The Relationship between Employee Interaction and Service Quality in the Private Sector: A Jordanian Case Study Approach

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Abstract

This paper reports the findings from a case study of a private sector, which provides a high quality service to customers' factors affecting Interaction quality. In this study, the sample of 65 companies has been drawn randomly from Amman, Zarka and Irbid in the electronic industry in Jordan. The companies were identified using the Jordanian Standard

To test the hypothesis, the ANOVA analysis was applied. The "Scheff Test" is applied for a priori comparison. Result of the test showed that those who worked in Company Size (number of employees) 50 to Fewer than 100 feel more than who worked 100 and more, in variables 1,2, and 3.

Those who worked in Education feel more than who worked in Medical, in variable 4 and those who worked in Industry feel more than in Education in variables 8 and 15.

Those who worked in Amman feel more than who worked in Zarka, in variables1, 2 and 3 and those who worked in Irbid feel more than in Zarka in variables 18, 19 and 20 and those who worked in Irbid feel more than in Amman in variables 5 and 20.

Keywords: Interaction, Quality, Private sector

1. Introduction

Although the development of the academic field of services quality and in the private sector has been spectacular, few research areas have attracted as much attention as the research stream on service quality. Measuring service quality seems to pose difficulties for academics and practitioners because of the unique characteristics of service, however, researchers have attempted to conceptualize and measure service quality.

2. Literature: a brief review

Ding Hooi Ting, 2004, focuse on service quality and satisfaction judgments of customers in banking institutions throughout Malaysia. The study attempts to determine the relationship between service quality and satisfaction, where service quality is the independent variable and satisfaction is the dependent variable. The results show that bank-ownership moderates the relationship between service quality and satisfaction.

K. Alexandris, C. Kouthouris, Andreas Meligdis, 2006.The results of the study indicate that skiers' loyalty was significantly predicted by both the place attachment dimensions (place identity and place dependence). Furthermore, place attachment was significantly predicted by the interaction and physical environment service quality dimensions.

Göran Svensson, 2006. The paper provides a conceptual discussion of new aspects of research into service encounters and service quality. The aspects of abstraction described here have the potential to contribute to a more sophisticated level of measurement of the service quality construct.

Dale Fodness, Brian Murray, 2006. Builds on the extant literature on service quality to propose an approach for measuring passengers' expectations of airport service quality that can serve as a foundation of a concise and easy-to-administer self-report measure for identifying and managing airport service quality strategies. shows that by going beyond traditional service performance measures used in the airport industry and by introducing new variables to the service quality literature, such as Csikszentmihalyi's taxonomy of activity, this study broadens and enriches both practice and theory.

Sven Tuzovic, 2008.Integrates potential quality, process quality, and outcome quality in a comprehensive proposed model. In particular, identifies "potential quality" as a combination of the attributes of the virtual service environment and the physical service environment.

Simon J. Bell, Andreas B. Eisingerich, 2007. Consider the dynamics of customer education by exploring the relationship between education and customer expertise and their combined effects on customer loyalty in a high involvement investment services context. Also considers the service context within which customer education initiatives are delivered.

Rui Jin Hoare, Ken Butcher, 2008. Investigate the antecedent roles of the Chinese cultural values of "face" and "harmony" in influencing customer satisfaction/loyalty, and the service quality dimensions that are most salient to the context of Chinese diners.

A factor analysis revealed three service quality dimensions: interaction quality, food appeal, and performance comparison.

Kenneth R. Evans, Simona Stan, Lynn Murray, 2008 found that socialized customers relied more on service quality in evaluating the encounter than did unsocialized customers. However, socialized wives showed decreased trust, satisfaction and anticipation of future interaction than did non-socialized wives (no significant differences for husbands).

Carol W. DeMoranville, Carol C. Bienstock, Kim Judson, 2008. They found that correlations with intention of future interaction were highest for SERVQUAL in the global-SERVQUAL order, but highest for the global quality measure in the random order.

