Factors Affecting the Acceptance Of Using Tourism Application For Increasing Tourism At Kerinci Regency

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Abstract. The development of tourism trends is increasingly leading to the concept of back to nature. Tourism is expected to contribute to economic growth in Kerinci Regency. The purpose of this study is to analyze the factors in Marketing mix tourism that influence the perceived ease of use on The Technology Acceptance Model (TAM) on using tourism applications. This study uses primary data obtained or collected independently directly from the data source through the distribution of a list of questionnaire and interview (interview). Model testing technique using SEM (Structural Equation modeling) with Amos 25. Respondents in this study were 400 respondents. The results in this study found that variable price and people had a significant effect on perceived ease of use. And also perceived ease of use has an influence on intention to use tourism application.

Keywords: Marketing mix tourism; Technology Acceptance Model (TAM); Perceived ease of use

1 Introduction

Tourism in rural areas can be used to solve the problems faced by villagers, such as rising unemployment, falling income, falling living standards, and lack of infrastructure. Rural tourism is a potential resource that attracts many tourists, because it has the potential to become the main resource for attracting tourists [1]. Tourism in rural areas has several influence sectors, such as the integrity of attractions, objects, facilities, and the existence of supporting institutions [2]. Supporting tourism facilities is the most important part of tourism's physical infrastructure, the most important and integral key pillar of economic development and tourism development in general and tourism system [3].

The development of tourist trends increasingly leads to the concept of back to nature, the natural atmosphere that is seen by some people is very suitable to be a comfortable vacation spot, because mostly humans are part of nature and need nature as a place to release and forget all problems that arise in everyday life. Nature tourism is accompanied by luxury tourism. For example, tourists still get an experience, that represents all nature and authenticity of the local culture, but will not ignore the comfort and safety factors [4].

Nature-based tourism has a wide range of meanings and can represent many forms of this type of tourism, including eco-tourism, adventure tourism, rural tourism and even outdoor tourism [5]. Nature tourism can also be said to be a local destination, which provides benefits for increasing income, employment and providing conservation support, and influences tourists

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in terms of attitudes, behaviors, knowledge, ethics, and the creation of environmentally friendly behavior [6]. Therefore, the management of tourist destinations is expected to promote economic growth and improvement in Kerinci Regency.

Increasing tourism certainly contributes to increasing tourism marketing, one of which is through increased tourism marketing in the form of promotion. The purpose of tourism marketing is the placement of products with a broader concept, it facilitates the exchange and can be seen as a subsystem in the marketing service's system. Tourism products are complex products, because they consist of products and services. The purpose of tourism marketing is to place products with a broader concept. It promotes the process of communication and can be seen as a subsystem in the marketing service system. Tourism products are complex products, because they consist of products and services [7].

Tourism marketing is a process in collecting, analyzing and interpreting how information from tourism goods and services offerings both now and in the future addressed to tourists, from the melting of these activities is directing to how to strategize so that consumers buy and use these products [8]. The products offered in tourism marketing consist of a combination of tangible and intangible products, which are interconnected and interdependent with each other as an overall package that is perceived by tourists as an experience that represents the core of tourism products[9]. Marketing Mix consists of products, prices, place, promotion, people, process and physical, but in this research used only five elements, there are products, prices, place, promotion and people.

Increase tourism marketing, one of which is to use technology as a form of promotion to increase tourism marketing. One of the models that will be developed is to use the Technology Acceptance Model (TAM). The Technology Acceptance Model (TAM) is one of the models that can be used to analyze the factors that affect the acceptance of information systems. The Technology Acceptance Model (TAM) proposed by Davis to measure how society can accept the use of technology [10]. Technology Acceptance Model (TAM) is an acceptance of how technology users can use technology in a simple way, understand how to use the technology and can explain and predict factors that affect behavior in the process of using the new technology[11].

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Davis (1989) explained that in the concept of Technology Acceptance Model (TAM), there are two main behavioral variables when adopting information systems, namely, the user's perception of benefits (perceived usefulness) and the user's perception of use (perceived ease of use). Perceived usefulness defined as the level at which a person believes that using a system can improve its performance, and perceived ease of use defined as the level at which one believes that using the system does not require any effort. Perceived ease of use also affects perceived usefulness, which can be interpreted that if a person feels the system is easy to use then the system is useful for them [12].

