

CUSTOMER SATISFACTION AND SERVICE QUALITY OF SPA IN PENANG

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ABSTRACT

Spa and wellness tourism are one of the famous and competitive industries compared to the other industries in Malaysia. Recently, spa and wellness tourism has been rapid growth in this country in and this kind of service has been advocated due to health tourism packages. Customer that consumes a product or services from the spa industry required product or services that meet their expectations. However, lack of skill of the staff and discomfort ambiance can lead to the unsatisfaction towards the service quality and decrease the level of customer satisfaction in the spa. The objective of this research is to find a relationship between the service quality of staff and ambiance towards customer satisfaction in the spa. This research used a questionnaire survey in order to gather the data. 300 respondents took part in the survey which is conducted in Penang focusing at Batu Ferringhi area. Findings show that there is a relationship between service quality of staff and also ambiance towards customer satisfaction in the spa.

Keywords: Spa Tourism, Wellness, Service quality, Customer Satisfaction.

INTRODUCTION

Leisure and tourism industry is one of the industry that have a high competitive advantages compared to the other industry. Looking at the Malaysia scenario, the statistics by Tourism Malaysia shows that tourist arrivals to Malaysia in 2016 rose to 26.76 million in 2016 against 25.72 million in the previous year. This also leads to the increment in terms of receipts from 69.1 billion in 2009 to 82.1 in 2016 which is driven by the economy recovery. Regardless of challenging times ahead, it can be forecasted from the statistic that the receipt from the tourist arrival remains on increasing in sequence with the increasing number of tourists from year to. Tourism industry subsist of several particular industries consists of travel, hospitality, entertainment, wellness and spa. One of the industries in the tourism sector is the wellness and spa industry that combine of a range of products and services that enhance health and well-being.

Seeing of the working life from day to day that is very hectic and nerve-raking, people nowadays seeking to find for a place to relax and recharge themselves. According to International Spa Association (2013), spas aim to be the places of respite, offering relaxation, treatments, pampering and others. It also acts as the one of the rapid industries in the world that

has driven to massive challenges which need to be addressed. The reasons of emerging of wellness and spa industry are related to several factors. Right now, there are many countries accompanying heavily aging population. About 2050 countries in East and Southeast Asia near to the level of population aging and those people in that country become more health aware and searching for a defensible lifestyle (East-West Center, 2011). In addition, pollution in the world also have increased and people have initiated to worry the symptom of aging on their bodies. For example, the haze that we are facing nowadays in the day to day activities. For this problem, people will look for the spas in order to maintain their healthy living and also look for wellness practices. Nowadays, this industry has grown up in new ways and also offered a variety of choices in spa such as a day spa, a resort or hotel spa, a mineral spa and others.

According to Ramesar (2013), different spas offer different type of services such as medical treatment, but all of these spas have the same objective which is to offer feelings of wellness, wellbeing and health for their customers. Spa and wellness tourism is one of the famous and competitive industries compared to the other industries in Malaysia. According to Smith and Puczko (2008), due to Malaysian traditional therapies which are the oldest treatment in the world, Malaysia now has become as one of the famous country in the development of health tourism around the world. Mohd Yusoff (2010) stated that, now days spa and wellness tourism has been rapid growth in this country in recent years and this kind of service has been advocated due to health tourism packages.

Since 2002, over 200% number of spas has been increasing, according to a survey of intelligent spas that has been conducted in Malaysia (Hashemi and Hosseiniyan, 2014). Generally, this industry can generate, earning an average of RM 1,000 per day from more than 170 spas that are currently operating in Malaysia. According to (Othman et al., 2015) stated that the spa industry in Malaysia has huge potential since the industry had shown excellent progress in the past ten years. Malaysia government has focused the attention to boost up this industry through the National Key Economic Areas (NKEAs) under Tourism sector. By including spa industry into one of Entry Point Projects (EPPs), it has been targeted to contribute about RM374.1 million into national gross national income with 3540 projected jobs by 2020 (PEMANDU, 2013). Malaysians are thus encouraged to engage in the spa industry due to its potential in generating high income. Based on the statistic spa classification until November 2016, the number is increasing from 226 in 2014 to 247 spas with 99 of four and five stars (Ministry of Tourism and Culture Malaysia, 2016; PEMANDU, 2013). These initiatives are designed and implemented in order to clean up the spa industry in Malaysia. High quality spa and wellness can be found in the resort or hotel which located in a main tourist area such as the Shangri-La's Rasa Sayang Resort and Spa, Penang. According to Tourism Malaysia (2013), place of interest in Malaysia such as river sides, hot springs, rainforest, waterfalls and highlands also provide a limited and specific spa experience for the guest to feel it.

