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Travel Motivation Factors of Elderly in Yogyakarta City: Push and Pull Factors

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Travel Motivation Factors of Elderly in Yogyakarta City: Push and Pull Factors

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Abstract. Yogyakarta is a city which has the highest percentage of elderly with 12.07% of its population in 2017. The higher number of elderly population indicates the importance in the provision of special mobility's infrastructure for them. The aim of this study is to identify the characteristics of the elderly in Yogyakarta City and the characteristics of their mobility. Besides, it also explores the factors which considered in decision making for traveling. This research used quantitative data sets. Questionnaires were distributed to elderly aged of 60-90 years old to collect the primary data. The result shows that the elderly of Yogyakarta City is dominated by women whose education background are an elementary school. The data show that 35,6% elderly are still working in informal sectors whose average monthly expense is less than 1 million rupiah. The outdoor activity of elderly of Yogyakarta City is dominated with the purpose of doing social activities and socializing with others. Their mobility is clustered around the home. The relative close distance makes them easier to mobile because they could reach the destination independently. The highest push motivation of elders to travel is to meet their spiritual needs while pull motivation is the suitability of the destination with their conditions.

1. Introduction

The increasing of the elderly population is a global phenomenon that occurs in the world. The United Nation predicts that by 2050, 58% of the elderly will live in urban areas [1]. Yogyakarta is the city with the highest proportion of elderly in Indonesia. Based on data from the Department of Population and Civil Registration of Daerah Istimewa Yogyakarta, the proportion of elderly of Yogyakarta City in 2016 was 12.07%. This number is greater than the percentage of national elderly by 9.03% [2]. This was caused by the high life expectancy of Yogyakarta City which reached 74.05 years old in 2014 [3].

Elderly is a group of people who have experienced various changes both in physical and social aspects [4]. One of the main problem faced by the elderly is related to the impact of biological aging which correlates with the declining function of human capacity. This declining rate determines various factors related to lifestyle, social, economic and environmental [5].

Doing an activity is everyone's needs. Humans, including elders, carry out activities aimed at fill their daily needs. These activities generate human mobility which shown by traveling from one place to another place. Mobility for the elderly is a matter that requires special attention because of their physical limitation. Attention to the needs of the elderly aims to improve the quality of life of the elderly. Elderly requires the mobilization activities aiming to interact with other people, get to know new places or can participate in activities outside the home.

The condition of Yogyakarta City which has a high proportion of the elderly has not been able to accommodate the needs of traveling/mobility facilities. Yogyakarta does not have specific public transportation for the elderly. The elderly still use public transportation and infrastructure for the general people. Elderly who need special facilities in their mobilization activities have not been fulfilled properly. On the other hand, the elderly need support to get a good quality of life during the aging process [6].

