Article

# Analysis of Supply and Demand to Enhance Educational Tourism Experience in The Smart Park of Yogyakarta, Indonesia

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Abstract: The Smart Park (well-known as Taman Pintar) as a major educational tourism destination in Jogjakarta offers a variety of tourism attractions that are very interesting for tourists. The main purpose of tourists visiting Smart Park is to get an educational tourism experience. A subjective experience raises a specific challenge for Smart Park toward the status of competitive destination. The purpose of this study is to analyze the aspects of educational tourism experience that are affected by tourism demand and supply. Data were collected by survey technique to 150 respondents and analyzed using path analysis. The results of analysis show that tourism demand and supply contributed to the variation of tourism activities by 45.1%, while the remaining was explained by other variables, such as National Budget, Local Budget, ticket sale, and cooperation with some stakeholders. Tourism supply had a higher effect than tourism demand. Tourism demand did not partially affect tourism experience. However, the results of the path analysis indicate that tourism supply had direct and indirect effects on tourism experience through the variation of tourism activities with indirect effect being dominant. In the management of Smart Park, there is still a gap between tourism demand and supply, so that the environment of tourism experience has not been created maximally.

Keywords: Educational Tourism; Tourism Supply and Demand; Experience; Tourism Activities
JEL Classification: C13

## 1. Introduction

Tourism is a temporary movement of people to a destination outside their residence to carry out activities during their stay in the destination as well as those to prepare facilities to meet their needs (Pitana and Gayatri, 2005) [1]. Educational tourism activities vary, ranging from recognizing some schools, customs, language learning to seminar and research activities (Wang and Li, 2008) [2]. The purpose of educational tourism is to recognize education and research, so that schools or colleges as well as historical sites are chosen as destinations (Wang and Li, 2008) [2]. In the world of education, tourism is closely related to academic subjects, such as geography, economics, history, language, psychology, marketing, business, and law. The integration of a number of subjects with tourism studies is so necessary to enhance the understanding of tourism and its scope (PSHE, 2013) [3].

Educational tourism is one of the most popular tourism in Yogyakarta as a student and cultural city. The data collected from the Central Bureau of Statistics (Badan Pusat Statistik—BPS) DIY show that the number of tourists increased by 17.90% from 2013 to 2014 (3,346,180 people). From the 2013 statistical data of DIY, the number of tourists has significantly increased almost twice during the last five years (BPS, 2013) [4].

One motivation to choose an educational tourism is from the area of origin, including the prospect of a job and more expensive educational costs (Lam, Ariffin, and Ahmad, 2011) [5]. Pevzner and Nikolaeva (2013) [6] suggested some factors that encourage tourists to select study abroad, i.e. learning about other countries, learning foreign language, and getting international career. Ritchie (2003) [7] classified motivations of educational tourism into several categories: physical, cultural, social, spiritual, and fantasy.

In addition to the driving factors, the motivation of educational tourism is also affected by tourism supply and demand. The demand for educational tourism itself is too broad and diverse to be satisfied by a destination, even in some cases with negative impacts on tourism products. For example, the forms of traditional arts have changed, lost their meaning and become no longer authentic due to mass production as one of the efforts to meet tourists' demand (Timothy and Nyaupane, 2009) [8]. The tourists' main demand is to get an educational tourism experience to enhance the understanding about a number of subjects in school.

Smart Park is one of the famous educational tourism destination in Jogjakarta. Smart Park is the most

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comprehensive Science Center in Southeast Asia, because it covers several areas of science, including history, physics, biology, math, and chemistry. Smart Park provides learning rides while traveling for preschool to high school students. The park is a center of technology-based science and built with the concept of integrated regional development, while providing space for expression in a friendly educational atmosphere. Smart Park was built in 2003, on a land of 1.2 hectares. The Park is located in strategic area at Panembahan Senopati street,Jogjakarta, as shown in the figure 2.

