617

Int. J Sup. Chain. Mgt   Vol. 8, No. 3, June 2019

An Evaluation towards the Service Quality for the Tourism Sector in the East Coast Economic Region (ECER), Malaysia

Mohd Saiful Izwaan Saadon[#1], Aleff Omar Shah Nordin[#2], Nur Amalina Mohamad Zaki[#3]
Tan Owee Kowang[*4] Norshahrizan Nordin[^5]

[#]*School of Maritime Management & Business, Universiti Malaysia Terenggan Kuala Nerus, Terengganu Darul Iman, Malaysia.*

[1]`saiful.izwaan@umt.edu.my`

[2]`aleff.shah@umt.edu.my`

[3]`amalina@umt.edu.my`

[*]*Azman Hashim International Business School, Universiti Malaysia Terengganu Johor Bahru, Johor Darul Ta'zim, Malaysia.*

[4]`oktan@utm.my`

[^]*School of Business Innovation & Technopreneurship, Universiti Malaysia Perlis Kangar, Perlis, Malaysia.*

[5]`norshahrizan@unimap.edu.my`

Abstract— **In theory, the integration of Kano Model and SERVQUAL into Quality Function Deployment is to remove the assumption of linear and to offer innovative input. Kano Model characterizes attributes for product or services based on the level of customer satisfaction towards the attributes. Indirectly it can facilitate SEVQUAL to determine level of priority to the improvement process required by the organisation based on certain categories requested, in which this is going towards into the improvement of customer satisfaction. Kano Model also enables SERVQUAL to focus on interesting attributes and it is popular in the service innovation process. According to the theory, the process of the integration of Kano Model and SERVQUAL into QFD will allow us to construct a model of service quality for the tourism sector which can satisfy customer's needs and wants. This will grant a high level of customer satisfaction. This study can determine attributes according to the categories of basic needs, performance needs and excellence needs. By doing so, we eventually will be able to determine basic elements, performance elements and the excellent elements for the service quality for the tourism sector. These dimensions can be a reference to organisations when they plan their activities for their activities related to the service quality in the future.**

Keywords— *Kano Model, SERVQUAL, Quality Function Deployment, Tourism Sector.*

1.   Introduction

This study will assess the level of service quality of tourism sector in East Coast Economic Region (ECER). The main objective of this study is to identify the key factors influencing the level of customer satisfaction towards the tourism sector in ECER. The study also conducted to measuring the level of customer satisfaction on airport services, island tourism and hotel services at ECER. The study will be divided into three main components, namely: the quality of service at the main airport at ECER, second: service quality in major resort islands in ECER (water transport & chalet) and third: the quality of hotel services in ECER. These three components play the important role in the tourism sector in ECER. SERVQUAL model consists of five main dimensions will be used to measure the level of customer satisfaction for the services sector. These dimensions are reliability, assurance, tangible, empathy and responsiveness.

In this study several new dimensions will be added to adjust the SERVQUAL model with the tourism sector in ECER. In addition, the Kano Model will be used for the identification of tourism attraction factors in ECER. This research will use the questionnaire instrument as the basis instrument for obtaining information.

A questionnaire form will be design based on the SERVQUAL Model and the Kano Model. The questionnaire form will be distribute to the respondents based on sampling design. In this study, repondents are consists of domestic and

618

Int. J Sup. Chain. Mgt   Vol. 8, No. 3, June 2019

foreign tourists who are directly using the airport, having traveled to resort islands and staying at hotels in the ECER. Data obtained from the questionnaire will be analyzed using statistical methods such as Mean Analysis, ANOVA and Analysis Kano to obtain the results of the study. Finally, expected that this study will be able to identify the major factors that influence the level of customer satisfaction in the tourism sector in ECER and a comprehensive understanding of the level of customer satisfaction towards the tourism sector in ECER.