In the spa industry, usually customer that consumes a product or services from the spa industry always want that product or services that they consume meet their expectations so that they can feel happy. Lack of skill of the staff and discomfort ambiance can lead to the unsatisfaction towards the service quality and can decrease the level of customer satisfaction in the spa. According to Parasuraman, Zeithaml and Berry (1991) service staff is related to the tangible, reliability, responsiveness, assurance and also empathy. The ambiance is related to sight, sound, smell, and touch. When the consumers see, perceive service quality as satisfaction or meet of expectation, confusion will increase for the use of the satisfaction term. Besides of the confusion, there are also some questions remaining about the relationship between service quality and customer satisfaction. The objectives of this study are to find a relationship between

the service quality and customer satisfaction in the spa which consist of service from the staff and spa ambience.

LITERATURE REVIEW

Customer Satisfaction

Customer satisfaction is connected to human activities which are aimed at satisfying the customers' needs and wants through the swap of products and services. Hill, Roche, and Allen (2007) stated that it is difficult and challenging for a firm in order to keep up of profit by searching for new customer. According to Bateson and Hoffman (2000), customer satisfaction also can be measured as reliability, responsiveness, assurance, empathy and also tangibles together with others additional elements such as price, personal and sectional factors that may involve during the service supply.

According to Yu, Lei-Yu, and Yu Ching (2005), customer satisfaction can lead to customer loyalty towards a product or service, but it also depends on personal customer experience and also perceived of quality. Non-satisfied customer tends to buy or consume the product or service from other or anywhere else (DiCostanzo. 2008). A satisfied customer in the spa, will bring the other customer with them and according to Torres and Kline (2006), a positive word of mouth recommendation came from a satisfied customer after using the product or a service and this will increase loyalty towards a firm.

Service quality

Service quality is defined as a 'measure of how well the service level delivered matches the customers' expectation (Lewis and Booms, 1983). For this research, service quality can be measured in two dimensions which are service staff at the spa and the ambience of the spa from the customer view. The service staff will be measured by Parasuraman, Zeithaml, and Berry (1985) SERQUAL model consist of ten components for measuring and managing service quality which are (1) reliability; (2) responsiveness; (3) competence; (4) access; (5) courtesy; (6) communication; (7) credibility; (8) security; (9) understanding or knowing the customer and lastly (10) tangibles. Parasuraman et al (1988) stated that after the year of 1988, these components were specified as five dimensions which are reliable, assurance, tangibles, empathy and also responsiveness. Previous researchers also stated that, it is also important that the staff need to be alert to the customers' concerns and needs so that the customers can truly enjoy their spa treatments (Snoj and Mumel, 2002). Responsiveness is a willingness to help customers and provide prompt service this is supported by Lo, A., Wu, C. & Tsaia, H (2015), a spa service needs to be well-designed in order to provide the right service at the right moment to the customer.

The next dimension of the service quality is ambience. According to Kotler (1974) whom has introduced the "atmospherics" word which include the four sensory stimuli such as sight, sound, smell and touch towards consumer behavioral intention. A model based on the sensory stimuli name Stimuli-Organism-Response model by Mehrabian and Russell (1974) stated that, this environmental stimuli built the emotional reaction and give an impact toward the consumers' behavioral response. Bitner (1992) has introduced a concept name "servicescape" based on Mehrabian and Russell research in order to analyze the effect of "physical surroundings" on behavior of customer and employee in the service industry. This Mehrabian and Russell model is continued to test different service settings include in the spa industry

(Andaleeb, 1998). Due to the nature of the spa service experience, this research will focus on the environmental sensory factors such as sight, sound, scent and touch.

Physical environment such as lighting, style of furnishing, layout and others can be managed by the organization in order to increase the customers' affective behavior which can result to customer satisfaction (Bitner, 1992) especially in the spa industry.