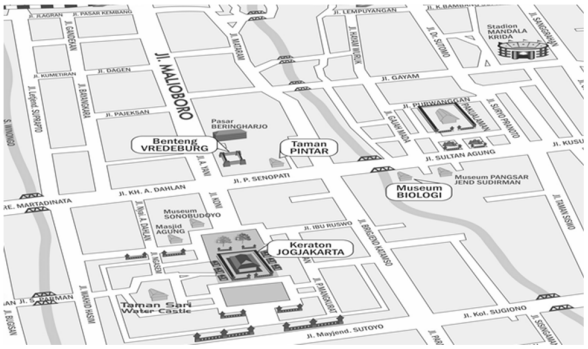


Figure 1. Map of Smart Park, Jogjakarta, Indonesia

The main purpose of tourists visiting Smart Park is to gain some learning experiences, such as in arts, culture, history, and technology. The experiences itself are subjective, while Smart Park cannot give such experiences but only create an environment where tourists can actually have such experience. In this case, Smart Park should understand how make circumstances that will enhance the experience of tourists (Mossberg, 2007) [9]. Given the importance of experience in tourism, the purpose of this study is to find out the extent of educational tourism experience is perceived by tourists through some tourism attractions offered by Smart ParkYogyakarta. Tourism can be defined as a complete range of the tourism experience from the departure to the return (TPRG, 2003 [10]; TPDS, 2007-2003 [11]). In this case, experience is the main product that must be managed appropriately by Smart Park to be a competitive destination by designing and providing a memorable tourism experience (Verma, Plaschka, and Louviere, 2002) [12].

## 2. Literature Review

The market share of educational tourism is divided into several groups of tourists, i.e. adults, elderly, school students, and university students (Ritchie, 2003) [7]. Meanwhile, Ankomah and Larson (2002) [13] divided the market share of educational tourism into four categories, namely, domestic, Europe, and North America.

The products of educational tourism are those that are able to provide an active learning to experience as the main objective to be achieved in educational tourism. According to Cohen (2008) [14], there are two aspects of education in educational tourism programs, i.e. experience and interaction. Tourism products are a mix of different goods and services offered as the experience activities for tourists (Cooper and Hall, 2008) [15]. Educational tourism products have three dimensions, including core products, tangible products, and additional products (Swarbrooke, 2002) [16]. The core products are those that offer some educational and learning experiences, namely, tourism attraction itself. Tangible products are the core ones packaged into a tour package, while additional products are all additional tangible and intangible services. Accommodation facilities as one of the educational tourism products have relatively simple and inexpensive characteristics but are able to make social and cultural coordination for tourists, such as home stay (Taylor, 2006) [17].

The concept of tourism supply and demand is very useful to create an environment where tourism develop and is consumed satisfactorily. Experience becomes the most important factor that can be improved through the provision of attractions, mix of activities, and supporting factors. Supply and demand refer to the ability of a destination to provide social, physical and economic benefits to the population, as well as a satisfying experience for tourists. The concept of supply and demand is also called by other researchers as the concept of attractiveness and competitiveness (Vengesayi, 2003) [18]. Attractiveness is focused on demand by tourists and the aspects that attract them to a variety of destinations (Formica 2001) [19], while competitiveness more focuses on the ability of a destination to provide products that can be accepted by tourists, tourism supply (Kozak and Rimmington, 1999) [20]. The concept can be seen from two different perspectives, namely, the attractiveness is seen from the perspective of tourists, while competitiveness is seen from the perspective of tourism destination (Buhalis, 2000) [21]. A combination of supply and demand can increase the popularity of a destination. Tourism supply as an element of competitiveness refers to the ability of a destination to present a more satisfying tourism experience than any other destinations (Hassan, 2000) [22].

Over the last two decades the combination of tourism and information and communication technologies

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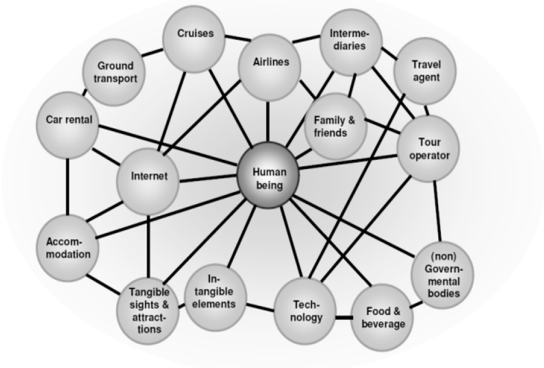
(ICT) has led to considerable changes in tourists' behaviour, and has positively contributed to tourism demand growth (Ramos and Rodsrigues, 2013) [23]. The tourism demand is a key determinant of business profitability as a very important element in all planning activities (Song and Turner, 2006) [24]. The tourism demand facilitates economic planners minimize the risk of making decisions on the future (Frechtling, 2001) [25]. An approach based on the concept of supply and demand is very appropriate to enhance the competitive advantage of tourism destinations. This approach is very useful for determining the appropriate comparisons between investments to be made by managers and what customers look for in a destination.

