

# An Empirical Examination of a Model of Students' Perception toward Service Quality: An Application of SERVQUAL to Hospitality Education

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## Abstract

Tourism and hospitality is difficult to teach and difficult to learn (Cooper et al., 1996). The purpose of this study was to explore a theoretical yet practical method for hospitality education by assessing the service quality of the hospitality industry as perceived by students using a modified SERVQUAL scale, so that they can have a more accurate understanding of hospitality and service through evaluation work. The respondents of the study were the university students who stayed at a hotel together during a field study trip. Data were collected through a self-administered survey SERVQUAL questionnaire distributed to the respondents. The data were then analyzed statistically using independent t-Test with Excel software to determine how service quality was perceived differently by female and male students. The respondents received feedback regarding the research method and the results of the study as a part of hospitality education. The implications of this study are useful to help tourism and hospitality educators develop practical teaching strategies to strengthen students' ability to understand hospitality and service through applying theories that they learned in the classroom to experiential learning settings such as fieldwork trips and site visits.

**Keywords:** *Service Quality, Experiential Learning, Total Quality Management, Hospitality Education, SERVQUAL*

## 1. Introduction

Over the decades, tourism has experienced continued growth and deepening diversification to become one of the fastest growing economic sectors in the world (WTO 2016). Tourism and hospitality education plays a vital role in the provision of qualified and competent human resources, and the responsibility for providing service-oriented human resources lies not only with the governments, and tourism organizations, but also with the system of a country's higher education institutions in tourism and hospitality management (Basaran 2016).

In a modern global marketplace, quality is a key competency from which companies derive competitive advantage (Kim-Soon et al., 2014). Delivering superior service quality is a prerequisite for success and survival in today's competitive business environment (Gilbert and Wong 2006).

With hospitality products, quality is measured by how well customer expectations are met and the key is to exceed the customer's service-quality expectations (Kotler et al., 2016). However, quality is a perceptual, conditional and somewhat subjective attribute (Kim-Soon et al., 2014) and measuring how good it was is a

challenge for service organizations since a service experience exists only as a memory in the person who had the experience (Ford et al., 2011), which makes it even more difficult for tourism and hospitality educators to teach the essence of hospitality and/or service in ordinary classroom settings.

While ‘Experiential Learning’ in higher education, which the Center for Research on Learning and Teaching (CRLT) at the University of Michigan defines as ‘plan site visits that allow students to see and experience applications of theories and concepts discussed in the class,’ is enormously beneficial from the perspectives of hospitality education (Oka 2017), this practical approach also requires very special skills from tourism and hospitality educators (Cooper et al., 1996).

In this context, the purpose of this study is to explore a theoretical yet practical method for hospitality education by assessing the service quality of the hospitality industry as perceived by students using a modified SERVQUAL scale during a fieldwork trip, so that they can have a more accurate understanding of hospitality and service through the evaluation work.

## 2. Underlying theories

SERVQUAL was developed after a comprehensive study with various customers and executives from different service organizations (Parasuraman et al., 1985). Since its development over 30 years ago, the SERVQUAL model has attracted considerable attention and has gone through numerous refinements (Udo et al., 2011). In the SERVQUAL model, service quality is defined in terms of meeting or exceeding a consumer’s expectation (Parasuraman et al., 1985); the model conceptualises service quality as a gap between customer’s expectations (E) and the perception of the service providers’ behavioural performance (P), and service quality should be measured by subtracting customer’s perception scores from customer expectation scores ( $Q = P - E$ ) (Ekinci and Riley 1998).

The 5 dimensions and the descriptions to service quality in the SERVQUAL tool are listed below (Parasuraman et al., 1988).

