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Marketing Analysis of North-sumatera Tourism an Empirical Study on Satisfaction and Sustainable Visit of the Asean-region Tourists

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Abstract: The development of the tourism industry that exceeds other sectors has encouraged the stakeholders to make various improvements consistently. The levels of tourist satisfaction and loyalty become the primary focus and the indicators of the success of tourism marketing. The findings about the tourist satisfaction and loyalty are highly valuable information for all stakeholders in tourism industry.

This study investigated the effects of five-travelling-experiences which consists of experiences for accommodation, transportation, destination, tourism infrastructures, and travel agencies to travelling satisfaction and investigated the post-visit of the tourists in four actions, namely, the will-come-back in the future, recommendation to friends or relatives, suggestion to the relations, and positive conversation.

There were 200 respondents in total selected purposively from the tourists who came from ten ASEAN member countries who have visited to at least two destinations in North Sumatra and stayed for at least two nights in North Sumatra. The data were processed and analyzed using the Wrap PLS software and it was found that accommodation, transportation, destination, travel agency, and infrastructure have significant positive effect on satisfaction with R^2 for 0,752. Tourist satisfaction has a positive and significant effect on tourist loyalty with R^2 for 0,432. Accommodation, transportation, destination, travel agency and infrastructure have indirect effect on tourist loyalty through tourist satisfaction as an intervening variable. For any further study, it is expected to have more respondents from more countries with more travelling experiences and have visited to more destinations in North Sumatra with a longer duration of the visit.

Keywords: *Tourist satisfaction, tourist loyalty, destinations and hospitality.*

JEL Classification: M3

1. INTRODUCTION

Tourism marketing is the economic activities with the highest growth rate in the world. In 2015, the world's travelling and tourism industry generated US\$7,6 trillion, equals to 10% of GDP and 277 million jobs or one tourism job for every 11 job available. The growth rate of this industry is 3.6% faster than other economic sectors (World Travel Tour Council, 2015).

The competitiveness of Indonesian tourism improved to 50th from 70th rank in 2013, but it was still behind Malaysia in 25th and Singapore in 11th. (World Economic Forum, 2015). The contribution of tourism to the national economy was 4.01% of GDP, which was equivalent to US\$ 10,69 billion, involving 10,3 million people as the workforces, or one tourism job in every 19 jobs available, with an increasing trend (Minister of Tourism of the Republic of Indonesia, 2014). The guidelines for the growth of the Indonesian tourism industry were stipulated in the Law of the Republic of Indonesia Number 10 of 2009 regarding tourism.

In catching up the growth of Indonesian tourism industry, the tourism industry needs an ability to generate profitably tourist satisfaction. The concept of tourist satisfaction is the most important to explore due to its significant effect on sustainable visit and also on the spreading conversation (Fornell, 1992). Traveler satisfaction is a very central factor observed in a research on tourism industry. Some researches found a relationship between different variables that have an effect on tourist satisfaction (Mohamad and Ghani, 2014; Gnanapala, 2015). The results of the research conducted by Parasuraman *et al.* (1985) concluded that the rate of satisfaction is the result of a comparison between the perceived and the expected services. If the services perceived by consumers are in accordance with the expected services, they will be satisfied (Cronin *et al.*, 2000). There were other researches which have investigated the empirical relationship between satisfaction and service quality (Cronin & Taylor, 1992; Iacobucci *et al.*, 1995). In tourism, the researchers have studied the relationship between the perceived service quality with tourist satisfaction (such as, Carman, 1990; Bitner, 1990; Cronin & Taylor, 1992). In the research conducted by Gonzalez *et al.* (2007), it was found that the tourist satisfaction is closely related to the quality of tourism services.

The main factor investigated in evaluating the after-sales of a tourist destination is the tourist satisfaction (Oliver, 1981; Choi and Chu, 2001; Petrick, 2002, 2004). There are many reasons in conducting an investigation on tourist satisfaction and the desire to revisit and to give recommendation (Hui *et al.*, 2007). Traveler satisfaction is strongly affected by the service quality and also by the perception and experience of the tourists in the destinations they visited. The researchers on tourism have a similar perception that satisfaction must include affective and cognitive elements in its measurement. Kozak (2000,2001), in his research, identified that the tourists tend to repeat their visits when they were satisfied on the specific attributes during their first visit. On the other empirical research, it was found that satisfaction has an effect on the desire to be loyal (Martinez *et al.*, 2010).

This development becomes a challenge for Indonesian tourism industry in general and North Sumatra tourism in particular. The realization of the visit of ASEAN Tourists to North Sumatra is still relatively low as shown in Table 1. and become a distinctive challenge to be improved in the future.

The realization of tourism marketing in North Sumatra is left far behind the realization of tourism marketing in other provinces in Indonesia. This inequality is very interesting to watch if it is associated with the potentials of North Sumatra tourist destinations which are many in numbers and varied. For a

Table 1
The ASEAN Tourists Visited North Sumatera Based on Nationality (people) in the period of 2011 – 2015

<i>Nationality</i>	<i>2011</i>	<i>2012</i>	<i>2013</i>	<i>2014</i>	<i>2015</i>
ASEAN	147 299	161 741	172 814	177 447	147 311
Brunei	103	140	248	124	218
Malaysia	132 037	143 644	148 465	152 389	129 203
Philippines	942	1 041	1 341	1 279	1 551
Singapore	11 592	13 579	18 276	18 066	12 516
Thailand	2 180	2 757	3 906	4 844	3 087
Vietnam	250	237	337	369	405
Myanmar	127	157	158	182	202
Other ASEAN countries	68	186	83	194	129

Source: Central Bureau of Statistics of North Sumatera Province (2016)

Country, the development of the tourism industry is a good choice because it can be a great source of foreign exchange. In addition, it can be a driving force for the growth in other related sectors (Tarmizi, *et al*, 2016 & 2017). Tourism sector is an industry that provides sustainable benefits for a Country because the tourism objects and attractions are very possible to be enjoyed repeatedly without spending their value. There are many countries such as Singapore have proved that the tourism industry can be relied upon as the support of economic development and a major factor for the development of the quality of life of its people.

From the observation on the realization of Indonesian tourism industry as shown in Table 1.2., it can be seen that the illustration of the distribution of the visits of foreign tourists are through four entrances of major tourist destinations. Furthermore, the tourism industry in North Sumatera province is on the fourth position of the 4 entrances of Indonesian tourist destination which is certainly not encouraging for the people of North Sumatra. There are many tourist destinations in North Sumatra Province, but the tourism industry marketing of North Sumatera Province has not realized its potentials yet. The performance of tourism marketing of North Sumatra Province is still not encouraging and needs to be improved. The tourism industry of North Sumatra should improve itself to increase tourist visits, both in quantity and quality, in the form of duration of visits and the amount of spending per visit.

In the service industry, quality is a prerequisite to satisfy the consumers (Wood, 1991). For the tourism industry, satisfying the tourists is very important, because the tourist satisfaction is the basis for tourist loyalty and recommendation to other tourists (Tornow and Wiley, 1991). Tourist loyalty is one of the keys for the tourism industry to have sustainable and profitable operation. The centralization of focus on the high-quality tourism services will help the companies in the tourism industry in allocating their resources better, reducing the operating costs, and increasing the chances for the fixing of value-adding price, which in turn, will contribute to the profits of the companies (Coulter, Coulter and Taylor, 1989).

In order to improve the quality of tourism services, the companies need to improve their employees, the tourism personnel. When the ability of the employees has been improved, it will improve the confidence

of the employees to carry out their work. This confidence will help employees to work better in their job, to give satisfaction to customers, and they will show job satisfaction. Job satisfaction is a prerequisite for the employee loyalty. The higher the employee satisfaction, the more loyal the employees to survive on their job or companies hire them. Any employee who survives in a long time in a company will be able to improve its performance both in quantity and quality which in turn will contribute to improve the quality of services offered (Albrecht and Zemke, 1985; Nadler and Lawler, 1983).