The main interesting element of a destination is attraction. Attraction is the main motivation for tourists to visit a destination as well as one of the reasons for selecting a destination (Crouch and Ritchie, 1999) [26]. Attraction is categorized into five major groups, i.e. cultures, nature, events, recreations, and entertainment (Goeldner and Ritchie, 2006) [27]. Destination managers play an important role in terms of designing tourism attractions as the results of initiative and creativity. The more the tourism attractions offered, the longer the stay of tourists, and the higher the tourism experience gained.

Every single traveler has a unique and different personal experience, since travel planning, while interacting with others, and post trips (Park and Santos, 2016) [28]. The tourists' experiences influenced by the experiencescape, wherein personnel, other tourists, physical environment, products/souvenirs and theme play a major role (Mossberg, 2007) [29]. Environment as a product of experience is needed by tourists. They need a safe environment with employees focusing on customers and services as well as a close cooperation with various parties. Each tourism product brings different experiences for each individual. The assessment of experience can be seen from the uniqueness of the attraction offered. Destinations with great uniqueness attract visitors, so that they want to spend more time to visit. Experience scales applicable to each destination, including hedonism, refreshment, local culture, meaningfulness, knowledge, involvement, and novelty (Kim, Ritchie, and McCormick, 2012) [30].

Tarssanen (2005) [31] stated that tourism is multisensory in nature, which results in a comprehensive and positive emotional experience, making the tourists have a sense of personal transformation. The combination of tourists' experiences developed to be the perceived image, which can be used to determine the ability of destinations in attracting visitors (Horrigan, 2009) [32]. The image itself is an important element for tourists in selecting a tourism destination (Kamenidou, Mamalis, and Priporas, 2009) [33].

The network of tourism experiences is a simple representation involving many things, as shown in Figure 2.




Source: Van der Duim (2005)

Figure 2. The Network of Tourism Experiences

Tourism is actually a network and tourists are those who operate in an experiential environment, so that the concept of co-creation experience is very appropriate to apply in the management of a destination (Van der Duim, 2005) [34]. The concept gives an added value for all the stakeholders and contributes to the uniqueness and originality of a tourism destination because it is difficult to imitate in other places (Berry, Carbone, and Haeckel, 2002) [35]. In addition to define elements of the concept of experience, a set of organizational activities is greatly required to support the presentation of emotional characteristics, behaviors, and other relevant experience performance (Stuart and Tax, 2004) [36].

Aho (2001) [37] developed four core elements of the tourism experience, including emotional experience, learning, practical experience and transformational experience. However, tourism experience is frequently in a short session only, not continuous, and not in a long period, resulting in no experience (Ritchie & Hudson, 2009) [38]. Tourists are generally more motivated by initial experience through strong mental and emotional image than physical characteristics of a tourism destination (Oh, Fiore, and Jeoung, 2007) [39]. Urry (2002) [40] argued that tourism incorporates two elements, namely, landscapes and sensescapes, involving multiple senses as the

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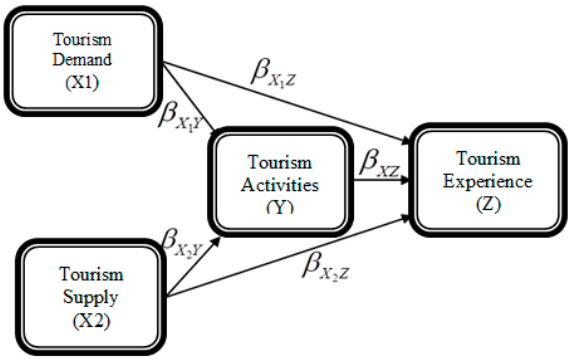
important components of tourism experience. Larsen (2007) [41] suggested that the concept of tourism experience includes expectations, events and memories. Brunner-Sperdin and Peters (2009) [42] stated that service delivery is critical in shaping the tourism experience.

Sharing positive experiences in social media give positive effects to travelers, while unsatisfactory experiences are also able to reduce negative perceptions about travel that ultimately improve post-travel evaluation (Kim and Fesenmaier, 2015) [43].The experience and satisfaction of tourists are seen as the aspects that serve as the strategic steps to design tourism products. Satisfaction comes from customer feelings and expectations compared to reality. In this case, feedback from tourists and tourism service providers are greatly required to assess the tourists' experience and satisfaction. In view of experience, consumers are the focus in product management and capable of creating the experience (Parahalad and Ramaswamy, 2004) [44].