Tangible—physical facilities, equipment, and appearance of personnel;

Reliability—ability to perform the promised service dependably and accurately;

Responsiveness—willingness to help customers and provide prompt service;

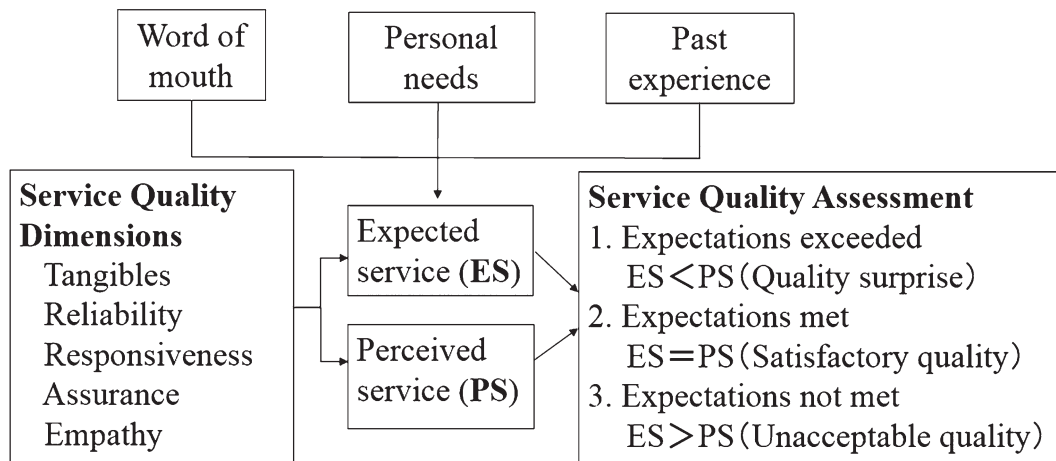
Assurance—knowledge and courtesy of employees and their ability to inspire trust and confidence; and

Empathy—caring, individualized attention the firm provides its customers.

While a more specific scale for the lodging industry called LODGSERV was produced, this study has used SERVQUAL as its main research tool because the superiority of one scale over the other is in doubt and there is a need of a further investigation (Ekinci et al., 1998).

## 3. Data Collection and Analysis

The sample for this research consisted of undergraduate students in a seminar course in which the students



**Fig.1 SERVQUAL Model**

(Adopted from Ibarra et al. (2014) p.88 Fig.1)

participated in an overnight field study trip under the direction of a university professor. The total population size was 17, of which 47% were female and 53% were male. All of the population were sophomores.

The research design was based on Parasuraman et al.'s (1988) five dimensions of service quality (tangible, reliability, responsiveness, assurance and empathy). Some modifications were made to the research instrument as 17 items were selected out of the SERVQUAL 22 items in order to suit the accommodation's characteristics and to improve accessibility for the students following a pilot test that was conducted to assess the students' ability to comprehend the meanings of the items (questions).

Each of the students were asked to fill out the survey just before and just after the trip regarding the hospitality and services that they received during their stay at a hotel. The questions used to measure the accommodation rating were derived from previous studies.

**Table 1. Questionnaire used in survey**

Criteria	Sub-criteria
Tangible	Q1 Visually appealing (buildings and facilities)
	Q2 Up-to-date equipment
	Q3 Neat employees
	Q4 Visually appealing (promotional brochures)
Reliability	Q5 Services provided at promised time
	Q6 Sincere interest in problem solving
	Q7 Accuracy of records
Responsiveness	Q8 Information on service delivery is provided
	Q9 Prompt service
	Q10 Always willing to help guests
	Q11 Never too busy to respond to request
Assurance	Q12 Instilling trust in guests
	Q13 Safe feeling in transaction
	Q14 Consistent courtesy
	Q15 In-depth knowledge
Empathy	Q16 Personal attention
	Q17 Convenient operating hours

While perceived price could be also an important factor to determine customer satisfaction (Anderson et al., 1994; Lien and Yu, 2001; Clemes et al., 2008; Sumaedi et al., 2011), this research does not take the accommodation costs into consideration because a large part of the accommodation payments by the students was compensated by the university for the purpose of educational field study enhancement, which makes it difficult to evaluate the respondents' expectation and perception regarding their costs and willingness to pay.

