FACTOR ANALYSIS OF CULTURAL, HISTORICAL AND NATURAL TOURISM DETERMINANTS IN YOGYAKARTA: DOMESTIC TOURISTS PERSPECTIVE

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Abstract

This study is conducted to identify factors influencing the decision of tourists to visit Yogyakarta using factor analysis technique. Further, this study attempts to explore the perception of tourists on Yogyakarta tourism. Yogyakarta tourism has three main recreation attributes, i.e. cultural, historical, and natural attributes. Empirical results show that, overall, visitors are satisfied with the services provided in selected recreational sites. However there has been a lack in facilities and diversification of recreational activities. Therefore, some factors such as accommodation, satisfaction and recreation spot services become important aspects to attract visitors.

Keywords: *factor analysis technique, recreation's attributes*

Background

Yogyakarta is a second largest tourist destination after Bali. Many factors make Yogyakarta the most sought of after Bali. Among these factors area the diversity and number of destinations in Yogyakarta (there are more than 50 tourist destinations). Other is the attributes of culture, history and nature as main characteristic of and tourism unique identity of Yogyakarta. The attributes may describe the Yogyakarta tourism as a whole.

Although Yogyakarta is an interesting tourist area, the number of tourists visiting was still relatively small compared to other regions in Indonesia. Table 1 shows the number of tourists visiting Yogyakarta in 2003 that decreased significantly from the 204,527 tourists to be 53,548 visitors, and the number of tourists increased again in 2003 and beyond.

The average foreign tourists visiting duration in Yogyakarta is short. In 2005 duration of both domestic and foreign tourists visit is only two to three days (Table 2).

Table 1: Number of Domestic and Foreign Tourists Visit to Indonesia and Yogyakarta

Year	Foreign tourists		Domestic tourists	
	Indonesia	**Yogyakarta**	**Indonesia**	**Yogyakarta**
2001	5,153,620	103,838	103,884,3	2,860,278
2002	5,033,400	204,527	105,377,7	2,038,962
2003	4,467,021	53,548	110,031,3	1,819,323
2004	5,321,165	87,832	111,353,4	1,913,511
2005	5,002,101	79,844	112,701,2	1,913,603

Source: Tourism Board of Yogyakarta, Tourist Statistics of Yogyakarta 2005

Table 2: Duration of Stay in Yogyakarta 2001-2005

Acomodation	2001		2002		2003		2004		2005	
	F	D	F	D	F	D	F	D	F	D
Non-Star Hotel	2.05	1.10	1.91	1.25	1.80	1.20	2.20	1.46	2.22	1.65
Star Hotel	2.03	1.65	1.83	1.84	1.95	1.78	1.84	1.65	2.41	2.30
Average	2.04	1.38	1.84	1.53	1.88	1.50	2.02	1.56	2.32	1.98

Notes: F=foreign tourists, D=domestic tourists
Source: Tourism Board of Yogyakarta, Tourist Statistics of Yogyakarta 2005

Some efforts have been implemented continuously to attract tourists visiting Yogyakarta and still to be improved, especially after the earthquake of Yogyakarta in May 2006. The government should do more to encourage tourism in Yogyakarta. Therefore, it is important to find out factors affecting the interest of tourists to come to Yogyakarta. To do so a model is created based on the perception or the views of tourists.

Objectives of Research

This study attempts to identify factors influencing the decision of tourists to visit Yogyakarta based on domestic tourist perception and to know domestic tourist perception of Yogyakarta tourism.

Description of Research Sites

The study was conducted in Yogyakarta. Yogyakarta tourism potential is divided into three, namely the potential of nature, history and culture.

Nature

The north, northwest and southwest of Yogyakarta are mountain area. Standing in the north is Merapi Mountain, an active volcano. Mount Merapi eruption has a characteristic shape that is typical of summer cloud that is often called the wedhus gembel. There are mountains Menoreh in the northwest, while in the south east is a very unique Sewu mountain. Sewu mountains consist of limestone material with underground river, cave and lake. Some mountains in this area have eco-tourism potential and beautiful flora and fauna as unique biodiversity.

Yogyakarta is recognized as an interesting place for researchers, geologists, and volcanologist for its caves in the limestone rocks and for its active volcanoes. Around Parangtritis beach is a sand hills, called "gumuk" or sand dunes. Sutikno (as cited from Sinar, 18 May 1996) states that sand dune is a rarely found in such tropical wet area.

