

Assessment the Determinant Factor of Service Quality in Travel Agent Company Using SERVQUAL and AHP Method

Dirk A.L. Moekoe and Wiranto H. Utomo
Department of Information System, Faculty of Information Technology,
Satya Wacana Christian University, Salatiga, Indonesia

Abstract: The aim of this study was to identify the significant factors which influence the service quality of travel agent company based on the provider perspective. This study conducted on TX travel Waingapu which is one of the biggest travel agents in Waingapu, Sumba Timur District, Nusa Tenggara Timur Province, Indonesia. There are five dimensions SERVQUAL and twenty two attributes in it which is the target of assessment from service quality factors. The result of priority factor of service quality using AHP Method shows that reliability was the most important criteria and its three attributes as the sub-criteria which needs to be underline as priority in term of customer service, therefore the company were able to continuously competing in competitive travel agent business environment.

Key words: Travel agent, service quality, analytic hierarchy process, priority, Indonesia

INTRODUCTION

The positive growth of Indonesian economic today influences the air transportation industries as well. Local economic growth and the improvement of people income push users of air transportation services whether for business, tourism and various other purposes. Indonesian geographical condition as an archipelagic country also support the sector. This fact can be seen from the average in the number of domestic departures and passengers in Indonesia which improve each about 16 and 18% in the last 3 years from 2009 to 2011.

The growth of air transport industry is followed by the growth of travel agent industry. Travel agent industry grows so fast. It could be seen from the amount number of franchise offers in this field. TX travel is one of them which is the first travel agency in Indonesia ever being franchise which has 150 branches over (Website TX travel. <http://www.txtravel.com>). One of the branches (franchisee) is TX travel Waingapu which was founded since mid of 2010. The services in this agent such as airlines tickets, hotels reserved, tours and cruises. At this time, TX travel Waingapu dominate market share of domestic airlines ticket sales in Waingapu and handled about 20% of the total domestic passenger departures from Umbu Meheng Kunda Airport in Waingapu as shown in Fig. 1.

To keep the domination for the same target market because this agent realized that there are many

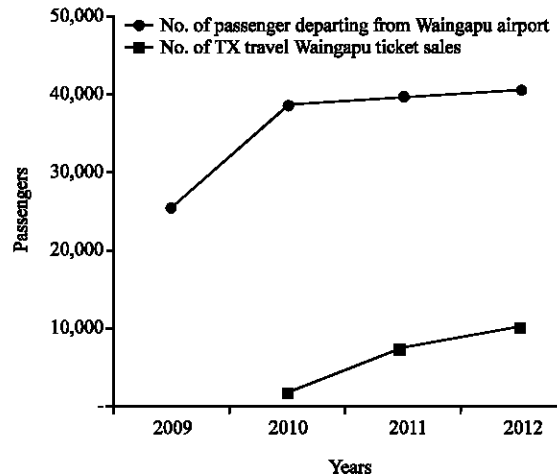


Fig. 1: Statistics of passengers departing from Waingapu Airport 2009 to 2011 and ticket sales of TX Travel Waingapu 2010 to 2012 (Data from Sumba Timur Statistic Agency and TX travel Waingapu)

competitors upcoming, TX travel Waingapu should be more competitive by keep improving the service quality performance which focus on customer satisfaction and oriented. The aim of this orientation is to achieve the customer loyalty. Service excellence should be implemented to be a competitive company.

This study examines the important factors of service quality in TX travel Waingapu based on the provider's perspective it's self. It's not from the customer's

perception which is generally conducted by Service Quality (SERVQUAL) Method. The company can not just a side doing nothing if they want to survive in this competitive business environment. The company should be proactive to evaluating the service performance to achieve the customer satisfaction.

Service quality factors which observed were the five dimensions of service quality in the SERVQUAL Method and twenty two attributes within which improved by Parasuraman *et al.* (1988). Determining of five dimension SERVQUAL and twenty two attributes in priority factor by using the Analytic Hierarchy Process (AHP) Method. This method is used as an effective approach in decision-making to describe the complex problems and multiple criteria in selecting the best alternative from a set of alternatives (Saaty, 1980; Bhushan and Rai, 2004). The output of this study is the priority factor of service quality as a reference for the company to improve service quality performance which is oriented on customer satisfaction.

