Geopark as an innovation for the protection of natural and geological heritages plays an important role in the development of geotourism. All geoparks have to be established in rural areas, thus, geoparks and geotourism are opportunities for rural development, reducing unemployment, and preventing migration in rural areas. This study aims to provide information for management to maintain and increase the number of geopark tourist visits. The research is conducted at the Gunung Sewu UNESCO Global Geopark in Gunungkidul district, Yogyakarta, Indonesia. The data collection is on January 2019 using a questionnaire of 50 respondents. The population is tourists visiting from 2013 to 2017; sample size is calculated based on Roscoe; type of probability sample, and sampling random sample. Research variable consists of the promotion and site attraction as independent variables, satisfaction as a mediator variable, and loyalty as the independent variable. This study examines the relationship between promotion and site attraction to satisfaction as a mediator variable and subsequent impact on loyalty. The analysis is carried out quantitatively by path analysis using linear structural relationship (LISREL) 8.50. The result shows that promotion does not have a direct effect on loyalty, still however affects on satisfaction. Thus, increasing promotion, therefore, it would provide opportunities for management to affects loyalty, which in turn could increase the number of tourist.

Contribution/Originality: This study is one of very few studies which have investigated the relationship between promotion and site attraction on satisfaction as a mediator variable and subsequent impact on loyalty. The study found that promotion does not have a direct effect on loyalty but has an effect on satisfaction.

1. INTRODUCTION

Geoparks, as an innovation for the protection of natural and geological heritages, play an important role in the development of geotourism (Farsani et al., 2010). According to the European Geoparks Network (EGN) charter and Global Geopark Network regulations, all geoparks have to be established in rural areas (Zouros and Martini, 2003); thus, geoparks and geotourism are opportunities for rural development, and they reduce the rate of unemployment and migration in rural areas (Farsani et al., 2010). Geoparks have to support the establishment of local crafts and replicas, as well as support local products. Thus, visitors to geoparks can actually take with them, together with emotions and knowledge, manufactured goods (Frey et al., 2006). The purpose of this study is to provide information for management tourism objects in maintaining and increasing the number of tourist visits of Gunung Sewu UNESCO Global Geopark in Gunungkidul district, Yogyakarta, Indonesia. The tourism sector plays an
important role in supporting the economy of a region. This sector has a multiplier effect on industries that run and support the tourism sector, including hotels, restaurants, crafts, and transportation. This article discusses the effects of promotion and site attraction on satisfaction and subsequent impact on the tourist loyalty of Gunung Sewu UNESCO Global Geopark in Gunungkidul district, find out the relationships that occur and determine strategies to maintain and increase the number of tourist visits.

The study was conducted at Gunung Sewu UNESCO Global Geopark in Gunungkidul district, which has been established as Global Geopark by the United Nations Educational, Scientific, and Cultural Organization (UNESCO) since September, 19th 2015. Geopark is an area that has prominent geological elements including archeological, ecological and cultural values where local people are invited to play a role in protecting and improving the function of natural heritage. Gunung Sewu is the most special karst area in Java, with conical hills consisting of around 40,000 karst hills with a length of up to 85 kilometers and a limestone area of around 1,300 kilometers (Pawonsari, 2013).

The analysis includes processing data, organizing data, and finding. Retherford (1993) stated that path analysis is a technique for analyzing causal relations that occurs in multiple regressions when the independent variables affect the dependent variable not only directly but also indirectly. The main purpose of path analysis according to Maruyama (1998) is a method of measuring the direct influence along each separate path in such a system and thus finding the degree to which variation of a given effect is determined by each particular cause, the method on the combination of knowledge of the degree of correlation among the variables in a system with such knowledge as may be possessed in causal relations. This study predicts, generalizes, and explains causally related the relationship between promotion and site attraction to satisfaction and subsequent impact on loyalty, thus, the appropriate analysis technique used is path analysis.

