

QATAR UNIVERSITY

COLLEGE OF BUSINESS AND ECONOMICS

AN INTEGRATED MODEL OF HIGHER EDUCATION INSTITUTIONS (HEIS)

SERVICE QUALITY: THE CASE OF QATAR UNIVERSITY

BY

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ABSTRACT

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Title: An integrated model of Higher Education Institutions (HEIs) Service Quality: The Case of Qatar University

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Over the more recent times, Higher Education Institutions (HEIs) are being considered as service providers that are experiencing intensive competition and rapid growth. This research study introduced an integrated conceptual model that considered both services marketing and consumer behavior streams within the Higher Education sector. Using this conceptual model, the study examined the impact of university services on enhancing students' emotional attachment where emotional attachment plays a key role in motivating students to exhibit voluntary and extra-role behaviors toward the university. Based on responses from 568 students at Qatar University, the hypotheses were tested using structural equation modeling (SEM). The results demonstrated that reputation and academic aspects are the only dimensions that affect students' emotional attachment positively. The findings also provided empirical evidence of the full mediation role of brand attachment in the association between academic aspects dimension and customer citizenship behaviors (CCB). The results have practical implications for a better understanding of student emotional relationship with the university and provided insights into the service dimensions that the managers should monitor and facilitate.

DEDICATION

This master thesis is dedicated to my lovely family for their support and encouragement.

To my mother who never left my side and was very special. To my Father, truly appreciate your support through the process. To my husband for his endless support and for being there for me.

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TABLE OF CONTENTS

DEDICATION	iv
ACKNOWLEDGMENTS	v
LIST OF TABLES	viii
LIST OF FIGURES	ix
LIST OF ABBREVIATIONS.....	x
Chapter 1: GENERALITIES OF THE STUDY	1
Introduction of the Study	1
Research Context	3
Qatar University.....	5
Significance of the Study	8
Statement of the Problem.....	10
Research Objectives.....	11
Research Questions.....	11
Structure of the Thesis	12
Chapter 2: LITERATURE REVIEW.....	13
Service Quality in Higher Education	13
Measuring Service Quality in Higher Education	15
Generic Scales.....	15
Specific Scales used specifically for service quality measurement in higher education	17
Emotional Brand Attachment	22
Measuring Emotional Brand Attachment	24
Antecedents and consequences of emotional brand attachment	26
Distinction between brand attachment and other constructs.....	27
Customer Citizenship Behavior	28
Measuring Customer Citizenship Behavior	29
Chapter 3: THEORETICAL FRAMEWORK	30
Social Exchange Theory	32
Conceptual Framework.....	33
Hypotheses Development	33
Chapter 4: RESEARCH METHODOLOGY	40
Research Approach	40
Ethical Considerations	40
Research Method Used	41
Measures and Research Questionnaire	42

Pre-testing	42
Sample design and Data Collection	43
Target Population.....	43
Sample Size.....	44
Sampling Method.....	45
Data Collection Procedure	45
Sample Characteristics.....	45
Data Analysis.....	48
Data Screening and Preliminary Analysis	49
Results.....	49
Exploratory Factor Analysis (EFA).....	49
Measurement Model	51
Confirmatory Factor Analysis (CFA)	53
Structural Model and Hypotheses Testing.....	54
Mediation Analysis	57
Chapter 5: DISCUSSION	59
Chapter 6: CONCLUSIONS AND RECOMMENDATIONS.....	65
Implications of the Study.....	65
Limitations and Future Research	68
Conclusions.....	69
References.....	71
Appendices.....	96
Appendix A: Research Ethics Approval QU-IRB	96
Appendix B: Study Questionnaire and Letter of Consent.....	97
Appendix C: Translated Questionnaire.....	102
Appendix D: Example for the Questionnaire Validation.....	105
Appendix E: Krejcie and Morgan's (1970) Sample Size Determination	113
Appendix F: Descriptive Statistics.....	114
Appendix G: Reason(s) to Delete an Item	116
Appendix H: Items Labels and Names	117
Appendix I: Research Model (Standardized).....	119
Appendix J: Model Fit (AMOS OUTPUT)	120

LIST OF TABLES

Table 1. Profile of HEIs in Qatar	7
Table 2. Respondent's Demographics	47
Table 3. Psychometric Properties, Descriptive Statistics and Reliability of the Measures	51
Table 4. EFA and CFA results	52
Table 5. CR, Correlation Matrix and AVE Scores for all the Constructs.....	54
Table 6. Structural Model Results	56
Table 7. Mediation Analysis	58

LIST OF FIGURES

<i>Figure 1.</i> Conceptual model of the determinants and outcomes of brand attachment. ...	27
<i>Figure 2.</i> The conceptual model.	39

LIST OF ABBREVIATIONS

AMOS - Structural Equation Modeling Software.

