

## Assessing the Relationship Between Higher Education Service Quality Dimensions and Student Satisfaction

<sup>1</sup>Basheer A. Al-Alak and <sup>2</sup>Ahmad Salih Mheidi Alnaser

<sup>1</sup>Professor of marketing College Of Business Management and Accounting Department  
Of Marketing and Entrepreneur Development.

<sup>2</sup>PhD student Universiti Tenaga Nasional Malaysia.

---

**Abstract:** This study attempted to examine the relationship between service quality dimensions and overall service quality (tangibility, responsiveness, reliability, assurance and empathy) with students satisfaction. Self-administered questionnaire was used in this study to collect the related data to establish the relationship between service quality and student satisfaction in higher education. Data were collected based on the original SERVQUAL instrument through distributing 301 questionnaires among conveniently selected undergraduate students in the Faculty of Business at the University of Jordan. The findings of this study showed that the assurance and the reliability dimensions of service quality were the two most important dimensions and had significant positive relationship with student satisfaction. Recommendations were presented and suggestions for further research were highlighted.

**Key words:** Service quality; SERVQUAL; student satisfaction; higher education; Jordan.

---

### INTRODUCTION

In today's competitive environment, it is becoming more difficult for universities to enhance and maintain a competitive advantage in their own target markets (Cubillo-Pinilla *et al.*, 2009). It is suggested that factors that enable educational institutions to attract and retain students should be studied seriously as many options are opened to them (Markovic, 2005). Thus, searching for new and creative ways to attract, encourage and maintain stronger relationships with students is vital for each higher education institution to have a competitive edge in the future. Besides, during the last two decades, measuring service quality in higher education has become increasingly important for attracting and retaining tuition-based returns (Angell *et al.*, 2008). Therefore, it is vital for higher education institutions to actively monitor the quality of services and safeguard the interests of stakeholders through the fulfillment of their real needs and wants. (Zeshan, 2010; Al-alak, 2009).

The assessment of the service quality in higher education can provide an important contribution and inputs which may be useful for management, staff and faculty members of the Jordanian and other universities in the region to continue improving the quality of education as imposed and required by quality standards. The results of the improvement effort will certainly benefit the students as well. In addition, the current study will provide a better understanding of the students' needs and will help implement new programs so that purpose and missions of the higher education institutions can be served.

Many researchers have emphasized the importance of service quality measurement and monitoring in educational institutions (Angell *et al.*, 2008; Ham, 2003; Harvey and Knight, 1996; Yeo, 2008; Al-alak and Bekhet, 2011). While there is a consensus on the importance of service quality issue in the higher education, the identification and implementation of the right instrument is a challenging task faced by practitioners whose aim is to gain a better understanding of the quality issues at the tertiary education level. In fact, the use of the most appropriate measurement tool would help university authorities to assess the service quality provided by their institutions. In the Middle East, the higher educational institutions and Arab universities face numerous challenges and serious threats arising from the factors which have been changing the shape of the service world and creating a new world order based on science and technological development. This trend leaves no room to hesitate in starting comprehensive programs of development and modernization to guarantee the Arab educational institutions an excellent performance through the overcoming of their problems and weaknesses (Brookes & Becket, 2007). Therefore, this study attempts to assess the relationship between higher education service quality dimensions and satisfaction among undergraduate students of the University of Jordan. The paper is divided into seven sections. Section one is devoted to the study's introduction, while section two reviews relevant literature. Section three presents the research methodology, followed by section four where findings and discussions are outlined. Implementation of the study and recommendations and suggestions for further research are the subjects of sections five and six respectively. Finally, section seven presents the study's conclusion.

**Literature Review:**

**Service Quality Measurement:**

Researchers measure the service quality constructs either as a gap expectation/perception of service or just as a perceived performance alone (Hurley and Estalami, 1998). Moreover, the service quality dimensions are seen as the criteria to assess service quality (Parasuraman *et al.*, 1985). Feinburg (1995) affirmed this idea presuming that the dimensions are instruments for measuring perceived service quality. He also assumed that consumer-perceived service quality is usually seen as a multi-dimensional construct.

Grönroos (1984) shows that service quality include three dimensions. The first is the technical quality which refers to the results or what is being delivered to or what the customer gains from the service. The second dimension is the functional quality which refers to the manner in which the service is delivered or how it is delivered. Finally, the corporate image which refers to store's image which is mainly based on both the quality of technical, artistic, and to some extent other factors such as traditional marketing activities.

The most widely used service quality model is the Robinson's 1990s model (1999) which was proposed by Parasuraman *et al.*, (1985). Their model supported Grönroos' findings as the model is based on the following three core themes. First, service quality is more difficult for the consumer to evaluate than goods' quality. Second, service quality perceptions result from a comparison of consumer expectations with actual service performance. Finally, quality expectations are not made solely on the results of the service (Parasuraman *et al.*, 1985).