## 3.Method

This is an explanatory study using four variables, including tourism demand (X1), tourism supply (X2), tourism activities (Y), and tourism experience (Z). It was conducted by using a path analysis to analyze the effect of tourism demand and supply on tourism experience directly and indirectly through a variation of tourism activities in Smart Park, Jogjakarta, Indonesia (Ghozali 2008 [45]. Data were collected by distributing questionnaires to 150 respondents. The survey was conducted on tourists visiting Smart Park, who were selected using accidental sampling technique. Sample is selected with the minimum age of 12 years, with consideration at that age is able to give an accurate answer. Most of the selected respondents are junior high and high school students who are conducting study tour. Data were analyzed using the Statistical Package for the Social Sciences (SPSS) through two stages, namely, a regression analysis and a path analysis. Regression analysis was carried out to examine the effect of tourism demand and supply as independent variables on tourism activity as a dependent variable. The equation of multiple linear regression analysis was formulated as follows: $Y = \beta_{X_1Y} X_1 + \beta_{X_2Y} X_2 + \varepsilon_1$. Meanwhile, a path analysis was carried out to test the direct or indirect effect using the comparison of values $\beta_{X_nZ}$ and $\beta_{X_nY}.\beta_{YZ}$. If $\beta_{X_nZ} > \beta_{X_nY}.\beta_{YZ}$ the effect was dominantly direct and $\beta_{X_nZ} < \beta_{X_nY}.\beta_{YZ}$ the effect was dominantly indirect.

Where;
X, Y, and Z = latent variables
β = a path coefficient
ε = an estimated error
The diagram of path analysis model constructed in this study can be seen in Figure 3.




Source: Field Survey (2016)
Figure 3. Diagram of Path Analysis Model

The measurement instrument is made on a four-point Likert scale, to measure the attitude, opinions, and perceptions of tourists in Taman Pintar against the four variables as a symptom or phenomenon being measured (Riduwan, 2009) [46]. A score for the category of answer statements can be seen in Table 1.

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Table 1. Likert Scale

| Variable/Score | Choice of answers | | | |
|---|---|---|---|---|
| | 1 | 2 | 3 | 4 |
| **Tourism Demand** | Strongly Disagree | Disagree | Agree | Strongly Agree |
| **Tourism Supply** | Strongly Disagree | Disagree | Agree | Strongly Agree |
| **Tourism Activities** | Strongly Disagree | Disagree | Agree | Strongly Agree |
| **Tourism Experience** | Strongly Disagree | Disagree | Agree | Strongly Agree |

Source : Riduwan (2009)

## 4.Results and Discussion

### 4.1 Characteristics of Respondents and Variables Description

Based on results of the study, most visitors were 12-24 years old (78.7%) with the educational levels of Senior High School (40.7%) and Junior High School (33.3%), as seen on Table 2.

Table 2. Characteristics of respondents

| No | Description | Frequency (people) | Percentage (%) | No | Description | Frequensi (people) | Percentage (%) |
|---|---|---|---|---|---|---|---|
| 1 | **Gender** | | | 4 | **Origin** | | |
| | Male | 54 | 36.0 | | Jogjakarta | 34 | 22.7 |
| | Female | 96 | 64.0 | | Beyond Jogjakarta, Java Island | 103 | 68.7 |
| | | | | | Outside of Java Island | 13 | 8.7 |
| 2 | **Age** | | | 5 | **Education** | | |
| | 12-40 Th | 118 | 78.7 | | Junior High School | 50 | 33.3 |
| | 25-34 Th | 19 | 12.7 | | High School | 61 | 40.7 |
| | 35-44 Th | 6 | 4.0 | | Diploma | 12 | 8.0 |
| | 45-54 Th | 6 | 4.0 | | Bachelor | 21 | 14.0 |
| | 55-64 Th | 1 | 0.7 | | Postgraduate | 1 | 0.7 |
| | | | | | Others | 5 | 3.3 |
| 3 | **Marital Status** | | | 6 | **Frequency of Visits** | | |
| | Married | 29 | 19.3 | | 1 time | 72 | 48.0 |
| | Not Married | 121 | 80.7 | | 2-3 times | 62 | 41.3 |
| | | | | | >3 times | 16 | 10.7 |

Source : Field Survey (2016)

The most demand among tourists was to get the experience of learning art, culture, and new language (>80%). A total of 80% of tourists stated that educational tourism attractions vary widely. Experiences in arts, culture, history, and new technology reached 70%, but some respondents (44.7%) perceived that the level of experience is still low, particularly in language learning to experience. There is still a gap between the demand and supply of educational tourism and this can be a recommendation for the management of Smart Park. Description of variables can be seen in Table 3.