A background music can influence the consumers' moods, service or product evaluation and also can determine the consumer decision because it is also a part of the atmosphere and also ambiance (Matilla & Wirtz, 2001; Milliam, 1982; Han & Ryu 2009) especially in the spa. Next is scent. In bakery, scent is one of the important things that use to stimulate consumer's interaction Hirsh (1991), and this method also is use in the spa. Usually, customers choose the spa as a place to release their tension and some fragrances have different function for example, lemon and peppermint can increase the energy and lavender can reduce the level of stress (Iwahashi, 1992). Lastly is touch sensory. Bitner (1992) stated that weather condition, temperature, and air quality are used to measure the touch sensory element in a research. In the spa, it is not necessarily focusing on the temperature, but the physical furniture also is important. Suitable temperature and soft furniture is one of the important elements that can influence the customers, especially in the psychological comfort during the service being provided (Wakefield and Blodgett, 1994) especially in spa that aims to offer relaxation for the customer.

As a conclusion, service quality instrument is an important tool for spa to understand what customers value and how well the spa meet the need and expectation of customer. This service quality instrument can also be applied to the staff and the ambiance in the spa in order to measure the satisfaction of the customers.

The relationship between service quality and customer satisfaction

There are some studies that focus on the link between the satisfaction and also the quality. According to Negi (2009), there are some people think that quality leads to satisfaction but Cronin and Taylor (1992) said that there also some people agree that satisfaction leads to quality. Another researcher thinks both service quality and customer satisfaction are determined by the same SERQUAL model built by Parasuraman et al (1988). As for them, customer satisfaction can be described as when consumers get satisfied with a specific aspect of service while perceived service quality. According to Saravanan and Rao (2007), customer satisfaction is based on the level of service quality that being provided by the service providers in that business.

From this, it shows that between the service quality and customer satisfaction there is a link in it which focus the importance of customer satisfaction when defining the quality (Wicks and Roethlein, 2009). According to Asubonteng et al (1996), there is no final result in the exact kind of relationship between these two points, although there are many studies that agree there is a relationship between these two point. Despite that, most of the researchers agree that these two points can be measureable by it attributes. This is one of the reasons, why the researchers should apply the SERQUAL model with its dimension to measure the service quality and customer satisfaction. Negi (2009) stated that, the service quality leads to customer satisfaction and this research will make that assumption in order to determine the level of customer satisfaction in a spa.

RESEARCH METHODOLOGY

For this study, 320 questionnaires are distributed to the respondents who have been visiting the spa in Batu Ferringhi, Penang in order to gain the level of customer satisfaction and to answer the research questions. This is aligned with Roscoe (1975) rules of thumb in determining the sample size. A quantitative method is selected for collecting data. One of the methods in collecting data is by self-administered questionnaires. There are many type different of sample but this study used the probability sampling which is a simple and random technique to select the respondents. For this research, the variables were formed from service quality and customer satisfaction in the spa. For the data collection method, questionnaire was given to the respondents who have visited the spa. Then, the respondents will go through all the questions and answered them accordingly based on their previous experience and return back the questionnaire to the researcher. From the questionnaires, the data will be generated and will then be analysed by the Statistical Package for the Social Sciences (SPSS) to form illustrating figures.

FINDINGS AND DISCUSSION

In this chapter, the result of the questionnaires collected from respective respondents has been analyzed. Out of 320 questionnaires, 300 were collected. The data collected from 300 respondents were analyzed using Statistical Packages for Society Science (SPSS) program.

Descriptive Analysis

Number of 135 or (45.0%) of the respondents are male while 165 or (55.0%) respondents are female. This show that the majority of the respondents are female. From the total of respondents, 90 respondents are from range 18 – 24 years old or (30.0%). It is followed by 111 respondents from range 25 – 34 years old or (37.0%). Then, it followed by 99 respondents from range 35 – 44 years old or (33.0%) and lastly there is no respondent that is above 45 years old. From the total of respondents, 120 respondents or (40.0%) are high school level. On the other hand, 72 respondents or (24.0%) are college level and 108 respondents or (36.0%) are graduate. There is no doctoral level among the respondents. Next is occupation. From the total of the respondents, employed respondents are 228 respondents or (76.0%) and 72 respondents or (24.0%) is the student respondents. There is no retired and unemployed respondents answering this questionnaire. Lastly is personal income. 72 respondents or (24.0%) has income less than RM 1000 and 120 respondents or (40.0%) has income in the range of RM 1001 – RM 2000. 48 respondents or (16%) has income in the average of RM 2001 – RM 3000 and 60 respondents or (20.0%) has income more than RM 3000.