Ram Herstein, Eyal Gamliel, 2006. A total of 300 customers of a health maintenance organization (HMO) were asked about the five dimensions of the service-quality model and about several aspects of their HMO's private brand.

They found that satisfaction with service quality among subjects who were aware of the HMO's private brand was higher than that of unaware subjects when asked directly. In addition, a positive relationship was found between the perceptions of service quality in the HMO and the evaluation of a private brand in the HMO those customers who were aware of the private brand. The data analysis suggests that private branding constitutes an additional (sixth) dimension in the SERVQUAL model.

Bo Edvardsson, 1998. Quality improvement is used as a collective expression for quality assurance, quality management and quality control. Service operations refer to private as well as to public service operations and to services in manufacturing companies. Although services play a predominant role as regards GDP and employment in the OECD countries, we still know very little about quality management in service operations. Concepts and models in organization theories, marketing and other fields are, to a great extent, based on studies of and experience from manufacturing companies. Quality is no exception, even though it has received some attention during the past 15 years, especially from researchers in Scandinavia.

Boo Ho Voon, 2006. The researcher employs Critical Incident Technique to generate items for the survey instrument. Then, the quantitative-based descriptive research uses structured questionnaires to capture the perceptions of 558 university students from Malaysia which are used to understand the nature of the customer-perceived market orientation and its relationship with service quality.

The results show that the service-driven market orientation (SERVMO) that consists of six components (customer orientation, competitor orientation, interfunctional orientation, performance orientation, long-term orientation, and employee orientation) has a significantly strong and positive relationship with service quality.

William E. Youngdahl, Arvinder P.S. Loomba, 2000.Value-added services expand manufacturing organizations' ability to compete beyond traditional measures of manufacturing competitiveness such as cost, quality, flexibility, and delivery. This concept of expanding the roles of factories to include service has received considerable attention and wide acceptance among both researchers and practitioners. For example, recent empirical studies have demonstrated that manufacturing performance; particularly delivery performance can be enhanced through expanded service roles that focus on effective information flows within the company and to external customers.

Scott E. Sampson, 2000. Explores the customer-supplier duality as it pertains to supply chain management, including practical and managerial implications.

Ling X. Li, David A. Collie, 2000.The results of their paper indicate that the type of hospital technology (clinical or information) drives different types of quality-related performance (clinical or process), and directly and indirectly affects hospital financial performance.

3. Research design

Questionnaire development: From the previous literature on service quality, 22 items were generated to measure the factors affecting Interaction quality. All 22 items were accompanied by a five-point Likert-type scale ranging. A number of items were reverse scored in order to detect response bias.

After the questions were generated from the employee interviews, it was pre-tested on a sample of 30 respondents. By administering the pre-test, we could ensure that the attributes measured in the study reflected actual interactions and expectations from employee when dealing with service quality.

4. Sample description

In this study, the sample of 65 companies has been drawn randomly from Amman, Zarka and Irbid in the electronic industry in Jordan. The companies were identified using the Jordanian Standard.

A total of 270 people participated in our study. Of the 270 returned questionnaires, 20 questionnaires had to be withdrawn from the sample because of mistakes in filling them out and insufficient answering patterns. As a result, 250 usable questionnaires formed the effective sample size. For the purpose of using statistical scale identification techniques (like factor analysis), the final number of observations did not entirely meet the minimum of five respondents per item to be analyzed, which is normally used as a rule of thumb in data analysis (Hair et al., 1998). Nevertheless, a preferable sample size of 100 observations or larger was easily met.

Our sample could be characterized as follows. A total of 68.8%of the respondents were Married. The average age of the Company Size (number of employees) was 50 to Fewer than 100. A cumulative 27.7 percent of the respondents were people Kind of services that your company offers: Industry Questionnaires were distributed to employees of different Kind of services that company offers: Education, Medical and Industry. The companies were viewed as an ideal environment to test this model due to its highly competitive nature, high levels of customer contact and relatively long-term relationships with customers.