CCB – Customer Citizenship Behavior.

CFA – Confirmatory Factor Analysis.

EFA – Exploratory Factor Analysis.

GCC - Gulf Cooperation Council.

HEDPERF - Higher Education Service Quality measuring instrument based on performance only.

HEIs - Higher Education Institutions.

MENA - Middle East and North Africa.

OCB - Organizational Citizenship Behavior.

PROCESS - an observed variable path analysis modeling tool for SPSS.

QSTP - Qatar Science and Technology Park (QSTP).

QU – Qatar University.

Qualtrics - Qualtrics Experience Management (Online Survey Platform).

QU-IRB - Qatar University’s Institutional Review Board.

SERVPERF - Service Quality measuring instrument based on perception.

SERVQUAL - Service Quality measuring instrument based on performance and expectation.

SET - Social Exchange Theory.

SPSS - Statistical Package for the Social Sciences.

SRA - Social Research Association Ethics Guidelines.

CHAPTER 1: GENERALITIES OF THE STUDY

Introduction of the Study

Higher education institutions (HEI) are service providers that are experiencing intensive competition and rapid growth (Malik & Naeem, 2011; Oldfield & Baron, 2000). Therefore, to attract students and provide them with positive experiences, universities need to focus on their service quality as a crucial element of their growth strategy (Maringe, 2009). Thus, it is important for researchers to evaluate service dimension(s) to understand how these dimensions influence customers (students) in order to provide appropriate allocation of service elements.

While the previous studies have contributed to the current understanding of service quality in the higher education sector, the effectiveness of the service dimensions related to customer brand relationship, in particular customer emotional attachment to university as a brand, remain unexplored. In the context of higher education, the long-term relations secure brand loyalty and equity (So et al., 2013). Scholars suggest research areas that examine how higher educational marketers can enhance students' satisfaction and attachment to the university because most students analyze the service quality of a university in order to determine their university choice (Donaldson & McNicholas, 2004). This study addresses this research gap by developing a conceptual framework that captures the impact of service quality dimensions on emotional brand attachment subsequently enhancing customer citizenship behavior (the extra role behavior).

Emotional brand attachment can reap great benefits for an institution resulting in students' loyalty, their willingness to pay a premium price (fee) and to maintain relations

with the university after graduation. More importantly, providing a positive word of mouth about the university is mostly the result of emotional brand attachment. The attachment theory elucidates the mechanism of attachment by explaining the reaction of people when they are attached to an object. They tend to be motivated to perform appropriate actions to reciprocate the institution (Simões & Soares, 2010). Also, the current literature on emotional brand attachments calls for a broader target audience particularly customers for a specific brand such as a university brand (Park et al., 2010; Fedorikhin et al., 2008). However, there is an absence of academic literature on investigating the influence of emotional brand attachment on customers (students) attitudes and behaviors in the higher education sector. Understanding the antecedents and consequences of brand attachment require extensive investigation and additional research. Consequently, this study will extend the brand attachment literature by examining the relationship between higher education service quality dimensions and brand attachment as well as the brand attachment outcomes such as customer citizenship behavior.

Customer service research considered customers voluntary behaviors as a vital issue (Bettencourt, 1997; Groth, 2005) that requires more attention to determine its underlining motivations. This is essential because customers' motivations help managers to predict their behaviors and attitudes (Bettencourt et al., 2002). Research about students' relationship with their university is highly recommended to assist marketers to respond to the market needs and provide unique services that differentiate the university from its competitors (Oldfield & Baron, 2000; Sultan & Wong, 2012).

In an international market such as Qatar, there is a need for empirical studies that

focus on university's service quality dimensions (Oldfield & Baron, 2000; Sultan & Wong, 2012). Qatar's National Vision 2030 emphasizes the importance of higher education in developing the Qatari nation (Qatar National Development Strategy, 2011). Qatari government established several plans to increase the educational facilities including colleges and universities (Medawar & Tabet, 2016). Subsequently, Qatar University, the primary institution of higher education, experiences an intense competition especially from Qatar's Education City that houses several branches of American and European universities (Rostron, 2009).