Table 3. Variables Description

| Questionnaire Item/Likert Scale | 1 | | 2 | | 3 | | 4 | | Questionnaire Item/ Likert Scale | 1 | | 2 | | 3 | | 4 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | F | % | F | % | F | % | F | % | | F | % | F | % | F | % | F | % |
| **Tourism Demand (X1)** | | | | | | | | | **Tourism Supply (X2)** | | | | | | | | |
| Souvenirs | 8 | 5.3 | 17 | 11.3 | 79 | 52.7 | 46 | 30.7 | Educational tourism | 7 | 4.7 | 7 | 4.7 | 73 | 48.7 | 63 | 42.9 |
| Transportation | 13 | 8.7 | 31 | 20.7 | 58 | 38.7 | 48 | 32.0 | Transportation | 8 | 5.3 | 28 | 18.7 | 88 | 58.7 | 26 | 17.3 |
| Pilgrimage activities | 20 | 13.3 | 50 | 33.3 | 64 | 42.7 | 16 | 10.7 | Accomodation | 14 | 9.3 | 30 | 20.0 | 77 | 51.3 | 29 | 19.3 |
| Learn art and culture | 10 | 6.7 | 30 | 20.0 | 77 | 51.3 | 33 | 22.0 | Special needs facilities | 6 | 4.0 | 10 | 6.7 | 97 | 64.7 | 37 | 24.7 |
| Conference/meeting | 3 | 2,0 | 20 | 13.3 | 83 | 55.3 | 44 | 29.3 | Toilet | 10 | 6.7 | 21 | 14.0 | 85 | 56.7 | 34 | 22.7 |
| Learn new language | 4 | 2.7 | 23 | 15.3 | 80 | 53.3 | 43 | 28.7 | Souvenirs | 8 | 5.3 | 23 | 15.3 | 77 | 51.3 | 42 | 28.0 |
| Informations services | 28 | 18.7 | 72 | 48.0 | 39 | 26.0 | 11 | 7.3 | Photographers services | 20 | 13.3 | 46 | 30.7 | 67 | 44.7 | 17 | 11.3 |
| Culinary services | 22 | 14.7 | 64 | 42.7 | 50 | 33.3 | 14 | 9.3 | Parking area | 10 | 6.7 | 52 | 34.7 | 72 | 48.0 | 16 | 10.7 |
| Learn new technology | 10 | 6.7 | 29 | 19.3 | 82 | 54.7 | 29 | 19.3 | Culinary services | 7 | 4.7 | 29 | 19.3 | 86 | 57.3 | 28 | 18.7 |
| Photographer services | 24 | 10.0 | 46 | 30.7 | 61 | 40.7 | 19 | 12.7 | Information services | 6 | 4.0 | 22 | 14.7 | 88 | 58.7 | 34 | 22.7 |
| **Tourism Activities (Y)** | | | | | | | | | **Tourism Experience (Z)** | | | | | | | | |
| Pilgrimage activities | 5 | 3.3 | 11 | 7.3 | 91 | 60.7 | 43 | 28.7 | Learning new language | 19 | 12.7 | 64 | 42.7 | 49 | 32.7 | 18 | 12.0 |
| Conference /meeting | 7 | 4.7 | 33 | 22.0 | 86 | 57.3 | 24 | 16.0 | Learning art and culture | 10 | 6.7 | 35 | 23.3 | 73 | 48.7 | 32 | 21.3 |
| Learn history | 19 | 12.7 | 58 | 38.7 | 65 | 43.3 | 8 | 5.3 | Learning new technology | 6 | 4.0 | 37 | 24.7 | 67 | 44.7 | 40 | 26.7 |
| Learn new language | 1 | 0.7 | 33 | 22.0 | 91 | 60.7 | 25 | 16.7 | Learning history | 9 | 6.0 | 45 | 30.0 | 62 | 41.3 | 34 | 22.7 |
| Learn art and culture | 20 | 13.3 | 49 | 32.7 | 68 | 45.3 | 13 | 8.7 | Pilgrimage activities | 27 | 18.0 | 61 | 40.7 | 44 | 29.3 | 18 | 12.0 |
| Field study/research | 2 | 1.3 | 16 | 10.7 | 79 | 52.7 | 53 | 35.3 | Involved with local comunities | 14 | 9.3 | 45 | 30.0 | 64 | 42.7 | 27 | 18.0 |
| Learn new technology | 2 | 1.3 | 10 | 6.7 | 74 | 49.3 | 64 | 42.7 | | | | | | | | | |