5. Limitations and further research

The objective of this study was to develop a measurement instrument that identifies key expectation dimensions with regards to service quality. However, this study has some limitations that should be taken into account when interpreting the results.

Therefore, the results should be interpreted with some caution. Future research could take this situation specificity into account, when taking this particular research one step further.

The theoretical implications of this study imply the generalizability of specific existing service attributes to the service environment.

The limitations to this study urge a careful interpretation of the results. Nevertheless, the results suggest some managerial implications. This limitation also provides an opportunity for future research to improve researchers' understanding of service recovery.

6. Research methods

The data for this study were collected from service managers in three different types of industries: Education Medical and Industry.

A random sample of 65 companies from each of these industries was selected from the yellow pages phone directory.

The manager of each service company received a cover letter from the researcher, a forwarding letter from the chairperson of the management department of the sponsoring university and a two-page questionnaire.

The length of the questionnaire was intentionally kept to less than two pages so that the total time needed to respond to the survey was less than 15 minutes.

7. The measuring instruments

A self-administered questionnaire was developed to measure each of the factors affecting Interaction quality identified in the theoretical model. Each factor was measured using multi-item scales linked to a seven-point Likert-type scale, ranging from strongly agrees to strongly disagree. Where possible, previously used measuring instruments with proven reliability and validity were used.

The dependent variable being measured in the study was defined as the following:

Company Size (number of employees), Kind of services that your company offers, Location of the company, Years of experience, Education and Status

The instrument utilized for primary data collection was a questionnaire, whose construction followed established practices. Considering the purpose of the present work, the main elements of the research questionnaire deserving mention are the relationship between employee interaction quality and service quality. A pilot version of the questionnaire was tested in firms that were users of postal services and then was revised by three experienced researchers.

8. Hypothesis

Hypothesis (1):

There are statistical significant differences between the Company Size (number of employees) and the relationship between employee interaction quality and service quality in the private sector.

Hypothesis (2):

There are statistical significant differences between the kind of services that company offers and the relationship between employee interaction quality and service quality in the private sector.

Hypothesis (3):

There are statistical significant differences between the location of the company and the relationship between employee interaction quality and service quality in the private sector

Hypothesis (4):

There are statistical significant differences between the years of experience and the relationship between employee interaction quality and service quality in the private sector.

Hypothesis (5):

There are statistical significant differences between the education and the relationship between employee interaction quality and service quality in the private sector.

Hypothesis (6):

There are statistical significant differences between the status and the relationship between employee interaction quality and service quality in the private sector.

Hypothesis (1):

There are statistical significant differences between the Company Size (number of employees) and the relationship between employee interaction quality and service quality in the private sector.

To test this hypothesis, the ANOVA analysis was applied (shown in Table 3). The values of the calculated F-ratios for each of the variables: 1, 2, 3, 13 and 14 are high Therefore, the null hypothesis accepted, and it can be concluded that there is significant statistical evidence that differences between the Company Size (number of employees) and the relationship between employee interaction quality and service quality in the private sector. To recognize who feels the strength of the relationship, the "Scheff Test" is applied for a priori comparison. Result of the test showed that those who worked in Company Size (number of employees) 50 to Fewer than 100 feel more than who worked 100 and more, in variables 1,2, and 3 and those who worked in companies Fewer than 50 feel more than 50 to Fewer than 100 in variables 13 and 14.

Hypothesis (2):

There are statistical significant differences between the kind of services that company offers and the relationship between employee interaction quality and service quality in the private sector.

To test this hypothesis, the ANOVA analysis was applied (shown in Table 4). The values of the calculated F-ratios for each of the variables: 4, 8 and 15 are high Therefore, the null hypothesis accepted, and it can be concluded that there is significant statistical evidence that differences between the kind of services that company offers and the relationship between employee interaction quality and service quality in the private sector. To recognize who feels the strength of the relationship, the "Scheff Test" is applied for a priori comparison. Result of the test showed that those who worked in Education feel more than who worked in Medical, in variable 4 and those who worked in Industry feel more than in Education in variables 8 and 15.