Relationship between service quality (service staff and ambiance) towards customer satisfaction

In order to measure the strength of the relationship between two variables, the Spearman Rank Order Correlations is used in this research.

		mean_CS
mean_SQ1	Pearson Correlation	.283**
	Sig. (2-tailed)	.000
	N	300
mean_SQ2	Pearson Correlation	.559**
	Sig. (2-tailed)	.000
	N	300

** . Correlation is significant at the 0.01 level (2-tailed).

Based on the analysis, there was a significant correlation between service quality of service staff and also service quality of ambiance with the customer satisfaction (sig. value = 0.00 < 0.01). This is also supported by the positive coefficient of correlation value. The highest positive coefficient is service quality of ambiance (r = 0.559**) and service quality of service staff is also showed positive value of r = 0.283**. Therefore, service quality showed strong positive correlation towards customer satisfaction.

Two main factors in the service quality strongly motivate customer to feel satisfaction in the spa. Firstly, service quality of service staff consists of assurance, responsiveness, reliability, tangible and empathy. Although the strength of relationship between the service quality and customer satisfaction is small (r = 0.283**), service staff is still one of the factors that made customer feel satisfied when they come to the spa. For the hypothesis (H1) which are to find a relationship between the service quality (service staff) and customer satisfaction in the spa, there is a positive relationship between service quality of service staff and customer satisfaction. Therefore, hypothesis (H1) was supported.

Next is service quality of ambiance. Ambiance consist of sight, sound, scent and touch. Based on the guidelines that had list by Cohen (1988) in the table above, ambiance had the strongest relationship (r = 0.559**) with the customer satisfaction in this research. This showed that, ambiance is one of the most important factor that lead to the customer satisfaction in the spa. For the hypothesis (H2) which are to find a relationship between the service quality (ambiance) and customer satisfaction in the spa, there is a strong positive relationship between service quality of ambiance and customer satisfaction. Therefore, hypothesis (H2) was supported.

Based on this result, the respondents feel that the spa staff will help them because they may not know exactly the etiquette and the process of spa treatment. It is true the customer will depend very much on the therapist to explain and inform them about the product and the process of spa treatment (Lo, A., Wu, C. & Tsaia, H, 2015). This result also may be influence by the variables in demographic profile such as personal income. It is also indicated that 120 (40.0%) of the customer has an income in the range of RM 1001 to RM 2000 per month. This income is the second low income from the questionnaire, so it can be concluded that the customer wants value for their spending so that their spending become more valuable. This is support by Lo,

A., Wu, C. and Tsaia, H (2015), a spa service needs to be well-designed in order to provide the right service at the right moment to the customer.

Findings also supported by previous researchers who found that it is also important for staff to be alert to the customers' concerns and needs so that the customers can truly enjoy their spa treatments (Snoj and Mumel, 2002). Based on this result, it can conclude that the customer's first impression towards the spa is based on the physical surrounding followed by the service provided in that spa. This will provide 'visual cues' to the service provided (Harris and Ezeh, 2008) in that spa. Suitable temperature and soft furniture is one of the important elements that can influence the customers, especially in the psychological comfort during the service being provided (Wakefield and Blodgett, 1994).

LIMITATION AND RECOMMENDATIONS

The questionnaires are only distributed to the people in Batu Ferringhi, Penang and the results only cover in Penang. In order to identify whether this study is consistent with the other countries' spa goers, a further research need to be done. Future research should be conducted in bigger scale to get better results. Besides that, the study of service quality in term of service staff and ambiance as well as customer satisfaction can be conducted in different location such sport events, heritage place and others.