If the tourism marketers succeed in developing the high quality tourism services that satisfy the consumers, the company will gain a competitive advantage for its excellent services which are very difficult to replicate. An excellent service is a powerful weapon in the competition. In addition, it is also a *competitive coup* for the company (Howcroft, 1991; Berry and Parasuraman, 1991; Bennett and Higgins, 1988). From the observation on the the ASEAN Community roadmap, especially on the ASEAN Tourism Forum, the growth of the tourism industry in the ASEAN region has entered its initial growth, so that the tourism industry in North Sumatra Province has to improve itself to be capable being an “actor” in this competitive industry. The tourism industry of North Sumatra Province needs to study the more superior tourism marketing strategy, so that they can realize the opportunities of foreign tourism businesses, mainly related to the tourists who come from the ASEAN community.

Tourism marketing strategy in North Sumatra Province needs to make observation on the needs, desires and preferences of the tourists through tourist satisfaction approach on tourism. Knowledge on tourist satisfaction towards North Sumtera Province tourism will then be hold as the basis and guidelines to plan a better strategy as well as to improve and complete the tourism facilities and infrastructures of North Sumatera Province.

Ginting (2002) have found a result of study on satisfaction and sustainable visit on North Sumatra Province tourism by observing four variables, they are accommodation, transportation, destination, and tourism infrastructure with the unit of analysis and European tourist respondents. The unit of analysis in the study was the tourists from the ASEAN community and there were 5 variables observed, namely accommodation, transportation, destination, tourism infrastructure and travel agency. Another difference in this research is the investigation on the indirect effect of accommodation, transportation, destination, and infrastructure on tourist satisfaction with travel agent as the moderation.

This research is intended to respond to the developments in North Sumtera Province tourism environment which has the tourism potential to be developed. The focus on tourists from the ASEAN community is expected to provide a significant chance of success for tourism industry in North Sumatra Province. Furthermore, the success of increasing tourism in the North Sumtera Province in tourism industry of ASEAN community will facilitate the improvement of tourism in other international arenas.

1.1. Formulations of the Problem

In accordance with the background and the limitations of the research, the formulations of the problem are classified as follows:

1. Do the accommodation, transportation, destination, *travel agency*, tourism infrastructure have significant effect on the satisfaction of the tourists visiting North Sumatera?

2. Does the tourist satisfaction variable has a significant effect on the loyalty of the tourists visiting North Sumatera?
3. Do the accommodation, transportation, destination, *travel agency*, tourism infrastructure have significant effect on the tourist loyalty through tourist satisfaction?
4. Does the travel agency moderate the relationship between accommodation, transportation, destination, *travel agency*, tourism infrastructure on tourist satisfaction.

2. LITERATURE REVIEW

2.1. Theoretical Review

2.1.1. Basic Model and System of Tourism

There are two elements consisted in the basic model of tourism, namely, home and destination (Laws, 1991). Between these two elements, there are two activities within, namely departure to the destination and return home from destination. Meanwhile there are many activities which become the main elements of tourism marketing on the departure to the destination, on the destination, and on the return from the destination.

Tourism system consists of several parts which are influencing each other and work together for a particular purpose. Tourism system is similar to spider's web in which any change in any part of the web can be perceived and can affect other parts of the web. The tourism system is shown in Figure 1.

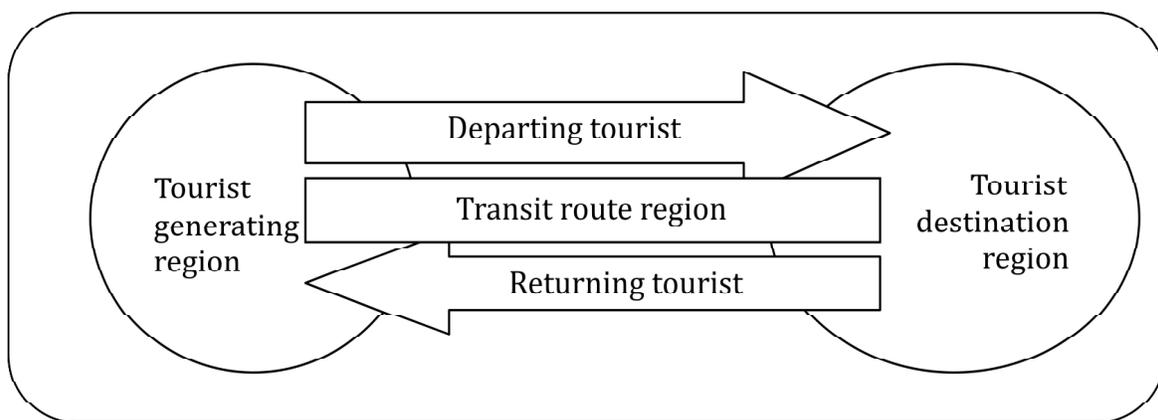


Figure 1: The operational context includes economic, socio-cultural, political, technological, legal and environmental variables

Company in tourism industry is a local system which uses resources and skills of its resources in order to generate a performance satisfying the tourist and to achieve its goals.

2.1.2. Customer Satisfaction

The disappointed customers arise when the companies are unable to provide services to meet the basic needs of the customers. When the companies can meet the preferences for special treatment such as

personal and fun attention from the skilfull personnel of the companies, the customers will be satisfied and more loyal (Wood, 1991).

2.1.3. Customer Satisfaction in Tourism Industry

The concept of tourist satisfaction is very relevant in tourism industry but is difficult to handle due to the complexity of the definition of the tourism products (Smith, 1998). In this regard, the destination management organizations (DMOS) face a competition on a global level. In this condition the competitiveness of destinations plays a strategic role in determining the success of a destination on the journey of its life. (Kozak and Rimmington, 1999).

Most of the works that analyze the role of the image of the destinations on tourist satisfaction showed that the role of the image is not so obvious on the consequences of tourist behavior, such as loyalty and spreading conversation (positive word-of-mouth) associated with the destinations (Veasna *et al.*, 2013). The destination image is defined as the concept of attitude concept consists of some beliefs, ideas and impressions perceived by the tourists on destinations (Hosany *et al.*, 2006). Destination image plays a key role for the choice of destination, for respective evaluation and for the returning purpose in the future and at other recommended times (Bigné *et al.*, 2001; Chen and Tsai, 2007).

Reading the literatures observing the image of tourist destinations as the antecedents of tourist satisfaction indicate the gaps that need further research. This perspective appears quite reductive and static because it does not consider the image of the destination which can be influenced by self-experience (Oliver and Burke, 1999; Rodríguez del Bosque and San Martín, 2008). Destination image modification can also be understood as a consequence of satisfaction.

The plentiful number of tourism literatures that focus on tourism satisfaction is due to the fact that there is a series of concepts found in tourist satisfaction such as loyalty (Song *et al.*, 2012) and complaint (Lee *et al.*, 2011). In tourism sector, the review on the literatures on motivation reveals that people are travelling because they are “pushed” to make a travel decision by the internal psychological power and “pulled” by external power from the attributes of the destinations (Crompton, 1979; Dann, 1977 ; Uysal and Jurowski, 1994). Thus, satisfaction with travelling experience, based on the power of push and pull, contribute to the loyalty of the destinations. The level of tourist loyalty to the destination is reflected in their intention to revisit the destination and their recommendations to others (Oppermann, 2000). Thus, the information regarding tourist loyalty is important for marketing and management purposes.

2.2. Customer Satisfaction in Tourist Destination

The scientific paper entitled “*Customer Satisfaction in the tourist destination: The case of tourism offer in the city of Naples*” by Della Corte, *et al.* has a purpose to capture the leading illustration on the understanding of customer satisfaction that can effectively be a determinant of the satisfaction itself. Customer satisfaction itself is determined by the overall experience of a person to a product after purchase (Solomon, 2002).