Research Context

Qatar is a peninsular country in the region of Middle East and North Africa (MENA) with a population of more than 2.5 million people, of whom more than 28,500 are students in higher education (Minister of Development Planning and Statistics, 2017). The country has dramatically grown and established several plans for future development since the increase in oil and natural gas prices in 1970s.

The MENA region has suffered from illiteracy despite the fact that these countries have the highest youth population. Therefore, higher education is considered as a key to improve the progress in several sectors such as social, political, environmental and economic growth in Qatar. Qatar believes that education is a critical factor to enhance the human capital required to achieve Qatar National Vision. In 2008, Qatar has adopted a national strategy known as the Qatar National Vision 2030 (Qatar National Development Strategy, 2011). This policy outlines the mechanism of investing Qatari resources and its vast revenue over the next two decades. The main objectives of this strategy are mainly

developing the nation and transferring it to a modern knowledge-based economy.

In this regard, Qatar established two key development strategies. The first strategy was establishing Qatar Science and Technology Park (QSTP) in 2004. It aimed to support technology research and development. The QSTP attracted foreign companies known for their advanced technology and innovation to provide several activities that strengthen the Qatari market through application of technology in education and other sectors (Ibnouf, Dou, & Knight, 2014).

The second key strategy was attracting reputable international universities campuses to be established in Education City in Qatar. In 1997, a branch campus model was implemented to house several well-known and reputable universities mostly from the United States, United Kingdom and France. Education City aimed to provide students in Qatar with further opportunities for higher education. The universities were selected on the basis of being the top 10 or 15 in their field. The selection of programs was depending on the Qatar labor market needs.

Qatar University

Education has been a priority in Qatar's national vision 2030 since the country's birth in 1973. A decree by the Emir of Qatar in 1973 stated that the country would establish a College of Education as the first college attracting students who are interested in higher education. While the country continued its development, the labor market required more specializations. Therefore, Qatar University (QU) as the only national institution until 2001 started to offer more academic programs in accordance with the needs of the population. Currently, QU consists of nine colleges (see table 1).

Following the establishment of Education City, the competition began for Qatar University. Consequently, QU reevaluated its services and developed a new strategy plan aimed to increase the efficiency and effectiveness of its services and programs. The university launched its first strategic plan in 2010-2013 including four key performance areas (KPAs) demonstrating QU's main goals (Qatar University, 2010). These areas comprise of several Key Performance Indicators (KPIs) intended to measure the achievement of the strategy objectives. The plan highlighted the importance of promoting the quality of education and supporting research activities for both faculty and students. The second cycle of the university strategic plan was established in 2013-2016 (Qatar University, 2013).

The first key performance area that QU strategy emphasized is providing high quality education that enables students to become competent professionals. The university designed academic support services with high quality facilities to enhance the learning and teaching environment. It also stressed the essential role of developing programs curriculum, integrating technology and providing research opportunities. The

second area focused on advancing scientific and collaborative research activities. The university established several research centers and allocated internal and external funding to support students and faculty research. The third area related to the role of QU as the national higher education institution to respond to the society's needs. The main objectives were setting a two-way relationship between QU and the community in order to address the challenges through strategic communication. The other objective was to enhance the QU image through media. Finally, the fourth area concentrated on the importance of sufficient and effective resource allocation to improve service delivery. QU adopted a service-oriented culture by focusing on the students' positive experience as a priority.

In general, the QU strategy intends to enrich students' experiences with campus life and enhance their knowledge and abilities with high quality education (Qatar University, 2017). Thus, this study examines the students' perception of the university services and its influences on their emotional attachment as well as their behaviors and attitudes. Table 1 provides specific details regarding the higher education institutions in Qatar.