The first objective was to find out factors influencing different perceptions between female and male students, if there are. The respondents were asked to rate the factors on a five point Likert scale in which 1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree and 5 = strongly agree.

Descriptive statistical methods including dispersion analysis were used to measure customers' (students') expectation and perception scores. T-tests were employed to test the significant difference between means of expectations, perceptions and Gap scores (P-E) by female students and male students. Due to the small sample size, multi regression analysis was not employed. Microsoft Excel software was used to calculate and transform the raw data from the questionnaires into diagrams and tables that are easier to facilitate.

#### 4. Results and Discussion

The mean scores, standard deviation and p-values for the 17 expectation and perception items are presented in Table 2 together with the mean service quality gaps for the females and the males. Negative gap scores indicate

**Table 2. Distribution of service quality values between students' expectations and perceptions**

Items	Mean Expectation Scores					Mean Perception Scores					Gap Scores (P-E)		
	Female		Male		p-value	Female		Male		p-value	Female	Male	p-value
	Mean	SD	Mean	SD		Mean	SD	Mean	SD		Mean	Mean	
1	2.38	0.86	3.78	1.03	0.012*	3.00	0.71	3.44	0.83	0.281	0.63	-0.33	0.057
2	2.75	0.83	3.78	0.79	0.027*	3.75	0.43	3.78	0.42	0.901	1.00	0.00	0.067
3	3.25	0.43	4.00	0.94	0.067	3.63	0.48	4.33	0.67	0.032*	0.38	0.33	0.869
4	3.00	0.71	3.44	1.07	0.352	3.25	0.83	3.89	0.74	0.139	0.25	0.44	0.599
5	3.25	0.66	3.89	0.74	0.097	3.38	1.11	4.00	0.82	0.242	0.13	0.11	0.981
6	3.00	0.71	4.11	0.74	0.009*	4.38	0.86	4.00	0.82	0.401	1.38	-0.11	0.005*
7	3.63	0.70	4.00	0.82	0.352	4.00	0.71	4.44	0.68	0.237	0.38	0.44	0.822
8	3.38	0.70	4.00	0.82	0.130	4.00	0.71	4.22	0.92	0.605	0.63	0.22	0.108
9	3.25	0.66	4.00	0.94	0.093	3.75	0.83	4.33	0.82	0.192	0.50	0.33	0.722
10	3.13	0.78	4.11	0.87	0.036*	3.63	0.99	4.44	0.68	0.091	0.50	0.33	0.715
11	3.13	0.78	4.11	0.87	0.036*	3.63	0.99	4.11	0.74	0.307	0.50	0.00	0.361
12	3.13	0.78	3.89	0.87	0.094	3.75	0.83	4.22	0.63	0.241	0.63	0.33	0.540
13	3.50	0.71	4.11	0.74	0.123	4.00	0.87	4.56	0.68	0.195	0.50	0.44	0.865
14	3.50	0.71	4.33	0.82	0.051	4.00	0.87	4.56	0.50	0.163	0.50	0.22	0.422
15	3.50	0.87	3.89	0.87	0.402	3.88	0.78	3.44	1.26	0.434	0.38	-0.44	0.239
16	2.88	0.93	3.78	0.92	0.078	3.38	0.99	4.11	0.87	0.152	0.50	0.33	0.686
17	3.25	0.66	3.78	0.92	0.217	3.88	0.78	4.00	0.67	0.746	0.63	0.22	0.261

Notes:

1. n = 17 (8 Female, 9 Male)

2. t-test two-tail with probability < 0.05; \*significant at p<0.05

3. Gap mean is defined as 'Perception mean - Expectation mean'.

4. SD: Standard Deviation.

5. The expectations and perceptions were measured on a 5-point Likert scale; the higher the scores, the greater the expectations or perceptions of service quality.

that perceived service delivery did not meet customers' expectations, while positive gap scores indicate that perceived service delivery exceeded customers' expectations. The t-statistics was calculated to test for the significance difference between expectations / perceptions of the female respondents and the male respondents. As for the gap scores, only one item (Item 6: sincere interest in problem solving) was statistically significantly different between female students and male students at  $p < 0.05$ . The female students' perception on Item 6 (4.38) much exceeded their expectation (3.00) while those of male students do not show significant difference (perception: 4.00, expectation: 4.11).