Customer satisfaction is also found as the ‘heart’ than the company’s marketing activities (Machleit and Mantel, 2001). This is because the determinants of customer satisfaction help achieving the desired strategic achievement. Customer satisfaction, in a higher level, can increase customer loyalty (Fint *et al.*, 2011; Qi *et al.*, 2012), reduce price elasticity (Fornell *et al.*, 2006), increase the capacity in attracting new

customers (Uncles *et al.* 2013), help building a strong reputation in the market (Walsh *et al.*, 2009; Rust *et al.*, 1995) and has a direct effect on customer's memory (Rust *et al.*, 1995). The overall these conditions will be fulfilled with an assumption of "quality of service" term (Lazarus, 1991; Kuo *et al.*, 2009; Zhao *et al.*, 2012) and the "value of product/service" (De Rust and Oliver, 1994; Nilsson *et al.*, 2001; Morgeson *et al.*, 2011). The higher the quality in terms of the price to paid, the greater the value that is meaningful for the customer (Ostrowski, O'Brien and Gordon, 1993; Stock, 2011; Blocker and Flint, 2011).

In addition, customer satisfaction is also an evaluation on post-purchase, either disappointing, suitable or exceeds the expectations and based on the overall experience (Wang and Yang, 2004). It is emphasized that customer satisfaction is determined through the assessment of post-purchase by the customers on the services provided and comparison between customer expectations and experiences of tourism services perceived (Spreng and Droge, 2001; Higgs *et al.*, 2005; Del Bosque *et al.*, 2006), The presence of *social network* era also plays an important role for the *ex-post* stage to be shorter (real time) (Brown *et al.*, 2007; Hartley, 2008).

Customer evaluation is important and critical because it reflects the customer's subjective evaluation of based on the emotional response associated with the purchasing experience (Kumar, 2005; Grewal *et al.*, 2009w; Falk *et al.*, 2010). Thus, the cognitive-affective approach has a fairly-great value since the emotional response is an essential component to the experience which becomes the objective (Bigné *et al.* 2005; Ryan 1995). Over time, the role of the customer has changed slowly from the type of passive buyers to active customers or main actors in the establishment of tourism products / services (Arussy, 2002; Hetzel, 2002; LaSalle, Britton, 2003; Shaw, Ivans, 2004; Yastrow, 2003).

In a systematic perspective presented, there is some indicators presented through the model scheme 6AS (Cooper *et al.*, 1993; Della Corte, 2013) in which the characteristics travel destination described by the following features: 1. Access; 2. Attraction; 3. Accommodation; 4. Facility; 5. Organization; 6. Additional services. These six variables represent fourteen indicators which have been identified, they are: easy access to various transportation modes (Vetter, 1985), accommodation (Ekinci *et al.*, 2003), the quality of roads and directions, the variety and quality of restaurants (Fields, 2002; Hui *et al.*, 2007), Entertainment (Mikulic and Prebežac, 2011), price and value (Yu and Goulden 2006), access to information on tourism places (Ortega and Rodríguez, 2007), local transportation (Thompson and Schofield, 2007), the perceived safety (Tasci and Boylu 2010), disability-supporting facilities (Daniels *et al.*, 2005), friendliness of the local people (Jenkins, 1999; Kozak, 2001; Yoon and Uysal, 2005), organization of cultural events (Chhabra *et al.*, 2003; Kim *et al.*, 2010; Park *et al.*, 2013), cleanliness of the city (Merrilees *et al.*, 2009; Alegre and guttural, 2010), the variety of activities (Bowen and Shchouten 2008; Danaher and Arweiler, 1996; Kozak, 2001).

The research on customer satisfaction test for tourist destinations was conducted in Naples, Italy, in the period of May 2012 to May 2013. Naples is located in the South of Italy with a population of 2.166.518 people and 918.485 visitors in every year (Ente Provinciale del Turismo, 2014). The survey was conducted using *ad hoc* questionnaires which were registered on the samples which had easy access during three different periods to capture a more dynamic illustration regarding tourist satisfaction. The available questionnaires were administered on the "capture area" such as INFOPOINTs (the active tourist information offices in the city of Naples, the proportionally selected hotels where the hotel visitor compositions containing the appropriate population class sorting based on the test references. In which, point 1 was tested as the determining factor of satisfaction, point 2 was tested as the determining factor of natural satisfaction, and point 3 was tested as the internal factor using *Cronbach's alpha* (Giampaglia, 1990; Corbetta, 1999).

2.3. The Indicators of Tourist Satisfaction in the Research

Saleh and Ryan (1991) used a research model on hospitality industry with a hotel attributes decision based on SERVQUAL, while the measurement model they used the SERVQUAL measurement method of *tangibles*, *reliability*, *responsiveness*, *assurance*, *empathy* and expectation confirmation approach.

Table 2
The Indicators of Tourist Satisfaction in the Research

<i>Item</i>	<i>Literature</i>	<i>6 As Models</i>
Easy access to various transportation modes	Wan and Chan, 2011; 2013; Kozak and Rimmington 1998; Kozak, 2001; Vetter, 1985	Access
Accommodation	Xia <i>et al</i> , 2009; Hui <i>et al</i> 2007; Ekinci <i>et al</i> , 2003; Kozak, 2001	Accommodation
The quality of roads and directions	Della Corte, 2013;	Access
The variety and quality of restaurants	Xia <i>et al</i> , 2009; Hui <i>et al</i> 2007; Nield <i>et al</i> , 2000	
Entertainment	Mikulić and Prebežac, 2011; Xia <i>et al</i> , 2009; Wan and Chan, 2013;	
Price and Value	Yu and Goulden, 2006; Xia <i>et al</i> , 2009; Kozak, 2001	Access, Entertainment, Facilities, Improved Services, Crowd, Accommodation
Easiness to get information	Ortega and Rodriguez, 2007	Akses
Local Transportation	Xia <i>et al</i> , 2009; Thompson and Schofield, 2007; Kozak, 2001	Akses
Perceived safety	Tasci and Boylu, 2010; Weiermair and Punch, 1999	Access, Entertainment, Facilities, Additional Services, Crowd, Accommodation
Disability-friendly infrastructures	Daniels <i>et al</i> , 2005, Tarmizi, <i>et al</i> , 2016.	Access, Entertainment, Facilities, Additional Services, Crowd, Accommodation
Cleanliness of the City	Xia <i>et al</i> , 2009; Merrilees <i>et al</i> 2009; Alegre and Garau, 2010	-
Friendliness of the Local People	Jenkins, 1999; Kozak, 2001; Yoon and Uysal, 2005	-
Cultural Activity Organization	Chhabra <i>et al</i> , 2003; Kim <i>et al</i> , 2010; Kruger <i>et al</i> , 2013	Additional Facilities/ Services
The variety of activities	Bowen and Schouten, 2008; Danaher and Arweiler, 1996; Kozak, 2001	Additional Facilities/ Services
Beauty of nature	Mohamad M., Ghani N. I. A., 2014,	Facilities/Services, Transportation, Entertainment, Crowd.

Ridley (1995) used a research model on the tourism company with tourism business culture satisfaction variable, while for the measurement model, he used literature research method and for the measurement approach he used literature research.

Chade and Matson (1996) used a research model on the sight-seeing tourism industry with the variables of satisfaction on food, accommodation, car rent, sight-seeing tour, while for the measurement model they used measurement method of SERVQUAL *tangibles, reliability, responsiveness, assurance, empathy* and for the measurement approach they used the expectation disconfirmation approach.

Kobylanski A., (2012), used literature research model to explain various attributes of customer satisfaction and its consequences on tourism industry with travel agencies in Poland as the object of discussion. The study reveals that the high customer satisfaction on the travel agency results in a good effect such as the positive word-of-mouth conversation, consumer loyalty which in turn has an effect on the performance of the industry for a long term.