The SERVQUAL scale is a principal instrument in the services marketing literature for assessing quality (Parasuraman *et al.*, 1991; Parasuraman *et al.*, 1988). This instrument has been widely used by both managers (Parasuraman *et al.*, 1991) and academics (Babakus and Boller, 1992; Carman, 1990; Crompton and MacKay, 1989; Cronin and Taylor, 1992; Johnson *et al.*, 1995; Webster, 1989) to assess customer perceptions of service quality for a variety of services (e.g. banks, credit card companies, repair and maintenance companies, and long-distance telephone companies). Based on Parasuraman *et al.*'s (1988) conceptualization of service quality, the original SERVQUAL instrument included two 22-item sections that intended to measure (a) customer expectations for various aspects of service quality, and (b) customer perceptions of the service they actually received from the focal service organization (Parasuraman *et al.*, 1988). In short, the SERVQUAL instrument is based on the gap theory (Parasuraman *et al.*, 1985) and suggests that a consumer's perception of service quality is a function of the difference between his/her expectations about the performance of a general class of service providers and his/her assessment of the actual performance of a specific firm within that class (Cronin and Taylor, 1992).

The results of the initial published application of the SERVQUAL instrument indicated that five dimensions of service quality emerged across a variety of services (Parasuraman *et al.*, 1988). These dimensions are reliability, responsiveness, tangibles, assurance, and empathy (Carman, 1990; Crompton and MacKay, 1989; Parasuraman *et al.*, 1985, 1988, 1991). Reliability involves consistency of performance and dependability (i.e. a firm performs the service right the first time and honors its promises); responsiveness concerns the willingness or readiness of employees to provide service (e.g. timeliness of service); tangibles are the physical evidence of the service (e.g. physical facilities, appearance of personnel, or tools or equipment used to provide the service); assurance corresponds to the knowledge and courtesy of employees and their ability to inspire trust and confidence, and finally empathy which pertains to caring, individualized attention that a firm provides to its customers.

A study by O'Neill *et al.* (2001) indicated some benefits of using the SERVQUAL approach such as its ability to make a clear indication of how well the company performs to meet the customer's requirement according to the customer's perception. Besides, SERVQUAL also helps the company to priorities customer needs, wants and expectations based on customer's opinion. Furthermore, SERVQUAL allows the organization to set the standards to meet the quality requirement issued by customers and other stakeholders.

**Service Quality and Students Satisfaction:**

The service quality literature is primarily founded on two themes: service quality and customer satisfaction. Some scholarly controversy and disagreement surrounds the relationship between the constructs of service quality and customer satisfaction. Despite this fact, these constructs originated from two different research theories, both share the use of perceptions and expectations as the main antecedent constructs. While others believe that it is service quality that leads to customer satisfaction and behavioral intentions (Carrillat *et al.*, 2009; Chia *et al.*, 2008; Molinari *et al.*, 2008; Ott, 2008).

Review of the literature reveals a lack of consensus on the definition of satisfaction as a concept with the service, and therefore, there is no generally accepted measurement scale for customer satisfaction in higher education (Garcia -Aracil, 2009). Some scholars claim that service quality is an outcome of the service encounter and that customer satisfaction is related to prior expectations and is conceptualized as a response to service quality in the form of disconfirmation (Oliver, 1980). Many researchers propose that customer

satisfaction and service quality are separated and distinct constructs that share a number of similar qualities (Parasuraman *et al.*, 1994).

Models of satisfaction often focus on comparing customer expectations to the observed service delivered (Oliver, 1980; Morad *et al.*, 2011), which are referred to as the service quality gap (Parasuraman *et al.*, 1993). Perceptions of service quality are built on prior expectations of what should be and will occur compared to the actual service delivery (Boulding *et al.*, 1993). Indeed, empirical evidence has confirmed that the customers' perceptions of service quality and customer satisfaction directly affect their intention to positively favor an organization.

Quality in higher education is a complex and multifaceted concept and a single accurate definition of quality is lacked (Harvey and Green, 1993). As a consequence, consensus concerning "the best way to define and measure service quality" (Clewes, 2003, p. 71) does not exist yet. Every stakeholder in higher education (e.g. students, professional bodies, and governments) has his/her/their own view of quality due to particular needs. This paper is concerned with one particular stakeholder in higher education, namely, the student. This view, however, does not mean that other perspectives are not valid and important. In this regard, Guolla (1999) rightly points out that students could also take the role as clients, producers, and products. Based on the findings in the service quality literature, O'Neill and Palmer (2004) define service quality in higher education as "the difference between what a student expects to receive and his/her perceptions of actual delivery...p.28".