2. Literature Review

2.1 Kano Model

A deeper understanding on needs and customer's needs are a man prerequisite to achieve customer satisfaction [1]. Kano Model is the most complete model to illustrate the statement above. As compared to other previous quality models, which were linear or one dimension [2], Kano Model suggested a new concept which is non-linear and with two dimensions (priority is given to service and customer satisfaction is fulfilled) [3] Sometimes attributes in services can be in non-linear position. Attributes of service quality does not always produce results as expected and at times it receives dissatisfaction from the customer [4]. Thus, Kano Model has classified each will influence customer satisfaction when it is being fulfilled. The parts are basic, one dimensional and attractiveness. [5] The basic quality needs is basic attributes in quality service in customer satisfaction concept. If these attributes were not fulfilled, the customer will be in a very dissatisfied situation. Accomplishing the 'must have' puts the service provider in a not dissatisfied situation. [6] – [7]. The needs of one dimension gives satisfaction when it is provided and it gives dissatisfaction when it is not provided [8]. In simple words, when there are more attributes, the level of satisfaction will be high too and when the attributes are less, the level of satisfaction is lower. [9].The needs of One Dimensional is very important for service provider to compete in the market and to set-up situation where customer always talk about their good services [10].

The attributes for needs of the attractive power gives satisfaction to customers when it is provided and dissatisfaction arises when it is not provided [11]. Customers do not look into the needs in this group but when it is translated positively by the service provider, it will produce satisfaction. In other words, it satisfies but not as needs for customer satisfaction [12]. Attributes in this group are very useful as a weapon to attract loyal customers.

2.2 SERVQUAL

SERVQUAL is the most frequent used model for service quality sector [13] SERVQUAL basic model consists of five dimensions and they are Tangible (physical facilities, equipment or staff appearance), Reliability (ability to perform service as promised accurately and honestly), Responsiveness (willingness to assist customer to produce the best service), Assurance (knowledge and worker attitude, and their talent to obtain the trust and confidence) and Empathy (care and pay individual attention to every customer). There are also five obstacles which cause the failure to the service quality. The obstacles are 1. Gap between customer wants and management perception. This situation happens perhaps due to lack of understanding towards customer wants from certain aspects of service. 2. Gap between management perception and specification of quality.

This happens when there was misunderstanding on management assumption on customer wants and thus it forms assumption with the specification of real service quality which has been existed. 3. Gap between specification of service quality and the delivery of service. The gap formed when there is problem during the delivery of service which probably due to the failure of staff and other factors. This failure will happen even though there is specification and arrangement to perform the service. 4. Gap between accomplishing of service and external communication. This gap normally happens when the real service quality given to customer is different as compared to the promotion given to the customer. 5. Gap between services which should be given and the real service given to customer. This gap can exist if one or more gaps are done by the service provider.

2.3 Quality Function Deployment

QFD is a tool to define development of standard quality with customer's needs and wants and then to translate them as design objective and critical point if quality assurance which can be used along the phase of manufacturing process or services [14]. Through few phases it was found that QFD can correlate needs and wants of customer with technical needs with the aim to create quality product or services [15]. By using QFD manufacturer or service provider can afford to

619

Int. J Sup. Chain. Mgt   Vol. 8, No. 3, June 2019

translate customer's needs and wants to characterised quality which can be measured and then producing product or services which can satisfy needs and wants of all parties [16]. These main objectives of QFD are: first is to improve communication about customer's needs and wants in all organisations and secondly to improve the level of completeness for any specification and to enable us to focus directly to customer's needs and wants [17]. QFD helps to explain the hidden and vague customer's needs and wants and it also forbids changes or misunderstanding through specific and detail research on the basic benefits of needs and wants [18]. QFD is a systematic process which has been used widely to identify and solve various issues function which involve product manufacturing, process, service, and strategy in an effort to improve customer's satisfaction [19]. The benefits obtained from the application of QFD are reducing of cost for design and service, able to make early changes during the process of design, reduce the time for product improvement, less problem during the early stage of product manufacturing process and service, the increment of organisation's performance, more useful input from marketing process purposes, improve service quality and the most important is to improve customer satisfaction [20]. QFD gives organisation a quantitative method that can be a value-added to the honesty and accurateness in the process of translating customer's needs and wants to the service element in the organisation [21]. In this study, a change on application of QFD has been suggested. Normally, a value of parameter is given between the correlation of customer's needs and wants and its technical needs. The value is 9 for strong correlation, 5 for moderate and 1 for weak correlation. This study suggested to use Pearson Correlation method to substitute the perimeter. Pearson Correlation Method can illustrate more accurate strong correlation between 2 groups of perimeter [22]. Besides that, the type of correlation between the two groups can be determined [23].