Yogyakarta has a limited state owned forest area which some of it have potential as ecological tourism objects such as tropical rain forest on the slopes of Merapi Mountain, primary succession forest near the peak of Merapi Mountain, Decideous Jati, a unique vegetation, forest in Gunung Kidul. Such forests used to be explored as education and research place.

Beside forest, agricultural and horticultural areas can be developed for agro-tourism. Nowdays agro tourism has been developed in the Sleman Regency, namely in the northern area around Kaliurang with Salak Pondoh as special and advanced commodity of Yogyakarta. Such condition can also be found in Bantul, Kulon Progo and Gunung Kidul Regencies which have also potential to develop regional agro tourism. Land, gardens, yards, checkered and shaped terasiring ricefields are very interesting objects to be developed as attraction of agrotourism.

Besides creating agro tourism, agriculture and plantations can create the residential village with a stripe pattern and a wide range. Such settlement form interesting social and cultural system and so on settlement in the mountains, in low, the beach areas. Residents living in the limestone mountain, for example in Gunung Kidul, are culturally different from those who live in alluvial region in Bantul and Kulon Progo. Such social system differences are still based on the Javanese philosophy that makes it unique. This potential can be developed as the object and the attractiveness of rural tourism.

History

For archaeologists, Yogyakarta is very interesting because it has around 36 temples or historic sites. The Prambanan temple for example is the biggest and most famous Hindi temple in Indonesia built in the 9th century. It is located in the eastern of and about 30 km from Yogyakarta. Borobudur is the largest Buddhist temple and noted as one of the Seven Wonders of the World, located in the northeast of and around 42 km from Yogyakarta. Mendut temple is a place for people to worship Buddha in it because of a Buddha Gautama statue within it.

Culture

Yogyakarta also has beautiful surrounding. Many traditional buildings are still well maintained in Yogyakarta. Harmony is created from a mix of traditional and modern life. Some traditional rites are still maintained well until now. The night atmosphere with romantic lamps make Yogyakarta an attractive region to visit, not only for once but also create a nostalgic moments and bring tourists to come back. Traditional arts and culture such as gamelan, traditional dance reminds anyone viewing it to the life of the past. Generally, cultural tourism object is located surrounding the Sultan's Palace. Sultan Palace is a cultural center refers to the cultural life of the Mataram kingdom. The development of modern life is marked with the development of modern technology allowed to develop harmoniously with the traditional life in Yogyakarta. Such conditions create social life and behavior of Yogyakarta as typicaly polite. Various living traditional arts, rites, vehicles, and architecture make Yogyakarta a "living museum of Javanese culture."

Factor Analysis Method Theoritical Framework

This study apply a model is often used in Psychology to view respondents opinion, namely factor analysis. Factor analysis is a technique to combine questions or variables that can create a new factor and also combine target to create a new group in a sequence. Factor analysis is established from analysis of interdependence technique since it analyses interconnection between the questions, variables or targets. It has a different character from

other statistical test such as t test or ANOVA because it is not a test for differences between groups of subjects.

Factor analysis sets up a complicated structure used to identify the relationship between the set of observed variables that are usually in large amount. Furthermore, the variable was reduced into a smaller named dimension or factor with almost same character (Nunnally and Bernstein, 1994). There are two types of factor analysis, i.e. exploratory and confirmatory. Exploratory factor analysis (EFA) is used by researcher who does not have knowledge about how many of the factors needed to explain the relationship between the set of characteristics, indicators or items (Gorsuch, 1993; Schmelkin and Pedhazur, 1991; Tabachnick and Fidell, 2001). Therefore, researcher uses factor analysis method to explain the main factor as the focus of the model. Meanwhile, the confirmatory factor analysis (CFA) is used by researcher having enough knowledge about the main framework in which models will be reviewed. One of CFA purposes is to test theory or hypothesis and to compare factor structure.

There are several fundamental phases to calculate the exploratory factor analysis (EFA). First is to identify questions representing the variables that will be selected using two methods of approach, i.e. in depth interview and business intelligence with focus group discussion.