There are, however, conceptual issues in the services literature concerning the sequential order of the two constructs. While authors such as Cronin *et al.*, (2000) and Farrell *et al.*, (2001) perceived quality as an antecedent to satisfaction, other authors (e.g. Parasuraman *et al.*, 1988; Bitner, 1990, Al-alak, 2009, 2006), consider customer satisfaction as an antecedent to service quality. Farrell *et al.*, (2001) give a good overview of this contentious conceptual issue. The majority of recent research (e.g. Yavas *et al.*, 2004; Carrillat *et al.*, 2007; Zeithaml *et al.*, 2008) consider service quality as an antecedent to customer satisfaction. In particular, Zeithaml *et al.*, (2008) pointed out that service quality and customer satisfaction are fundamentally different concepts. They also pointed out that satisfaction is a broader concept and in developing the framework of satisfaction service quality should be considered as a component of satisfaction. They supposed that customer satisfaction was influenced not only by service quality perceptions but also by personal and situational factors and price. Further support can be found in the higher education literature as Browne *et al.*, (1998) and Guolla (1999) and Al-alak (2006, 2009) show that students' perceived service quality is an antecedent to student satisfaction. Thus, this paper follows the majority of recent research regarding service quality as an antecedent to satisfaction.

#### ***Measuring Service Quality In Higher Education:***

Mostly, higher education institutions seek to provide high quality services in all parts of their educational curricula and administrative processes. Therefore, the importance of service quality makes its measurement and its subsequent management an issue of utmost importance (Shekarchizadeh, 2011).

The review of literature shows that some studies used the SERVQUAL model to measure service quality in higher education. Boulding *et al.* (1993) used SERVQUAL model to study expectations and perceptions linked with the delivery of services in an educational environment. In their study, respondents (i.e. students) were asked to give their recommendations on how likely their school will be and also their intention to contribute money in the future. The authors found that when more students had positive perceptions of a university in the overall quality of service, it was more likely that these students had engaged in one or both of these activities. They concluded that "increasing customer expectations of what a firm will provide during future service encounters actually leads to higher perceptions of quality after the customer is exposed to the actual service, all else being equal, p.25". Furthermore they also found that students with higher perceptions of a university and the quality of public service were more likely to recommend their university to others, and to contribute money to the university.

Hampton (1993) used SERVQUAL model to measure college student satisfaction with professional service quality. In examining students' perceptions of service delivery, the author applied the gap model (the disparity between expectations and experiences). In the discussion of the importance of examining student satisfaction with the delivery of professional services, Hampton (1993) wrote that "one should note that a gap between actual experiences and expectations of clients is the general definition of customer satisfaction, p.91" and that "perhaps university education is one of those services where satisfaction and services quality are the same, p.91". He found a negative relationship between the gap scores and overall satisfaction, concluding that hypothesis gap could be a measure of service quality for the professional services delivered by institutions of higher education.

Schwartz (1996) modified the usage of SERVQUAL instrument to make the comparison between traditional and non-traditional students' views of the quality of service in one higher educational institution. The researcher also asked students to compare the quality of service (expected and received) of the support staff with that of faculty members. Based on factor analysis, the researcher identified the dimensions of the instrument where he used two dimensions instead of four which are acknowledged by Parasuraman *et al.*, (1990).

Other studies have borrowed some of the dimensions of SERVQUAL model to investigate the impact of a number of service quality attributes on satisfaction and loyalty in a higher education setting. Investigating the differences in student satisfaction and identifying dimensions of overall perceived quality, a study by Montesano *et al.*; (2010) revealed that students with different academic performances perceived the impact of quality attributes on satisfaction differently compared with students with lesser performances. It was also shown that differences in overall satisfaction with educational experience were found among different lines of specializations.

