
The Impact of Service Quality on Student and Academic Staff Satisfaction within Higher Education Institutions: A Case Study of Sulaimani City in Northern Iraq

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Abstract

This paper aims to review the theoretical model that examines the service quality and satisfaction in Higher Education Institutions (HEIs) from the perspective of student and academic staffs; specifically, analysis-oriented towards characteristics of the relations between service quality dimensions and overall satisfaction. The specific objective of this study is to explore the relationship between the set of dimensions of overall service quality and student and academic staff satisfaction in HEIs at Sulaymani city in northern Iraq. As the nature of this study is quantitative; it was conducted in the form of a survey, with data being gathered via a survey questionnaire. An abstract data model was relied on to identify student and academic staffs' satisfaction with service quality in HEIs. The results of this investigation found a higher correlation between student and academic staffs' satisfaction and each one of the five determinants of service quality provided within HEIs. Based on findings, the study recommended higher education organizations management in order to succeed in enhancing satisfaction efficiency for beneficiaries customers who represented the student and academic staffs mostly, it should give a keen interest in service quality dimensions and give them prioritize as a very vital cost center to achieve the required satisfaction.

Keywords: Service Quality; Satisfaction; Higher Education; Sulaymani city; Iraq

1. Introduction

The involvement of HEIs with globalization phenomenon, which is primarily economic and transactional in nature, is perceptible (Croucher & Woelert, 2016; Tan et al., 2016; Spring, 2008; Yang, 2007; Marginson & Wende, 2007; Kwiek, 2001; Kadhim et al., 2020; Khatab et al., 2020a). With the rise of the global knowledge-based economy, globalization has led to a major shift in the landscape and functions of HEIs around the world, albeit with business-alike ideas embedded in their operations and management (Croucher & Woelert, 2016; Khatab et al., 2020b; Marginson & Wende, 2007; Lin et al., 2020). Advocators of corporate, business and service-oriented ideas believe that such a shift is quintessential to the neo-liberal movement that forces HEIs to adopt these methods to survive and keep up with competitive environment in a rapidly changing world (Othman et al., 2020a; Yang, 2007). This definition of service

quality within HE is rooted in the study of service sciences and service systems, taking into account that value is a co-creation between the provider and the consumer based on the profit of the latter, which refers to student and academic staffs in HE settings (Schneider & Bowen, 2010; Ng & Forbes, 2009; Vargo & Lusch, 2008). According to Ng & Forbes (2009); Quinn et al. (2009), as HE is known as a service delivered by HEIs, HEIs naturally aim to be service-oriented and act as business bodies with market and service performance management orientations. For HEIs, evaluating and improving their service efficiency-that is their service quality-becomes evident, prevalent and increasingly necessary. This is to maintain sustainable business-like models that, through attracting and retaining learners, grow their tuition-based revenues (Othman et al., 2020b; Angell et al., 2008). Due to the increasing student and academic staff recruitment, demands and aspirations, the need for HEIs to measure and enhance the standard of service is expected, resulting in the increasing

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trend of public-private tuition cost-sharing among HEIs worldwide. In leveraging the diverse effects of science and innovation, there is now fierce rivalry. At the same time, universities are expected to provide high-quality, market-relevant and leading-edge educational services. From the 2010s to 2018s, Northern Iraq which represented in Kurdistan Regional of Iraq spent 2-3 billion dinars annually to send 2000 – 4000 student and academic staffs overseas. In order to minimize foreign exchange expenses incurred by sending nearly 4000 student and academic staffs to higher education abroad, they intended to transform the area into a Center of Academic Excellence. Jongerden (2019) further stressed the aspiration of the regional government to create the region as a center of academic excellence: "The Ministry of Higher Education was established in 1991 with the goal of making this regional (Kurdistan Regional) a center of educational excellence." In order to achieve this, it needs to focus on strong research, effective leadership and management, and impeccable academic standards." In order to achieve excellence in service quality and customer satisfaction, higher educational institutions that follow quality culture as their ideology would aspire. Most universities have a quality department to handle quality management systems in the current regional higher education setting, and where competition in the higher education sector is growing, universities are forced to take a student and academic staff's perspective on the quality of services offered. In the higher education context, the quality of the academic product was historically the key priority, but now there is an increased interest in assessing the quality of service in higher education (Shaikhly, 2017).