Source : Field Survey (2016)

### 4.2 Instrument Test

Instrument testing conducted on 30 respondents, including validity and reliability test. Validity test is done by comparing Correlated-Item Total Correlation with r-table value, which is 30 respondents equal to 0.374. While the validity test is done by comparing the value of Cronbach Alpha with a critical value, of 0.6. Table 4 shows questionnaires is valid and reliable, since the value of all correlated-item total correlations is greater than 0.374 and the Cronbach Alpha value is greater than 0.6.

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Table 4. Instrument Test

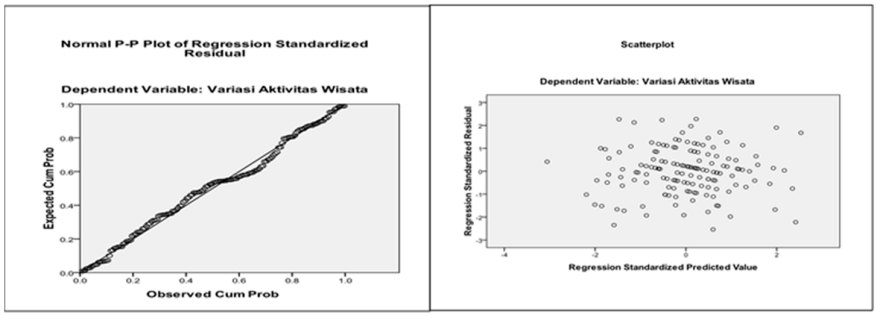
| Validity Test | | | | | | | |
|---|---|---|---|---|---|---|---|
| Questionnaire Item | Correlated-Item Total Correlation | Questionnaire Item | Inter Item Correlation | Correlated-Item Total Correlation | Inter Item Correlation | Correlated-Item Total Correlation | Correlated-Item Total Correlation |
| X1.1 | 0.651 | X2.1 | 0.610 | Y1 | 0.592 | Z1 | 0.759 |
| X1.2 | 0.458 | X2.2 | 0.546 | Y2 | 0.774 | Z2 | 0.883 |
| X1.3 | 0.791 | X2.3 | 0.758 | Y3 | 0.757 | Z3 | 0.841 |
| X1.4 | 0.512 | X2.4 | 0.636 | Y4 | 0.678 | Z4 | 0.724 |
| X1.5 | 0.386 | X2.5 | 0.829 | Y5 | 0.460 | Z5 | 0.666 |
| X1.6 | 0.791 | X2.6 | 0.755 | Y6 | 0.783 | Z6 | 0.594 |
| X1.7 | 0.486 | X2.7 | 0.787 | Y7 | 0.418 | | |
| X1.8 | 0.508 | X2.8 | 0.780 | | | | |
| X1.9 | 0.548 | X2.9 | 0.861 | | | | |
| X1.10 | 0.791 | X2.10 | 0.612 | | | | |

| Reliability Test | |
|---|---|
| Research Variable | Cronbach Alpha |
| X1 | 0.743 |
| X2 | 0.771 |
| Y | 0.756 |
| Z | 0.785 |

Source : Field Survey (2016)

### 4.3 Normality Data Test

Normality data test is done to know the distribution of normal data, as a condition that must be met in data analysis. Figure 4 shows that data were normally distributed. In figure of Normal P-P Plot, the data spread around the diagonal line and follows the direction of the diagonal line, so that the regression model met the assumption of normality data. Meanwhile, in figure of scatter plot, the data spread evenly and did not form a certain pattern, so that the data were assumed to be normal and feasible for data analysis.