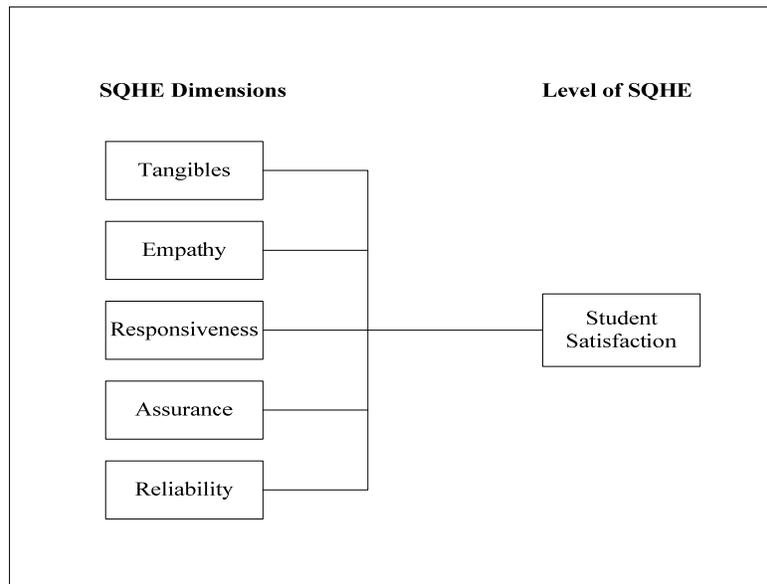
Drawing concepts from services marketing and assessment literature, Duque and Weeks (2010) developed a conceptual model to assess student learning outcome. It was found that student perceptions of educational quality had a noticeable impact on student satisfaction. Brochado (2009) conducted a comparison between alternative instruments to measure quality of higher education. He examined the performance of five alternative measures of service quality, namely service quality (SERVQUAL), importance-weighted SERVQUAL, service performance (SERVPERF), importance-weighted SERVPERF and higher education performance (HEdPERF). He showed that SERVPERF and HEdPERF presented best measurement capability, but it was not possible to identify which one was the best. Another study by Garcia-Aracil (2009) showed that those graduates who were most satisfied with their course study scored course content and social aspects very highly, while opportunity to participate in research projects and poor supply of teaching materials were among the main reasons for dissatisfaction with higher education studies.

**Research Framework And Hypotheses Development:**

From the review of literature, it is evident that there are two variables which deemed as suitable for this study. The dependent variable is the level of service quality in higher education. The independent variables that impact service quality level are five in number namely; tangibles, reliability, empathy, assurance, and responsiveness. The current paper attempts to examine the relationship between dimensions of service quality and the level of service quality in higher education. The relationships of the above independent and dependent variables are depicted in figure 1.

Based on the objectives of the study and literature review, the following hypotheses are formulated:

- H1:** There is a significant relationship between service quality dimensions and students’ satisfaction.
- H2:** There is a significant relationship between tangibles and students’ satisfaction.
- H3:** There is a significant relationship between Reliability and students’ satisfaction.
- H4:** There is a significant relationship between empathy and students’ satisfaction.
- H5:** There is a significant relationship between assurance and students’ satisfaction.
- H6:** There is a significant relationship between responsiveness and students’ satisfaction.



**Fig. 1:** Research Framework.

**Methodology:**

This study is designed to assess service quality in business schools and gain better understanding of the student’s satisfaction toward the service quality in higher education. Thus, the study favors a quantitative

research perspective. The study utilizes a relational research design in an effort to examine and measure the relationship between the service quality and students satisfaction level. The target population is mainly students from the Faculty of Business at the University of Jordan.

Data were collected by means of a self-administered questionnaire filled out by 400 full-time undergraduate students studying at the Faculty of Business, University of Jordan during the academic session 2010/2011. The required data was personally collected by the researcher based on SERVQUAL model. A total of 301 questionnaires were received with a response rate of 82.46% which is considered as acceptable.

The questionnaire, composed of five SERVQUAL dimensions, was adopted from Landrum *et al.*, (2009). It contains 21 statements covering five determinants namely; tangibility, reliability, responsiveness, assurance and empathy. The second part of the questionnaire consisted of 13 items on student satisfaction level. The student satisfaction items were adopted from Al-alak, (2009). A five- point Likert scale ranging from 5 (strongly agree) to 1 (strongly disagree) was used for this purpose.

**Findings and Discussions**

Based on the study’s results, 174 of respondents (58 %) were male respondents and 127 (42%) were female. 141 respondents were between the ages of 18-24 years, 69 respondents between the ages of 25-32, whereas 76 respondents were between the ages of 33-40, and 15 respondents were more than 41 years old. In terms of marital status, most of the respondents were married followed by single status and, the remaining was divorced. 59 (20%) of respondents were first year students, 116 (40%) respondents were in the second year, 110 (36%) respondents were in third year, and 16 (4%) respondents were in fourth year. It can be observed that most of the respondents were in the second year of their study. In term of enrollment status at college 239 (79 %) were full time students and 62 (21%) were part time students. 259 (86 %) were Jordanian, and 42 (14%) were non-Jordanian. It can be observed from Table (3) that reliability was 0.65, which is acceptable according to Cranach (1946). Also the reliability analysis indicates that the modified SERVQUAL scale developed to measure undergraduate student’s perceptions of education service quality is statistically reliable. This finding corresponds with studies by Shekarchizadeh (2011), Yang (2008), Harris (2002), Ham and Hayduk (2003) and Ruby (1998).The researchers have also tested the model for linearity, normal distribution and homogeneity.