2 Research Methods

The research method used is a quantitative descriptive method. The sample of this study was 400 tourists in Kerinci Regency. The research data was obtained using questionnaires. Data analysis using the Structural Equation Model (SEM) method. This study uses surveys to get the necessary data. The way used is by interviewing (interview) and spreading the list of questions (questionaire) to respondents [13]. Primary data, which is data obtained from direct research on tourists in Kerinci Regency, from questionnaires given to tourists to get an idea of the real conditions. Secondary data is obtained by taking data and documents, written reports that are processed according to the needs in the form of an overview of tourism in Kerinci Regency.

The Model Testing Technique in this study used the Stuctural Equation Model (SEM). The Model Testing Technique in this study used the Stuctural Equation Model (SEM) using AMOS Version 21. Stuctural Equation Model (SEM) is a combination of two separate statistical methods, namely factor analysis of simultaneous equation modeling models developed in econometrics, to analyze the structural relationships of proposed models. The suitability of the model is evaluated through a review of various goodness-of-fit criteria. Some conformity indices and their cut-off values are used to test whether a model is accepted or rejected.

The results of this study provided a significant overview of the variables of Marketing Mix Tourism consisting of products, prices, place, promotion and people. With the support of good Marketing Mix Tourism variables will result in Technology Acceptance Model (TAM) especially at perceived ease of use so as to increase intention to use tourism application.

3 Results and Discussion

3.1 Result

Structural Equation Model (SEM) is a statistical technique for testing and estimating causal relationships by integrating factor and pathway analysis. SEM can examine a series of dependency relationships simultaneously. This is very useful in testing the theory that it contains several equations involving dependency relationships. SEM is the development of the General Linear Model (GLM) with multiple regressions as its main part. SEM is more reliable, illustrative and powerful than regression techniques when modeling interactions, nonlinear, measurement errors, correlation of error terms and correlations between multiple independent variables [14].

Model Testing Fit.

There are three types of Goodness-of-Fit i.e. (1) absolute fit measure, (2) incremental fit measures and (3) parsimonious fit measures. Absolute fit measures measure the overall fit model (both structural models and measurement models together), while incremental fit measures to compare proposed models with other models specified by researchers and parsimonious fit measures make adjustments to fit measurements to be comparable between models with different numbers of coefficients.

Table 1. Model Test Results.

No	Testing Fit	Acceptable Match Rate
1	**Absolute Fit Measures**	
	DF	Accepted if positive
	X^2/DF	

	GFI (goodness of fit index)	Ratio values of 5 (five) or less than five Values Range from 0-1
	Root mean square error of approximation (RMSEA)	Between 0.05 to 0.08
2	**Incremental Fit Measures**	
	AGFI (Adjusted goodness-of-fit)	Values Range from 0-1
	TLI (Tucker-Lewis Index)	Values Range from 0-1
	NFI (Normed Fit Index)	Values Range from 0-1
3	**Parsimonious Fit Measures**	
	PNFI (Parsimonious normal fit index)	Between 0.60 to 0.90
	PGFI (Parsimonious goodness-of-fit index)	Values Range from 0-1

Full Model-Structural Equation Model (SEM) Test Results.

The results of the testing model in this study using AMOS processing. The figures of Full Model-Structural Equation Model (SEM) Test Results as follows :

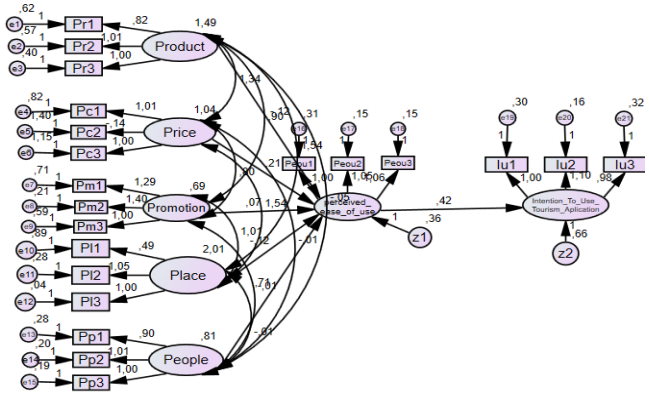

Fig.1. Full Model-Structural Equation Model (SEM) Test Results

Model test results.