Besides that, the study of service quality in term of service staff and ambiance as well as customer satisfaction can be conducted in different location such sport events, heritage place and others. Furthermore, the respondents should be people with income because they can give different opinions about service quality and customer satisfaction. This is because people that have their own income will search the value when they spent their money.

CONCLUSION

From the academic perspectives, this study shows that providing the best service is vital in order to gain customer satisfaction. The results of this study also can be used by students in higher education institutions in order to further expand their studies in related fields. Besides that, the findings can be used to measure the attitude of each customer towards the service at the spa. Furthermore, this study contributes knowledge for the spa owners and their staff. they will be able to know whether they are providing the efficient service and good products for the customer. The results of this study can be used by the spa owners and their staff in order to improve their services and facilities. This will increase their awareness towards the customer needs and wants. By reviewing the customer satisfaction level, spa owners and their staff will be able to set the standard for their service and try to deliver the best service in the future.

REFERENCES

- Andaleeb, S.S. (1998). Determinants of customer satisfaction with hospitals: A managerial model. *International Journal of Health Care Quality Assurance*, Vol. 11, 6-7, pp. 181-7.
- Association, I. S. (2013). International Spa Association. *Journal of Supercomputing*. Melbourne.
- Asubonteng, P., McCleary, K.J. & Swan, J.E. (1996). SERVQUAL revisited: a critical review of service quality, *The Journal of Services Marketing*, Vol.10, Number 6, p.62-81.

- Bateson, J.E.G and Hoffman, K.D. (2000). *Managing Services Marketing — Text and Readings*, 4th Edition, Orlando: The Dryden Press.
- Bitner, M. J. (1992). Servicescapes: The impact of physical surroundings on customers and employees. *Journal of Marketing*, 56(2), 57-71.
- Cronin Jr, J. J., & Taylor, S. A. (1992). Measuring service quality: a reexamination and extension. *The journal of marketing*, 56(3), 55-68.
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Hillsdale, NJ: Lawrence Earlbaum Associates.
- DiCostanzo. (2008). An analysis of customer satisfaction and customer retention in terms of employee satisfaction in the hotel industry. *University of Pheonix*.
- East West Center Annual Report (2011). Retrieved May 15, 2018 from <https://www.eastwestcenter.org/sites/default/files/filemanager/pubs/pdfs/AnnualReport2011/annualreport2011-06financialreview.pdf>
- Ezeh, C., & Harris, L. C. (2007). Servicescape research: a review and a research agenda. *The Marketing Review*, 7(1), 59-78.
- Han, H., & Ryu, K. (2009). The roles of the physical environment, price perception, and customer satisfaction in determining customer loyalty in the restaurant industry. *Journal of Hospitality & Tourism Research*, 33(4), 487-510.
- Hirsch, A. R. (1991). *Olfactory and psychiatry*. Paper presented at the 144th Annual Meeting, American Psychiatric Association, New Orleans, LA.
- Hirsch, A. R. (1995). Effects of ambient odors on slot-machine usage in a Las Vegas casino. *Psychology and Marketing*, 12(7), 585-594.
- Hashemi, S. M., & Hosseiniyan, N. (2014). A study of food tourism: The potential for activating business in Malaysia. *Theory and Practice in Hospitality and Tourism Research*, 465.
- Hill, N., Roche, G., & Allen, R. (2007). *Customer satisfaction: The customer experience through the customer's eyes*. The Leadership Factor.
- International Spa Association (2013) Retrieved May 15, 2018 from <https://experienceispa.com/resources/research>
- Jamaluddin, N. S. N. binti, Mokhtar, A. bt, Hashim, K. S. H.-Y., Othman, R., Nazri, N. J. Z., Rosman, A. S., & Fadzillah, N. A. (2018). Study on Muslim Friendly Spa: A Conceptual Framework. *International Journal of Academic Research in Business and Social Sciences*, 8(9), 2038–2050.
- Kotler, P. (1973/74). Atmospheric as a marketing tool. *Journal of Retailing*, 49(4), 48-64.

