors, economic factors, and accessibility factors. Factor grouping into one is based on the ability of these variables in explaining variations in data that are relatively the same so that it is put together into one group or it can be said that grouping is done based on the level of correlation between variables.

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