Hypothesis (3):

There are statistical significant differences between the location of the company and the relationship between employee interaction quality and service quality in the private sector

To test this hypothesis, the ANOVA analysis was applied (shown in Table 5). The values of the calculated F-ratios for each of the variables: 4, 8 and 15 are high Therefore, the null hypothesis accepted, and it can be concluded that there is significant statistical evidence that differences between the location of the company and the relationship between employee interaction quality and service quality in the private sector. To recognize who feels the strength of the relationship, the "Scheff Test" is applied for a priori comparison. Result of the test showed that those who worked in Amman feel more than who worked in Zarka, in variables1, 2 and 3 and those who worked in Irbid feel more than in Zarka in variables 18, 19 and 20 and those who worked in Irbid feel more than in Amman in variables 5 and 20.

Hypothesis (4):

There are statistical significant differences between the years of experience and the relationship between employee interaction quality and service quality in the private sector.

To test this hypothesis, the ANOVA analysis was applied (shown in Table 6). The values of the calculated F-ratios for each of the variables: 18, 19 and 20 are high Therefore, the null hypothesis accepted, and it can be concluded that there is significant statistical evidence that differences between the years of experience and the relationship between employee interaction quality and service quality in the private sector. To recognize who feels the strength of the relationship, the "Scheff Test" is applied for a priori comparison. Result of the test showed that those who have Less than 10 years of experience feel more than who have 15 years and more of experience, in variables19, and 20 and those who have 10 years to less than 15 years of experience feel more than who have 15 years and more of experience, in variable18.

Hypothesis (5):

There are statistical significant differences between the education and the relationship between employee interaction quality and service quality in the private sector.

To test this hypothesis, the ANOVA analysis was applied (shown in Table 7). The values of the calculated F-ratios for each of the variables: 6, 9, 10, 11 and 12 are high Therefore, the null hypothesis accepted, and it can be concluded that there is significant statistical evidence that differences between the education and the relationship between employee interaction quality and service quality in the private sector. To recognize who feels the strength of the relationship, the "Scheff Test" is applied for a priori comparison. Result of the test showed that those who have Diploma or less feel more than who have Bachelor's degree, in variables 6, 9 and 11 and those who have Bachelor's degree feel more than who have Master Degree, in variables 10 and 11. And those who have PH.D Degree feel more than who have Master Degree, in variable 12.

Hypothesis (6):

There are statistical significant differences between the status and the relationship between employee interaction quality and service quality in the private sector.

To test this hypothesis, the T-test was applied (shown in Table 8). The values of the calculated mean each of the variables: 1, 2, 3, 5, 18, 19 and 20 indicated that the male feel stronger than the female in the variables: 1, 2, 5, 19, and 20, and the female feel stronger than the male in the variables:3 and 18.

References

Bo Edvardsson. (1998). Service quality improvement. *Managing Service Quality*, 8, 2, 142–149. doi:10.1108/09604529810206972, http://dx.doi.org/10.1108/09604529810206972

Boo Ho Voon. (2006). Linking a service-driven market orientation to service quality. *Managing Service Quality*, 16, 6, 595–619. doi:10.1108/09604520610711927, http://dx.doi.org/10.1108/09604520610711927

Carol W. DeMoranville, Carol C. Bienstock, & Kim Judson. (2008). Using question order for predictive service quality measures. *Journal of Services Marketing*, 22, 3, 255–262. doi:10.1108/088760408108712200, http://dx.doi.org/10.1108/088760408108712200

Dale Fodness, & Brian Murray. (2006). Passengers' expectations of airport service quality. *Journal of Services Marketing*, 21, 7, 492–506. doi:10.1108/08876040710824852, http://dx.doi.org/10.1108/08876040710824852

Ding Hooi Ting. (2004). Service quality and satisfaction perceptions: curvilinear and interaction effect. *International Journal of Bank Marketing*, 22, 6, 407–420. doi:10.1108/02652320410559330, http://dx.doi.org/10.1108/02652320410559330

Göran Svensson. (2006). New aspects of research into service encounters and service quality. *International Journal of Service Industry Management*, 17, 3, 245–257.