2. Methodology

This study used a survey method by collecting primary data through structured interviews using questionnaires. Respondents selected in this study were those who lived in Yogyakarta City. The age limitation for the respondents is 60-90 years. The sample was determined by stratified sampling based on 4 elderly age groups (60-64 years old, 65-69 years old, 70-74 years old, and 75-90 years old). The population in this study were elderly aged 60-90 years based on population data of Yogyakarta City in 2016. Based on the data from the Department of Population and Civil Registration of Yogyakarta, it is known that in 2016 the population density of elderly in each subdistrict is different.
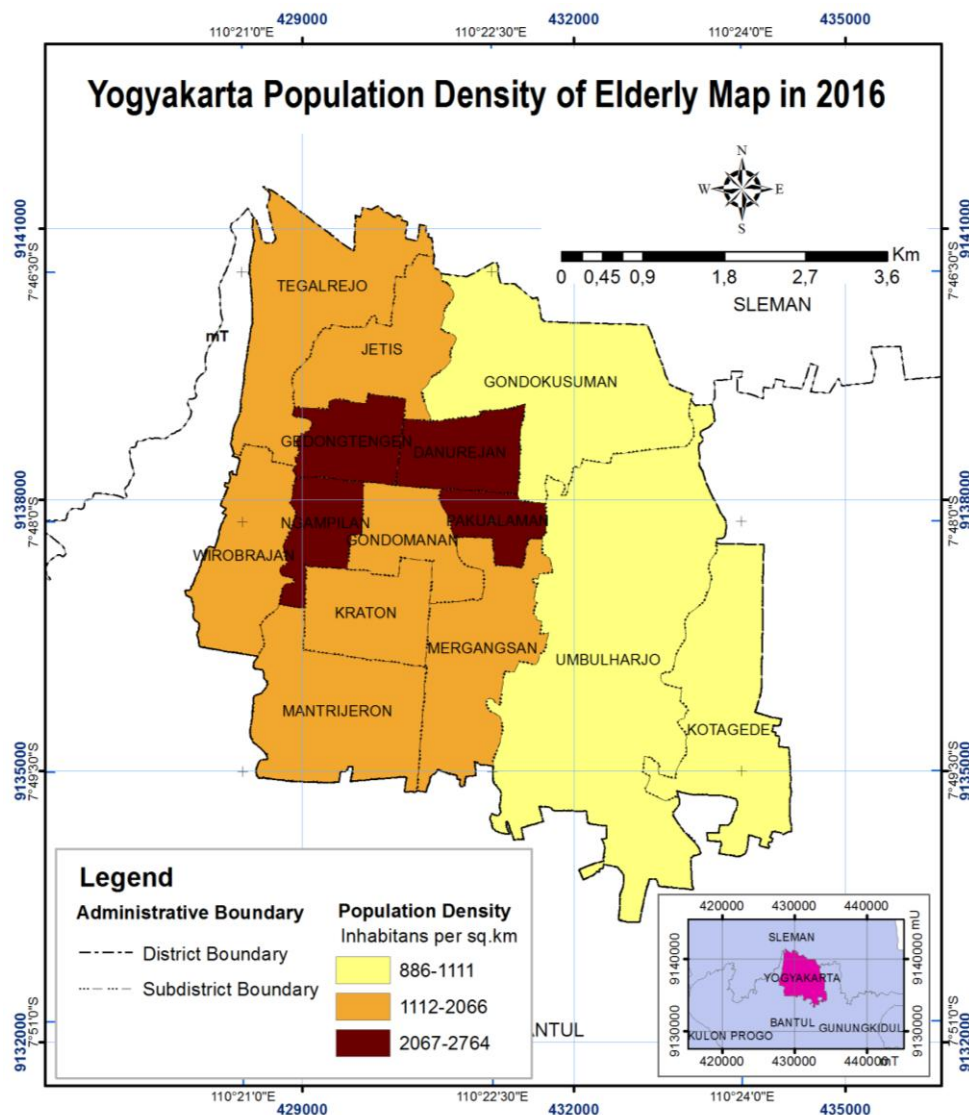

Figure1.The relationship among location of destinations, distance, and traveling intensity.

A Sample of 205 questionnaires was completed using face to face interview among certain elders based on the age group. The questionnaires were distributed in a variable region in Yogyakarta City. Here is the distribution of respondents:

Table 1. Number of respondents by age group

Age Group	N
60-64	60
65-69	59
70-74	36
75-90	50
Total	205

In this study, quantitative data collection method was applied to analyze the empirical data characteristics of elderly and the traveling characteristics. Furthermore, the importance of motivation items was identified based on the responses measured by the five-point Likert Scale with the range from 1 means "Strongly Disagree" to 5 means "Strongly Agree". The data display would be tables, graphics, schemes, and the descriptions.

3. Results and Discussion
3.1. Characteristics of elderly in Yogyakarta City
3.1.1. Sosio-demographic profile
The data shows that the elderly of Yogyakarta City is dominated by women with a percentage of 66.8%. Women's life expectancy is higher than the men. This was supported by the 2010 National Census data, that woman aged 60-64 years old and 65-90 years old were approximately 10% longer than the man [1].

The education background of elderly age group 60-64 years old is dominated by elementary school (41.7%). The elder the age (75-90 years old), there is a trend that older people who only get elementary school education are increasing by 58%. Around 75 to 90 years ago Indonesia was still colonized with limited education facilities. In the colonial period education in Indonesia was only accessible by certain groups and only located in big cities. That condition made children were more difficult to access education [7].

A number of 8.8% of the elderly in Yogyakarta City live alone while 91.2% of elders live with their families. The highest percentage of elderly people living with family is the age group 75-90 years old (92%). Meanwhile, the elderly group that has the lowest percentage is aged 65-69 years old. Elderly people aged 75-90 years old have a bigger possibility of physical degradation. They will tend to need the help of others to support their activities. In this case, the family plays an important role to help the life of the elderly including living with them

Table 2. Socio-demographic characteristics of elderly in Yogyakarta City.