Literature review: Customer satisfaction closely related to service quality which is given from the company. To make the customers satisfy is one of the main goals in every business. Theory of management and marketing underlines the important of customer satisfaction for the success of a business (Naik *et al.*, 2010).

The effect of customer satisfactory is business profitability. Word of mouth theories is the more efficient and effective concept of the business. The cost of getting new customer is 10 times bigger than maintaining customer. If the service is poor, 91% of the new customer will never come back to the store. It will cause the negative business impact because the customer will tell the bad things of the store, especially through internet which can be used to complain unrestrained (Fornell, 2007).

Service characteristics: Service has it's unique characteristics which distinguishes from goods (Philip, 1997).

Intangible: Service is unperceivable, untouchable, unobservable, untested and unlistenable. Before and after purchasing, service quality appraisal is more difficult because it tends to be difficult in showing the characteristics value before purchasing.

Inseparability: Service could be produced and consumed in the same time and it may be submitted to the other party, so it can be the part of this service.

Heterogeneity/variability: Service is always changing, depends on the service provider, recipient and provided condition. This characteristic makes services unstandardized and different than goods.

Perishability: Service cannot be kept, stocked into the warehouse as a supply.

SERVQUAL Method: Service Quality (SERVQUAL) connects consumers and the providers in term of service quality related to the service offered. SERVQUAL Method has been tested and adapted in measuring the service quality especially in customer satisfaction in some studies ever conducted, such as retail unit service (Naik *et al.*, 2010; Eastwood *et al.*, 2005), hospital service (Douglas and Connor, 2003), fast food restaurant service (Aryani and dan Arosinta, 2010) and telecommunication operator service quality (Haddad *et al.*, 2012). There are five criteria and twenty two sub-criteria in SERVQUAL Method which used to evaluate the service quality (Parasuraman *et al.*, 1994, 1988) (Table 1).

AHP Method: Analytic Hierarchy Process (AHP) is a decision making method which is developed by Saaty in 1970's. The development based on the capability of human appraisal to construct the hierarchycal perception from a multi-criteria problem. With this hierarchy, a

Table 1: Criteria and Sub-criteria of SERVQUAL which used in the study

Criteria	Sub-criteria	S
Reliability (C1)	Provide services as promised	(S1)
	Dependability in handling customer's service problems	(S2)
	Performing services right the first time	(S3)
	Providing services at the promised time	(S4)
	Maintaining error-free records	(S5)
Responsiveness (C2)	Keeping customers information about when services will be performed	(S6)
	Prompt service to customers	(S7)
	Willingness to help customers	(S8)
	Readiness to respond to customer's requests	(S9)
Assurance (C3)	Employees who instill confidence in customers	(S10)
	Making customers feel safe in their transactions	(S11)
	Employees who are consistently courteous	(S12)
	Employees who have he knowledge to answer customer questions	(S13)
Empathy (C4)	Giving customers individual attention	(S14)
	Employees who deal with customers in caring fashion	(S15)
	Having the customer's best interest at heart	(S16)
	Employees who understands the customer's needs	(S17)
	Convenience business hours	(S18)
Tangibles (C5)	Modern equipment	(S19)
	Visually appealing facilities	(S20)
	Employees who have a neat, professional appearance	(S21)
	Visually appealing materials associated with services	(S22)

Table 2: Point scale for pairwise comparisons

Scale Θ_{ij}	Definition	Explanation
1	Equal importance	Both elements contribute equally to the level immediately above
3	Moderate importance	Judgment slightly favours element i than j
5	Strong importance	Judgment strongly favours element i than element j
7	Very strong importance	Element i is favoured very strongly than element j
9	Extreme importance	There is evidence affirming that element i is favoured than element j
2, 4, 6, 8	Immediate values between above scale values	Absolute judgment cannot be given and a compromise is required
Reciprocal	If element i has one of the above non-zero numbers assigned on it when compared with element j, j has the reciprocal value when compared to i	Element i inverse each other with element j

complex problem can be described into groups which can be arranged in form of hierarchy in a way for the problem more structured and systematic (Saaty, 1980). The decision which is taken using logical factors, intuition, experience, knowledge, emotion and feeling to be optimized in a systematic process. It can be able to compare touchable and untouchable thing, quantitative and qualitative data (Iryanto, 2008).