Gunung Sewu UNESCO Global Geopark in Gunungkidul district has 13 sites and the number of tourist visits increases significantly after it was designated as the National Geopark in 2010. There are 612,362 tourist in 2013 (Tourism Office of Special Region of Yogyakarta, 2014) and there are 1,200,217 tourist in 2014 (TOSRY, 2015). Gunung Sewu Geopark was crowned as a Global Geopark by UNESCO in 2015. However, tourist visits decreases in 2015, 2016, and 2017. There are 845,339 tourist in 201 (TOSRY, 2016); there are 913,937 tourist in 2016 (TOSRY, 2017); and there are 904,271 tourist in 2017 (TOSRY, 2018).

The study was conducted in January 2019. The primary data is directly obtained from respondents which are visitors of Gunung Sewu UNESCO Global Geopark in Gunungkidul district, Yogyakarta, Indonesia. The research instrument is a questionnaire checklist using a Likert scale. This study aims to investigate the following questions:

a. What is the relationship between promotion variable and site attraction variable on satisfaction variable and loyalty variable?

b. How does the effect of promotion variable and site attraction variable on satisfaction variable and loyalty variable?

To maintain and increase the number of tourist visits at Gunung Sewu UNESCO Global Geopark in Gunungkidul district, an analysis is needed to determine the effect of promotion and site attraction on satisfaction and loyalty. The analysis used is quantitative approach by path analysis techniques. The result of this study is expected to be valuable inputs for the management of Gunung Sewu UNESCO Global Geopark in Gunungkidul district, Yogyakarta, Indonesia.

2. RUDIMENTARY

Variable refers to characteristic or attribute of individual or an organization that can be measured or observed and that varies among the people or organization being studied, a variable typically will vary in two or more categories or on a continuum of scores, and it can be measured (Creswell, 2012).
2.1. Promotion

Promotion strategy is a promotion mix which consists of advertising, personal selling, publicity, sales promotion, public relations, and direct marketing aimed to produce a unified customer-focused message and communications, therefore, achieve various organizational objectives (Boone and Kurtz, 2007). Promotion refers to activities that communicate to merits of the product and persuade target customers to buy it (Kotler and Armstrong, 2014). The use of exclusive and highly targeted promotions has recently gained considerable traction among firms as a way to more efficiently provide preferential treatment to select customers (Barone and Roy, 2010; Thompson et al., 2015). Because it is simply not practical or profitable to treat all customers in a superior fashion, firms often establish priorities among their customers, and then selectively allocate special offers and deals to targeted customers (Newman et al., 2018). Existing research details numerous advantages of providing targeted customers with preferential treatment, including higher sales, customer profitability, relationship commitment, and positive word-of-mouth (Homburg et al., 2003; Lacey et al., 2007; Wübben and Wangenheim, 2008). Promotion dimension consists of advertising, sales promotion, event and experiences, public relations and publicity, direct marketing, interactive marketing, word of mouth, personal selling (Kotler and Keller, 2016). Promotion indicator consists of frequency, quality, quantity, time, accuracy and suitability of promotion (Kotler and Keller, 2016).

2.2. Site Attraction

Site attraction is the uniqueness that is in a tourist destination that not only offers value for tourists to see and do, but also becomes a magnet attracting someone to travel (Gunn, 1988). The main feature of the site attraction is that it cannot be moved, to enjoy it tourists must visit the place. Geoparks, as an innovation for the protection of natural and geological heritages, play an important role in the development of geotourism (Farsani et al., 2010). Site attraction should form strategy that covers the entire range of tourism activity, from visitation to environmental problem as well as seasonality problems and sensitivity to local culture (Evans et al., 1995). Visitors are more likely to gain a memorable experience on the trip when they could immerse in activities within site attraction (Kim and Ritchie, 2013). This factor is among many other aspects that need to be managed properly as tourism becoming an increasingly competitive marketplace which leave only the best-managed destinations to prosper (Buhalis, 2000). The site attraction is a reason for tourists to visit, thus, affecting loyalty. Site attractions are things that have uniqueness, ease, and value in the form of diversity of natural resources, culture, and artificial results that are targeted or visited by tourists. Dimensions/indicators include attractions, accessibility, facilities, management of site attractions (Wanda and Pangestuti, 2018).