Indicators	Age group				Total
	60-64	65-69	70-74	75-90	
Gender					
Male	25%	35.6%	33.3%	40%	33.2%
Female	75%	64.4%	67.7%	60%	66.8%
Education Background					
Less than elementary school	5%	5.1%	8.3%	14%	7.8%
Elementary school	41.7%	35.6%	44.4%	58%	44.4%
Junior high school	21.7%	20.3%	30.6%	12%	20.5%
Senior high school	28.3%	22%	8.3%	4%	17.1%
College/university	3.3%	16.9%	8.3%	12%	10.32%
Living Companion					
Alone	8.3%	10.2%	8.3%	8%	8.8%
With Family	91.7%	89.8%	91.7%	92%	91.2%
Total	100%	100%	100%	100%	100%
N	60	59	36	50	205

3.1.2. Economic characteristics

Economic characteristics can be identified from labor status and the monthly expense. Those two aspects can explain how many assets belong to the elder supporting their life. Based on the interview, 64.4% elder people in Yogyakarta City don't have status as workers. There is a scheme which shows that there is an influence of age to the job status. The elder of the age group, the less number of workers. In the age group 75-90 years old, only 20% of an elder who is still working while in the age group 60-64 years old is 58.3%. Working is an activity that requires energy in accordance with the type of work the work. Physically, the elder the elderly, the more limited their physical abilities. Therefore, their working abilities are also decreased the decision not to take a job.

The result shows that the monthly expense in each group is dominated by <1 million rupiahs/month. But, the highest one is age group 75-90 (64%)and the lowest is age group 60-64 years old (41.7%). The lower monthly expense of elderly people is as an effect of the decreasing of their daily needs. The domination of elders with monthly expense less than 1 million/month indicates some conditions. First, those elders come from a poor family with limited assets. So, they will try to limit their expense appropriate with the income. The second condition is the elders who love to spend most of their time at home. So, the travel budget can be minimalized. Besides, the support of elders' children can reduce their expense. Sometimes other tertiary needs are covered by their children.

Table 3. Economic characteristics of elderly in Yogyakarta City.

Indicators	Age Group				Total
	60-64	65-69	70-74	75-90	
Labor status					
Labour	58.3%	33.9%	22.2%	20%	35.5%
Unlabour	41.7%	66.1%	77.8%	80%	64.4%
Annual monthly expense					
<1 million rupiah	41.7%	50.8%	63.9%	64%	53.7%
1-2 million rupiah	43.3%	32.2%	36.1%	24%	34.1%
2-3 million rupiah	11.7%	13.6%	0%	6%	8.8%
>3 million rupiah	3.3%	3.4%	0%	6%	3.4%
Total	100%	100%	100%	100%	100%
N	60	59	36	50	205

3.2. Health characteristics of elderly in Yogyakarta City

The result shows that as many as 49.8% of elderly people in Yogyakarta City experience health problems. Health problems referred to in this study are types of disease that are classified as degenerative. Health problems experienced by the elderly including gout, diabetes, heart disease, vertigo, asthma, high cholesterol, hypertension, stroke, chronic ulcers, prostate, hypothermia, rheumatism, hearing disorders, and vision problems. This condition is in accordance with the signs of aging revealed by Nugroho (2006) that among the signs of aging include decreased function of vision, hearing, and susceptibility to other chronic and degenerative diseases [8]. This condition disrupts the activities and independence of the elderly

3.3. Traveling characteristics of elderly in Yogyakarta City
3.3.1. Location, distance and travel intensity

Traveling activities of elderly in Yogyakarta City can be classified into six categories. They are social activities and socialization with others, shopping, economic activity, health activity, spiritual activity, and others. Doing social activities and socializing to others is the most often activities among others with 40.5%. It can be done by joining the regular social gathering, visiting neighbor and volunteering. The relatively close destination make them affordable in term of distance and time.

By 3.5%, traveling to meet the economic needs is rare. A number of 64.4% elders in Yogyakarta don't work.

Table4. Traveling activities by elderly in Yogyakarta City

Activities	Age Group				Total
	60-64	65-69	70-74	75-90	
Social activity and socialization to others	41.1%	44%	38.9%	37%	40.5%
Shopping	12.1%	7.9%	7.4%	7.5%	8.9%
Economic activity	5.3%	2.6%	3.7%	2.2%	3.5%
Health activity	17%	18.8%	17.9%	25.1%	19.7%
Spiritual activity	15.5%	15%	24.7%	20.7%	18.3%
Recreation	7.9%	9%	6.2%	6.6%	7.6%
Others	1.1%	2.6%	1.2%	0.9%	1.5%
Total	100%	100%	100%	100%	100%
N	265	266	162	227	920

The table below shows varied data in each group. Elders' activities are clustered around the home with the highest number belongs to the age group "75-90" (68.9%). Their limited physical condition

makes them lack of activities. When they are traveling, they tend to travel around the home to decrease the journey risk caused by the weak physical condition.