As a case in the current study, the key reason for selecting Sulaimani city in northern Iraq was that HE was first born in this city with a drastic increase in HEIs due to the increase in demand for public education services in that area. Within the city of Sulaimani, there are two public universities, seven public colleges, nine private universities and eight private institutions. Owing to the improvements in the infrastructure of the general population with respect to the modifications in the system of the general public, the HE framework has seen drastic changes over the past decade. The cultural tapestry across Iraq and the nullification of the standing framework in education have affected the quality and training structure, since the quality of service has received much attention especially in higher education as well as in the service industry such as banking, hotel and insurance in Iraq

generally, and in northern Iraq particularly, more specifically in Sulaymaniyah city (Jongerden, 2019). One method of measuring service quality is by comparing the difference between perceived service and expected service.

The primary aim of this paper was to obtain a better understanding of the real role that can be played by a group of dimensions of service quality towards achieving customer satisfaction which represented in the student and academic staffs in higher education institutions in the city of Sulaymaniyah in northern Iraq, and thus the ability to fill for the gap in the literature regarding the important role that these dimensions play in achieving satisfaction at the local authority of HE in this city. Thus, the numerical data were gathering from participants about the service quality of HEIs in Sulaimani city of northern Iraq. This report concluded that a comprehensive study should be conducted, taking into account the literature review and its goals and objectives. The questionnaires were distributed among a selected group of student and academic staffs from a variety of HEIs, taking into account constraints such as monetary resources and time. According to Ministry of Planning (2013), higher education plays an important role in teaching, learning and research for the benefit of the public. In the region of northern Iraq, some of the driving forces toward achieving quality education are the National Education Policy and Vision 2020. Education and training are essential to this region of Iraq's Vision 2020 program and have been given priority status by this region of the government. Extensive resources have been allocated to the public sector in order to ensure that this region of northern Iraq population receives the best possible training, especially in the field of science and technology, and the government of this region aims to export its educational offerings in the future. The government of this region is fully committed to building a world-class educational system that is flexible and innovative, one that will enhance the Region's role as a hub for education, research and development in Iraq particularly and in the Middle East generally.

Therefore, an extensive analysis of previous research results was carried out in order to ensure that the sampling chosen for this study will allow the generalization of the findings. This is to obtain a wider understanding of the factors that lead to increasing student and academic staff satisfaction with the quality of service. The research adopts the HEDPERF version and tests the level of service in accordance with five-dimensional interface

variables (Abdullah, 2005). Sulaimani city has multicultural surroundings of scholars and student and academic staffs and professional persons with various cultural backgrounds. The main reason of this was as a result of the difficult security conditions that faced many areas of the center and south of Iraq, in addition to the security conditions that beset some neighboring countries such as Syria, this has led to the migration of many academic and professional persons to the cities of northern Iraq, including Sulaimani city. Therefore, their experiences and aspirations of SERVQUAL are distinctive. With the diverse profile of academic staff and student and academic staffs, numerous cultural and educational changes have taken place in Sulaimani district, leading to the need for improvement in many sectors.

Therefore, in order to obtain accurate results, SERVPERF, a methodology introduced to conduct a gap analysis of the performance of the service quality of a company against the quality of customer service needs, has been replaced by SERVQUAL, a multi-dimensional research tool designed to deduce the perceptions and service preferences of the customer across five dimensions (reliability, tangibles, responsiveness, a multi-dimensional research tool. In view of the significance of the above, the current study attempted to confirm and gain a better understanding of the relationship between the overall dimensions of service quality and student and academic staff satisfaction in HEIs operating in Sulaimani to fill the gap in the literature on the important role these dimensions can play in achieving the requisite satisfaction for the service. Thus, the following part of this paper moves on to literature review related to the current study variables.

2. Literature review

2.1 Student and academic staff Satisfaction

According to Adil (2013), Customer satisfaction can be described in various ways, but usually he stressed that it is linked to customer experience and expectation assessment. Customer satisfaction should be considered in ensuring client allegiance to any organization's service supply. In banks, clients worry about the level of services provided after using them to decide if they are happy with such services. The satisfactions of customers are increased when they have to give minimal payment and maximize profit and use. Malaysia's retail banking sectors, on the other side, had a research carried out by Ngo & Nguyen (2016). He indicated that certainty and empathy had a major impact on

bank customer satisfaction. More studies done by Ojo (2010) Reliability has been shown to have the greatest impact on customer satisfaction. It also demonstrated that reliability significantly influenced the satisfaction of clients. Finally, Wang, Shieh, & Hsiao (2013) and Dayang et al., (2019) Claimed that since loyalty is linked to customer satisfaction, companies have implemented fresh and efficient approaches to enhance the quality of service satisfaction and loyalty (Shamsudin et al., 2010). To conclude, Khatab (2019a) and Othman et al., (2019) supported that dimensions of service quality have been recognized as predecessors of customer satisfaction. Many studies explored the quality of service in Kurdistan's banking sector. Because loyalty is linked to customer satisfaction, banks have implemented fresh affective approaches to attain adequate quality of service and customer satisfaction (Ahmad et al., 2013).