Since, it was developed by Saaty, AHP has been applied in a various decision making scenarios such as: selection an alternative from a set of alternatives, determine a benefit from a set of alternatives, find the best combination of alternatives, compare a process or a system to others and quality management (Bhushan and Rai, 2004). AHP has been used to determine the best alternative by considering various of criteria options in many studies in the fields of agriculture (Wasike *et al.*, 2011), public healthcare (Mukherjee and Mukherjee, 2009) and project management (Torfi and Rashidi, 2011). AHP has basic methods (Iryanto, 2008).

Decomposition: Describe problems into elements in a hierarchy of decision making process where an element interconnect to each other.

Comparative judgment: Conducted by making judgments about the relative importance of two elements at a certain level in relation to the level above it. This judgment is the core of AHP. It will affect to the priority elements. Scale values are used as shown in Table 2.

Synthesis of priority: From every pairwise comparison matrix, eigenvector value is searched to get local priority. This thing conducted using eigenvector method to gain relative weights for each elements of decision making.

Logical consistency: Achieved by aggregation all the eigenvector from hierarchy level, so vector composite show the sequence of decision making. Comparison matrix can be accepted if the value of Consistency Ratio (CR) < 10%. If CR > 10%, the assessment should be revised (Saaty, 1980).

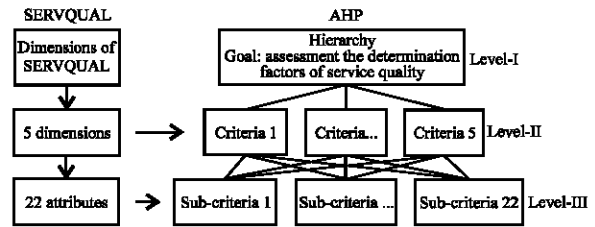


Fig. 2: Relation between SERVQUAL and AHP Method

MATERIALS AND METHODS

AHP-based questionnaire is given to the chairman of TX travel Waingapu as an expert judgment to assess pairwise comparison based on AHP Method. Assessment conducted toward five dimensions/criteria and twenty two sub-criteria SERVQUAL by using saaty scale. Result of the assessment is in form of pairwise comparison matrix were normalized to the weight of each elements of criteria and sub-criteria in order to gain the sequence of criteria and sub-criteria priority of service quality based on the company perception. The relation between SERVQUAL and AHP Method which is used in this study as shown in Fig. 2.

RESULTS AND DISCUSSION

Results of the assessment from the chairman of TX travel Waingapu to five main criteria and twenty two sub-criteria which described in Table 1 were normalized in order to gain the weight of each criteria and sub-criteria. Pairwise comparison matrix of criteria factors are shown in Table 3.

Table 3 shows that the sequence of criteria which plays a significant role in the service quality as perceived by the travel agent company is reliability criteria (weight of C1 = 0.357), assurance (C3 = 0.249), responsiveness (C2 = 0.188), empathy (C4 = 0.142) and tangibles (C5 = 0.064) with Consistency Ratio (CR) = 0.03. Pairwise comparison matrix and normalization results of twenty two sub-criteria that are attributes of five main criteria are shown in Table 4-8 with Consistency Ratio (CR) about 0.04, 0.05, 0.01, 0.05 and 0.04.