Table 5. Distance range of traveling

Distance range	Age Group				Total
	60-64	65-69	70-74	75-90	
Around home	64.2%	57.9%	66.7%	68.3%	63.8%
Cross-Administrative Village	4.9%	8.3%	8%	7%	7%
Cross-Sub district	7.9%	9%	6.8%	5.3%	7.4%
Cross-District	12.5%	15.%	9.3%	13.2%	12.8%
Outside the province	10.6%	9.8%	9.3%	6.2%	9%
Total	100%	100%	100%	100%	100%
N	265	266	162	227	920

Generally, 63.8% of activities are around home. Social and socializing with others as the most popular activities are mostly located around the home. The other popular activity located outside Daerah Istimewa Yogyakarta is recreation. Most of this agenda is conducted by local communities. The destinations for recreation are Semarang, Jepara, and Magelang. For certain elders, the destinations are farther till going to another island or even another country. This kind of elders have a good economic background, so they allocate their money for traveling around the world.

Traveling intensity describes how often the elders doing an activity outside their homes. The higher the intensity, the higher the level of their mobility. In table 6, the traveling intensity in all of the group is dominated by medium classification. It indicates that the elderly in Yogyakarta City is active enough to travel both near and far destinations.

Table 6. Traveling intensity

Intensity Classification	Age Group			
	60-64	65-69	70-74	75-90
High	25%	28.8%	27.8%	30%
Medium	61.7%	55.9%	50%	50%
Low	13.3%	15.3%	22.2%	20%
Total	100%	100%	100%	100%

The figure below shows clearly the general description of the traveling scheme of elderly in Yogyakarta City. There is non-linear relation among distance and traveling intensity. The farther the activities, the lower the intensity. The high-intensity activities are likely done around the homes (e.g. meeting neighbors, going to the mosque) and low-intensity activities are farther (e.g. recreation).
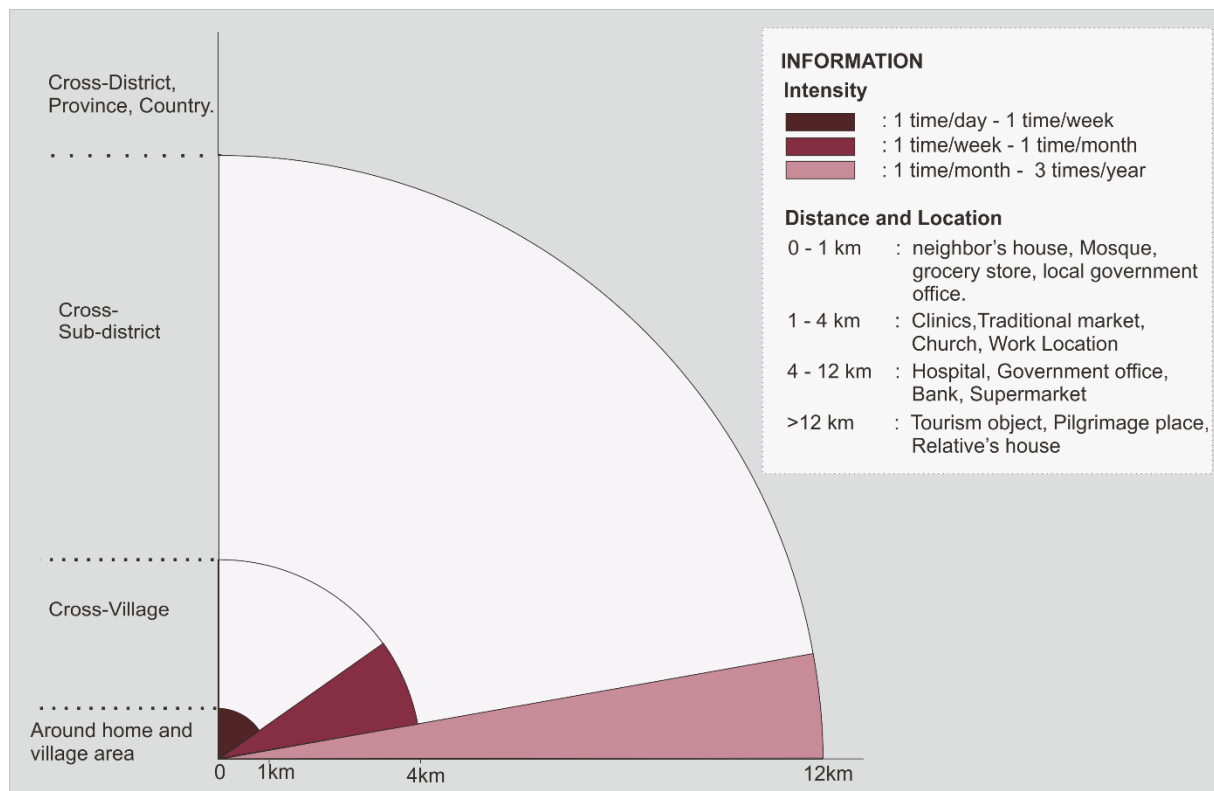
Figure 2.The relationship among location of destinations, distance, and traveling intensity.