Second is to prepare the data for calculation of correlation matrix by selecting feasible indicators or variables to be included in the factor analysis. Selection was conducted by factor analysis through the data reduction process by grouping a number of variables with strong correlation. Variable with weak correlation other variables will be excluded from the factor analysis. The data reduction process is applied by comparing the scale number of KMO-MSA and Barlett's Test. Basic principles KMO-MSA and the Barlett's Test are as follow:

1. Bartlett's Test of Sphericity (Bartlett, 1950) tests the null hypothesis where matrix correlation is a form of identity matrix $\begin{bmatrix} 10 \\ 01 \end{bmatrix}$ which means there is no relationship between the items. Bartlett's Test of Sphericity can be seen through the Chi-square test showing the presence of a normal distribution (Table Z).
2. Kaiser-Meyer-Olkin Test (KMO) is the partial correlation showing correlation between each item pair. KMO measures sampling requirements comparing the size of the coefficient correlation and of the partial correlation coefficients. $KMO = \frac{\Sigma(correlation)^2}{\Sigma(correlation)^2 + \Sigma(partialcorrelation)^2}$ The rule of KMO scale according to Keiser (1974) is above 0.90 (very good), 0.80 (good), 0.70 (medium) and less than 0.60 (poor), but usually under 0.60 is still allowed as not less than 0.50.
3. There is an instrument completing KMO i.e. a measure of sampling adequacy (MSA) that can be calculated by using partial correlation coefficient. KMO-MSA calculation is similar and both measurements available in SAS and SPSS. The value can not be less than 0.50, when it is less than 0,50, the item is excluded from factor

analysis, starting from the smallest value so on until no more with value less than 0.50.

Third is to summarize all variables to extract the initial factors. The selected variables will be grouped on a particular factor. There are two approaches in the process of extracting the initial factors, namely principal component analysis (PCA) and common factor analysis (CFA). PCA advantage is its easy understanding and commonly used in the extraction process for the factors analysis. But the PCA also has weaknesses because the pattern tends to overestimate the relationship between linier set of variables.

Fourth is rotating the factor. Factors that have been established commonly describe the difference between factors because a factor should have a significant difference with the other factors. Therefore, the rotation is required to clarify the contents of factor and to clarify whether the factors established significantly different than others. There are two types of rotations that is orthogonal and oblique which each has different assumptions.

Fifth, refining the solution, concluded that the solution has been obtained and identify the factors that have been established refining the factor loading values of the factors have been rotated. Loading factor value is shown by the table 'rotated component matrix or rotated factor structure matrix', which contains items with the correlation between factors. An item is considered to give a clear and strong if the value loading is more than 0.90 but less than 0.60 if the item is considered to give the weak.

RESEARCH METHOD

This study, using Exploratory Factor Analysis (EFA). This means that the variables will be independently selected. Focus Group Discussion with the parties that is related to the problem of the study to arrange the variables that will be reviewed. Focus Group Discussion conducted to generate 21 question items. Twenty-one items are asked to respondent for the perception of the circumstances of Yogyakarta tourism information which later is used in the analysis of factors. All questions have a positive tone and is made in the likert scale 1 to 6 (extremely disagree to extremely agree).

So the process of data reduction is done for the purpose of calculation of correlation matrix. This is for selecting the indicator or variable or a reasonable question that have to be included in the factor analysis . Then the variables having strong correlation are grouped. If a variable weakly correlates with other variables, this variable is then excluded from the analysis of factors. All processes in this study use the SPSS software tool. The process of data reduction is done with the scale to obtain the number KMO-MSA and Barlett's Test. The next step is to summarize the variables so get fewer factors (extracting the initial factors). This study approaches use Principal Component analysis (PCA) for extraction process because it is easy to be understood and considered more appropriate with the objective of this study. Principal Component summarizes the existing information into a number of variables and factors. The concept of information in the PCA is the total information in each variable.

The next process is rotation. This study use orthogonal rotation which assumes that there is no inter-correlation of the factors. The approach chosen to perform orthogonal rotation is varimax. Varimax can simplify the column unrotated factor-loading matrix by maximizing variants loading and maximizing the difference between the high loading and low loading. In addition, varimax is easily translated providing clear information about the correlation between the items with the factors formed.

Last step, concluding the solution obtained and naming the factors that have been formed (refining the solution). This study does not aim to make the process of regression of the factors because this study only want to know the factors that influence the decision of tourists attracted to come visit Yogyakarta. The data is acquired during November-December 2006. The selection of respondents is random. A 194 sample respondents are selected amongst domestic tourists come from outside of Yogyakarta and Magelang.