1. Absolute Fit Measures
   a. The result of DF is 173 which means "accepted" because the positive value of X^2 / DF is 4,332 which means "accepted" due to ratio values of 5 (five) or less than five
   b. Result of Root mean square error of approximation (RMSEA) = 0.075 which means "accepted" because it is in the criteria between 0.05 to 0.08
2. Incremental Fit Measures
   a. The result of AGFI (Adjusted goodness-of-fit) = 0.743 which means "accepted" because it is in the criteria of Values Ranging from 0-1
   b. The result of TLI (Tucker-Lewis Index) = 0.857 which means "accepted" because it is in the criteria of Values Ranging from 0-1

The result of NFI (Normed Fit Index) = 0.864 which means "accepted" because it is in the criteria of Values Ranging from 0-1

3. Parsimonious Fit Measures
   a. The result of PNFI (Parsimonious normal fit index) = 0.712 which means "accepted" because it is in the criteria of Value Between 0.60 to 0.90
   b. The result of PGFI (Parsimonious goodness-of-fit index) = 0.605 which means "accepted" because it is on the value criteria ranged from 0-1

Hypothesis Test

The hypothesis tested using the Structural Equation Model (SEM) model in this study used critical ratio criteria with the conditions or criteria set is that the value must be greater than 1.96 or the level of significance must be below 0.05 (5%). Hypothesis testing as follows :

Table 2. Hypothesis Test Results.

Description			Estimate	S.E.	C.R.	P	Label
Perceived ease of use	<---	Price	,209	,096	2,186	,029	par_16
Perceived ease of use	<---	Promotion	,068	,128	,537	,591	par_17
Perceived ease of use	<---	Place	-,119	,083	-1,434	,151	par_18
Perceived ease of use	<---	People	,714	,049	14,494	***	par_19
Perceived ease of use	<---	Product	-,117	,105	-1,110	,267	par_20
Intention To Use Tourism Aplication	<---	Perceived ease of use	,420	,054	7,760	***	par_15

The explanations that can be obtained from the results of hypothesis testing in table 2, as follows:

a. Price has a significant effect on perceived ease of use
   Hypothesis 1 is accepted because the result of the critical ratio value is 2.186 this means the critical ratio result > 1.96 and obtained the value of the probability below or < 0.05 which is 0.029. So that from the research obtained the conclusion price has a positive and significant effect on perceived ease of use can be accepted.
b. Promotion has no significant effect on perceived ease of use
   Hypothesis 2 is rejected because the result of the critical ratio value is 0.537 this means the critical ratio result < 1.96 and obtained the value of the probability above or > 0.05 which is 0.591. So that from the research obtained the conclusion Promotion has no significant effect on perceived ease of use can not be accepted.
c. Place has no significant effect on perceived ease of use
   Hypothesis 3 is rejected because the result of the critical ratio value is -1,434 this means the critical ratio result < 1.96 and obtained the value of the probability above or > 0.05 which is 0.151. So that from the research obtained the conclusion Price has no significant effect on perceived ease of use can not be accepted.
d. People has a significant effect on perceived ease of use
   Hypothesis 4 is accepted because the result of the critical ratio value is 14,494 this means the critical ratio result > 1.96 and obtained the value of the probability below or < 0.05 which is 0.000. So that from the research obtained the conclusion people has a positive and significant effect on perceived ease of use can be accepted.
e. Product has no significant effect on perceived ease of use

Hypothesis 5 is rejected because the result of the critical ratio value is -1,110 this means the critical ratio result < 1.96 and obtained the value of the probability above or > 0.05 which is 0.267. So that from the research obtained the conclusion Product has no significant effect on perceived ease of use can not be accepted.

f. Perceived ease of use has a significant effect on Intention To Use Tourism Aplication
Hypothesis 6 is accepted because the result of the critical ratio value is 7,760 this means the critical ratio result > 1.96 and obtained the value of the probability below or < 0.05 which is 0.000. So that from the research obtained the conclusion Perceived ease of use has a positive and significant effect on Intention To Use Tourism Aplication can be accepted.

Regression Result

The output results show the regression equation are as follows:

Table 3. Regression Result.

Regression Result			Estimate
Perceived ease of use	<---	Price	,244
Perceived ease of use	<---	Promotion	,065
Perceived ease of use	<---	Place	-,192
Perceived ease of use	<---	People	,734
Perceived ease of use	<---	Product	-,163
Intention To Use Tourism Aplication	<---	Perceived ease of use	,413

Here is an explanation from table 3 regarding the regression equation.