Table (1) shows that R<sup>2</sup> is 0.294 which means that the five variables explained student satisfaction. These variables are empathy, responsiveness, assurance, tangibles, and reliability. The coefficient R<sup>2</sup> is explains 29.4% of student satisfaction variation by the dimensions mentioned above. The remaining 70.6 % of changes were identified by other factors not captured in the model.

The analysis in Table (2) reveals some interesting results. First, four variables namely; tangibles, reliability, assurance, and empathy are significant at the 5% confidence level. That means these variables are positively significant with student satisfaction. In other words, when student satisfaction increases, those variables will also increase. Second, there is only one independent variable which is not significant (sig. level =0.144<0.05).i.e. responsiveness. Third, the highest significance relationship between student satisfaction and its dimensions are: assurance and empathy (Their significance levels=0.00<0.05 and 0.01).

**Service Quality Level and Dimensions Needing Improvement:**

The average level of service quality at the University of Jordan relating to the various dimensions registered a mean scores of 3.9850 (Tangibles), 3.9260 (Reliability), 3.8675 (Responsiveness), 3.9320 (Assurance), and 3.9466 (Empathy). Given the average scores of the five dimensions of service quality, it appears that the score for responsiveness is lower than reliability, followed by assurance, empathy, and tangibles which had higher scores. These results suggest the need to have more improvement in the responsiveness, reliability, and assurance of service quality at the University of Jordan.

In general, the average score for service quality at the University of Jordan is high although it is less than 4. Particularly low score can be noted for item like “staff provides information which is free from errors” (3.79) for reliability dimension. This result indicates that respondents do not seem to be satisfied with the delivery of service that is free of errors or there may be a lack of understanding in terms of delivering information at the University of Jordan. Also a low score can be noted for items like “the administrative staffs are never too busy to respond to a request for assistance” (3.80) and “the faculty management is willing to take the opinions of students” (3.80) for reliability dimension. Likewise, the assurance dimension had the lowest score, “faculty staff has excellent skills to help the students” (3.81), which demands more improvement and attention from the management of the University of Jordan.

**Table 1: Model Summary.**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.542(a)	.294	.274	.245

Predictors: (Constant), Empathy, Responsiveness, Assurance, tangibles, Reliability

**Table 2:** Regression Analysis.

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	2.246	.295		7.607	.000		
	Tangibles	-.097	.042	-.161	-2.288	.023	.798	1.253
	Reliability	.094	.044	.153	2.157	.032	.784	1.276
	Responsiveness	.050	.034	.095	1.468	.144	.936	1.068
	Assurance	.122	.021	.363	5.733	.000	.985	1.015
	Empathy	.256	.040	.412	6.442	.000	.966	1.035

A Dependent Variable: student satisfaction.

**Table 3:** Reliability Statistics.

Dimensions	Reliability
Tangibles	0.68
Reliability	0.65
Responsiveness	0.68
Assurance	0.64
Empathy	0.60
Student Satisfaction	0.65
Total	0.65

**Relationship Between SERVQUAL and Student Satisfaction:**

This study shows that quality assurance has a significant relationship with student’s satisfaction level in the students’ perception of service quality rendered by the faculty. The degree of students’ response to knowledge sharing showed a positive relationship between trust and confidence. This is particularly true when students believe that the knowledge and information received from the lecturers are credible and trustworthy. It is vital that the lecturers maintain a good reputation in providing trustworthy and reliable services to the students. For example, accurate and consistent responses are encouraged by the lecturers as well as guaranteed services to be delivered to the students. Besides, the faculty administrative staff is also encouraged to provide polite and friendly services. This will provide an assurance to the students who would be confident of getting help when they face any problem or uncertainty.

The study also shows that empathy has significant relationship with student’s satisfaction in the students’ perception of service quality rendered by the faculty. The finding indicates that personal care and individualized attention to the students are two important factors impacting students’ satisfaction.

In the same way, the current study shows that there is a significant relationship between tangibles and students’ satisfaction perceptions. The possible explanation of this finding is that students appreciate the provision of equipment, teaching materials, and other physical evidences by university staff.

Also, reliability seems to have a significant relationship with the student’s satisfaction in the students’ perception of service quality rendered by the faculty. It is a prerequisite for administrative staff and lecturers to be able to respond and answer the students’ query with a high degree of reliability and consistency.

On the other hand, there is no significant relationship between responsiveness and students’ satisfaction in the students’ perception of service quality rendered by the faculty. This is probably due to the policy pursued by the faculty where all queries need to be responded to appropriately and promptly. Thus, the question of responsiveness or promptness of service related to the student’s satisfaction does not arise in the minds of the students.

The results of this study are similar to other studies such as; Babakus and Boller, (1992); Cheng and Tam, (1997); Clewes, (2003); Guolla, (1999); Landrum, Prybutok, Zhang, and Peak, (2009); Markovic, (2005), Al-alak (2009).