2.2 Service Quality

Due to the severe competition on the marketplace, service quality has become the focus of attention for many scholarly scientists and has been recognized as the key to preserving excellent profit and trustworthy link in order to attain customer satisfaction (Kiran & Diljit, 2016). According to Bozoglu & Bilgic (2016), the service quality gaps model he deemed to be the conceptualization of service quality as the gap between service anticipated and service perceived. In addition, the significance of service quality can be reflected in the service industries, and service suppliers should comprehend the notion of service quality in order to demonstrate to their clients the differentiation of products. Many studies discussed the quality of service through the development of new models and theories to address the importance of implementation and the large extent of good quality services. In addition, many scientists explored the quality of the services in distinct ways. Kadhim et al., (2019) Service quality was described as a general evaluation of customer service, while other scientists suggested that customer service is an extension to meet customer expectations and needs. In addition, the quality of service was taken as the point of difference between the preferences of the customers about the services as well as their knowledge of the implementation of those services (Deqing, 2014).

2.3 Relationship between service quality (Tangibles, Reliability, Responsiveness, Assurance, and Empathy) and student and academic staff satisfaction

Service quality as an antecedent to student and academic staff satisfaction has been long investigated (Khatab et al., 2019; Othman et al., 2019) and consistent findings on direct relationship between service quality and student and academic staff satisfaction are well proven in past studies (Khatab et al., 2019; Othman et al., 2019).

While most empirical evidence has shown significant service quality roles for student and academic staff satisfaction, further research on this relationship is to be continued and not taken lightly, especially in unexplored services such as education services, because service quality is found to be insignificant to satisfaction in several studies, as elaborated by Othman et al (2020a) and Othman et al (2020a). On the physical side, the amount of educational facilities is greater than human contact. In this analysis, the formation of service quality consists of five dimensions of SERVQUAL that can differently affect student and academic staff satisfaction. In order to fulfill the existing gap in education services for Higher Education Institution of Sulaimani City in Northern Iraq context, the present study proposes the following hypothesis:

H1: If the service quality provided by higher education institutions are excellent, then this will lead to student and academic staff satisfaction.

3. Methodology of the study

This research is descriptive in nature, seeking to explore the role that the dimensions of service quality discussed in the current study can play in achieving student and academic staff satisfaction in higher education institutions in the northern Iraqi city of Sulaimani. The methodology of the current study therefore focuses on the following three major subheadings in light of previous research: the study model, the study hypotheses and the data collection mechanism and data analysis procedures.

3.1. Study Model

As mentioned above, this research aims to investigate the relationship between the independent variables represented by the quality of service and its dimensions (tangibility, responsiveness, reliability, assurance and empathy) with a dependent variable represented by the satisfaction of student and academic staffs in HEIs operating in the city of Sulaimani. This is in order to fill for the gap in the literature regarding the important role that can the service quality and its dimensions play in achieving satisfaction at the local authority of HE in this city. The model is depicted in Figure 1.

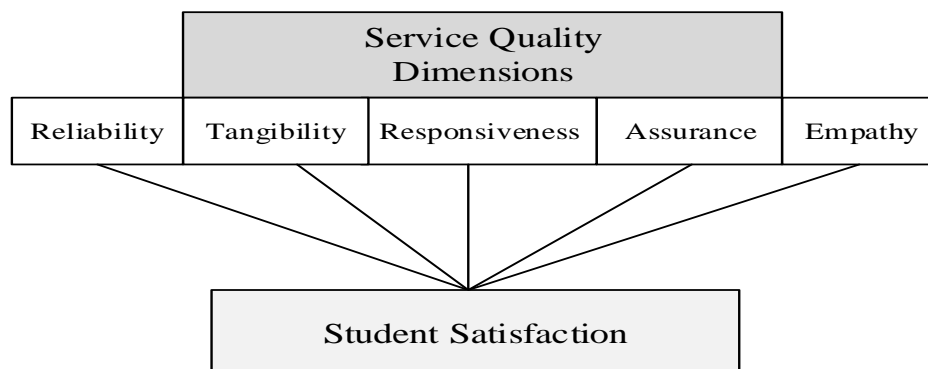


Figure 1. Study Model

Source: Organized by the researchers, adapted from Pakurár et al. (2019)