Perceived ease of use = 0,244 Pc + 0,065 Pm – 0,192 Pl + 0,734 Pp – 0,163 Pd

Intention To Use Tourism Aplication = a + 0,413 Peu

Squared Multiple Correlations.

The output results show of Squared Multiple Correlations are as follows:

Table 4. Squared Multiple Correlations.

Squared Multiple Correlations	Estimate
Perceived ease of use	,535
Intention To Use Tourism Aplication	,171

In table 4 explained with the result that Perceived ease of use is influenced by variables in the marketing mix taourism consisting of price, promotion, place, people and product by 53.5%. While the Technology Acceptance Model (TAM) in Perceived ease of use can affect intention to use tourism application by 17.1%.

3.2 Discussions

The study found that Perceived ease of use has a significant effect on Intention To Use Tourism Aplication based on table 2 and figure 1 found the result that critical ratio value is 7,760 this means the critical ratio result > 1.96 and obtained the value of the probability below or < 0.05 which is 0.000. So that from the research obtained the conclusion Perceived ease of use has a positive and significant effect on Intention To Use Tourism Aplication can be accepted. For the magnitude of influence between Perceived ease of use on intention to use

tourism application is 17.1%. The results of this study are in accordance with previous research which states that The basis of the Technology Acceptance Model (TAM) on the underlying theory perceived ease of use. With the result that Perceived ease of use affects intention to use in online hotel booking and the result of Perceived ease of use is greater than perceived usefulness [15].

But in contrast to Tsai's research (2010) with the result that Perceived ease of use has no effect on Intention To Use Application.[16]. In another study with the results obtained Perceived ease of use influences intention to use E-Tourism Application indirectly by using attitude to use variables as moderating variables [17]. Chen's research (3019) also found that perceived ease of use (H9, β=.60, $p<0.001$) all have a positively influence on intention usage [18]. This research is also in line with kucukusta research (2015) with the result that the ease of use of tourism web influences online use, that both variables of usefulness and ease of use of tourism Web sites are strong influences on the use of online booking [19].

4 Conclusion

The results of this study and the results of the analysis found that of the five variables marketing mix tourism there are 2 variables that have a significant effect on the Technology Acceptance Model (TAM) on perceived ease of use, namely people and price, while for the variables of product, place and promotion have no effect on the Technology Acceptance Model (TAM) on perceived ease of use. As for the magnitude of the influence of the marketing mix taourism consisting of price, promotion, place, people and product against Technology Acceptance Model (TAM) on perceived ease of use by 53.5%. As for perceived ease of use has a significant effect on intention to use tourism application and the magnitude of influence between perceived ease of use on intention to use tourism application is 17.1%.

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References

[1] A. N. K. Latif, “Analysis of Tourism Villages Development in Indonesia: Case Studies : Three Tourism Villages,” ASEAN J. Hosp. Tour., vol. 16, no. 2, p. 99, 2018, doi: 10.5614/ajht.2018.16.2.4.

[2] Ramadhani, Suswanta, and S. Shaddiq, “E-Marketing of village tourism development strategy (Case study in the tourist village puncak sosok),” J. Robot. Control, vol. 2, no. 2, pp. 72–77, 2021, doi: 10.18196/jrc.2255.

[3] A. Mandic, Ž. Mrnjavac, and L. Kordic, “Tourism infrastructure, recreational facilities and tourism development,” Tour. Hosp. Manag., vol. 24, no. 1, pp. 41–62, 2018, doi: 10.20867/thm.24.1.12.

[4] A. Correia and M. Kozak, “Luxury tourism,” Encycl. Tour., vol. 2, no. 1, pp. 1–2, 2014, doi: 10.1007/978-3-319-01669-6_279-1.

[5] M. Mehmetoglu, “Nature-based tourism: A contrast to everyday life,” J. Ecotourism, vol. 6, no. 2, pp. 111–126, 2007, doi: 10.2167/joe168.0.