Al-Ababneh M., (2013), carried out a research model to investigate the perception of the tourists on the quality of services provided at the Petra historical site with the variable quality of service which is divided into facilities, access and attractions and he found that the quality of service has a significant effect on tourist satisfaction.

Mohamad M., I. N. Ghani A., (2014), used the structural equation model (SEM) to explain the relationship between tourist satisfaction and loyalty on destination and concluded that tourist satisfaction has a direct positive effect on destination loyalty. It was also concluded that the highly-satisfied tourists are willing to recommend and spread the positive word-of-mouth conversation to other people.

3. CONCEPTUAL FRAMEWORK

The combination of both researches resulted in this research model and it is aimed at studying the relationship between the exogenous variables; accommodation, transportation, destination, travel agency, and infrastructures; and endogenous variables; tourist satisfaction and loyalty; as shown in Figure 2.

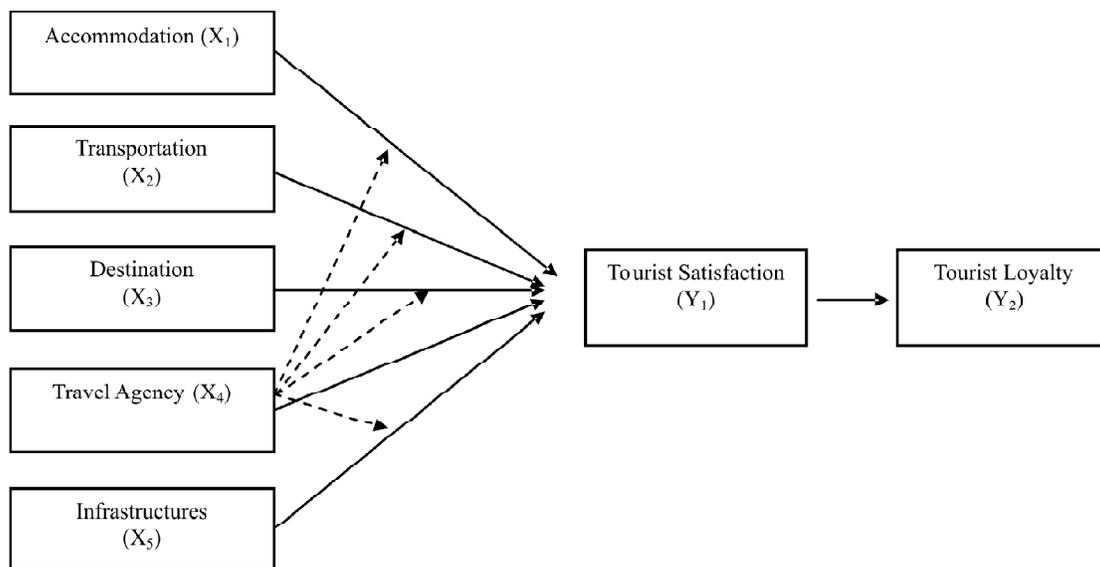


Figure 2: Conceptual Framework

4. RESEARCH METHOD

4.1. Type of Research

It is an explanatory survey research, a research which explains, describes and provides empirical evidence or clear illustration on the effect of the influencing variables and the intervening variables. The interview was used to collect data whereas the documentation was used to collect data on the results obtained from the activities. The data was analyzed using descriptive analysis techniques (Lutfi *et al.*, 2016), both quantitative and qualitative as well as the ratio analysis techniques. The data was collected through observation, interviews, and documentation. This research uses three data collection techniques (Gusnardi *et al.*, 2016; Lubis, *et al.*, 2016; Muda and Dharsuky, 2016; Muda *et al.*, 2016; Nurzaimah *et al.*, 2016 and Dalimunthe, *et al.*, 2016). First, the use of documentation to examine the existing data, either in the form of policy documents, papers, journals, or books of previous research results.

4.2. Population and Sampel

The population of this research is the tourists visiting North Sumatera who come from ten member countries of ASEAN community. The characteristics of the population members were limited by the criteria that the tourists have visited at least 2 tourist destinations in North Sumatera and have stayed in the tourist destinations for at least 2 days or more.

4.3. Data Collection Technique

Any firstly met ASEAN tourists and those who meet the criteria were directly selected as the respondents or first unit sample, and those who were secondly met were selected to be the second respondents. It is continued until obtaining 300 tourists. From 300 questionnaires distributed, there were 264 questionnaires which can be re-collected. After checking the completeness of the questionnaire completion, there was a list of 200 questions which is completed and able to process from 76 tourists from Malaysia, 65 tourists from Indonesia, 28 tourists from Singapore, 13 tourists from Thailand, 9 tourists from Philippines and 9 remaining tourists from other ASEAN member countries.

4.4. Variable Operationalization

The operationalization of the research variables is shown in Table 3.

Table 3
Definition of Variable Operationalization

<i>Variable Name</i>	<i>Definition</i>	<i>Dimension</i>	<i>Indicator</i>	<i>Scale</i>
Accommodation (X ₁)	Accommodation is a facility in which a tourist may stay and have meal used to fulfill the needs of the tourist, both regularly and occassionally.	Hotel Restaurant	1. Hotel Facilities 2. Cleanliness 3. Comfort 4. Hospitality of Personnel of the Hotel 5. Security 6. Price 1. Taste of food and beverages	Ordinal

contd. table 3

<i>Variable Name</i>	<i>Definition</i>	<i>Dimension</i>	<i>Indicator</i>	<i>Scale</i>
			<ol style="list-style-type: none"> 2. Cleanliness 3. Price 4. Hospitality of the Restaurant Waiters/ Waitresses 5. Communication of the Restaurant Waiters /Waitresses 	
Transportation (X ₂)	Transportation is an action of transporting, moving, driving, carrying the tourists from a certain place to another place in order to meet the needs of tourism transportation.	Vehicle Supporting	<ol style="list-style-type: none"> 1. Safety 2. Facilities 3. Comfort 1. Timeliness 2. Cost/Fare 3. Regularity 4. Hospitality of the transportation personnel 5. Communication of the transportation personnel 	Ordinal
Destination (X ₃)	Tourist Destination is the place for tourism purposes completed by facilities and attributes depicted its attraction	Physical People Price	<ol style="list-style-type: none"> 1. Cleanliness 2. Comfort 3. Physical Uniqueness 4. Cultural Uniqueness 1. Friendliness of the People 2. Guide skills 3. Communication of the Guide/Tourism Object 1. Price of Guide 2. Cost on the tourism object 	Ordinal
Travel Agency (X ₄)	A business helping to plan the desire of the tourists to travel.	Services Appearance	<ol style="list-style-type: none"> 1. Reliability 2. Responsiveness 3. Trust 4. Empathy 1. Physical Proof of Travel Agency 	Ordinal
Infrastructure (X ₅)	Infrastructure is the physical needs and other elements supporting the tourism activities of the tourists	Physical Management	<ol style="list-style-type: none"> 1. Road Facilities 2. Bus Station Facilities 3. Communication and Information 4. Bus Station Comfort 5. Completeness of Tourism Infrastructures 	Ordinal

contd. table 3

<i>Variable Name</i>	<i>Definition</i>	<i>Dimension</i>	<i>Indicator</i>	<i>Scale</i>
			1. Hospitality of Services 2. Quickness of Services 3. Public Transportation Safety 4. Speed of Public Transportation	
Tourist Satisfaction (Y_1)	Tourist satisfaction is a comparison between the performance of tourism services generated and those perceived by the tourists (Yang and Zhu, 2006)	Sight Experience	1. Sight in North Sumatera 2. Beauty of Nature of North Sumatera 3. Destination Attraction 1. Travelling in North Sumatera 2. Culinary Tour in North Sumatera 3. Friendliness/Hospitality	Ordinal
Tourist Loyalty (Y_2)	Loyalty is the reflection of tourist commitment to discuss, suggest, recommend, and re-buy the selected tourism service (1999)	Conversation Action	1. Positive conversation regarding the tourism of North Sumatera 2. Giving suggestion to the relations to have tour to North Sumatera 3. Giving Recommendation to have tour to North Sumatera 1. Re-visit North Sumatera for tourism purposes	Ordinal