3.3.2. Transportation

Table 8 shows that in all of the age group, traveling by on foot is the most intensive choice. This data indicates that most of the elder activities are located around their homes. So, they don't need cycle for traveling. According to the data, the trend usage of long-distance transport usage is decline. For example is a plane which is only 1.3% among others. It's caused by the low number of long-distance travel by elders. Besides, traveling by plane need more payment, so that only the ones who have much money can access it.

Table 7. The usage of transportation modes in traveling.

Transport	Age Group				Total
	60-64	65-69	70-74	75-90	
On foot	63.4%	57.9%	69.8%	67.4%	63.9%
Motorcycle	14.3%	13,2%	9.9%	10.6%	12.3%
Car	6%	7.5%	4.9%	6.6%	6.4%
Bicycle	3%	4.9%	3,7%	2.6%	3.6%
Pedicab	1.1%	2.6%	1.9%	1.3%	1.7%
Bus	9.1%	11.3%	8%	8.4%	9.3%
Train	1.9%	1.5%	1,.2%	0.9%	1.4%
Plane	1.1%	1.1%	0.6%	2.2%	1.3%
Total	100%	100%	100%	100%	100%
N	265	266	162	227	920

3.4. Travel Motivations of Elderly in Yogyakarta City

The elderly's traveling decision is influenced by the factors coming from themselves (internal factor) and the factors which are offered by the destination (external factor). To identify the factors which motivate elderly to travel, each item is measured on 5-point Likert Scale.

3.4.1. Push factors for traveling

The most important factor to be considered by elderly people of Yogyakarta City is spiritual needs. Fulfilling this need can be done by performing rites, pilgrimage, or learning religious study. It is important for the elderly to get happiness or establish any kind of peace in their life. The elderly believe that having a good relationship with God is important for preparing their afterlife. So, they will allocate most of their time for praying in church, mosque, and other places of worship. The willingness to stay healthy makes them prioritize health needs. The elders who are getting old cannot prevent themselves from aging. The aging phenomenon is correlated with health degradation. Traveling to local clinics and joining a regular gym are the efforts to create a healthy life for elders. Meanwhile, having money is the least internal important factor for traveling. Most of them don't have annual income because they aren't working. Their children will support their daily needs including by giving money.

Table 8. The push factors for traveling

Items	Mean Score
Spiritual Needs	4.06
Health Needs	3.66
The availability of travel companion	3.52
Meeting people	3.37
Health condition	3.05
Traveling for recreation	2.94
The availability of personal vehicle	2.54
Working	2.49
Having money	2.48

ᵗhe importance of motivation items was measured using 5 points Likert Scale

3.4.2. Pull factor for traveling

The other factors which motivate elderly to travel are external factors (factors which are offered by destination location). The result shows that the most important external motivation factor is the suitability of the destination with the elderly's conditions. This suitability can be manifested by providing an exclusive toilet for the elderly and building the gentle stairs to access the upstairs. These facilities will make them feel comfortable and safe. Meanwhile, the convenience in accessing information is the least important item in this survey. The elderly prefer to get information from their neighbors, friends or relatives without needed to access information from other sources such as website and social media which have been barely understandable.

Table 9. The pull factors for traveling

Items	Mean Score
The suitability of location with elderly's conditions	3.7
Accessibility	2.7
The convenience in accessing information	2.5

ᵗhe importance of motivation items was measured using 5 points Likert Scale

4. Conclusion

Generally, the Elderly of Yogyakarta City is still dominated by the elderly with low socio-demographic and economic conditions. This is because there are still many elderly people who have a low level of education and low monthly expenses. From the health aspect, a number of 49.2% of the elderly suffer from mild or severe degenerative diseases. Under these conditions, the role of the family supporting their life is very important. These conditions will affect elderly's traveling activities, where there is a tendency that the majority of elderly traveling activities are around their homes. Traveling activities that are relatively close make activities more accessible to the elderly, including in terms of financing. Those conditions also generate different travel motivations for the elderly. In general, the highest travel motivation is to meet spiritual and health needs. The two aspects above are in accordance with the psychological and health conditions of the elderly. In addition, in traveling, the elderly also choose the places which would be visited. They will prefer to visit places that are suitable for their conditions.

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