[6] N. M. Ardoin, M. Wheaton, A. W. Bowers, C. A. Hunt, and W. H. Durham, “Nature-based tourism’s impact on environmental knowledge, attitudes, and behavior: a review and analysis of the literature

and potential future research," J. Sustain. Tour., vol. 23, no. 6, pp. 838–858, 2015, doi: 10.1080/09669582.2015.1024258.
[7] E. Ciriković, "Marketing Mix in Tourism," Acad. J. Interdiscip. Stud., vol. 3, no. 2, pp. 111–116, 2014, doi: 10.5901/ajis.2014.v3n2p111.
[8] K. B. Melese and T. H. Belda, "Determinants of Tourism Product Development in Southeast Ethiopia: Marketing Perspectives," Sustainability, vol. 13, no. 23, p. 13263, 2021, doi: 10.3390/su132313263.
[9] K. C. Thwala and E. Slabbert, "The effectiveness of the marketing mix for guesthouses," African J. Hosp. Tour. Leis., vol. 7, no. 2, 2018.
[10] R. D. Susanto, R. Tjandinegara, V. Iskandar, and E. W. Kartika, "Technology Acceptance Model (Tam) Analysis of the Use of Ovo Application in F&B Service Industry in Indonesia," J. Tour. Culin. Entrep., vol. 1, no. 1, pp. 1–14, 2021, doi: 10.37715/jtce.v1i1.1796.
[11] D. Z. Dumpit and C. J. Fernandez, "Analysis of the use of social media in Higher Education Institutions (HEIs) using the Technology Acceptance Model," Int. J. Educ. Technol. High. Educ., vol. 14, no. 1, 2017, doi: 10.1186/s41239-017-0045-2.
[12] S. Hao, V. P. Dennen, and L. Mei, "Influential factors for mobile learning acceptance among Chinese users," Educ. Technol. Res. Dev., vol. 65, no. 1, pp. 101–123, 2017, doi: 10.1007/s11423-016-9465-2.
[13] A. M. H. Pardede et al., "Implementation of Data Mining to Classify the Consumer's Complaints of Electricity Usage Based on Consumer's Locations Using Clustering Method," J. Phys. Conf. Ser., vol. 1363, no. 1, 2019, doi: 10.1088/1742-6596/1363/1/012079.
[14] Elizar, Suripin, and M. A. Wibowo, "Model of Construction Waste Management Using AMOS-SEM for Indonesian Infrastructure Projects," MATEC Web Conf., vol. 138, 2017, doi: 10.1051/matecconf/201713805005.
[15] D. Abdullah, K. Jayaraman, D. N. Shariff, K. A. Bahari, and N. M. Nor, "The Effects Of Perceived Usefulness, Perceived Ease of Use and Perceived Usefulness on Online Hotel Booking Intention : A Conceptual Framework," Int. Acad. Res. J. Soc. Sci., vol. 3, no. 1, pp. 16–23, 2017, [Online]. Available: http://www.iarjournal.com/wp-content/uploads/IARJSS2017_1_16-23.pdf.
[16] C. Tsai, "An analysis of usage intentions for mobile travel guide systems," African J. Bus. Manag., vol. 4, no. 14, pp. 2962–2970, 2010.
[17] Anggalia Wibasuri, S. Bangsawan, M. MS, and Ribhan, "Determinants of Attitude Tourist in E-Tourism Usage," Int. J. Eng. Technol., vol. 7, no. 4, pp. 6044–6050, 2018, doi: 10.14419/ijet.v7i4.23127.
[18] C. C. Chen and J. L. Tsai, "Determinants of behavioral intention to use the Personalized Location-based Mobile Tourism Application: An empirical study by integrating TAM with ISSM," Futur. Gener. Comput. Syst., vol. 96, pp. 628–638, 2019, doi: 10.1016/j.future.2017.02.028.
[19] D. Kucukusta, R. Law, A. Besbes, and P. Legohérel, "Re-examining perceived usefulness and ease of use in online booking. International Journal of Contemporary Hospitality Management, 27(2): 185–198.," Int. J. Contemp. Hosp. Manag., vol. 27, no. 2, pp. 185–198, 2015, doi: 10.1108/IJCHM-09-2013-0413.
[20] P. Hatamifar, Z. Ghader, and A. Nikjoo, "Factors affecting international tourists' intention to use local mobile apps in online purchase," Asia Pacific J. Tour. Res., vol. 26, no. 12, pp. 1285–1301, 2021, doi: 10.1080/10941665.2021.1983626.