2.3. Satisfaction

The satisfaction of visitors to Gunung Sewu UNESCO Global Geopark in Gunungkidul district holds a key priority, thus, the management and its staff are also expected to provide excellent service for tourists as customers. Customer satisfaction is one of the most critical issues facing contemporary managers. It is claimed to be vital for a firm's success in today's competitive marketplace (Haverila and Fehr, 2016) and treated as a strategic goal for most firms (Lee and Lee, 2013). Many researchers have attempted to identify consequences of customer satisfaction. Satisfied customers establish long term relations with firms, spread positive words, lead to successive repeating purchases, and are more likely to accept increases of prices (Anderson et al., 1994; Homburg et al., 2005). In consequence, customer satisfaction is expected to be correlated with a firm’s profitability (Anderson et al., 1994; Helgesen, 2006). Customer satisfaction is one of the best-studied areas in marketing, because it has become a principal factor in achieving organizational goals, and is considered a baseline standard of performance and a possible standard of excellence for any organization (Gerson, 1993; Munusamy and Chelliah, 2011). The slogan “the customer is always right” highlights a high priority and the importance of customer satisfaction (Fečiková, 2004). Companies recognize that keeping current customers is more profitable than acquiring new customers to replace
those who have been lost. Satisfaction is the level of one’s feelings after comparing the performance or results that are felt against his expectations (Kotler et al., 1999). Satisfaction dimension consists of product quality, relationship marketing, loyalty promotion, best customers, complaint services, unconditional guarantees, pay for performance (Tjiptono, 2010). Satisfaction indicators include pleasure, suitability of expectations, satisfying, experience, and trust (Taylor and Baker, 1994).

2.4. Loyalty

Through an analysis of tourist loyalty, answers are expected to be found as input for management policies, so the visitors can be loyal in choosing the destination. Brand loyalty, which is a consistent preference for one brand over all others, is characterized by customers experiencing the highest level of satisfaction (Park et al., 2004). According to theory, customers have a choice of two options when they are dissatisfied with an organization: they may either exit (that is, stop buying that brand) or voice a complaint (Hussain et al., 2015). So, when customers are satisfied, they intend to repurchase the product or service, which should lead to increased brand loyalty (Bloemer and Odekerken-Schröder, 2002) and a decreased the number of complaints (Johnson et al., 2001). Loyalty refers to a form of behavior of decision-making’s unit to make purchases continuously for goods or services of a selected company (Griffin and Moorhead, 2010). Loyalty dimension consists of makes regular repeat purchases, purchases across product and service lines, refers others, immune to the pull of the competition (Griffin and Moorhead, 2010). Loyalty indicators include saying positive things, recommending other parties, encouraging friends and relatives, considering the first choice to buy services, and doing more business (Gremler and Brown, 1996).

3. HYPOTHESES & PROPOSED METHOD

The problem of this study is to determine the effects of promotion and site attraction on satisfaction and loyalty, while the purpose of this study is to explain the relationship between promotion and site attraction to satisfaction and subsequent impact on the tourist loyalty at Gunung Sewu UNESCO Global Geopark in Gunungkidul district. Basic research produces a fundamental knowledge by attempting to fully understand how certain problems that occur in an organization can be solved (Sekaran and Bougie, 2017). This study aims to investigate the relationship between variables expected to contribute to management policy so that this research is basic research. Causal studies test whether one variable causes another variable to change or not (Sekaran and Bougie, 2017). This study examined the relationship between promotion and site attraction on satisfaction and subsequent impact on loyalty, so this study is a causal study.

3.1. Hypotheses

The following hypotheses were elaborated:

\[ H_1: \text{Promotion affects satisfaction.} \]
\[ H_2: \text{Promotion affects loyalty.} \]
\[ H_3: \text{Site attraction affects satisfaction.} \]
\[ H_4: \text{Site attraction affects loyalty.} \]
\[ H_5: \text{Satisfaction affects loyalty.} \]
\[ H_6: \text{Promotion, site attraction, and satisfaction affect loyalty.} \]

3.2. Variable Relationship Model

Figure 1 shows the variable relationship model.
Figure 1. Variable relationship model.

Source: Ghozali and Latan (2015).

Promotion = independent variable.
Site Attraction = independent variable.
Satisfaction = mediator variable.
Loyalty = dependent variable.