Source: Field Survey (2016)

Figure 4. Normal PP Plot and scatter plot

### 4.4 Data Analysis

Data analysis using SPSS was performed in two stages, namely, a regression analysis and a path analysis. The results of a multiple linear regression analysis can be seen in Table 5

Table 5. Multiple Linear Regression Analysis

| Model | | Unstandardized Coefficients | | Standardized Coefficients | T | Sig. |
|---|---|---|---|---|---|---|
| | | B | Std. Error | Beta | | |
| 1 | (Constant) | 13.961 | 1.693 | | 8,249 | .000 |
| | Tourism Demand (X1) | -.045 | .058 | -.066 | -780 | .437 |
| | Tourism Supply (X2) | .263 | .054 | .411 | 4.855 | .000 |

A. Dependent Variable: Tourism Activities (Y)

Source: Field Survey (2016)

The linear regression equation was formulated as follows: Y = -0.66X1 + 0.411X2 + E. This equation means that each increase of one unit in tourism demand will decrease 0.66 unit in tourism activities. Meanwhile, each increase of one unit in tourism supply will increase 0.411 unit in tourism activities. Overall, it can be interpreted that tourism demand did not partially affect the variation of tourism activities. The effect of tourism demand and supply can be seen from significance values of t-statistic and f-statistic. The results of the analysis show that tourism demand in Smart Park did not partially affect tourism activities with a significance value of tstatistic higher than 0.05 (0.437), while tourism supply significantly affected tourism activities with a significance value of t-statistic lower than 0.05 (Table 1). However, tourism demand and supply simultaneously affected the tourism activities with a significance value of f-statistic lower than 0.05 (Table 6).

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Table 6. ANOVA [b]

| Model | | Sum of Squares | Df | Mean Square | F | Sig. |
|---|---|---|---|---|---|---|
| 1 | Regression | 200449 | 2 | 100.225 | 12.911 | .000 [a] |
| | Residual | 1141.124 | 147 | 7,763 | | |
| | Total | 1341.573 | 149 | | | |

A. Predictors: (Constant), Tourism Supply, Tourism Demand

B. Dependent Variable: Tourism Actvities

Source: Field Survey (2016)

The results of the study showed that tourists in Smart Parkhad a very high level of demand for the tourism attractions that provide arts, culture, and language experience (80%). However, the experience of learning a new language was only met less than 50%. Smart Parkhas not designed and provided a tourism experience as the main product to achieve a competitive destination (Verma, Plaschka, and Louviere, 2002) [12]. The concept of experience is very important, because it is able to create the unique tourism products that are difficult to imitate by other destinations. The management of Smart Parkhas designed various educational tourism activities using product supply as the main element, while tourism demand still play no strong role. A combination of tourism supply and demand is required in the management of destinations because it can increase the popularity of a destination (Hassan 2000) [22]. An ability of tourism demand and supply in explaining tourism activity can be seen from R value in Model Summary Table (Table 7).

Table 7. Model Summary [b]

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
|---|---|---|---|---|
| 1 | .451 [a] | .203 | .192 | 3.40011 |

A. Predictors: (Constant), Tourism Activities, Tourism Supply

B. Dependent Variable: Tourism Experience

Source: Field Survey (2016)

R value was 0.451, meaning that the variable of tourism activities could be explained by both variables of tourism demand and supply for 45.1%, while the remaining of 54.9% was explained by other variables that were not examined in the study. From the results of the survey, other variables that affected the variation of tourism activities were budgets, including the National Budget and the Local Budget, ticket sale, room rental, government subsidy, and cooperation with other parties. Smart Parkhas collaborated with PT Sarihusada Generasi Mahardhika (PT SGM) in developing several areas. It has also collaborated with educational institutions in developing tourism attraction, particularly a puppet stage attraction that has been performed by students of Sanata Dharma University Jogjakarta using an English dialogue.The path analysis was conducted to determine the direct or indirect effect of tourism supply on tourism activities with statistical value as shown in Table 8.

Table 8. Line Regression Analysis

| Model | | Unstandardized Coefficients | | Standardized Coefficients | T | Sig. |
|---|---|---|---|---|---|---|
| | | B | Std. Error | Beta | | |
| 1 | (Constant) | 3.224 | 2.202 | | 1.464 | .145 |
| | Tourism Supply (X2) | .095 | .064 | .117 | 1.471 | .143 |
| | Tourism Activities (Y) | .495 | .100 | .393 | 4.932 | .000 |

A. Dependent Variable: Tourism Experience (Z)

Source: Field Survey (2016)

From the results of multiple linear regression analysis and path analysis, a diagram of path analysis can be seen in Figure 5.