The normalization of five criteria and twenty two sub-criteria can be shown the weight and priority of the

Table 3: Pairwise comparison matrix of criteria

Criteria	C1	C2	C3	C4	C5	Weight
C1	1	2	2	2	5	0.357
C2	1/2	1	1/2	1	3	0.188
C3	1/2	2	1	2	3	0.249
C4	1/2	1	1/2	1	3	0.142
C5	1/5	1/3	1/3	1/3	1	0.064

Table 4: Sub-criteria of reliability (C1)

C1	S1	S2	S3	S4	S5	Weight
S1	1	2	2	1	1	0.261
S2	1/2	1	1/2	1/2	1	0.123
S3	1/2	2	1	1	2	0.221
S4	1	2	1	1	2	0.246
S5	1	1	1/2	1/2	1	0.148

Table 5: Sub-criteria of responsiveness (C2)

C2	S6	S7	S8	S9	Weight
S6	1	1/2	2	2	0.276
S7	2	1	2	2	0.391
S8	1/2	1/2	1	2	0.195
S9	1/2	1/2	1/2	1	0.138

Table 6: Sub-criteria of assurance (C3)

C3	S10	S11	S12	S13	Weight
S10	1	1	4	3	0.402
S11	1	1	3	2	0.337
S12	1/4	1/3	1	1/2	0.097
S13	1/3	1/2	2	1	0.164

Table 7: Sub-criteria of empathy (C4)

C4	S14	S15	S16	S17	S18	Weight
S14	1	2	1/2	1	2	0.218
S15	1/2	1	1/2	2	2	0.192
S16	2	2	1	2	2	0.322
S17	1	1/2	1/2	1	2	0.163
S18	1/2	1/2	1/2	1/2	1	0.106

criteria and sub-criteria as in Table 9. Reliability get the first priority criteria. This criterion is the most important, so based on his choice, the resources to improve the service quality performance as promised accurately. Then, it will be followed by the criteria of assurance, responsiveness, empathy criteria and tangibles.

From twenty two sub-criteria which has been evaluated, seven most important sub-criteria are provide services as promised, providing services at the promised time, performing services right the first time, employees who instill confidence in customers, making customers feel safe in their transactions, maintaining error-free records and prompt service to customers. Four of seven most important sub-criteria are the attributes of the reliability criteria, two comes from assurance criteria and one from responsiveness criteria. TX travel Waingapu company should give more attention to these criteria in improving the quality of customer service in order to survive in the competitive business environment today. All employees should have the same point of view about the company priority in improving the service quality and achieve the customer satisfaction. If customers are satisfied, they will become loyal customers. The positive impact of it all, they will spreading the good news to others about the company.

Table 8: Sub-criteria of tangibles (C5)

C5	S19	S20	S21	S22	Weight
S19	1	2	1	2	0.320
S20	1/2	1	1/3	2	0.179
S21	1	3	1	2	0.363
S22	1/2	1/2	1/2	1	0.138

Table 9: Weight and priority of criteria and sub-criteria

Criteria	Weight	Sub-criteria	Local weight	Global weight	Global priority
Reliability	0.357	Provide services as promised	0.261	0.116	1
		Dependability in handling customer's service problems	0.123	0.055	8
		Performing services right the first time	0.221	0.098	3
		Providing services at the promised time	0.246	0.109	2
		Maintaining error-free records	0.148	0.066	6
Responsiveness	0.188	Keeping customers information about when services will be performed	0.276	0.043	10
		Prompt service to customers	0.391	0.061	7
		Willingness to help customers	0.195	0.030	13
		Readiness to respond to customer's requests	0.138	0.022	16
Assurance	0.249	Employees who instill confidence in customers	0.402	0.081	4
		Making customers feel safe in their transactions	0.337	0.068	5
		Employees who are consistently courteous	0.097	0.020	18
		Employees who have he knowledge to answer customer questions	0.164	0.033	11
Empathy	0.142	Giving customers individual attention	0.218	0.031	12
		Employees who deal with customers in caring fashion	0.192	0.027	14
		Having the customer's best interest at heart	0.322	0.046	9
		Employees who understands the customer's needs	0.163	0.023	15
Tangibles	0.064	Convenience business hours	0.106	0.015	20
		Modern equipment	0.320	0.018	19
		Visually appealing facilities	0.179	0.010	21
		Employees who have a neat, professional appearance	0.363	0.021	17
		Visually appealing materials associated with services	0.138	0.008	22

CONCLUSION

This research conducted to evaluate the significant and important factor which influences the service quality in travel agent company based on the provider perception. An AHP-based assessment questionnaire given to the provider not to the service user as general research which conducted in evaluating the user perception by SERVQUAL Method. Factors that are evaluated were five criteria or dimension of SERVQUAL and its twenty two sub-criteria within. Determining of the priority weight of criteria and sub-criteria using AHP Method. A case study of this research was conducted on TX travel Waingapu which is a travel agent company in Waingapu city, a biggest city in Sumba Island in Southeast of Indonesia.