Follow-up interviews were conducted to identify the factors and/or incidents that possibly affected the difference. It was indicated that most of the female students appreciated the hotel employee's response when they had 'problems'. According to one female student:

*On the second day of our stay at the hotel, a sudden, heavy rain prevented us from going out for scheduled site visits. We did not have umbrellas. When I asked an employee to see if I could borrow an umbrella, he immediately handed it over to me. Then he noticed the other students hung around in the lobby waiting for the rain to stop. He disappeared, and a couple of minutes later he showed up again in front of us, with a lot of umbrellas enough for each one of them. The umbrellas were brand-new. He went all the way to the hotel's warehouse to get them. I was impressed by his kindness. So were the other female students, I guess. Maybe boys did not care, but we did not want to get wet in rain.*

Due to the limited number of sample size, this result cannot be used for prediction nor is it regarded as representative of any population. However, the statistical analysis and interview results indicate that there was a possibility that the female respondents appreciated the employee's sincere attitude toward 'problem-solving' more than the male respondents did.

## **5. Conclusions and Future Research**

The purpose of this study was to explore a theoretical yet practical method for hospitality education by assessing the service quality of the hospitality industry as perceived by students using a modified SERVQUAL scale, so that they can have a more accurate understanding of hospitality and service through the evaluation work. The implications of this study are useful to help tourism and hospitality educators develop practical teaching strategies to strengthen students' ability to understand hospitality and service through applying theories that they learned in the classroom to experiential learning settings such as fieldwork trips and site visits. The respondents also received feedback regarding the research method and the results of the study as a part of hospitality education.

Although this study has provided some interesting findings for knowledge development in the practice of hospitality education, there are limitations of this research. First, this research is only conducted within a seminar students group so the findings may differ if the sample was different. It is important, however, to note that the main

aim of this study is to have students use research methods (SERVQUAL) for the better understanding of the fundamentals of hospitality and ‘excellent’ service as well as basic statistical skills, not for prediction or management perspectives which requires a bigger sample size. Also, reliability, convergent validity and multicollinearity should be explored further when more precise research is conducted. Future research on students’ perception to service quality and hospitality should consider using a more comprehensive sampling design within much bigger population settings to increase reliability and validity. Second, this study used 17 items (questions) for evaluation; future research can explore whether a more limited set of SERVQUAL items or newly invented items could be used to measure the service quality from the perspectives of both customers’ (students’) better understanding and characteristics of hospitality industries’ actual services.