The above figure illustrates the relationship between customer satisfaction and the quality of service. The author proposed a scenario in which service quality is a concentrated appraisal that represents the perception of reliability, assurance, responsiveness, empathy and tangibility by the consumer, while satisfaction is more inclusive and informed by perceptions of service quality. Thus, the aim of this figure is providing the theoretical contribution through the idea that got from past literature for this study area which stems from that

there is an important relationship between service quality dimensions with customer satisfaction (student and academic staffs) in the higher education institutions in the Middle East in general in Iraq in particular. The theoretical context for this research therefore considers client satisfaction as transaction specific. Consequently, customers are those who purchase the services in this document, satisfaction denotes the willingness of the customer to maintain a good relationship with the organization; also receiving customers for the

satisfactory services given by the organizations' workers to them.

3.2. Hypothesis Development

On the basis of the study model indicated above and literature review in the current study, a number of hypotheses are formulated to determine the service quality factors which affect the satisfaction of student and academic staffs who are benefiting from the services of the HEIs in Sulaimani city.

H1a: If the tangibility provided by higher education institutions are excellent, then this will lead to student and academic staff satisfaction

H1b: If the reliability provided by higher education institutions are excellent, then this will lead to student and academic staff satisfaction

H1c: If the assurance provided by higher education institutions are excellent, then this will lead to student and academic staff satisfaction

H1d: If the empathy provided by higher education institutions are excellent, then this will lead to student and academic staff satisfaction

H1e: If the responsiveness provided by higher education institutions are excellent, then this will lead to student and academic staff satisfaction

3.3. Data Collection and Analysis

According to Sekaran & Bougie (2016), having a proper research design will assist the researcher to operationalize variables and collect robust data and consequently gain reliable answers that provide reasonable solutions to the problems the research has proposed. As the nature of this study is quantitative, it was conducted in the form of a survey, with data being gathered via a survey questionnaire. A pilot study was performed before launching the survey to ensure the validity and reliability of the survey questionnaire. The research population consisted of student and academic staffs from 3 public and 2 private colleges, 1 private technical institute and 2 public technical institutes per info obtained from the total pedagogical student and academic staff population cluster in Sulaimani, Iraq.

The questionnaire was prepared in English, but then, as a measure against the language barrier, it was translated into Kurdish, which is the dominant language in the field of study. The responses of the respondents were then back-translated using the technique of back-translation (McGorry, 2000). To prevent any inconsistencies, the back-translations were carefully matched against the original transcripts. For the study, a self-administered

questionnaire was designed. The questionnaire was divided into three sections. Personal details such as gender, age, field work experience and level of education was devoted to the first section. The second section consisted of questions relating to thirty things (tangible; reliability; responsiveness; assurance and empathy) measuring elements of service quality. From the studies of Annamdevula Bellamkonda (2016), Abdullah (2006), and Zeithaml et al. (1990), the objects measuring the five dimensions were taken. Survey questions utilized a 7-point Likert scale to measure the items level of agreement or disagreement ranging from strongly agree, agree, slightly agree, neutral, slightly disagree, disagree and to strongly disagree, respectively.

The third section of the questionnaire covers items that measure satisfaction with the institution's decision, satisfaction with the quality of academic service, satisfaction with the quality of teachers, satisfaction with the quality of equipment and facilities, and other items that may indicate student and academic staffs' impressions of satisfaction with the quality of equipment and facilities. Twelve objects included in the studies of LeBlanc & Nguyen (1997), Abdullah (2005) and Annamdevula Bellamkonda (2016) calculated these measurements. For grading these objects, a 7-point Likert scale is also used.

Consequently, validity and reliability were calculated using factor analysis. For the measurement of the linear correlation between the constructs (variables) relative to the study, the Pearson correlation was used. To identify its impact, multiple regression analysis was completed. Assumptions about regression were met prior to the placement of regression analysis. The instrument's reliability was found to be 0.854 (implementation of elements of service quality) and to achieve satisfaction (0.793). For all the variables, internal consistency was determined using Cronbach's alpha. Since all the values were above 0.70, it was assumed that the instrument was accurate. The indication of factor analysis was that because all objects were found to have more than 0.40 factor loadings, the instrument was accurate, thereby confirming the instrument's validity.