RESULT

Respondent Profile

Aspects of education, as much as 47% of the total respondents (92 people) have a good standard of quality university education either diploma levels, undergraduated, and graduated. SMP is accounted for 18%, while the others (27%) are senior high school levels. Accounted for 66% of the total respondents are single status. The average income of respondents is Rp 1,300,000 per month. This shows that on average tourist who came to Yogyakarta is a middle-income people. The importance of the visit to Yogyakarta in comparison with visits to other cities for the respondents participated in this study is reviewed. A 49.5% of respondents stated that the visit to Yogyakarta is more important than visiting other cities.

A 42.8% of respondents state recreational places is a very important while 40.7% of respondents stated fairly. On average the spending of respondents is Rp 1,400,000. A 31.4% of respondents spent less than Rp 500,000 and Rp 500,001-Rp 1,500,000.

Tabel 3: Pentingnya kunjungan

Items	Frequency	%
The importance of visiting Yogyakarta compared to others		
Very important	96	49.5
Fair	68	35.1
Less important	6	3.1
Not Important	24	12.4
Total	194	100
The importanc of recreational area compared to to others		
Very important	83	42.8
Fair	79	40.7
Less important	3	1.5
Not Important	29	14.9

Total	194	100

Source: data processed

Pandangan Responden Terhadap Kondisi Pariwisata Yogyakarta

Tabel 4: Pandangan responden terhadap kondisi pariwisata Yogyakarta

Item	1		2		3	
	Freq	%	Freq	%	Freq	%
Easy to obtain information on Yogyakarta	0	0.0	31	16	163	84
Easy to obtain information on recreational area	9	4.6	107	55.2	78	40.2
Easy to get in Yogyakarta	36	18.6	73	37.6	85	43.8
Easy to get in recreational area	81	41.8	51	26.3	62	32
Easy to access accomodation	0	0.0	32	16.5	162	83.5
Easy to access entertainment area	0	0.0	33	17	161	83
Easy to access public services	29	14.9	102	52.6	63	32.5
Easy to find souvenir center	2	1.0	19	9.8	173	89.2
Feeling secure in Yogyakarta	0	0.0	22	11.3	172	88.6
Concern and care to 27 May Earthquake	0	0.0	48	24.7	146	75.3
27 May Earthquake as one of attraction factor to visit Yogyakarta	45	23.2	47	24.2	102	52.6
No fear of student protests	0	0.0	36	18.6	158	81.5
No informal vendor disturbance	112	57.7	55	28.4	27	13.9
Comfortable to modern transportation	119	61.4	75	38.7	0	0
Comfortable to traditional transportation	41	21.1	80	41.2	73	37.7
Satisfied to service in recreational area	67	34.5	59	30.4	68	35.1
Comfortable during vacation	0	0.0	22	11.3	172	88.7
Enjoy the natur and characterisitc of the people	0	0.0	11	5.7	183	94.4
Options of tourism spot	0	0.0	5	2.6	189	97.4
Uniqe experience	0	0.0	5	2.6	189	97.5
Cheaper	0	0.0	8	4.1	186	95.8
KETERANGAN						
1. Not agree; combinationo of likert scale 1&2 2. Netral; combinationo of likert scale 3&4 3. Agree; combinationo of likert scale 5&6						

Source: data processed

Table 4 shows respondents' views on the condition of Yogyakarta tourism. Accounted 163 respondents (84%) states that it is easily obtain the complete information about Yogyakarta. As much as 78 respondents (40.2%) stated that they agree that it is easily acquire comprehensive information about places of recreation in Yogyakarta. This means that complete information about Yogyakarta and recreational area are easily found either through

the tourism/travel agency, printed media, electronic media, or internet. The perception of respondents to the ease of transportation between the city / state to Yogyakarta consists of 36 persons (18.6%) disagreed and 85 persons (43.8%) agree that transportation is easy to Yogyakarta. Another case with the views of respondents to the ease of transportation to recreation area in Yogyakarta is 41.8% of the respondents expressed get difficulty. They still need to use private vehicles because of difficulty to access public transportations.