The results of this research shows that from five main criteria, the sequences of priority of all criteria are reliability, assurance, responsiveness, empathy and the last one is tangibles. Three sub-criteria of the reliability criteria was three most important criteria should be prioritized in order of service to customers with the following lists: Provide services as promised, providing services at the promised time and performing services right the first time. Company should redirect all of the organization resources to improving the service performance by focusing on the priority of criteria and sub-criteria within in order to accomplish the best performance of service quality with orientation on customer satisfaction.

REFERENCES

- Aryani, D. and F. dan Arosinta, 2010. Effect of service quality on customer satisfaction in shaping customer loyalty. *Bisnis. Birokrasi*, 17: 114-126.
- Bhushan, N. and K. Rai, 2004. *Strategic Decision Making: Applying the Analytic Hierarchy Process*. 1st Edn., Springer, New York.
- Douglas, L. and R. Connor, 2003. Attitudes to service quality the expectation gap. *Nutr. Food Sci.*, 33: 165-172.
- Eastwood, D.B., J.R. Brooker and J.D. Smith, 2005. Developing Marketing Strategies for Green Grocers: An Application of SERVQUAL. *Agribusiness*, 21: 81-96.
- Fornell, C., 2007. *The Satisfied Customer: Winners and Losers in the Battle for Buyer Preference*. Palgrave Macmillan, New York.
- Haddad, A.E., H. Al-Dmour and Z.M.F. Al-Zubi, 2012. Perceived service quality and customer satisfaction: An empirical investigation of the rebranded telecommunication companies in Jordan. *Eur. J. Soc. Sci.*, 34: 118-137.
- Iryanto, 2008. [Exposition of analytic hierarchy process in operations research: Effective ways to decision making]. University of North Sumatra, Medan. http://www.usu.ac.id/id/files/pidato/ppgb/2008/ppgb_2008_iryanto.pdf.
- Mukherjee, B., and R.N. Mukherjee, 2009. A study on the role of water on human health by analytic hierarchy process. *Int. J. Acad. Res.*, 1: 48-51.
- Naik, C.N.K., S.B. Gantasala and G.V. Prabhakar, 2010. Service quality (servqual) and its effect on customer satisfaction in retailing. *Eur. J. Soc. Sci.*, 6: 231-243.
- Parasuraman, A., V.A. Zeithaml and L. Leonard L. Berry, 1994. Alternative scales for measuring service quality: A comparative assessment based on psychometric and diagnostic criteria. *J. Retail.*, 70: 201-230.
- Parasuraman, A., V.A. Zeithaml and L.L. Berry, 1988. SERVQUAL: A multiple-item scale for measuring consumer perceptions of service quality. *J. Retail.*, 64: 12-40.
- Philip, K., 1997. *Marketing Management: Analysis, Planning, Implementation and Control*, Vol. I. 9th Edn., PT. Prenhallindo, Jakarta.
- Saaty, T.L., 1980. *The Analytic Hierarchy Process: Planning, Priority Setting, Resource Allocation*. McGraw Hill, New York.
- Torfi, F. and A. Rashidi, 2011. Selection of project managers in construction firms using Analytic Hierarchy Process (AHP) and fuzzy topsis: A case study. *J. Construc. Develop. Countries*, 16: 69-89.
- Wasike, C.B., T.M. Magothe, A.K. Kahi and K.J. Peters, 2011. Factors that influence the efficiency of beef and dairy cattle recording system in Kenya: A SWOT-AHP analysis. *Trop. Anim. Health. Produc.*, 43: 141-152.