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## References

- Akbaba, Atilla 2006 “Measuring service quality in the hotel industry: A study in a business hotel in Turkey,” *Hospitality Management* 25: 170–192.
- Akcakoca Turizm Isletmeciligi ve Otelcilik Yuksekokulu, Orhangazi Anderson, E., et al. 1994 “Customer satisfaction, Market share, and Profitability: Findings from Sweden,” *Journal of Marketing*, 58: 53-66
- Asubonteng, Patrick, Karl J. McCleary and John E. Swan. 1996 “SERVQUAL revisited: a critical review of service quality,” *The Journal of Services Marketing*, vol. 10 no. 6: 62-81.
- Basaran, K. 2016 “Experiential Learning in Tourism Education in the North Cyprus,” Academic Dissertation, University of Tampere (accessed March 30th, 2017 from: <https://tampub.uta.fi/bitstream/handle/10024/98918/978-952-03-0112-5.pdf?sequence=1>)
- Buckley, J. 2003 “E-service Quality and Public Sector,” *Managing Service Quality*, 13(6): 453-462.
- Cavagnaro, E., S. Staffieri. 2015 "A study of students’ travellers values and needs in order to establish futures patterns and insights," *Journal of Tourism Futures*, Vol. 1 Issue 2: 94-107.
- Center for Research on Learning and Teaching (CRLT) “GSI Guidebook” University of Michigan.
- Clemes, M.D. et al. 2008 “An Empirical Analysis of Customer Satisfaction in International Air Travel,” *Innovative Marketing*, 4 (2): 50-62.
- Cooper, C.P., Shepherd, R. and Westlake, J. 1996 "Educating the Educators in Tourism: A Manual of Tourism and Hospitality Education (Tourism Education and Training Series)," World Tourism Organization (UNWTO).
- Ekinci, Y and Riley M. 1998 “A critique of the issues and theoretical assumptions in service quality measurement in the lodging industry: time to move the goal-posts?” *International Journal of Hospitality Management* 17 (4): 349-362.
- Ekinci, Y., Riley, M. and Fife-Schaw, C. 1998 “Which school of thought? The dimensions of resort hotel quality,” *International Journal of Contemporary Hospitality Management* 10(2): 63-67.
- Ford, Robert C., Latham, Gary P. and Lennox, Gwen. 2011 “Mystery shoppers: A new tool for coaching employee performance improvement,” *Organizational Dynamics*, Volume 40, Issue 3, July-September 2011: 157-164.
- Gilbert, D. & Wong, R.K.C. 2003 ‘Passenger expectations and airline services: a Hong Kong based study,’ *Tourism Management*, vol. 24: 519-532.
- Hudson, S., Hudson, L. 2012 “Customer Service for Hospitality and Tourism” Goodfellow Publishers.
- Ibarra, Luis, Emma Casas and Ana Partida. 2014 “SERVQUAL METHOD applied to Agencia Fiscal del Estado de Sonora: An analysis about service quality,” *Procedia Social and Behavioral Sciences* 148: 87-93.
- Jain, Sanjay K and Gupta, Garima. 2004 “Measuring Service Quality: Servqual vs. Servperf Scales,” *Vikalpa* April 2004 Vol.29 No.2 April-June 2004: 25-37.
- Jiewanto, A, Caroline Laurens, Liza Nelloh. 2012 “Influence of Service Quality, University Image, and Student Satisfaction toward WOM Intention: A Case Study on Universitas Pelita Harapan Surabaya,” *Procedia - Social and Behavioral Sciences*, Vol.40, 2012: 16-23.
- Kim-Soon, N., Abd Rahman and Logeswaary Visvalingam. 2014 “SERVQUAL: Can It Be Used to Differentiate Guest’s Perception