4.5. Data Analysis Method

4.5.1. Hypothesis Test

The research model is in the form of PLS/*Structural Equation Modeling* (SEM) to make the indicator variables can be assessed based on the reflective and formative in order to conduct more in-depth test on the theory (Lubis *et al*, 2016). The initial stage of modeling was conducted using the result model of WrapPLS, in which the next development stage in this research is by developing PLS/*Structural Equation Modeling*-based modeling. The proposed statements were measured using a Likert scale. With the Likert scale, the respondents were asked to answer every question in five levels, namely Strongly Disagree, Disagree, Neutral, Agree and Strongly Agree. (Lubis *et al*, 2016). Every answer has a score ranging from 1 to 5 for each respondent. Thus, the variable indicator used an interval scale.

The data analysis method used to test the hypothesis in this study is SEM (*Structural Equation Model*). The excellence of SEM is due to its ability to present a comprehensive model along with the ability to confirm the dimensions of a construct or a factor as well as the ability to measure the effect of a relationship theoretically. (Sirojuzilam *et al*, 2016). The implementation model can be described by the following equation:

$$Y = \gamma_{11} X_1 + \gamma_{12} X_2 + \gamma_{13} X_3 + \gamma_{14} X_4 + \gamma_{15} X_5 + \zeta$$

- Where : ξ = Measurement Error (epsilon) Construct (ksi)
 γ = Parameter (gamma)
 Y = Tourist Satisfaction
 X_1 = Accommodation
 X_2 = Transportation
 X_3 = Destination
 X_4 = Tour Agency
 X_5 = Infrastructures

The path analysis determines the relationship pattern between three or more variables. The path coefficient was obtained from the result of *t*-test by looking at the value of *standardized coefficients beta* (Ghozali, 2005). The *path* coefficient is symbolized by (*p*) where the value is obtained from the t-count test. The direct relationship occurs when a variable has a relationship with another variable without the presence of the third variable which is intervening the relationship of both variables. The direct relationship between variables of $X_1 \dots X_n$ and Z_2 with Z_1 as the intervening variable. The *Total Effect* is the total value of Direct Effect and Indirect Effect as the value of *Total Effect*. The analysis for the confirmatory factor for the indicator model will result in a coefficient called as *standard loading or lambda Value* (λ). The lambda value is used to assess the suitability of the instruments in forming a factor.

Table 4
The Evaluation of Goodness of Fit Index Criteria

<i>Goodness of Fit</i>	<i>Cut of Value</i>
Chi – Cquare	Expected to be low
Probability	$\geq 0,05$
RSMEA	$\leq 0,08$
GFI	$\geq 0,90$
AGFI	$\geq 0,90$
CFI	$0 < GFI < 1$
TLI	$\geq 0,95$
CMIN/DF	$\leq 2,00$

Source: Ferdinand (2014).

5. RESULTS AND DISCUSSION

5.1. Results

5.1.1. Direct Effect Test

5.1.1.1. The Direct Effect of xx1, xx2, xxx3, xxx4, and xxx5 on yy1

Figure 5.8. is the model shows the direct effect and the results of the test of the direct effect of xx1, xx2, xx3, xx4, and xx5 on yy1. Figure 3. shows the path coefficient of each variable xx1, xx2, xx3, xx4, xx5 on variable yy1 and the value of *p* of each variable xx1, xx2, xx3, xx4, and xx5 on yy1.

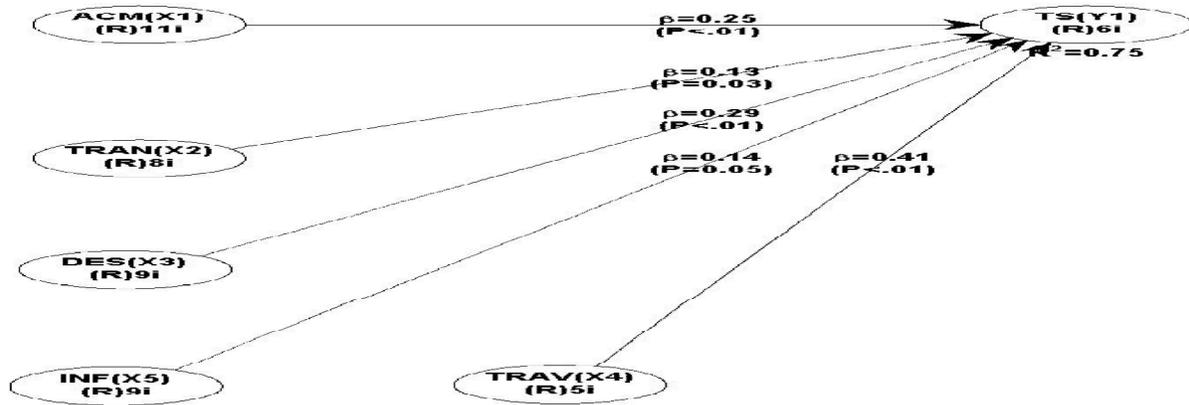


Figure 3: The Model of Direct Effect of X1, X2, X3, X4, X5 on Y1

Path coefficients						
	ACM(X1)	TRAN(X2)	DES(X3)	TRAV(X4)	INF(X5)	TS(Y1)
ACM(X1)						
TRAN(X2)						
DES(X3)						
TRAV(X4)						
INF(X5)						
TS(Y1)	0.250	0.131	0.291	0.411	0.136	

P values						
	ACM(X1)	TRAN(X2)	DES(X3)	TRAV(X4)	INF(X5)	TS(Y1)
ACM(X1)						
TRAN(X2)						
DES(X3)						
TRAV(X4)						
INF(X5)						
TS(Y1)	<0.001	0.033	<0.001	<0.001	0.046	

Figure 4: The Path Coefficient and P Value of X1, X2, X3, X4, X5

Based on Figure 4 and 5, it is known that the P value of xx1 (ACM(X1)) is 0,001, the P value of xx2 (TRAN(X2)) is 0,033, the P value of xx3 (DES(X3)) is 0,001, the P value of xx4 (TRAV(X4)) is 0,001, and the P value of xx5 (INF(X5)) is 0,046. All of the P value of each exogenous variable is less than 0,05. The results of the calculation state that the hypothesis of the research is acceptable where:

1. Variable Xx1 (accommodation) has a significant effect on variable Yy1 (tourist satisfaction), which supports the previous studies conducted by Xia *et al*, 2009; Hui *et al* 2007; Ekinci *et al.*, 2003; Ginting, 2002; Kozak, 2001.
2. Variable Xx2 (transportation) has a significant effect on variable Yy1 (tourist satisfaction), which supports the previous studies conducted by Wan and Chan, 2011; 2013; Kozak and Rimmington 1998; Kozak, 2001; Vetter, 1985.
3. Variable Xx3 (destination) has a significant effect on variable Yy1 (tourist satisfaction), which supports the previous studies conducted by Xia *et al*, 2009; Merrilees *et al* 2009; Alegre and Garau, 2010; Ginting, 2002 Mohamad M., Ghani N. I. A., 2014; Merrilees *et al.*, 2009; Alegre and Garau, 2010.

4. Variable Xx2 (travel agency) has a significant effect on variable Yy1 (tourist satisfaction), which supports the previous study conducted by Kobylanski A., 2012.
5. Variable Xx2 (infrastructures) has a significant effect on variable Yy1 (tourist satisfaction), which supports the previous studies conducted by Della Corte, 2013; Daniels *et al*, 2005; Ginting, 2002.