Hair, J. F. Jr., Anderson, R., Tatham, R., & W. C. (1998). *Multivariate Data Analysis* (5th ed.). Upper Saddle River, NJ: Prentice Hall.

K. Alexandris, C. Kouthouris, & Andreas Meligdis. (2006). Increasing customers' loyalty in a skiing resort: The contribution of place attachment and service quality. *International Journal of Contemporary Hospitality Management*, 18, 5, 414–425.doi:10.1108/09596110610673547, http://dx.doi.org/10.1108/09596110610673547

Kenneth R. Evans, Simona Stan, Lynn Murray. (2008). The customer socialization paradox: the mixed effects of communicating customer role expectations. *Journal of Services Marketing*, 22, 3, 213–223. doi:10.1108/08876040810871174, http://dx.doi.org/10.1108/08876040810871174

Ling X. Li, & David A. Collie. (2000). The role of technology and quality on hospital financial performance: An exploratory analysis. *International Journal of Service Industry Management*, 11, 3, 202-224. doi:10.1108/09564230010340715, http://dx.doi.org/10.1108/09564230010340715

Ram Herstein, & Eyal Gamliel. (2006). The role of private branding in improving service quality. *Managing Service Quality*, 16, 3, 306–319. doi:10.1108/09604520610663516, http://dx.doi.org/10.1108/09604520610663516

Rui Jin Hoare, & Ken Butcher. (2008). Do Chinese cultural values affect customer satisfaction/loyalty? *International Journal of Contemporary Hospitality Management,* 20, 2, 156–171. doi:10.1108/09596110810852140, http://dx.doi.org/10.1108/09596110810852140

Scott E. Sampson. (2000). Customer-supplier duality and bidirectional supply chains in service organizations. *International Journal of Service Industry Management,* 11, 4, 348-364. doi:10.1108/09564230010355377, http://dx.doi.org/10.1108/09564230010355377

Simon J. Bell, & Andreas B. Eisingerich. (2007). The paradox of customer education: Customer expertise and loyalty in the financial services industry. *European Journal of Marketing,* 4, 15/6, 466–486.

Sven Tuzovic. (2008). Investigating the concept of potential quality: An exploratory study in the real estate industry. *Managing Service Quality*, 18, 3, 255–271. doi:10.1108/09604520810871874, http://dx.doi.org/10.1108/09604520810871874

William E. Youngdahl, & Arvinder P.S. Loomba. (2000). Service-driven global supply chains. *International Journal of Service Industry Management,* 11, 4, 329-347. doi:10.1108/09564230010355368, http://dx.doi.org/10.1108/09564230010355368

Questionnaire

The relationship between employee interaction quality and service quality in the private sector
A case study approach

First: Personal Data

Company Size (number of employees):

Fewer than 50

50 to Fewer than 100

100 and more

Kind of services that your company offers:

Education

Medical

Industry

Location of the company:

Amman

Zarka

Irbid

Years of experience:

Less than 10 years

10 years to less than 15 years

15 years and more
Education:
Diploma or less
Bachelor's degree
Master Degree
PH.D Degree
Status
Married
Single