- of Service Quality of 3 Star from a 4 Star Hotel,” *International Business Research*, Vol. 7, No.7: 37-47.
- Kotler, P. T., Bowen J.T. and Baloglu S. 2016 "Marketing for Hospitality and Tourism" Pearson Education Limited; Global ed of 7th revised edition.
- Lam, T and Zhang, H. Q. 1999 “Service quality of travel agents: the case of travel agents in Hong Kong,” *Tourism Management* Vol. 20, Issue 3: 341-349.
- Lien, T.B. and Yu, C.C. 2001 “An Integrated Model for the effects of perceived product, perceived service quality, and perceived price fairness on customer satisfaction and loyalty,” *Journal of Consumer Satisfaction, Dissatisfaction, and Complaining Behaviour*. 14: 125-140.
- Markovi, Suzana. 2010 “Measuring Perceived Service Quality Using SERVQUAL: A Case Study of the Croatian Hotel Industry,” *management* 5(3): 195-209.
- Mazumder, Suman and Hasan A B M Rashedul. 2014 “Measuring Service Quality and Customer Satisfaction of the Hotels in Bangladesh: A Study on National and International Hotel Guest,” *Journal of Tourism and Hospitality Management* June 2014, Vol. 2, No. 1: 95-111.
- Mey, Lau Pei, Abdolali Khatibi Akbar and David Yong Gun Fie. 2006 "Measuring Service Quality and Customer Satisfaction of the Hotels in Malaysia: Malaysian, Asian and Non-Asian Hotel Guests," *Journal of Hospitality and Tourism Management*, Vol.13, Issue 2, Aug.2006: 144-160.
- Nam, Jang-Hyeon, Timothy Jeongyeol Lee. 2011 "Foreign travelers' satisfaction with traditional Korean restaurants," *International Journal of Hospitality Management*, Volume 30, Issue 4, December 2011: 982-989.
- Obulemire, T. A., King'ori Paul and Alala B. Ondiek. 2014 “Applicability of Servqual/rater model in assessment of service quality among local authorities in Kenya: a survey of residents of Nakuru town,” *International Journal of Economics, Commerce and Management* Vol. II, Issue 12: 1-16.
- Oka, Tatsuya. 2017 " Integrating Mystery shopping and SERVQUAL in Hospitality Education," *Proceedings for JSTHE (The Japanese Society of Tourism and Hospitality Educators) Annual Conference No.16, February 2017: 7-18.*
- Parasuraman, A., V.A. Zeithaml and L.L. Berry. 1985 "A Conceptual Model of Service Quality and Its Implications for Future Research," *Journal of Marketing* Vol.49: 41-50.
- Parasuraman, A., V.A. Zeithaml and L.L. Berry. 1988 "SERVQUAL: a multi-item scale for measuring consumer perceptions of the service quality," *Journal of Retailing* Vol.64, No.1: 12-40.
- Patrício, Vera, Rogério Puga Leal and Zulema Lopes Pereira. 2006 “Applicability of SERVQUAL in restaurants: an exploratory study in a Portuguese resort.” *Enterprise and Work Innovation Studies*, No. 2, 2006 IET, Monte de Caparica, Portugal: 128-136.
- Ramseook-Munhurrin, P., Lukea-Bhiwajee, S. D. and Naidoo, P. 2010a “Service Quality in the Public Service,” *International Journal of Management and Marketing Research*, Vol.3, No.1, 2010: 37-50.
- Ramseook-Munhurrin, P., Naidoo, P. and Lukea-Bhiwajee, S. D. 2010b “Measuring Service Quality: Perceptions of Employees,” *Global Journal of Business Research*, Vol.4, No.1, 2010: 47-58.
- Sumaedi S, I Gede Mahatma Yuda Bakti and Nur Metasari. 2011 “The Effect of Students' Perceived Service Quality and Perceived Price on Student Satisfaction,” *Management Science and Engineering*, Vol. 5, No. 1: 88-97.
- Stodnick, Michael and Pamela Rogers. 2008 “Using SERVQUAL to Measure the Quality of the Classroom Experience,” *Decision Sciences Journal of Innovative Education*, Volume 6 Number 1 January 2008: 115-133.
- Udo, G J. U., Kallol K. Bagchi, Peeter J. Kirs. 2011 “Using SERVQUAL to assess the quality of e-learning experience,” *Computers in Human Behavior*, Vol.27, Issue 3, May 2011: 1272-1283.
- Wilkins, Hugh, Bill Merrilees and Carmel Herington. 2007 "Towards an understanding of total service quality in hotels," *International Journal of Hospitality Management*, Vol.26, Issue 4, Dec.2007: 840-853.
- World Tourism Organization (WTO) “Why Tourism?” (accessed March 30th, 2017 from: <http://www2.unwto.org/content/why-tourism>)
- Zeithaml, V.A. 1988 “Consumer Perceptions of Price, Quality and Value: A Means-End Model and Synthesis of Evidence,” *Journal of Marketing*, 52: 2-22.