A number of 162 people (83.5%) state that it is easy to find facilities such as accommodation in Yogyakarta like quest house, hotel, inn, hostel, and so forth in Yogyakarta. Yogyakarta has a lot of the entertainment venues. This is the view of 161 respondents (83%) stating that they easily meet a variety of entertainment venues in Yogyakarta. While the condition and the availability of public services such as hospitals, police office, accounted for 14.9% of the total respondents stated they were not easy to find such services. As much as 173 respondents (89.2%) agree that they are easy to find places selling souvenir in Yogyakarta. Only 2 people said that they do not agree with this statement. This situation adds attraction for tourists because of Yogyakarta is also well known as its high quality and unique handicrafts.

The earthquake occurred on 27 May 2006 in Yogyakarta raise concerns not only Indonesia but also the international community. It is found that 146 respondents (75.3%) state concerning and caring about the effect of the earthquake in Yogyakarta. Earthquake in Yogyakarta can also be determining factor for the Indonesian people to visit Yogyakarta as stated by 102 respondents (52.6%). Their visit can be considered as to help reviving the condition of Yogyakarta tourism that devastated by the earthquake. However, there are 45 people (23.2%) is not interested in visiting Yogyakarta after the earthquake because there is a fear of the same earthquakes in future.

Accounted for 81.5% of the total respondents stated no fear about students protest. Yogyakarta are well known as city of education, where many students come from various regions in Indonesia. They often perform protest to deliver their aspirations. According to 112 respondents (57.7%), the existence of informal vendor is disturbing. Traders often force tourists to buy the goods offered. Therefore the existence of such traders should be managed in order not to disrupt the activities of Yogyakarta tourism. Overall tourists feel safe in Yogyakarta, as disclosed by the 172 respondents (88.6%).

Modern transportation (taxi, bus) in Yogyakarta are not comfortable enough for 119 respondents (61.4%). On the traditional one (becak, andong) it is 37.7% of respondents stated comfortable using traditional transportation in Yogyakarta, but 41 people (21.1%) claim not comfortable using this traditional transportation. Overall tourists who come to visit Yogyakarta is comfortable during their vacation in Yogyakarta.

One of various tourist attractions in Yogyakarta is the characteristics of the people who are polite and friendly. There are 183 respondents (94.4%) stated this expression. . Not only about its people characteristics, Yogyakarta also has a great selection of recreational places started from nature (mountains, beaches, forests), cultural, historical, educational, and

culinary tours. In addition, 189 respondents (97.5%) stated that the tour experience is unique in Yogyakarta and 95.8% of the total respondents stated trip to Yogyakarta is relatively cheaper compared to other cities. It means that Yogyakarta tourism is affordable for every income level.

Empirical Result of Factor Analysis

The determination of indicators or variables described in the form of questions to do with the Focus Group Discussion with several travel agents. Focus Group Discussion conducted by the 21 item question that asked respondents to identify the respondents' perception of the tourism Yogyakarta. In Table 5 below shows the items used in the study. All questions have a positive tone and the perception of respondents indicated likert scale with 1 to 6 which is:
1. is not really agree
2. is not agree
3. is neutral (not held)
4. is a simple agree
5. is agree
6. is agree

After the information about the respondents' perception of Yogyakarta tourism conditions is obtained, then the next step is the process of data reduction. Data reduction is done to choose the variables or indicators, or a reasonable question to include in the analysis based on the correlation factors. If a variable correlates with a weak variable other then these variables will be excluded from the analysis of factors. All processes in this study using SPSS software. The process of data reduction is done with the scale to see how a number KMO-MSA and Barlett's Test.

Tabel 5: Indikator yang digunakan dalam *factor analysis*

No	Indikator
1	Easy to obtain information on Yogyakarta
2	Easy to obtain information on recreational area
3	Easy to get in Yogyakarta
4	Easy to get in recreational area
5	Easy to access accomodation
6	Easy to access entertainment area
7	Easy to access public services
8	Easy to find souvenir center
9	Feeling secure in Yogyakarta
10	Concern and care to 27 May Earthquake
11	27 May Earthquake as one of attraction factor to visit Yogyakarta
12	No fear of student protests
13	No informal vendor disturbance
14	Comfortable to modern transportation

15	Comfortable to traditional transportation
16	Satisfied to service in recreational area
17	Comfortable during vacation
18	Enjoy the natur and characterisitc of the people
19	Options of tourism spot
20	Uniqe experience
21	Cheaper

Source: data processed

Table 6 below shows the amount of MSA figures is obtained from matrix anti-image covariance. MSA is the number matrix diagonal condition and can not be less than 0.50. If the number is less than 0:50 means the item must exit the analysis of factors. The process of removing the item be carried out one by one starting from the smallest to the value of all the MSA more than 0.50. The first process, the value of MSA is the smallest item 8, then 8 items excluded from the analysis of factors. This process ends until all values MSA more than 0.50. Data reduction process eventually produced 14 items.