Mathematical equation model (Ghozali and Latan, 2015):

\[ \text{Satisfaction} = \beta \text{Promotion} + \beta \text{Site_Attraction} + \varepsilon \]
\[ \text{Loyalty} = \beta \text{Promotion} + \beta \text{Site_Attraction} + \beta \text{Satisfaction} + \varepsilon \]

\[ \beta = \text{path coefficient}; \quad \varepsilon = \sqrt{1 - R^2} \]

3.3. Research Objectives

Quantitative research aims to investigate the relationship that explains the causes of change in measurable social facts. Specifically, quantitative methods aimed at predicting, generalizing, and explaining causal, in this study related the relationship between promotion and site attraction on satisfaction and subsequent impact on the tourist loyalty of Gunung Sewu UNESCO Global Geopark in Gunungkidul district. For the management, the findings of this study are expected to be input in making plans and policies to maintain and increase the number of tourist visits.

3.4. Research Methods

The unit of analysis of a study can be in the form of individuals, groups, organizations, objects, or certain times in accordance with the focus of the problem. According to Zulganef (2008) the unit of analysis is a source of information about the variables that will be processed in the study. The unit of analysis is the level of unity in data collection during the next phase of data analysis (Sekaran and Bougie, 2017). The unit of analysis, in this study, are individuals namely tourists who visited Gunung Sewu UNESCO Global Geopark in Gunungkidul district.

An operational variable is the determination of the construct or nature to be studied so that it can be a variable that can be measured (Sugiyono, 2014). The variables used in this study are independent variables (predictor variable), intervening variable, and the dependent variable (endogenous variable). Data analysis is the process of simplifying data into a form that is easier to read and implemented to answer research questions in order to uncover certain social phenomena (Sugiyono, 2014). This analysis includes data processing, organizing data, and finding results. According to Ghozali (2017) path diagrams can connect correlations between variables, the equation model produced by path analysis can be used to estimate direct effects, indirect effects, and total effects.

This study predicts, generalizes, and explains causally-related relationship between promotion and site attraction on satisfaction and subsequent impact on loyalty. The analysis technique in this research is the path analysis used on Linear Structural Relationship (LISREL) 8.50. The structural equation described by the path diagram is seen as a representation of theory, hence the relationship between latent variables is a manifestation of the theory (Ghozali, 2016).
3.5. Population and Sample

The population in this study is tourists visiting Geopark from 2013 to 2017. Roscoe (1982) stated that if a study uses a multivariate analysis, the minimum number of samples is 10 times the number of variables studied, so the minimum number of samples in this study is \(10 \times 4 = 40\). The sample is set at 50.

3.6. Data Collection

In this study, primary data is directly obtained from the respondents of tourists visiting Gunung Sewu UNESCO Global Geopark in Gunungkidul district. The research instrument is a questionnaire checklist using a Likert scale. Data collection is carried out by researchers assisted by two assistants. Based on the identity of 50 respondents, 56% of them is female, and the other 44% is male.

The classification of age is as follows: up to 21 years old is 20%, 22 to 35 years old is 48%, 36 to 40 years old is 8%, and above 41 years old is 24%. The education level of respondents are Junior High respondents is 10%, Senior High is 40%, Diploma is 2%, Bachelor’s degree is 44%, and Master’s degree is 4%. The percentage of visitors are 16% personal, 30% family, and 54% group; while the frequency of respondents' visits are one-time visit is 72%, two times visit is 14%, three times visit is 8%, and more than three times visit is as much as 6%.

4. RESULTS AND DISCUSSION

This study has four variables with ten questions in each. Those are promotion P1-P10, site attraction A1-A10, satisfaction S1-S10, and loyalty L1-L10.

4.1. Validity Test

To measure the validity of a questionnaire, a validity test is conducted. A questionnaire is declared valid if the question in the questionnaire is able to express something that will be measured by the questionnaire (Ghozali, 2016). Measuring validity can be done by creating a correlation between the scores of questions with a total score construct or variable (Ghozali, 2016).

The significance test is done by comparing the value of \(r\) count with the product moment \(r\) value for the degree of freedom \((df) = n-2\). Using sample \(n = 50\), obtained \(df = 50-2=48\), and error margin alpha 5%, then two-tailed test table product moment is obtained \(r\) table = 0.179. Compare values of Corrected Item – Total Correlation using \(r\) table = 0.179, if \(r\) count > \(r\) table and positive then the questions are declared valid.