The findings of the measurement among the five dimensions of service quality identified some important implications. It provides a useful direction to management and practitioners to know that ‘assurance’ and ‘reliability’ are perceived as important by the students in term of students’ satisfaction from the faculty and the administrative staff.

Table 4 shows hypotheses’ testing results.

**Table 4:** Hypotheses’ Testing Results.

H		Result
1	There is a significant relationship between service quality dimensions and students satisfaction.	Accepted
2	There is a significant relationship between tangibles and students satisfaction.	Accepted
3	There is a significant relationship between reliability and students satisfaction.	Accepted
4	There is a significant relationship between empathy and students satisfaction.	Accepted
5	There is a significant relationship between assurance and students satisfaction.	Accepted
6	There is a significant relationship between responsiveness and students satisfaction.	Rejected

***Implementations Of The Study:***

The findings of the study add some sort of inputs to the body of knowledge related to the higher education sector in Jordan. The study attempted to determine if there was any relationship between service quality and students satisfaction. It provided information that may contribute to the understanding of service quality in higher education in Jordan.

Additionally, the study was conducted to identify the level of student's satisfaction in the University of Jordan. As such, this study may prove beneficial to Jordanian universities and other higher education institutions. The study also showed that there was a need for the University of Jordan to improve the management and staff of the Faculty of Business. Academic and administrative staff must exert more effort and commitment in the areas of teaching and learning including both academic-related and non academic-related activities like sports and social events. Management should also take into consideration the learning environment which includes good infrastructure and support services. All of these services must be offered concurrently in order to produce good and satisfied graduates.

***Recommendation and Suggestions For Furher Research:***

The current study attempted to investigate the relationship between service quality and students' satisfaction in the context of the University of Jordan. Hence, it would be beneficial for future research to consider the following suggestions:

1. Expansion of the study to include all public and private institutions of higher education in the state to establish competitive benchmarks, track student defections to other institutions caused by poor service delivery, and promotes a statewide service quality measurement and students satisfaction.
2. Using the same methodology, further studies can be carried out at the target university to examine the long-term implications of service quality improvement efforts.
3. Evaluation can be made on the most common service quality measurement instruments in Jordanian higher education. A comparative study will also be useful in this domain.
4. This study has concentrated on the student's perception of service quality. Future research should focus on the perceptions of service quality from other stakeholders' perspectives (such as administrative staff, academic staff, students' families, etc.). A comprehensive study would help the faculty to review the overall service quality in the higher education sector.

***Conclusion:***

This paper focused on the issue of service quality and student satisfaction in a higher education setting. It attempted to determine if there was any relationship between service quality and student's satisfaction, providing vital information for the understanding of service quality in higher education sector in Jordan. The findings of the study added inputs to the canon of knowledge in the higher education sector in Jordan. Therefore, it is hoped that other Jordan universities will replicate the implications of this study and publish their results so that students are helped in their decision-making process.

It is quite evident that service quality has significant positive relationships with student satisfaction. Thus, students' satisfaction level can be enhanced by improving the service quality which confirms with the findings of other research work. This is critically important as the University of Jordan has to compete with other higher academic institutions inside and outside of the country to serve the interests of the students. From the regression analysis it is evident that two dimensions in service quality namely; empathy and assurance are the most critical factors in explaining students' satisfaction. Whatever done to increase empathy and assurance in service quality, therefore, will help students to give a better evaluation of their satisfaction.

**REFERENCES**

Al-alak, B. and H. Bekhet, 2011. Beyond SERVQUAL: A Paradigm Shift. Australian Journal of Basic and Applied Sciences, 5(7): 129-134.

Al-alak, B., 2006. The impact of marketing actions on relationship quality in the higher education sector in Jordan. Journal of Marketing for Higher Education, 26(2): 126-149.

Al-alak, B., 2009. Measuring and evaluating business students satisfaction perceptions at public and private universities in Jordan. Asian Journal of Marketing, 3(2): 33-51.

Angell, R., T. Heffernan and P. Megicks, 2008. Service quality in postgraduate education. Quality Assurance in Education, 16(3): 236-54.

Babakus, E. and G. Boller, 1992. An empirical assessment of the SERVQUAL scale. Journal of Business Research, 24(3): 253-268.

Bitner, M., 1990. Evaluating service encounters: the effects of physical surroundings and employee responses. The Journal of Marketing, 54(2): 69-82.