In addition to value of MSA, the amount of the value of KMO-Barlett'test should also be considered. Table 7 below shows the amount of the value of KMO-Barlett'test for each data reduction process is carried out. If the value of KMO is less than 0:50 so the process of data reduction can not be done. Results of the study found that the value of KMO eight data reduction process is more than 0.50, this means eight data reduction process may be done. In addition, the value of Barlett'test scale is approximately estimated chi-square value and significancy. Empirical results show that the eight data reduction process is significant (0.00).

Tabel 6: Value of MSA

V	1		2		3		4		5		6		7		8	
	MSA	Erti	MSA	Erti	MSA	erti	MSA	erti	MSA	erti	MSA	erti	MSA	erti	MSA	erti
1	0.428	*	0.433	*												
2	0.517	**	0.545	**	0.546	**	0.534	**	0.545	**	0.541	**	0.548	**	0.577	**
3	0.472	*	0.475	*	0.489	*	0.507	**	0.498	*						
4	0.448	*	0.446	*	0.443	*										
5	0.496	*	0.503	**	0.5	**	0.492	*	0.503	**	0.495	*	0.524	**	0.528	**
6	0.522	**	0.498	*	0.485	*	0.485	*	0.501	**	0.512	**	0.53	**	0.503	**
7	0.598	**	0.602	**	0.601	**	0.597	**	0.595	**	0.599	**	0.602	**	0.615	**
8	0.418	*														
9	0.44	*	0.45	*	0.477	*	0.496	*	0.505	**	0.501	**	0.523	**	0.587	**
10	0.527	**	0.527	**	0.533	**	0.532	**	0.521	**	0.54	**	0.535	**	0.533	**
11	0.532	**	0.558	**	0.541	**	0.535	**	0.561	**	0.557	**	0.548	**	0.559	**
12	0.534	**	0.544	**	0.545	**	0.564	**	0.558	**	0.556	**	0.545	**	0.502	**
13	0.45	*	0.462	*	0.461	*	0.481	*	0.512	**	0.512	**	0.511	**	0.508	**

14	0.537	**	0.539	**	0.537	**	0.564	**	0.56	**	0.561	**	0.553	**	0.553	**
15	0.512	**	0.51	**	0.504	**	0.499	*	0.499	*	0.486	*				
16	0.516	**	0.511	**	0.56	**	0.571	**	0.58	**	0.577	**	0.574	**	0.57	**
17	0.484	*	0.523	**	0.54	**	0.538	**	0.55	**	0.553	**	0.556	**	0.554	**
18	0.505	**	0.504	**	0.53	**	0.512	**	0.506	**	0.496	*	0.491	*		
19	0.495	*	0.494	*	0.482	*	0.49	*	0.508	**	0.503	**	0.52	**	0.515	**
20	0.569	**	0.565	**	0.559	**	0.566	**	0.574	**	0.582	**	0.564	**	0.572	**
21	0.434	*	0.439	*	0.45	*	0.444	*								

Source: data processed. MSA < 0.50 is not accepted and MSA > 0.50 is accepted
* not accepted
** accepted

Tabel 7: Summary of *data reduction*

	1	2	3	4	5	6	7	8
KMO	0.506	0.513	0.520	0.528	0.538	0.538	0.546	0.550
Barlett's test App. Chi-square	387.089	368.867	346.300	309.266	290.741	275.970	231.730	192.751
Df	210	190	171	153	136	120	105	91
Sig	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Sumber: olahan data

Tabel 8: Decision of *data reduction*

V	**Decision of *Data Reduction***	
	MSA	**Note**
2	0.577	Being used
5	0.528	Being used
6	0.503	Being used
7	0.615	Being used
9	0.587	Being used
10	0.533	Being used
11	0.559	Being used
12	0.502	Being used
13	0.508	Being used
14	0.553	Being used
16	0.57	Being used
17	0.554	Being used
19	0.515	Being used
20	0.572	Being used

Source: data processed

The process of data reduction yield 14 items that will be used in the analysis of factors so on, that means there are 7 items not included in factor analysis. The next process is summarizing variables so that produce less variables (extracting the initial factors). This study approaches use Principal Component analysis (PCA). PCA results can be seen in Table 9.