Corrected Item – Total Correlation for P1 until P10 have value > 0.179 then the questions of promotion are declared valid. Corrected Item – Total Correlation for A1 until A10 have value > 0.179 then the questions of site attraction are declared valid. Corrected Item – Total Correlation for S1 until S10 have value > 0.179 then the questions of satisfaction are declared valid. Corrected Item – Total Correlation for L1 until L10 have value > 0.179 then the questions of loyalty are declared valid.

4.2. Reliability Test

To measure the reliability of a questionnaire, a reliability test is performed. A questionnaire is declared reliable if the answers to statements are consistent over time (Ghozali, 2016). Measurement of reliability can be done in one-time measurement or one shot, then the results are compared with other questions or measuring the correlation between the answers to questions using Cronbach Alpha's statistical test.

A variable is declared reliable if it has a Cronbach Alpha value > 0.70 (Nunnally and Bernstein, 1994). If the promotion variable Cronbach Alpha value consisting of questions P1 until P10 is 0.831 > 0.70, then the promotion variable is declared reliable. If the site attraction variable Cronbach Alpha value consisting of questions A1 until A10 is 0.765 > 0.70, then the site attraction variable is declared reliable. If the satisfaction variable Cronbach Alpha value consisting of questions S1 until S10 is 0.795 > 0.70, then the satisfaction variable is declared reliable. If the
4.3. **Multicollinearity Test**

The correlation levels of the independent variables are -0.455 (46%), -0.446 (45%), and -0.097 (10%). Because the level of correlation is below 95%, it is concluded that multicollinearity does not occur.

4.4. **Autocorrelation Test**

With a significance value of 5%, the number of samples n 50, and the number of independent variables k 3 is obtained table value DU 1.674 < DW 1.762 < \((4-1.674 = 2.326)\). It is concluded that there is no autocorrelation.

4.5. **Heteroscedasticity Test**

From the Scatterplot chart, it can be seen that the points spread randomly above and below 0 scores on the Y axis, so it is concluded that heteroscedasticity does not occur.

4.6. **Linearit Test**

From the output, it is known that the significance value of all linearit are 0.00 < 0.05, so it is concluded that the relationship between variables is linear.

4.7. **Simultaneous Significance Test (Statistical Test F)**

From the ANOVA test or F test, the calculated F value is 23.834 with a probability of 0.000 < 0.05, so it can be stated that the variables of promotion, site attraction, and satisfaction affect loyalty.

4.8. **Test the Significance of Individual Parameters (Statistical Test t)**

The regression model of the three independent variables shows that the promotion variable is not significant because the probability value of significance is 0.256 > 0.05, site attraction variable is significant because the probability value of significance is 0.000 < 0.05, and satisfaction is significant because the probability value of significance is 0.022 < 0.05, so it is concluded that loyalty variable is affected by site attraction variable and satisfaction variable with the regression equation:

\[
\text{Loyalty} = -1.912 + 0.134 \text{Promotion} + 0.585 \text{Site Attraction} + 0.351 \text{Satisfaction}.
\]

4.9. **Coefficient of Determination**

The amount of adjusted \( R^2 \) is 0.583 which means that 58.30% variation of loyalty can be explained by variations of the three independent variables of promotion, site attraction, and satisfaction. The remaining 100% - 58.30% = 41.70% is explained by other reasons outside the model.

4.10. **Path Analysis Using LISREL 8.50**

Figure 2 shows the output of estimate path analysis using LISREL 8.50.
Goodness of Fit Statistics:

Degrees of Freedom = 0

Minimum Fit Function Chi-Square = 0.00 (P = 1.00)
Normal Theory Weighted Least Squares Chi-Square = 0.00 (P = 1.00)

The Model is Saturated, the Fit is Perfect!