- Boulding, W., A. Kalra, R. Staelin and V. Zeithaml, 1993. A dynamic process model of service quality: from expectations to behavioral intentions. *Journal of marketing research*, 30(1): 7-27.
- Brookes, M. and N. Becket, 2007. Quality Management in Higher Education: a review of international issues and practice. *International Journal of Quality and Standards*, 1(1): 85-121.
- Browne, B., D. Kaldenberg, W. Browne and D. Brown, 1998. Student as customers: factors affecting satisfaction and assessments of institutional quality. *Journal of Marketing for Higher Education*, 8(3): 1-14.
- Carman, J., 1990. Consumer perceptions of service quality: an assessment of the SERVQUAL dimensions. *Journal of Retailing*, 66(1): 33-55.
- Carrillat, F., F. Jaramillo and J. Mulki, 2007. The validity of the SERVQUAL and SERVPERF scales: A meta-analytic view of 17 years of research across five continents. *International Journal of Service Industry Management*, 18(5): 472-490.
- Carrillat, F., F. Jaramillo and J. Mulki, 2009. Examining the impact of service quality: a meta-analysis of empirical evidence. *The Journal of Marketing Theory and Practice*, 17(2): 95-110.
- Cheng, Y. and W. Tam, 1997. Multi-models of quality in education. *Quality Assurance in Education*, 5(1): 22-31.
- Clewes, D., 2003. A student-centered conceptual model of service quality in higher education. *Quality in Higher Education*, 9(1): 69-85.
- Crompton, J. and K. Mackay, 1989. Users' perceptions of the relative importance of service quality dimensions in selected public recreation programs. *Leisure Sciences*, 11(4): 367-375.
- Cronbach, L., 1946. Response sets and test validity. *Educational and psychological measurement*, 6(4): 475-494.
- Cronin, J. and S. Taylor, 1992. Measuring service quality: a reexamination and extension. *The Journal of Marketing*, 56(3): 55-68.
- Cronin, J., M. Brady and G. Hult, 2000. Assessing the effects of quality, value, and customer satisfaction on consumer behavioral intentions in service environments. *Journal of Retailing*, 76(2): 193-218.
- Cubillo-Pinilla, J., J. Zuniga, I. Losantos and J. Sanchez, 2009. Factors influencing international students' evaluations of higher education programs. *The Journal of American Academy of Business*, 15(1): 270-278.
- Farrell, A., A. Souchon and G. Durden, 2001. Service encounter conceptualization: employees' service behaviors and customers' service quality perceptions. *Journal of Marketing Management*, 5(6): 577-593.
- Feinberg, R., 1995. Consumer-defined service quality in international retailing. *Total Quality Management & Business Excellence*, 6(1): 61-68.
- García-Aracil, A., 2009. European graduates' level of satisfaction with higher education. *Higher Education*, 57(1): 1-21.
- Grönroos, C., 1984. A service quality model and its marketing implications. *Journal of the Academy of Marketing Science*, 24(1): 36-44.
- Guolla, M., 1999. Assessing the teaching quality to student satisfaction relationship: applied customer satisfaction research in the classroom. *Journal of Marketing Theory and Practice*, 7(3): 87-97.
- Ham, L. and S. Hayduk, 2003. Gaining competitive advantages in higher education: analyzing the gap between expectations and perception of service quality. *International Journal of Value-Based Management*, 16(3): 223-242.
- Hampton, G., 1993. Gap analysis of college student satisfaction as a measure of professional service quality. *Journal of Professional Services Marketing*, 9(1): 115-128.
- Harris, B., 2002. A study of service quality: gap analysis of expectations versus performance perceptions of junior, senior, and graduate students (Doctoral dissertation). Available from ProQuest Dissertations and Theses database. (UMI No. 3313810).
- Harvey, L. and D. Green, 1993. Defining quality. *Assessment & Evaluation in Higher Education*, 18(1): 9-34.
- Harvey, L. and P.T. Knight, 1996. *Transforming Higher Education*. London: Open University Press.
- Hsu, J. and C. Hsu, 2008. The Relationships Between Service Quality and Customer Satisfaction in a Leading Chinese Web 2.0 Company. *The Business Review*, Cambridge, 11(1): 84-89.
- Hurley, R. and H. Estelami, 1998. Alternative indexes for monitoring customer perceptions of service quality: a comparative evaluation in a retail context. *Journal of the Academy of Marketing Science*, 26(3): 209 – 221.
- Landrum, H., V. Prybutok, X. Zhang and D. Peak, 2009. Measuring IS System Service Quality with SERVQUAL: Users' Perceptions of Relative Importance of the Five SERVPERF Dimensions. *International Journal of an Emerging Transdiscipline*, 12(3): 17-35.
- Markovi, S., 2005. Student's Expectations and Perceptions in Croatian Tourism and Hospitality Higher Education: SERVQUAL versus UNIQUAL. *South East European Journal of Economics and Business*, 1(2): 78-96.