Table 1**Profile of HEIs in Qatar**

Institutions	Year	Subjects	Degree
Qatar University	1976	Colleges: College of Arts and Sciences, College of Business and Economics, College of Education, College of Engineering, College of Health Sciences, College of Law College of Medicine, College of Pharmacy, College of Sharia and Islamic Studies	Bachelor Diploma Masters Doctorate
Community College of Qatar (CCQ)	2010	Business & Computer Science, English Language Center (ELC), Humanities and Social Sciences, Language and Literature, Math & Science	Diploma
College of North Atlantic	2002	Business Studies, Engineering technology and industrial trades, health sciences, information technology and technician certificate program	Diploma Certificates
Doha Institute for Graduate Studies	2014	Humanities, social sciences, public administration and development economics.	Masters
Qatar Aeronautical College	1975	Aviation industry	Diploma Training Certificates
<i>Education City Universities</i>			
Virginia Commonwealth University	1997	Fine Arts, Fashion Design, Graphic Design, Interior Design or Painting and Printmaking, Fine Arts degree in Design Studies	Bachelor Masters
Weill Cornell Medical College	2001	Medicine	M.D. degree
Texas A&M University in Qatar	2003	Electrical, Mechanical, Chemical, and Petroleum Engineering	Bachelor Masters
Carnegie Mellon University in Qatar	2004	Biological sciences Business Management	Bachelor
Georgetown University in Qatar	2005	Foreign Services Science	Bachelor
Northwestern University in Qatar	2007	Journalism and Communication	Bachelor
University of Calgary	2007	Nursing	Bachelor Diploma
Stenden University	2009	Business Administration	Bachelor
University College of London in Qatar (UCLQ)	2010	Museology, archaeology, and cultural heritage studies	Masters
HEC Paris	2011	Business management	Masters
Hamad Bin Khalifa University (HBKU)	2010	Colleges: Science & Engineering, Health and Life Sciences, Law & Public Policy, Islamic Studies and Humanities & Social Sciences	Bachelor Masters Doctorate

Significance of the Study

The intensive competition that the higher education sector is facing to recruit students has pushed several universities to develop marketing plans to maintain their competitive advantage in the marketplace. Qatar University is no exception. Currently, there are reputable universities who have established branches in Qatar and place emphasis on their educational services as a vital tool for their growth strategies. Therefore, Qatar University needs to differentiate itself in this competitive market by delivering high quality educational services that meet students' expectations.

Researchers in this area calls for establishing links between service quality performance and students emotional attachment to the university (Abdullah et al., 2015). The university service quality can influence students' emotional attachment to the university, which in turn affects their behaviors and attitudes toward the university. This study highlights this research gap by examining the relation between various university service aspects and students' emotional attachment.

In service industries, the subject of service quality remains difficult to define and measure. The literature reveals that there are several attempts to find an appropriate instrument to measure service quality especially in the higher education context. This study adopted Abdullah's (2006) HEdPERF scale. This scale is specifically designed to evaluate the determinants of customer (students) services. Therefore, the results of this study will contribute to the existing customer service literature in particular reference to the higher education sector.

Belaid and Behi (2011) suggest that there is a lack of research conducted to

determine the outcomes of emotional brand attachment. This study highlighted this research gap by investigating the influence of emotional attachment on customer citizenship behavior. When students are emotionally attached to their university, they will be more willing to invest in their relationship with the institution such as paying a premium prices and perform extra-role behaviors in order to maintain that relationship (Park et al., 2010). Therefore, it is crucial to study whether students' emotional attachment and its impact on their voluntary behaviors such as helping others, tolerance, advocacy and providing feedback.

This study incorporated the concepts of university service quality, emotional attachment, and customer citizenship behavior into a single model. The empirical examination of this research model is the primary contribution of this research. The research examined the relationship between service quality aspects and students' emotional attachment, which in turn will lead to enhance students' citizenship behaviors. The research also contributed to the literature by highlighting the consequences of emotional attachment in the higher education sector.

This research will benefit higher education institutions, in particular Gulf Cooperation Council (GCC) universities, because it demonstrates the relationship between educational service quality dimensions and student emotional attachment. The results can be used as input for developing future growth strategies and enhancing the educational services by determining the aspects that influence students' emotional attachment. The Commission for Ministry of Education and Higher Education (the body that is responsible for developing and regulating higher education in Qatar) could benefit from the output of this research that provides insights into the students' perceptions

related to the higher educational services. This is aligned with one of the key pillars of Qatar Vision 2030, to provide citizens with more opportunities through advanced educational services.

Statement of the Problem

Previous research revealed that there is a need for studies that examine the relation to the power that comes from high quality services and its impact on students' behaviors (Balaji, 2014). This paper aims to contribute to an underdeveloped area in the literature related to emotional brand attachment and its consequences and outcomes in higher education context.

Research Objectives

The current study adopted a marketing perspective to design a research model considering service marketing and consumer behavior streams. It incorporated the concepts of service quality, emotional brand attachment and customer citizenship behavior into a single conceptualized model.