4. Results

This section provides the findings of the survey questionnaire collected using the SPSS software package by evaluating a total of 618 questionnaires. In addition, the statistical instruments used in this study for the purpose of

testing the hypotheses were shown in order to gain more knowledge and richer information on the influences that each dimension of service quality could play in achieving satisfaction in HEIs in the northern Iraqi city of Sulaimani.

4.1. Demographic information

The current section is a brief description of the demographic characteristics of the participants. As shown in table 1, simple frequency counts were used to distribute the participants on the basis of following personal characteristics such as gender, age, fieldwork experience and education level (see table 1).

Table 1. Respondents information (N = 618)

Respondents Information							
Gender		Age		Field work experience		Education level	
Items	N (%)	Items	N (%)	Items	N (%)	Items	N (%)
Male	360(58.3)	Under 25 years	180(29.1)	<5 years	252 (40.8)	Diploma Degree	137(22.2)
		25-34 years	270(43.7)	5-10 years	186 (30.1)	Bachelor's degree	235(38.0)
		35-45 years	102(16.5)	11-15 years	78 (12.6)	MSC Degree	198(32.0)
Female	258 (41.7)	Over 45 years	66(10.7)	>15 years	102 (16.5)	PHD Degree	48(7.8)

The workers' gender distribution was 58.3 percent male and 41.7 percent female. The fact that workers are male dominated in most manufacturing and service sectors in northern Iraq is a potential reason for this distribution. 43.7% of the workers were between 25-34 years of age; 29.1% were under 25; 16.5% were between 35-45 years of age; and just 10.7% were over 45 years of age. This information indicates that most of the participants were young and enthusiastic individuals who would be able to effectively develop the elements of service quality. The distribution of fieldwork experience among workers was as follows: the majority of participants were appointed for less than 5 years in their current organizations (40.8 percent); for more than 5 years but less than 10 years (30.1 percent); for more than 15 years of experience (16.5 percent); and for 11 to 15 years (12.6 percent). Such statistics show that most of the participants were well-

experienced in the field and therefore have the capacity to incorporate the systems of service quality components to achieve the required satisfaction in HEIs. The distribution of the educational records of the workers showed that the majority (38.0%) had earned a bachelor's degree; 32.0% had a post-graduate degree; 22.2% had a diploma degree; and 7.8% had a PhD degree. The distribution overview points to a very healthy demographic composition that has the potential to produce new ideas and beneficial initiatives that will enable problem-free implementation of each aspect of service quality.

4.2. Pearson Correlation Analysis for Variables

A Pearson Correlation was undertaken to construct the association between service quality and satisfaction. Pearson correlation observes the significant association between variables (Sekaran & Bougie, 2016). The correlation results are displayed in Table 2.

Table 2. Service Quality & Satisfaction Correlation Matrix

	Tangibility	Reliability	Responsiveness	Assurance	Empathy	Satisfaction
Tangibility	.513**	1				
Reliability	.551**	.349**	1			
Responsiveness	.318**	.263**	.202**	1		
Assurance	.299**	.248**	.717**	.030**	1	
Empathy	.465**	.434**	.640**	.602**	.499**	1
Satisfaction	.543**	.534**	.654**	.578**	.523**	.619**

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

The Pearson correlation coefficient illustrates the relationship between service quality sub-

dimensions (tangibility, responsiveness, reliability, assurance & empathy) and satisfaction. The

correlation results indicate that all the dimensions have a moderately strong and positive association with satisfaction. As soon as the association was proven between variables, a regression analysis which employed a multiple regression technique was conducted in order to gain a better understanding of the impact that can play every dimension of service quality towards enhancing customer satisfaction represented by student and academic staffs in higher education institutions. The results of the analysis are presented in the following paragraph.

4.3. Regression Analysis for Service Quality and its Dimensions with Satisfaction

A linear and multiple regression analysis was performed in order to investigate the impact of the elements of service quality combined on

satisfaction, as well to ensure which element of service quality is the most persuasive on satisfaction within designated institutions under study. Results of regression analysis are shown in Tables 3.

In the support of Hypothesis (1) the results of data analysis show that service quality positively and significantly affects student and academic staff satisfaction of the total sample ($\beta=0.476$, $p=.000$). The results of the data also show that the reliability dimension positively and significantly affect the student and academic staff satisfaction of the total sample ($\beta=0.545$, $p=.000$). Therefore, the evidences are enough to support all Hypotheses of the study. Therefore it is concluded that service quality and its dimensions affect the student and academic staff satisfaction significantly and positively.