5.1.1.2 Direct Effect of yy1 on yy2

Figure 5. shows the model and the results of the test of direct effect of yy1 on yy2. Figure 6 is the results of data processing shows the path coefficient of yy1 on yy2 and the P value of yy1



Figure 5: The Model of the Effect of Y1 on Y2

Path coefficients		
	TS(Y1)	TL(Y2)
TS(Y1)		
TL(Y2)	0.657	

P values		
	TS(Y1)	TL(Y2)
TS(Y1)		
TL(Y2)	<0.001	

Figure 6: The Path Coefficient and the P Value of Y1

Based on Figure 6, it was known that the P value of yy1 (TS(Y1)) is 0,001 or less than 0,05. It means that yy1 (tourist satisfaction) has a significant effect on yy2 (tourist loyalty). It supports the previous studies conducted by Chi and Qu, 2008; Ghani, 2014.

5.1.1.3. Indirect Effect Test

5.1.1.3.1. *The Indirect Effect of xx1, xx2, xx3, xx4, xx5 on yy2, through yy1:* Figure 7 shows the model and the results of the test of indirect effect of xx1, xx2, xx3, xx4, and xx5 on yy2, through yy1. Figure 5.13. shows the results of calculation of the indirect path coefficient of each variable xx1, xx2, xx3, xx4, and xx5 on the endogenous variable yy2 through variable yy1 and the P value of each variable xx1, xx2, xx3, xx4, and xx5 on variable yy2 through variable yy1.

Based on Figure 8, it is known that the P value of xx1 (ACM(X1)) is 0,001, the P value of xx2 (TRAN(X2)) is 0,055, the P value of xx3 (DES(X3)) is 0,001, the P value of xx4 (TRAV(X4)) is 0,001, and the P value of xx5 (INF(X5)) is 0,044. The results of data processing explains that,

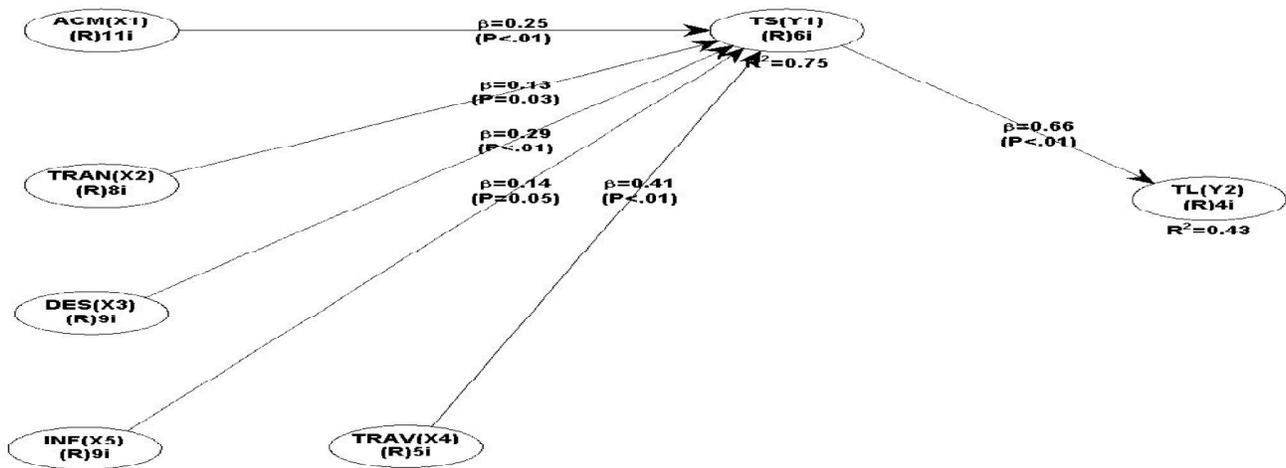


Figure 7: The Model of Indirect Effect of X1, X2, X3, X4, X5 on Y2 through Y1

	ACM(X1)	TRAN(X2)	DES(X3)	TRAV(X4)	INF(X5)	TS(Y1)	TL(Y2)
ACM(X1)							
TRAN(X2)							
DES(X3)							
TRAV(X4)							
INF(X5)							
TS(Y1)							
TL(Y2)	0.164	0.086	0.191	0.270	0.089		
Number of paths with 2 segments							
	ACM(X1)	TRAN(X2)	DES(X3)	TRAV(X4)	INF(X5)	TS(Y1)	TL(Y2)
ACM(X1)							
TRAN(X2)							
DES(X3)							
TRAV(X4)							
INF(X5)							
TS(Y1)							
TL(Y2)	1	1	1	1	1		
P values of indirect effects for paths with 2 segments							
	ACM(X1)	TRAN(X2)	DES(X3)	TRAV(X4)	INF(X5)	TS(Y1)	TL(Y2)
ACM(X1)							
TRAN(X2)							
DES(X3)							
TRAV(X4)							
INF(X5)							
TS(Y1)							
TL(Y2)	<0.001	0.055	<0.001	<0.001	0.044		

Figure 8: The Path Coefficient and P Value of X1, X2, X3, X4, X5 on Y2 through Y1

1. The P value of xx1 of 0,001 is less than 0,05, means that the indirect effect of xx1 (accommodation) on yy2 (tourist loyalty) is significant through yy1 (tourist sastisfaction). It supports the previous studies conducted by Xia *et al*, 2009; Hui *et al* 2007; Ekinici *et al.*, 2003; Ginting, 2002; Kozak, 2001. Hypothesis is accepted.
2. The P value of xx2 of 0,055 is more than 0,05, means that the indirect effect of xx2 (transportation) on yy2 (tourist loyalty) is not significant through yy1 (tourist sastisfaction). It is not in line with the previous studies conducted by Chi and Qu, 2008; Ghani, 2014;. Hypothesis is rejected.

3. The P value of xx3 of 0,001 is less than 0,05, means that the indirect effect of xx3 (destination) on yy2 (tourist loyalty) is significant through yy1 (tourist satisfaction). It supports the previous studies conducted by Chi dan Qu, 2008; Ghani, 2014. Hypothesis is accepted.
4. The P value of xx4 of 0,001 is less than 0,05, means that the indirect effect of xx4 (travel agency) on yy2 (tourist loyalty) is significant through yy1 (tourist satisfaction). It supports the previous studies conducted by Chi dan Qu, 2008; Ghani, 2014. Hypothesis is accepted.
5. The P value of xx3 of 0,044 is less than 0,05, means that the indirect effect of xx5 (infrastructures) on yy2 (tourist loyalty) is significant through yy1 (tourist satisfaction). It supports the previous studies conducted by Chi dan Qu, 2008; Ghani, 2014. Hypothesis is accepted.

5.1.1.4. Goodness of Fit Test

The result of WarpPLS processing for the *goodness of fit* test shows:

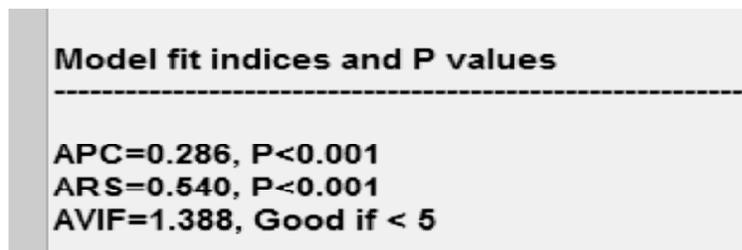


Figure 9: The P Value of APC, ARS and AVIF Coefficient

The result of the processing of research data on Figure 9 shows that the P value of APC (*average path coefficient*) and ARS (*average R square*) significantly of $P < 0,001$ and AVIF (*average variance inflation factor*) of 1,388, less than 5. This result proves that the model developed in this research has been fit (Mahfud and Ratmono, 2013:155). This model consists of 5 exogenous and 2 endogenous variables which have met the requirement to be accepted scientifically as the model which can explain the relationship between accommodation, transportation, destination, travel agency, and infrastructures on tourist satisfaction and loyalty.