The primary aim of this study was to examine the impact of various aspects of service quality on students' emotional brand attachment, which enhance customers' citizenship behaviors. The primary objectives of the research are:

1. To investigate the role of students' emotional attachment in mediating the relationship between university quality and customer citizenship behavior.
2. To develop, empirically test and validate a conceptual model that incorporates all influential factors of student experience identified from the previous literature.
3. To recommend interventions to improve student experiences within higher education institution in Qatar.

Research Questions

This study was conducted to establish a link between five service quality aspects in higher education and emotional brand attachment of Qatar University students. The study also analyzed the impact of students' emotional brand attachment on their customer citizenship behavior. This study proposed the following three research questions:

- Do selected service quality dimensions influence emotional brand attachment among students of Qatar University?

- Does students' emotional attachment influence customer citizenship behavior?
- Does emotional attachment mediate the relation between service quality dimensions and customers citizenship behaviors?

Structure of the Thesis

The remainder of the thesis is divided into six chapters. Chapter two provides a literature review that introduces the main research constructs namely service quality, customer emotional attachment and customer citizenship behavior. Chapter three develops the research conceptual framework including the hypotheses development. Chapter four develops the quantitative research methodology. Chapter five provides the results followed by discussions of the findings. Chapter six presents the thesis conclusion, limitations of the study, theoretical and empirical implications and suggestions for future research.

CHAPTER 2: LITERATURE REVIEW

Service Quality in Higher Education

Service quality received ample attention from both practitioners and academics in attempt to comprehend its antecedents and outcomes (Abdullah, 2006). Since the 1980s, researchers emphasize the need for developing strategies to enhance service quality as a tool to obtain a competitive advantage by increasing customer retention and develop a positive word of mouth (Kimani et al., 2011). The focus was on the impact of service quality on the organization profit and positive financial outcomes. Subsequently, the service quality model is considered as an important approach for institutions to achieve operational efficiency and enhance business performance (Sultan & Wong, 2010).

The development of the education market has forced universities to construct unique strategies for differentiation and success in the competitive national and international markets. There are several factors that led to this situation such as the internationalization of higher education (Harvey & Williams, 2010; Sultan & Wong, 2012) and the increase in the number of private universities (Halai, 2013). These forces encouraged research on service quality in higher education (Hill, 1995; Sultan & Wong, 2010). Since, the higher education sector is a service-based field (Hill, 1995); Higher Educational Institutions (HEIs) should understand the market orientation (Oldfield & Baron, 2000). HEIs should realize that service quality is a key determinant of their success (Kimani et al., 2011).

Hence, there is an intense competition in the higher education sector with the keen intention of universities to differentiate themselves from their competitors (Abdullah,

2006; Kimani et al., 2011). In an attempt to manage effective service delivery, HEIs need to constantly measure their service quality (Abdullah, 2006; Ling et al., 2010). Jelena (2010) stressed the significance of managing HEIs services with the aim of enhancing the perceived quality through customer feedback. Since university services are considered as value-based, HEIs should improve the relationships with their main stakeholder such as students, academic and staff being the main contributors to the university value-based service setting (Sultan & Tarafder, 2007).

A review of the literature indicated the challenge of defining service quality because of its characteristics being complex and multidimensional (Abdullah, 2006). Parasuraman et al. (1988) defined service quality as “a form of attitude, related but not equivalent to satisfaction, and resulting from a comparison of expectations with perceptions or performance” (p. 15). Thus, service quality is a result of customers’ assessment of their experience with an organization’s service delivery process. Applied to the higher educational context, O’Neill and Palmer (2004) define service quality as “the difference between what a student expects to receive and his/her perceptions of actual delivery” (p. 42). Indeed, students’ expectations of educational service quality should be met in an attempt to overcome challenges such as poor student engagement in the higher education activities (Sultan & Wong, 2012).

In addition, service quality in higher education differs from other service industries because of its nature as a “pure service” that does not involve a physical product (Evans & Lindsay, 2005). Higher education institutions are referred to as the marketplace while HE services function as marketable products (Sultan & Wong, 2010). However, higher education like any other service needs to focus on recruiting potential

customers, namely students, as the primary stakeholders. There are other prospective customers in the higher education market such as alumni, families, employers, academic staff, government and industry. These should be considered as secondary customers (Abdullah, 2006). Those stakeholders have different perceptions of education service quality based on their wants and needs. Consequently, it is crucial to measure the service quality from students' perspectives as the primary beneficiary in higher education.