Table 3. Regression Analysis for Service Quality & its Dimensions with Satisfaction Model

Model	R	R ²	Adj.R ²	F	Sig.	β	t	P
1	.665	.407	.453	69.298	0.000			
Intercept						0.476	9.050	.000
SQE						.325	7.081	.000
	.635	.403	.450	68,721	0.000			
Tangibility						.182	5.495	.026
Reliability						.545	10.374	.000
Responsiveness						.145	3.225	.000
Assurance						.187	4.306	.001
Empathy						.084	1.654	.099

Predictors: (Constant), Service Quality (SQ) & its Dimensions (Tangibility, Reliability, Responsiveness, Assurance, Empathy)

Dependent Variable: Satisfaction (S)

Simple linear regression has been used to test the influence of the composite variable of service quality elements on satisfaction as shown in Table 3. The results of the present study displayed that service quality elements play an important role in the successful satisfaction.

5. Discussion

The results indicated that the service quality elements as an independent variable have a strong relationship ($R = 0.665$) with the dependent variable of satisfaction. The findings also showed that the value of R Square here is 0.407. This means that service quality elements are causing 40.7% variation in satisfaction. Furthermore, the results indicated that the service quality elements have a significant influence ($\beta = 0.325$, $p < 0.05$) on satisfaction, this result indicates that the service quality elements alone will have an influence of 32.5% on satisfaction.

Likewise, Table 3 showed that the findings of

multiple regression analysis indicated that the tangibility dimension ($\beta = 0.182$, $p < 0.05$) has an influence on the satisfaction of service quality toward the positive dynamics of higher education in the Sulaimani city. The result suggests that the conduct of tangibility by employees has a positive impact not only on the satisfaction of service quality, but also on the service quality of many universities for the higher education organizations which inevitably results in rising satisfaction of the customers represented by student and academic staffs (Abdullah, 2006). On the other hand, Hasan et al. (2008) confirmed that erroneous conduct of tangibility by employees has an adverse effect in terms of increased inappropriate education risks lead to high-cost losses, which in turn, lead to an excessive delay in service quality and reduced service productivity within the educational institutions. All this usually occurs as a result of conducting the tangibility of service quality status thus causing greater service problems, thereby

increasing the occurrences of mistakes which lead to lowered levels of satisfaction among both staff and student and academic staffs within higher education organizations. Thus, the regression analysis for the model service quality - satisfaction indicates that its results support the first hypothesis; therefore, this hypothesis has been accepted.

H1a: If the tangibility provided by higher education institutions are excellent, then this will lead to student and academic staff satisfaction

Thus, in order to give the tangibility dimension greater impact on service quality satisfaction, this study recommends a need to improve the physical appearance of the service, such as employees' neat appearance, modern-looking equipment, and the materials associated with the service, and that they found it easy to use. Many studies defined tangibility as those things related to appearance, equipment, personnel, and communication (Parasuraman et al., 1988; Parasuraman et al., 1991).

The regression findings also revealed that the reliability dimension of service quality was the most influential dimension (0.545) toward enhancing student and academic staffs' satisfaction in HEIs in Sulaimani city of Iraq. This suggests that the right practices for the reliability of service quality are responsible for 54.5% of the influence on dependent variable of satisfaction. Furthermore, (Quinn et al., 2009; Chen et al., 2007; Brysland & Curry, 2001) have pointed out educational institutions rely heavily on the reliability of service quality in achieving its customer satisfaction towards the reliable services provided to them, which in turn, largely depends based on their employees' capabilities that can be affected by a variety of factors to attain the desired levels of performance. This is owing to the quality of services delivered by educational institutions which is guaranteed to the extent of their employees' faithfulness to set of ethical aspects such as: 1) Manager-subordinate relationship (Autonomy/empowerment). 2) The ethical instructions and commands, and also for sets of psychological factors such as: 1) Motivation and morale. 2) Job security and workload. 3) Awareness and sense of accountability and responsibility (Abdullah, 2006; Brysland & Curry, 2001). On the basis of the results attained from the regression analysis, hypothesis 2, concerning the significant influence of reliability in the service quality on student and academic staff satisfaction is

supported.

H1b: If the reliability provided by higher education institutions are excellent, then this will lead to student and academic staff satisfaction

However, to enhance the impact of reliability dimension on service quality significantly, the business organizations, including organizations under study, should have sympathy with customers' problems and keep accurate records, perform the promised service on time, and have staff ready to help with problems. Moreover, Parasuraman et al. (1985) found that reliability is the ability to perform services required by the customer.