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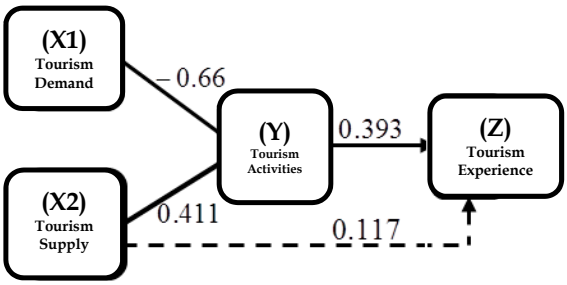


Source: Field Survey (2016)

Figure 5. Diagram of Path Analysis Model

The diagram of path analysis model in Figure 5 shows that tourism supply directly or indirectly affected the tourism experience in Smart Park. The indirect effect was more dominant than the direct one as shown by the following calculation.

$\beta_{X_2Z}$ = 0.117

$\beta_{X_2Y}.\beta_{YZ}$ = 0.411 X 0.393 = 0.161

$\beta_{X_2Z} < \beta_{X_2Y}.\beta_{YZ}$ = 0.117 < 0.161 (dominantly indirect effect).

Tourism supply affect the tourist experience either directly or indirectly through the variety of tourism activities offered by Smart Park. However, indirect influence is more dominant than direct influence. This shows the variation of tourism activity able to strengthen the environment of tourism education experience for tourists. Smart Park as the largest science center in Southeast Asia is able to provide high tourism experience in new technology learning aspect, seen from respondent perception 71,4% (Table 3).

This case study in Smart Park is not in line with the theory presented by Vengesayi, 2003, where demand and supply are simultaneously able to enhance tourism experiences through educational tourism objects designed by the management. From Figure 5 it is seen that tourism demand does not affect the experience of tourists either directly or indirectly through the variations of tourism activities in the Smart Park. The experience of tourists more influenced by the products available in Smart Park, this shows the demand of tourists has not become a major consideration in designing the product. Table 3 shows that over 60% of tourists have high levels of tourism experience on tourism activities related to learning new technologies, arts and culture, and history. Meanwhile, the new language learning aspect is considered still lacking of tourism experience, while the demand in learning a new language is high enough, more than 70%. This case should be a concern for the manager to understand the tourism demand appropriately. Thus, the experience environment will be maximized and create repeat visits.

Today tourism is an important part of quality of life (Csikszentmihalyi and Hunter 2003) [47]. It has become a culture where tourists are free to express the search for unique experiences (Binkhorst 2002 [48]; 2005a [49]; 2005b [50]). In this case, supplying tourism experience was the right strategy applied by Smart Park in the management of tourism products, because tourism experience can touch the heart of tourists compared to products or services (Pine and Gilmore, 1999) [51]. Creating and supplying the tourism experience can be the right method applied by Smart Park to survive in an increasingly competitive environment in the future. The products designed by the management of Smart Park should be able to optimize the stay of tourists with an opportunity to absorb such experience in maximal manner. One of the efforts to maximize tourism experience is to create an effective service by improving tourism resources. In this case, the engagement of stakeholders is essential for the development of tourism as a positive and beneficial change (Michell, 2001) [52].

## 5.Conclusion

The most dominant demand for educational tourism experience in Smart Park Yogyakarta was to learn arts, culture, language, history, and new technology. The tourists' demand that have not been fulfilled was the experience of language learning. From the model constructed, it can be concluded that the tourism demand did not partially affect tourism experience, both directly or indirectly. However, the tourism supply more affected the variation of tourism activities indirectly. In the management of educational tourism in Smart Park, there is still a gap between tourism demand and supply, so that the tourism experience could not be achieved an optimal manner. Management able to minimize the gap between demand and supply by doing market research. Market research conducted through cooperation with educational institutions to determine the purpose of study tour that is part of the curriculum. In addition to conducting market research, management can also offer products to

educational institutions as one effort to pick up the ball and introduce tourism products owned. In this case the institution has a clear picture and help in the process of preparing the tour study agenda.

`Limitations of the study`. The analysis of educational tourism experience in this study involved only two independent variables, i.e. tourism demand and supply. The ability of both variables to explain the variation of tourism activities was less than 50%. Other variables affecting tourism activities are budget and cooperation with stakeholders. Both variables can be recommended for further studies.

`Contribution of the study`. The results of this study show that tourism experience in Smart Park is still not optimal, because there is still a gap between tourism demand and supply in the management of Smart Park. In view of demand, there is still an aspect of tourism experiences that could not be met, i.e. language learning. This becomes a recommendation for the management of Smart Park, particularly to design tourism attractions that can enhance new language learning to experience.

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