Principal Component contains initial Eigen value, extraction sum of squared loading, rotation and the sum of squared loading as visible in Table 9. The initial condition of eigen value that is used is more than 1. Of the 14 items, there are only 4 items that have initial eigen value of more than 1 that means those 14 items are grouped into 4 groups of factors. Thus the four factors of 14 items that also have value extraction sum of squared loading, rotation and the sum of squared loading is more than 1. This met the criteria in the process of formation of factor in extraction process with principal component analysis (PCA) approach.

Tabel 9: Total variance explained

V	**Total Variance Explained**		
	Initial Eigenvalues	**Extraction Sums of Squared Loadings**	**Rotation Sums of Squared Loadings**
1	1.920	1.920	1.687
2	1.637	1.637	1.517
3	1.377	1.377	1.488
4	1.146	1.146	1.387
5	1.094		
6	1.016		
7	.924		
8	.887		
9	.859		
10	.779		
11	.691		
12	.599		
13	.569		
14	.502		

Tabel 10: Value of Rotation Process

	Component			
	1	2	3	4
x2	-.522	-.041	.012	.103
x5	-.012	-.028	.681	-.227
x6	.360	-.066	.170	.140
x7	.674	.347	-.017	-.086

x9	-.403	-.175	.120	.049
x10	.137	.572	-.063	-.004
x11	-.002	-.057	-.050	.758
x12	.017	.686	.007	.071
x13	-.440	.319	.289	.224
x14	.036	.627	.031	-.308
x16	.043	.183	.703	.158
x17	-.049	.164	-.587	-.124
x19	.023	.031	-.122	-.708
x20	.671	-.044	.193	.167

Sumber: olahan data

Factors identified from the process of extraction can not be considered to get clear component factors and usually less obviously describes the difference among the factors. Factors must be significantly different with the other factors. Therefore it needs rotation process (Table 10) for the obvious factor content and clarity whether factors that have been formed is different from the other factors are significant.

Then concluding the solution has been obtained and to name the factors (refining the solution). This is perform by analyzing table of 'rotated component matrix or rotated factor structure matrix', which contains the correlation between the factors. Summary results of refining the solution can be seen in the table below.

Tabel 11: Ringkasan *refining the solution*

item	Note
x7	Ease of accessing public services
x20	Unique experience
x12	No fear to student protest
x14	Comfortable to modern transportation
x5	Ease of accommodation
x16	Satisfied to services in recreational area
x11	27 May Earthquake attract to visit
x19	Many options to be visited

Source: data processed

In fact too many variations of the items included in factors, so this causes the less meaning. The first factor is the availability of accommodation includes public services, hotels, lodging, accommodation and other facilities that can be easily found in any place in Yogyakarta. This is important because the availability of accommodation is a basic necessity for tourists to be able to travel comfortably. Second, the convenient factor during staying in Yogyakarta and the third is the number of unique tourist attractions that enrich unique experience for tourists. All these factors when supported with services will satisfy tourists and attract them to make a return visit Yogyakarta.

CONCLUSION

Many views of respondents about the condition of tourism in Yogyakarta is described in this study. According to the respondents, information on the Yogyakarta tourism is very easy to obtain through a variety ways making it easier for tourists to plan his visit in Yogyakarta. Tourist easily get transportation to Yogyakarta. However, once they get in, may tourists feel less comfortable on services of a modern transportation such as taxis and buses. This inconvenience caused many tourists to use private vehicles and rental car for their trip. On the other hand, traditional transportation such as becak, andong are preferred by tourists because it provide a unique experience whilst in Yogyakarta.

Availability of accommodation such as public services, entertainment, hotels, lodging, souvenirs are complete and easy to found. In general, the tourists feel comfortable in Yogyakarta because of its safety and supported by friendly Yogyakarta community characteristics, politeness and "welcome" to everyone who come to visit Yogyakarta. In addition, respondents argued that the Yogyakarta tourism is affordable for various levels of income because of relatively cheaper compared to other city attractions.

Overall, visitors feel satisfied by the services given in recreation locations. Nevertheless there are some inconvenience in diversity aspects and activity facilities in recreation area. This condition causes some visitors feel unsatisfied. Therefore, there is a need to improve and develop recreation locations with historical, cultural and natural attributes to increase tourist attractions and visits.

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