5.1.1.5. Percentage of Simultaneous Effect (R-Square)

Based on the research data analysis and processing, it can be concluded as follows,

1. The effect of accommodation, transportation, destination, travel agency, and infrastructures is simultaneous on tourist satisfaction of 0,752 or 75,2%.
2. The effect of tourist satisfaction on tourist loyalty is 0,432 or 43,2%.

WarpPLS 3.0 - Latent variable coefficients							
Help							
	ACM(X1)	TRAN(X2)	DES(X3)	TRAV(X4)	INF(X5)	TS(Y1)	TL(Y2)
R-squared				0.435		0.752	0.432

Figure 10: Coefficient of Simultaneous Effect

5.1.1.6. The Test of Moderating Effect of Travel Agency between X1, X2, X3, and X5 on Y1

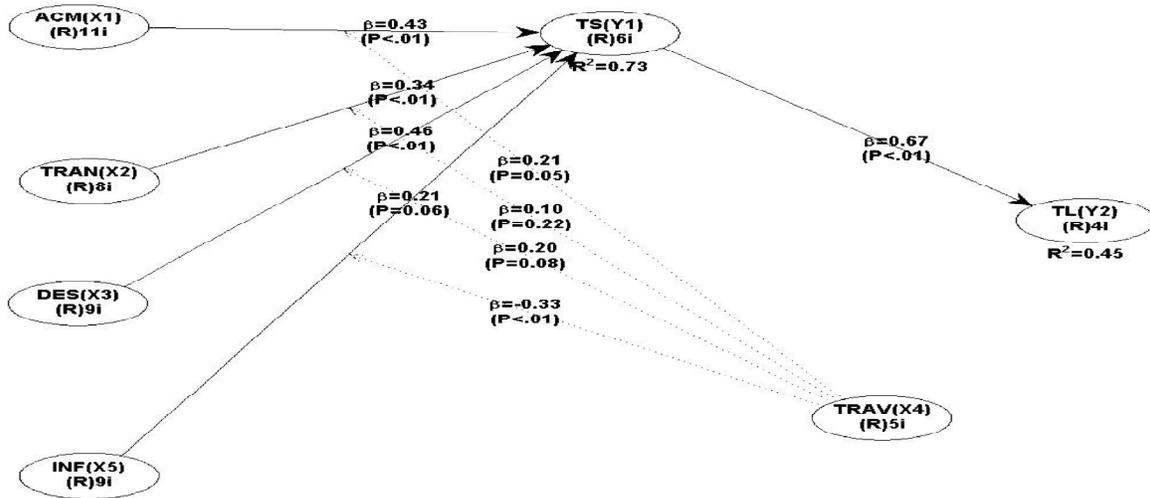


Figure 11: The Moderating Model of Travel Agency between X1, X2, X3, X5 and Y1

P values											
	ACM(X1)	TRAN(X2)	DES(X3)	TRAV(X4)	INF(X5)	TS(Y1)	TL(Y2)	TRAV(X4)*INF(X5)	TRAV(X4)*DES(X3)	TRAV(X4)*TRAN(X2)	TRAV(X4)*ACM(X1)
ACM(X1)											
TRAN(X2)											
DES(X3)											
TRAV(X4)											
INF(X5)											
TS(Y1)	<0.001	0.007	<0.001		0.056			0.009	0.079	0.224	0.047
TL(Y2)						<0.001					
TRAV(X4)*INF(X5)											
TRAV(X4)*DES(X3)											

Figure 12: The P Value of X4*X1, X4*X2, X4*X3, X4*X5

Based on Figure 12, it is known that the P value of **TRAV(X4)*ACM(X1)** is $0,047 < 0,05$. It means that the travel agent has a significant moderating effect on the relationship between accommodation and tourist satisfaction.

Based on Figure 12, it is known that the P value of **TRAV(X4)*TRAN(X2)** is $0,224 < 0,05$. It means that the travel agent does not has significant moderating effect on the relationship between transportation and tourist satisfaction.

Based on Figure 12, it is known that the P value of **TRAV(X4)*DES(X3)** is $0,079 < 0,05$. It means that the travel agent does not has significant moderating effect on the relationship between destination and tourist satisfaction.

Based on Figure 12, it is known that the P value of **TRAV(X4)*INF(X5)** is $0,009 < 0,05$. It means that the travel agent has a significant moderating effect on the relationship between infrastructures and tourist satisfaction.

5.1.1.7. The Goodness of Fit Test

The result of WarpPLS processing for the *goodness of fit* test is shown in Figure 13 :

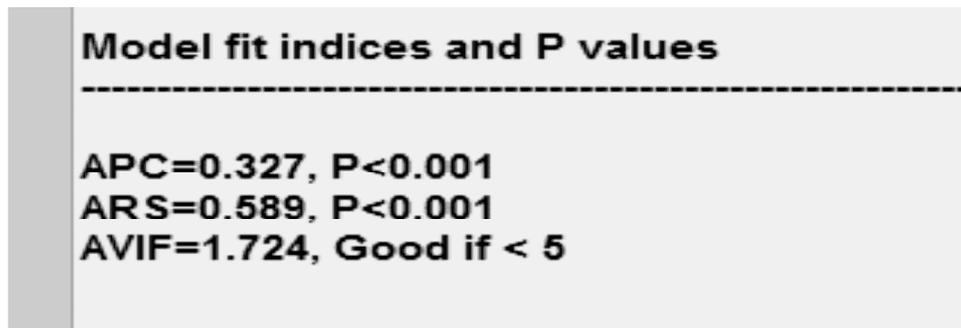


Figure 13: The P Value of APC and AVIF Coefficient

Based on Figure 13, it is known that the P value of APC (*average path coefficient*) and ARS (*average R square*) is significant ($P < 0,001$) and AVIF (*average variance inflation factor*) of 1,724, less than 5. This result proves that the model developed in this research has been fit (Mahfud and Ratmono, 2013:155).

5.2. Discussion

5.2.1. The effect of accommodation on tourist satisfaction

The analysis on the research data has shown that accommodation has a positive and significant effect on tourist satisfaction. The respondent data on accommodation shows that from eleven indicators of accommodation, there are four indicators rated unsatisfactory, they are the hospitality of waitress with 81% respondents unsatisfied, the hospitality of the hotel clerk with 76% respondents unsatisfied and hotel security with 73% respondents unsatisfied, and the communication of the waitress of restaurant with 60% respondents unsatisfied. The results of this research showed two important things that can be concerned by the manager of tourism accommodation. The first is the aspect of human resources both in the restaurant and in the hospitality which is still considered not adequate to meet the expectations of the tourists, especially in the hospitality and communication elements. The second is the hotel security element traveler hotels that still is responded negatively by the tourists since it has not been able yet to meet the expectations.

5.2.2. The effect of transportation on tourist satisfaction

The results of data processing in this research show that transportation has a positive and significant effect on tourist satisfaction. The respondent data on transportation showed that from eight indicators of transportation, there are seven indicators are considered unsatisfactory, they are; hospitality of the transportation personnel with 83,5% respondents unsatisfied, the regularity of transportation with 82,5% respondents unsatisfied, communication of the transportation personnel with 80,5% respondents unsatisfied,

the comfort of transportation with 73,5% respondents unsatisfied, the security of transportation with 71,5% respondents unsatisfied, timeliness of transportation with 68,5% respondents unsatisfied, and transportation facilities with 59,5% respondents unsatisfied. These results showed that almost all indicators of transportation are still inadequate and need serious attention from the transportation management.