- Marzo-Navarro, M., M. Pedraja-Iglesias and M. Rivera-Torres, 2005. Measuring customer satisfaction in summer courses. *Quality Assurance in Education*, 13(1): 53-65.
- Molinari, L.K., R. Abratt and P. Dion, 2008. Satisfaction, quality and value and effects on repurchase and positive word of mouth behavioral intentions in a B2B services context. *Journal of Services Marketing*, 22(5): 363-373.
- Morad, D., H. Rezaei, H. Alipour and S. Salehi, 2011. Service Quality, Client Satisfaction and Client Personality in the Public Companies. *Australian Journal of Basic and Applied Sciences*, 5(3): 483-491.
- O'Neill, M., C. Wright and F. Fitz, 2001. Quality evaluation in on-line service environments: an application of the importance-performance measurement technique. *Managing Service Quality*, 11(6): 402-417.
- Oliver, R. and W. DeSarbo, 1988. Response determinants in satisfaction judgments. *Journal of Consumer Research*, 14(4): 495-507.
- Oliver, R., 1980. A cognitive model of the antecedents and consequences of satisfaction decisions. *Journal of Marketing Research*, 17(4): 460-469.
- Oliver, R., 1999. Whence consumer loyalty. *The Journal of Marketing*, 63(4): 33-44.
- O'Neill, M. and A. Palmer, 2004. Importance-performance analysis: a useful tool for directing continuous quality improvement in higher education. *Quality Assurance in Education*, 12(1): 39-52.
- Ott, M., 2008. An analysis of the impact of service quality on satisfaction, value, and future intentions within campus recreation using performance-based measures (Doctoral dissertation). Available from ProQuest Dissertations and Theses database. (UMI No. 1459510).
- Parasuraman, A., V. Zeithaml and L. Berry, 1985. A conceptual model of service quality and its implications for future research. *The Journal of Marketing*, 49(4): 41-50.
- Parasuraman, A., V. Zeithaml and L. Berry, 1994a. Reassessment of expectations as a comparison standard in measuring service quality: implications for future research. *Journal of Marketing*, 58(1): 111-124.
- Parasuraman, A., V. Zeithaml and L. Berry, 1988. SERVQUAL: A Multiple-Item Scale For Measuring Consumer Perceptions Of Service Quality. *Journal of Retailing*, 64 (1): 12-40.
- Robertson, C., J. Al-Khatib, M. Al-Habib and D. Lanoue, 2001. Beliefs about work in the Middle East and the convergence versus divergence of values. *Journal of World Business*, 36(3): 223-244.
- Robinson, S., 1999. Measuring service quality: current thinking and future requirements. *Marketing Intelligence & Planning*, 17(1): 21-32.
- Ruby, C. A., 1998. Assessing Satisfaction with Selected Student Services Using SERVQUAL, a Market-Driven Model of Service Quality. *NASPA Journal*, 35(4): 331-341.
- Schwartz, G., 1996. Service quality in higher education: Expectations and perceptions of traditional and non-traditional students (Doctoral dissertation). Available from Texas Tech University Electronic Theses and Dissertations.
- Shekarchizadeh, A., A. Rasli and H. Hon-Tat, 2011. SERVQUAL in Malaysian universities: perspectives of international students. *Business Process Management Journal*, 17(1): 67-81.
- Webster, C., 1989. Can consumers be segmented on the basis of their service quality expectations?. *Journal of Services Marketing*, 3(2): 35-53.
- Wiers-Jensen, J., B. Stensaker and J. Grøgaard, 2002. Student satisfaction: towards an empirical deconstruction of the concept. *Quality in Higher Education*, 8(2), pp. 183-195.
- Yang, L.M., 2008. An examination of education service quality at collegiate physical education departments in Taiwan: using a gap analysis approach (Doctoral dissertation). Available from ProQuest Dissertations and Theses database. (UMI No. 3322400).
- Yavas, U., M. Benkenstein and U. Stuhldreier, 2004. Relationships between service quality and behavioural outcomes. *The International Journal of Bank Marketing*, 22(2): 144-57.
- Yeo, R.K., 2008. Brewing service quality in higher education. *Quality Assurance in Education*, 16(3): 266-86.
- Zeithaml, V., A. Parasuraman and L. Berry, 1990. Delivering quality service: Balancing customer perceptions and expectations. London: The Free Press.
- Zeithaml, V., L. Berry and A. Parasuraman, 1991. Understanding customer expectations of service. *Sloan Management Review*, 32(3): 39-48.
- Zeithaml, V., M. Bitner and D.D. Gremler, 2008. *Services Marketing: Integrating Customer Focus across the Firm*. 5th Ed., Boston, MA: McGraw-Hill.
- Zeshan, M., 2010. Assessing Service Quality in Business Schools: Implications for Improvement. 3rd International Conference on Assessing Quality in Higher Education (pp. 219-232). Lahore, Pakistan.