Second: factors affecting Interaction quality

NO	Interaction quality	Strongly agree	Agree	Bias	Disagree	Strongly disagree
.1	The employee tried eagerly to solve your problem.					
.2	The employee mastered the services you asked for.					
.3	The employee always well dressed.					
.4	The employee was too close from me.					
.5	The employee genuinely wished to help me.					
.6	The employee gave me enough time for the encounter.					
.7	The employee carefully listened to me.					
.8	The employee understood properly what I wanted.					
.9	The employee was very attentive to my case.					
10	The employee explained to me how he understood my problem.					
11	The employee checked me understood what he said.					
12	The employee took pains to satisfy my exigencies.					
13	The employee seemed interested in my case.					
14	The employee could be one of my friends.					
15	The employee was polite.					
16	The employee seemed happy to do his work.					
17	I will do what the employee advised me to do.					
18	The employee advises me in my interest.					
19	The employee seemed competent.					
20	The employee gives good advice.					
21	The employee listened to me carefully.					
22	The employee understood properly what I wanted.					

Table 1. Sample Distribution

Variable	Frequency	Percentage
Company Size (number of employees):		
Fewer than 50	25	10%
50 to Fewer than 100	124	49.6%
100 and more	101	40.4%
Kind of services that company offers:		
Education	181	72.4%
Medical	23	9.2%
Industry	46	18.4%
Location of the company:		
Amman	84	33.6%
Zarka	90	36%
Irbid	76	30.4%
Years of experience:		
Less than 10 years	149	59.6%
10 years to less than 15 years	64	25.6%
15 years and more	37	14.8%
Education:		
Diploma or less	106	42.4%
Bachelor's degree	118	47.2%
Master Degree	20	8%
PH.D Degree	6	2.4%
Status		
Married	172	68.8%
Single	78	31.2%

Table 2. Means and Standard Deviations for all variables

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
q1	250	3.00	5.00	4.9720	.20830
q2	250	3.00	5.00	4.9720	.20830
q3	250	3.00	5.00	4.9720	.20830
q4	250	3.00	5.00	4.9720	.20830
q5	250	3.00	5.00	4.9720	.20830
q6	250	3.00	5.00	4.9720	.20830
q7	250	3.00	5.00	4.9720	.20830
q8	250	3.00	5.00	4.9720	.20830
q9	250	3.00	5.00	4.9720	.20830
q10	250	3.00	5.00	4.9720	.20830
q11	250	3.00	5.00	4.9720	.20830
q12	250	3.00	5.00	4.9720	.20830
q13	250	3.00	5.00	4.9720	.20830
q14	250	3.00	5.00	4.9720	.20830
a15	250	3.00	5.00	4.9720	.20830
q16	250	3.00	5.00	4.9720	.20830
q17	250	3.00	5.00	4.9720	.20830
q18	250	3.00	5.00	4.9720	.20830
q19	250	3.00	5.00	4.9720	.20830
q20	250	3.00	5.00	4.9720	.20830
Valid N (listwise)	250				

Table 3. One-Way Analysis of Variance for the company size

Variables	F	Sig.
1	5.819	0.003
2	5.819	0.003
3	5.000	0.001
13	5.010	.0013
14	5.332	.0058

Table 4. One-Way Analysis of Variance for the kind of services

Variables	F	Sig.
4	4.374	0.014
8	4.374	0.014
15	4.374	0.014

Table 5. One-Way Analysis of Variance for the Location of the company

Variables	F	Sig.
1	4.116	0.017
2	4.122	0.010
3	4.099	0.019
5	4.116	0.017
18	4.088	0.012
19	4.120	0.014
20	4.116	0.017

Table 6. One-Way Analysis of Variance for the Years of experience

Variables	F	Sig.
18	6.012	0.0030
19	6.018	0.0028
20	6.017	0.0029

Table 7. One-Way Analysis of Variance for the Education

Variables	F	Sig.
6	5.303	0.001
9	12.512	0.000
10	5.303	0.001
11	48.294	0.000
12	48.294	0.000

Table 8. T-Test for the status

Variables	Mean	
	Male	Female
1	4.9767	4.9165
2	4.9767	4.7910
3	4.8543	4.9910
5	4.6168	4.2900
18	4.5588	4.7666
19	4.9876	4.6777
20	4.8128	4.2121