It is also suggested correlation between technical needs which is the roof to the Quality House is defined using Pearson Correlation Method. It is hoped that this can be an improvement to Quality House used in this study.

3.   Research Methodology

3.1   Research Framework

Figure 1. Research Framework

This research proposed to integrate the SERVQUAL model with the Kano Model. The results then will be integrate into the Quality Function Deployment for developing the Service Quality for the Tourism Sector in ECER, Malaysia.

3.1   Description of Methodology

3.2.1 Pilot Test

A pilot test is conducted to detect weaknesses in design and instrumentation and to provide proxy data for selection of a probability sample. It should, therefore, draw subjects from the target population and simulate the procedures and protocols that have been designated for data collection.

3.2.2 Data Collection

There are two major approaches to gathering information about a situation, person, problem or phenomenon. Sometimes, information required is already available and only need to be extracted. However there are times when the information must be collected. Based upon these broad approaches to information gathering data are categorized as: Secondary data and Primary data. Secondary data are collected from secondary sources such as governments, publications, personal records, census and primary data are collected through: observation, interviews and/or questionnaires. According to data collection procedures in qualitative research involve four basic types: Observations, Interviews, Documents and Audio-Visual Materials. In this study a questionnaire was prepared to get idea about the customer's experiences in the tourism sector for ECER, Malaysia. The questionnaire was developed based on research question and frame of reference. The logical structure of questionnaire followed the order of service quality dimension in the frame of reference. For understanding the importance and satisfaction of each statement service quality dimension a 7-scale was used (1=strongly disagree, 7= strongly agree).

3.2.3 Questionnaire

These questionnaires have two categories. There are questionnaire for maritime tourism transportation operator and the tourist that use the services. The purpose of questionnaire for the maritime tourism transportation operator is to determine the sample size in this study. Then questionnaire for tourist will use SERVQUAL method for the purpose of determining the level of customer satisfaction.

3.2.4 Questionnaire Process

Once the research came up with the first draft of questionnaire, thirty questionnaires will be handed out each to the maritime tourism transportation operator and tourist that use their services before and they were asked whether the questions made sense to them and were they easy to understand. After refining questions, the well improved questionnaire will be develop accordingly.

3.2.4 Data Analysis

After collecting all the data the process of analysis begins in order to summarize and rearrange the data several interrelated procedure are performed during the data analysis stage. For qualitative data analysis, statistical tools such as Microsoft Excel and SPSS are used for data input and analysis. The statistics results were presented by graphical form with detailed description.

4. Conclusion

By integrating Kano Model and SERVQUAL into QFD, construction of training course model which the tourism service provider can understand their customer's needs and wants. This model can overcome linear problem or SERVQUAL model. This new model can produce quality in tourism service which consists of unexpected aspects. This can be achieved by using Kano Model. Service provided also will obtain benefit through this model. With QFD, the tourism service provider can identify needs to be prepared in order to satisfy their customer expectations.

Acknowledgments

References

[1] Shen, X.X., Tan, K.C. and Xie, M. (2000). *"An Integrated Approach to Innovative Product Development Using Kano's Model and QFD"*, European Journal of Innovation Management, Vol. 3 No. 2, pp. 91-9.

[2] Berger, C., Blauth, R., Bolster, C., Burchill, G., DuMouchel, W., Pouliot, F., Richter, R., Rubinoff, A., Shen, D., Timko, M. and Walden, D. (1993), *"Kano's Methods for Understanding Customer Defined Quality"*, The Center for Quality Management Journal, Vol. 2 No. 4, pp. 3-36.

[3] Huiskonen, J. and Pirttila, T. (1998), *"Sharpening Logistics Customer Service Strategy Planning by Applying Kano's Quality Element Classification"*, International Journal of Production Economics, Vol. 56-57, pp. 253-60.