Similarly, the regression results (14.5%) signaled that the responsiveness dimension of service quality also has affected the achievement in satisfaction in HE (Higher Education). This means that if the student and academic staffs receive a high level of responsiveness from the administrative staff in the education organizations, this affects the improvement of the quality of service and thereby enhances the satisfaction of student and academic staffs concerned. Increasing the degree of responsiveness extends the service quality lifetime, which has a positive effect on the credibility of educational organizations to achieve the satisfaction expected in those organizations by those concerned (Pakurár et al., 2019; Kassim & Asiah Abdullah, 2010). The results of the regression analysis therefore indicate that there is a positive relationship between the responsiveness component of service quality and overall satisfaction, thus demonstrating that hypothesis 3, which indicates that responsiveness in service quality has a major effect on student and academic staff satisfaction, has been confirmed.

H1c: If the assurance provided by higher education institutions are excellent, then this will lead to student and academic staff satisfaction

To enhance the effect of responsiveness dimension on service quality satisfaction, this study recommends the necessity of willing the employees to help customers (student and academic staffs), where the employees are able to respond to requests and that they have the confidence to tell customers when services will be performed. Several authors identify responsiveness as being willing to help clients and give quick service; it is communicated to customers by the length of time they have to wait for assistance and attention to

problems (Pakurár et al., 2019).

In addition, the regression analysis showed that assurance ($\beta = 0.187$, $p < 0.05$) has an impact on the satisfaction of service quality due to the fact that customers (student and academic staffs) need to feel secure in employee knowledge and courtesy and their ability to inspire faith and trust. These characteristics help institutions avoid serious defects in the standard of service, which can lead to lack of satisfaction among educational institutions' stakeholders (Kwiek, 2001; Quinn et al., 2009). The results of the regression analysis indicate that it supports hypothesis 4, which indicates that there is an important effect of assurance on the standard of service on student and academic staff satisfaction.

H1d: If the empathy provided by higher education institutions are excellent, then this will lead to student and academic staff satisfaction

Thus, to make the assurance dimension have a greater impact on service quality satisfaction, this study recommends the need to develop the capabilities of employees in business organizations, including institutions under study, in terms of capacity to courtesy and to inspire confidence in customers and they have sufficient knowledge and can be trusted. Many studies point out the positive relationship between assurance and customer satisfaction (Ravichandran et al., 2010; Shanka, 2012; Selvakumar, 2016).

The study revealed that empathy ($\beta = 0.084$, $p > 0.05$) and service quality satisfaction do not have a significant relationship. This is partly due to the fact that the relevant workers did not provide student and academic staffs with adequate empathy when delivering services for them in their organizations (Parasuraman et al., 1985; LeBlanc & Nguyen, 1997; Fombrun & Gardberg, 2000; Chen et al., 2007; Hasan et al., 2008). On the other hand, many studies (Selvakumar, 2016; Navaratnaseel & Periyathampy, 2014; Shanka, 2012; Ravichandran et al., 2010) it indicates that empathy improves customer satisfaction when consumers (student and academic staffs) feel good service and there are good operating hours, as well as the awareness of their needs and desires (consumers) by employees, which in turn would influence better performance among business sector rivals. Therefore, hypothesis 5, which indicated that there is a substantial influence of empathy in service quality on student and academic staff satisfaction, is dismissed on the basis of the study findings.

H1e: If the responsiveness provided by higher

education institutions are excellent, then this will lead to student and academic staff satisfaction

Thus, the current study recommends the need for good communication and an understanding of customer (Student and academic staffs) needs and friendly behavior toward achieving empathy. In addition, understanding customer expectations will influence better performance among competitors. These findings are in line with previous studies (Ravichandran et al., 2010; Selvakumar, 2016; Shanka, 2012), where the communication might be an element that could build an empathetic relation between, HE and its customers (Jianu, 2016). A possible solution could be sustainable market communication. Academics and professionals pay more attention to social and environmental aspects that affect human behavior. Companies are more aware of and responsible for activities that impact society and the environment.