As the p-value = 1.00; Chi-Square = 0.00; df = 0, then the model tested is perfect, hence it is necessary to modify the model by removing the relationship that has the lowest value (Sugiyono and Susanto, 2017). Figure 3 shows the output estimate modified results path analysis using LISREL 8.50.
ECVI for Independence Model = 1.93
Chi-Square for Independence Model with 6 Degrees of Freedom = 82.70
Independence AIC = 90.70
Model AIC = 19.35
Saturated AIC = 20.00
Independence CAIC = 102.35
Model CAIC = 45.56
Saturated CAIC = 49.12
Normed Fit Index (NFI) = 0.98
Non-Normed Fit Index (NNFI) = 0.97
Parsimony Normed Fit Index (PNFI) = 0.16
Comparative Fit Index (CFI) = 1.00
Incremental Fit Index (IFI) = 1.00
Relative Fit Index (RFI) = 0.90
Root Mean Square Residual (RMR) = 0.028
Standardized RMR = 0.028
Goodness of Fit Index (GFI) = 0.99
Adjusted Goodness of Fit Index (AGFI) = 0.86
Parsimony Goodness of Fit Index (PGFI) = 0.099

p-value = 0.24 > 0.05 (p>0.05); RMSEA = 0.086 (p<0.08); ECVI sat. < ECVI indep.model (0.43 < 1.93); AIC sat. < AIC indep.model (20 < 102.35); GFI = 0.99 > 0.9 (p>0.9); AGFI = 0.86 (p>0.9); PGFI = 0.099 (p>0.9); NFI = 0.98 > 0.9 (p>0.9); NNFI = 0.97 > 0.9 (p>0.9); PNFI = 0.16 (p>0.9); CFI = 1.00 > 0.9 (p>0.9); IFI = 1.00 > 0.9 (p>0.9); RFI = 0.9 (p>0.9); SRMR = 0.028 < 0.05 (p<0.05).

Due to most indicators have greater value than the minimum criteria, it is concluded that the proposed model meets the fit indicators (Sugiyono and Susanto, 2017). To answer the H1 hypothesis that promotion affects satisfaction by 0.40, (0.40^2 x 100% = 16%). To answer the H2 hypothesis that promotion does not affect loyalty. To answer the H3 hypothesis, that site attraction has an effect on the satisfaction of 0.41, (0.41^2 x 100% = 16.81%). To Answer the hypothesis H4, namely site attraction has an effect on the loyalty of 0.51, (0.51^2 x 100% = 26.01%). To answer the hypothesis H5, namely satisfaction has an effect on loyalty of 0.36, (0.36^2 x 100% = 12.96%). Figure 4 shows the amount of effects between variables.

Figure 4 answers the hypothesis H6, namely promotion, site attraction, and satisfaction affects loyalty.

Since it was designated as a National Geopark in 2010, Gunung Sewu Geopark in Gunungkidul district with its 13 sites has experienced a sharp increase in the number of tourist visits. However, the number of tourist visits then
has decreased when Geopark was crowned as Global Geopark by UNESCO in 2015. This study which examined the relationship between promotion and site attraction on satisfaction as a mediator variable and subsequent impact on loyalty shows that promotion does not have a direct effect on loyalty but has an effect on satisfaction. Site attraction has a direct effect on loyalty and satisfaction, while satisfaction affects loyalty. The limitation of this study is the respondents were taken only on 3 sites that have the most tourist visits as superior sites, out of the 13 sites owned by Gunung Sewu UNESCO Global Geopark in Gunungkidul district. This research is the first study conducted at Gunung Sewu UNESCO Global Geopark in Gunungkidul district, related to the relationship between promotion and site attraction on satisfaction as a mediator variable and subsequent impact on loyalty.

5. CONCLUSIONS AND RECOMMENDATIONS

The effects of promotion and site attraction on satisfaction and subsequent impact on loyalty are empirically proven. This study aims to provide information for management to maintain and increase the number of tourist visits in Gunung Sewu UNESCO Global Geopark in Gunungkidul district. The result shows that promotion does not have a direct effect on loyalty but affects satisfaction. Site attraction has a direct effect on loyalty and satisfaction, while satisfaction affects loyalty. Increasing promotion will provide opportunities for management to affects loyalty which can ultimately increase the number of tourist visits. Adjusted $R^2$ is 58.30%, which means that 41.70% is explained by other reasons beyond the research model. Thus, it is suggested for the next study, an independent variable should be added that can better support the research model.

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