- Lewis, R.C., Booms, B.H. (1983), "The marketing aspects of service quality", in Berry, L., Shostack, G., Upah, G. (Eds), *Emerging Perspectives on Services Marketing*, American Marketing Association, Chicago, IL, pp.99-107.
- Harris, Lloyd C. and Ezeh, Chris (2008) Servicescape and loyalty intentions : an empirical investigation. *European Journal of Marketing*, Volume 42 (Numbers 3-4). pp. 390-422. ISSN 0309-0566
- Lo, A., Wu, C. & Tsaia, H. (2015) The Impact of Service Quality on Positive Consumption Emotions in Resort and Hotel Spa Experiences. *Journal of Hospitality Marketing & Management*, 24:155–179.
- Matilla, A. S., & Wirtz, J. (2001). Congruency of scent and music as a driver of in-store evaluations and behavior. *Journal of Retailing*, 77(2), 273-289.
- Mehrabian, A., & Russell, J. A. (1974). *An approach to environmental psychology*. Cambridge, MA, MIT Press.
- Mohd Yusoff, Y. (2010). *Service Innovation: Case Study On Spa And Med Beauty At The Saujana* (Doctoral dissertation, USM).
- Negi, R. (2009). Determining customer satisfaction through perceived service quality: A study of Ethiopian mobile users, *International Journal of Mobile Marketing*; Vol.4, Number 1; p.31-38.
- Parasuraman, A., Zeithaml, V. A., & Berry, L. L. (1985). A conceptual model of service quality and its implications for future research. *the Journal of Marketing*, 41-50.
- Parasuraman, A., Zeithaml, V. A., & Berry, L. L. (1988). Servqual: A multiple-item scale for measuring consumer perc. *Journal of retailing*, 64(1), 12.
- Puczkó, L. (2010). Health, Wellness and Tourism: healthy tourists, healthy business? In *Proceeding of the Travel and Tourism Research Association Europe 2010 Annual Conference* (pp. 1-3).
- Ramesar, L. (2013). Trinidad Express Newspapers. Ensuring the spa is up to par. Retrieved May 10, 2013 from <http://www.trinidadexpress.com/featured-news/Ensuring-the-spa-is-up-to-par-206699911.html>
- Roscoe, J.T. (1975) *Fundamental Research Statistics for the Behavioural Sciences*, 2nd edition. New York: Holt Rinehart & Winston.
- Sagisaka, Y., Kaiki, N., Iwahashi, N., & Mimura, K. (1992). ATR μ -Talk Speech Synthesis System. In *Second International Conference on Spoken Language Processing*.
- Saravanan, R. & Rao, K. S. P. (2007). *Measurement of service quality from the customer's perspective – An empirical study*, *Total Quality Management*, Vol. 18. No. 4, p.435-449.

- Smith, M. and Puczkó, L. (2009). *Health and wellness tourism*. United Kingdom: Butterworth-Heinemann.
- Snoj, B., & Mumel, D. (2002). The measurement of perceived differences in service quality: The case of health spas in Slovenia. *Journal of Vacation Marketing*, 8(4), 362– 379.
- Taylor, S. A. (1996). Consumer satisfaction with marketing education: Extending services theory to academic practice. *Journal of Consumer Satisfaction Dissatisfaction and Complaining Behavior*, 9, 207-220.
- Torres, E. N., & Kline, S. (2006). From satisfaction to delight: A model for the hotel industry. *International Journal of Contemporary Hospitality Management*, 18(4), 290-301.
- Wakefield, K. L., & Blodgett J. G. (1996). The effect of the servicescape on customers' behavioral intentions in leisure service settings. *The Journal of Services Marketing*, 10(6), 45-61.
- Wicks, A. M., & Roethlein, C. J. (2009). A Satisfaction-Based Definition of Quality *Journal of Business & Economic Studies*, Vol. 15, No. 1, Spring 2009, 82-97.
- Wiid, J.A. & Diggins, C. 2009. *Marketing research*. Cape Town: Juta.
- William, M. K. (2006). *Research Methods Knowledge Base*. Retrieved February 22,2012, from: <http://www.socialresearchmethods.net/kb/index.php>
- World Tourism Organization (2015), *UNWTO Annual Report 2014*, UNWTO, Madrid.
- Yu, C., Lei-Yu, W., Yu-Ching, C., & Tai, H. (2005). Perceived quality, customer satisfaction, and customer loyalty: the case of Lexus in Taiwan. *Total Quality Management & Business Excellence*, 16(6), 707-719.