[4] Kano, N. Seraku, K., Takahaski, F. and Tsuji, S. (1984), *"Attractive Quality and Must-Be Quality"*, Hinshitsu (Quality, The Journal of The Japanese Society for Quality Control), Vol. 14 No. 2, pp. 39-48.

[5] Matzler, K. and Hinterhuber, H.H. (1998), *"How to Make Product Development Projects More Successful by Integrating Kano's Model of Customer Satisfaction into Quality Function Deployment"*, Technovation, Vol. 18 No. 1, pp. 25-38.

[6] Busacca, B. and Padula, G. (2005), *"Understanding the Relationship Between Attribute Performance and Overall Satisfaction: Theory, Measurement and Implications"*, Marketing Intelligence and Planning, Vol. 23 No. 6, pp. 543-61.

[7] Redfern, R. and Davey, C.L. (2003), *"Supply Chain Market Orientation in New Product Development in The UK: A Pilot Case Study"*, Journal of Fashion Marketing and Management, Vol. 7 No.1, pp. 65-77.

[8] Witell, L. and Lo¨fgren, M. (2007), *"Classification of Quality Attributes"*, Managing Service Quality, Vol. 17 No. 1, pp. 54-73.

[9] Matzler, K., Hinterhuber, H.H., Bailom, F. and Sauerwein, E. (1996), *How to Delight*

621

Int. J Sup. Chain. Mgt   Vol. 8, No. 3, June 2019

Your Customers'', Journal of Product and Brand Management, Vol. 5 No. 2, pp. 6-18.

[10] Parasuraman, A., Zeitham, V.A. and Berry, L.L. (1985), *''A Conceptual Model of Service Quality and its Implications for Future Research''*, Journal of Marketing, Vol. 49, pp. 41-50.

[11] Parasuraman, A., Zeitham, V.A. and Berry, L.L. (1988), *''SERVQUAL: a Multiple-Item Scale for Measuring Consumer Perceptions of Service Quality''*, Journal of Retailing, Vol. 64 No. 1, pp. 12-40.

[12] Akao, Y., 1972. *New Product Development and Quality Assurance. Quality Deployment System*. Journal of Standardization and Quality Control 25, no 4: 7-14.

[13] Gonzales, M., 2001. *Quality Function Deployment: A Road for Listening to Customer Expectation.* Mexico, McGraw Hill.

[14] Bolt, A., Mazur. R., 1999. Jurassic QFD. *Integrating Services & Product Quality Function Deployment.* In Proceedings of the Eleventh Symposium on Quality Function Deployment. Michigan. QFD Institute.

[15] Franceschini, F., Rossetto, S., 1995. QFD: *The Problem of Comparing Technical / Engineering Design Requirements.* Research in Engineering Design 7, no 4: 270-278.

[16] Gonzales, M., Quesada, Bahill, T., 2003. *Improving Product Design Using Quality Function Deployment: The School furniture Case in Developing countries.* Quality Engineering Journal 16. no 1: 47-48.

[17] Gonzales, M., Quesada, G., Giaconda, G., Mack. R., Urrutia, I., 2005. *Building an Activity Based Costing Hospital Model Using Quality Function Deployment and Benchmarking.* Benchmarking: An International Journal 12, No 4: 310-329.

[18] Gonzales, M., Eckelman, 1999. An *Introduction to Quality Function Deploymet.* Industrial Production Journal 1: no 2. 12-22.

[19] Houser, J., Clausing, D., 1988. *The House of Quality.* Harvard Business Review (May-June): 63-73.

[20] Jae, K., Chang, H., Sang, C., Kim, H., 1988. *A Knowledge Based Approach to the Quality Deployment.* Computer & Industrial Engineering 35, no 1: 233-236.

[21] Mann, J., 2007. *Introductory Statistics.* New York .Wiley & Sons.

[22] Ting, C. and Chen, C.N. (2002). *''The Asymmetrical and Non-Linear Effects of Store Quality Attributes on Customer Satisfaction''*, Total Quality Management, Vol. 13 No. 4, pp. 547-69.

[23] Tontini, G. (2007), *''Integrating the Kano Model and QFD for Designing New Products''*, Total Quality Management, Vol. 18 No. 6, pp. 599-612.