5.2.3. The effect of destination on tourist satisfaction

The results of data analysis in this research show that destination has a positive and significant effect on tourist satisfaction. The respondent data on destination showed that from nine indicators of transportation, there are three indicators are considered less-satisfactory, they are; friendliness of the local people with 82,5% respondents unsatisfied, cleanliness of the location with 81,5% respondents unsatisfied and communication of the tourist guides with 66,5% respondents unsatisfied.

These results showed that there are 3 important things that should be concerned by the stakeholders in the tourist destination in North Sumatera. First, the aspects of human resources or local people who were considered to have inadequate friendliness as expected by the tourists. Second, the cleanliness of the destination location which is still responded negatively by the tourists since it cannot meet the expectation yet. Third, the quality of communication of the tourist guides which is still responded negatively by the tourists visiting North Sumatera.

5.2.4. The effect of travel agency on tourist satisfaction

The results of data processing in this research show that travel agency has a positive and significant effect on tourist satisfaction. The respondent data on travel agency showed that from five indicators of travel agency, there are three indicators are considered unsatisfactory by the tourists visiting North Sumatera. First, the physical proof of the travel agencies which is responded by 58% unsatisfied respondents. Second, trust with 54% respondents unsatisfied. Third, the empathy with 53% respondents unsatisfied. The results showed three important things which should be concerned by the travel agency. First, the physical proof aspect of the travel agency which is considered inadequate by the tourists and therefore, it should be improved. Second, the trust towards the travel agency which is responded negatively by the tourists since it cannot meet their expectations yet. Third, the empathy of the travel agency which is responded negatively by the tourists visiting North Sumatera since it is far below the expectations.

5.2.5. The effect of infrastructures on tourist satisfaction

Based on the research data processing, it is shown that infrastructure has a positive and significant effect on tourist satisfaction. The respondent data processing on infrastructures showed that there are nine indicators of infrastructures considered unsatisfactory by the tourists visiting North Sumatera. Road facilities, Bus Station facilities, communication and information, bus station comfort, completeness of tourism infrastructures, hospitality of services, quickness of services, public transportation safety, and speed of public transportation are responded negatively by the tourists with a percentage ranging from 80,5% to 83,5% state unsatisfied. These results state that the aspects of infrastructures consist of road facilities, bus station facilities, communication and information, bus station comfort, completeness of tourism infrastructures, hospitality of services, quickness of services, public transportation safety, and speed of

public transportation are still inadequate and below the standards and are proven unable to meet the expectations of the tourists.

5.2.6. The effect of tourist satisfaction on tourist loyalty

Based on the results of data processing conducted in this research, it is known that tourist satisfaction has a positive and significant effect on tourist loyalty. The respondent data on tourist satisfaction showed that there is only one out of six indicators of tourist satisfaction considered unsatisfactory by the tourists, that is the hospitality with 61,5% respondents expressed their dissatisfaction. These results showed that almost all of the indicators of tourist satisfaction; sight in North Sumatera, beauty of nature of North Sumatera, destination attraction, travelling in North Sumatera, and culinary tour in North Sumatera; have been positively responded by the tourists visiting North Sumatera. Hospitality/Friendliness is the only indicator responded negatively and it still needs some improvement.

5.2.7. The Moderating Effect of Travel Agency Between Accommodation and Infrastructures on Tourist Satisfaction

The results of research data processing showed that the travel agency has a significant moderating effect on the relationship between accommodation and infrastructures on tourist satisfaction. The respondent data on travel agency showed that from five indicators of travel agency, there are three indicators considered unsatisfactory by the tourists visiting North Sumatera. The physical proof of travel agency is responded by 58% unsatisfied respondents. The trust on travel agency is responded by 54% unsatisfied respondents. Empathy of the travel agency is responded by 53% unsatisfied respondents.

6. CONCLUSIONS AND SUGGESTIONS

6.1. Conclusions

This research examined 15 hypotheses developed based on the model of relationship between 5 variables; accommodation, transportation, destination, travel agency, and infrastructures as the exogenous variables; and two variables; tourist satisfaction and tourist loyalty as the endogenous variables. Based on the data processing and analysis by using WrapPLS software, the conclusions are as follows:

1. Accommodation has a positive and significant effect on tourist satisfaction
2. Transportation has a positive and significant effect on tourist satisfaction
3. Destination has a positive and significant effect on tourist satisfaction
4. Travel Agency has a positive and significant effect on tourist satisfaction
5. Infrastructure has a positive and significant effect on tourist satisfaction
6. Destination has indirect effect on tourist loyalty positively and significantly through tourist satisfaction as the intervening variable.
7. Travel agency has indirect effect on tourist loyalty positively and significantly through tourist satisfaction as the intervening variable.
8. Infrastructure has indirect effect on tourist loyalty positively and significantly through tourist satisfaction as the intervening variable.

9. Travel agency moderates the relationship between accommodation and tourist satisfaction significantly.
10. Travel agency moderates the relationship between transportation and tourist satisfaction insignificantly.
11. Travel agency moderates the relationship between destination and tourist satisfaction insignificantly.
12. Travel agency moderates the relationship between infrastructures and tourist satisfaction significantly.
13. The effect of accommodation, transportation, destination, travel agency, and infrastructures is simultaneous on tourist satisfaction for $R^2 = 0,752$ or 75,2 %.
14. The effect of tourist satisfaction on tourist loyalty is $R^2 = 0,432$ or 43,2 %.
15. Accommodation has indirect effect on tourist loyalty positively and significantly through tourist satisfaction as the intervening variable.
16. Transportation does not have positive and significant effect on tourist loyalty through tourist satisfaction as the intervening variable.

6.2. Suggestions and Recommendations

1. The stakeholders associated with accommodations should pay attention on the improvement of quality of services in the aspect of human resources, especially on two elements; hospitality and communication. Similarly, the aspect of hotel security should be prioritized in the improvement of tourism service quality. The successful improvement will improve the tourist satisfaction and will improve the potentials of tourism industry in the future.
2. For the stakeholders in transportation services in tourism industry in North Sumatera, it is should be improved for the quality of transportation in the aspects of hospitality and communication of the transportation personnel. Similarly, the regularity of the transportation, transportation safety, facilities, comfort, and timeliness should be seriously concerned in order to improve the quality of services of tourism transportation as well as to improve its performance and tourist satisfaction.
3. In every tourist destination in North Sumatera, there should be improvement made on the quality of services directed to the improvement of friendliness of local people, improvement on the quality of cleanliness of the tourism location, and the improvement on the quality of communication of the tourist guides.
4. In order to regulate the travel agency, it should be directed towards the physical proof aspect of travel agency such as the appearance of personnel of the agency and the quality of supporting equipment used by the travel agency.
5. In order to improve the satisfaction and loyalty of the tourists visiting North Sumatera, there should be improvement made on the quality of tourism infrastructures which urgently need for some repair, especially for the road, bus station, communication and information, comfort of bus station, completeness of tourism infrastructures, hospitality, quickness of the services, and the speed of the public transportations.

6. The improvement of effectiveness of tourist satisfaction on tourist loyalty needs some improvement on hospitality. Hospitality on tourism industry in North Sumatera should be improved for its quality since it will have positive and significant effect on the loyalty of tourists come from ASEAN community in to have sustainable visits to North Sumatera.
7. The Local Government and all stakeholders in tourism industry in North Sumatera should play an active role in providing contribution in improving the human resources quality from the aspects of friendliness, communication, and care towards the cleanliness of the tourism objects.

6.3. Limitation of the Research and Recommendation

This research has a limitation on the population with a relatively-narrow criterion which are the tourists from 10 ASEAN member countries who have visited at least two popular destinations in North Sumatera, so that the results of the research have limited information sources obtained from the less-complete experiences regarding the tourism visits in North Sumatera.

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