6. Differences between the Current and Past Studies

The overall aim of this study is to explore the role of service quality dimensions on satisfaction in HEIs. Through this objective, it should be noted that the current study focuses on examining the active role of the different dimensions in service quality which negatively or positively influence the performance of employees towards customer satisfaction as represented by student and academic staffs in HEIs partaking in the study. In several previous studies, such as Randheer (2015); Zeithaml et al. (2000); Maglio et al. (2019), this is contrary to what was carried out. These studies concentrate on exploring other aspects, such as organizational, technical and cultural factors in the banking, education and hotel sectors, which play an active role in quality service and balancing the perceptions and expectations of customers. This is without understanding that other variables in service quality that would influence the employees' skills and their confidence in improving customer satisfaction should also be investigated.

Thus, the main objective of this study was to understand the relation between the dimensions of service quality (tangibility, transparency, efficiency, assurance, and empathy) and student and academic staff satisfaction. In addition, this research also explored important variables in the use of quality dimensions that contribute most to HEI customer satisfaction (student and academic staffs). The most obvious finding from this analysis is that the name of the dimensions of service quality has an essential relation with satisfaction within the

perspective of service quality offered by their universities. The ability to measure the level of satisfaction with ongoing changes in the quality of services provided by national capital universities to their satisfaction is one of the most relevant findings to emerge from this report.

7. Conclusion

Taken together, the findings of this research indicate that there is an important positive correlation between quality of service and student and academic staff satisfaction. The findings are consistent with previous studies demonstrating that enhancing the standard of service will potentially enhance the satisfaction of all stakeholders and beneficiaries embodied by HE student and academic staffs, their parents and families, academic and administrative staff, and society. It is important to demonstrate here that quality of service is essential to the sustainability and profitability of companies in the current global economic growth from the regression analysis; hence, measuring service quality is an important component of the service industry as customer satisfaction plays a greater role in the retention, profitability and productivity of a company.

Although the findings of the study offer valuable insights and interesting results, the most important limitation lies in the fact that the sample size was limited to the higher education sector in the city of Sulaymaniyah in northern Iraq. Accordingly, the generalizability of these results is subject to certain limitations as only eight organizations of HEIs in northern Iraq were selected as cases located in Sulaimani city. Thus, it is believed that having a bigger sample size and including more HEIs in the area as a whole may yield different data. Furthermore, there were other limitations during the implementation phase, such as: (1) the difficulty of obtaining the required authorization and approval from the authorities in order to carry out the study due to the severe security situation in Iraq in general. 2) The time allocated to the eight HEI organisations and the cost of traveling. 3) Inadequate academic publications in the region, especially in Iraq and in the Middle East in general.

8. Implications

The implications of the current paper for HEI managers and academics are reflected in providing a structure and instrument that can be used by managers of higher education institutions in order to continually enhance the quality of education; the results of the study can also help to design a quality system that includes not only staff, but also student

and academic staffs and academics. In addition, the senior management of the university will benefit from recognizing which holes should receive the greatest attention in order to achieve competitive and comparative benefits. The management of HEIs should also use the research findings to strengthen the study processes and to improve the satisfaction and loyalty of student and academic staffs and academics. Finally, the practical implications represented to display the nature and trends of future research for the quality of service in higher education are presented in the paragraph below.

9. Future Research

Future studies on the current topic are recommended, in particular further study with more focus on service quality and student and academic staff satisfaction in all state universities in Sulaimani city of Iraq is advised. Likewise, further research needs to examine more closely the links between service quality and satisfaction, as a comparative study, between state and private HEIs in Sulaimani city. Moreover, with no discussion of pricing dimension in the current study, it is hard to analyze aspects of service on a *ceteris paribus* basis; therefore, it is advised to study pricing dimension in the event of a study in future about the service quality and satisfaction in business organizations. Future studies should also perform a factor analysis to discover what other factors impact the satisfaction of service quality, as the findings of this study showed that service quality has only a 49 percent variance effect on customer satisfaction, so more exploratory factor analysis should shed light on where the remaining 51 percent influence lies. In addition, any variations in service quality and student and academic staff satisfaction among the new HEIs in Sulaimani in northern Iraq can be explored by future comparative study.

10. Limitations

Although the findings of the current study have shed light on some significant issues, the limitations of the study should be taken into account to some degree when interpreting the findings. This restriction, on the other hand, provides some possibilities for potential research to explore in order to obtain more information about the problems examined. In order to reflect the internal reaction of a person as the product of actions, this study focused on student and academic staff satisfaction. Loyalty to consumers is not the end of a company target. Numerous previous studies have shown that consumer loyalty is one of the precedents of other outcomes such as behavioral

intent, loyalty, patronage, retention of customers, word of mouth. Therefore, this study outcome was restricted to internal reaction only.

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