Measuring Service Quality in Higher Education

Generic Scales

Service literature emphasizes the need for reliable assessment and measurement of service quality in order to provide quality education services (Abdullah, 2006). It is difficult to improve HEIs services unless an objective measure is used as a benchmark. However, it is also difficult to define and measure the service quality construct because of its unique and elusive nature (Parasuraman et al., 1988). Although there is excessive research regarding the diverse instruments of service quality measurements, researchers usually adopted one of two main divergent perspectives: the Nordic or the American school perspective. The Nordic School (developed by Grönroos (1984) is designed to identify the dimensions of services quality by dividing it into two areas, technical and functional quality. Researchers such as Parasuraman et al. (1988) developed the American School perspective based on the belief that service quality has a diverse range of dimensions (for example accessibility and reliability dimensions). While the American School perspective is dominant in the literature, both schools take in consideration customers' expectations and perceptions (Prakash & Mohanty, 2013).

Conceptualization and measurement of HEI service quality is an actively debated topic in the service marketing literature (Brady & Cronin, 2001). Previous studies have postulated several different measurement models for service quality in the higher education setting. However, the most prevalent instruments of service quality measurement are SERVQUAL (Parasuraman et al., 1988), and SERVPERF (Cronin & Taylor, 1992). Carrillat et al. (2007) demonstrated that about 46 percent of the total citations in the service quality literature during the period of 2002 and 2007 utilized the SERVQUAL and the SERVPERF scales. Accordingly, the effectiveness and superiority of these two scales are contingent upon the particular study's nature and objectives. Since, both instruments assess the perceived service quality; they differ in the formulation adopted for their application. The SERVQUAL attempts to adapt a disconfirmation paradigm that aims to measure service quality based on perception of the service received compared to expectations. On the other hand, SERVPERF highlights only the customer's perceptions of service quality.

Previous service literature utilized the SERVQUAL scale as a credible measure of service quality in the higher education sector (Oldfield & Baron, 2000). The SERVQUAL scale compares the level of quality performance perception with the consumer expectations. The scale consists of 44 items divided into two parts, the consumer expectation and perception including the dimensions of tangibility, reliability, responsiveness, assurance and empathy. However, the SERVQUAL scale received numerous criticisms based on empirical evidences (Abdullah, 2006; Carrillat et al., 2007; Hamari et al., 2017). Several studies concluded there was no evidence, either theoretical

or empirical, to support the gap analysis between expectations and performance to determine service quality (Brady et al., 2002; Abdullah, 2006). Despite this criticism, an analysis of relevant literature revealed that this scale has been extensively used in measuring higher education service quality (Wright & O'Neil, 2002; Carrillat et al., 2007).

Alternative measurement instrument is the SERVPERF that focuses only on perceptions. Several studies preferred and considered the scale as a valid measure of higher education service quality (Kontic, 2014). The instrument includes 22 items extracted from the SERVQUAL scale – perception components only. The instrument is divided into five dimensions that are tangibility, reliability, responsiveness, assurance and empathy. The SERVPERF scale has a superior convergent and discriminant validity and gives a more reliable estimation of the service quality (Abdullah, 2006). However, several researchers argue that the SERVPERF instrument is unsuccessful in measuring service quality in cross-cultural education contexts in comparison to SERVQUAL (Shekarchizadeh et al., 2011; Karami & Olfati. 2012). This argument was supported by Lee (2007) who measured higher education institutions service quality in three countries. Lee (2007) concluded that SERVQUAL rated as a better alternative measure of service quality in cross-cultural contexts than SERVPERF.

Specific Scales used specifically for service quality measurement in higher education

Several studies shed light on the issue that consumers consider performance as a key evaluation element of quality service. Thus performance-based measures elucidate the maximum of variance in an overall service quality measure (Cronin & Taylor, 1992).

For example, Cronin and Taylor (1992) concluded that measurement based on service performance is a better approach in the higher education context because of the challenge to determine students' expectations. In response, Abdullah (2006) developed an industrial-scale for the higher education sector as a better alternative instrument of the HEIs service quality named HEdPERF. This new instrument received significant attention regarding its ability to determine students' perceptions regarding the quality of higher education services (Sultan & Wong, 2010).

HEdPERF aims to identify the authentic determinants of service quality concerning both academic and non-academic aspects as experienced by students (Abdullah, 2006). It consists of a five-factor structure of distinctive dimensions with 41 items verified using both exploratory and confirmatory factor analysis (CFA) for unidimensionality of the measure, reliability and construct validity (Abdullah, 2006). In the following paragraphs, the five dimensions of HEdPERF are developed in detail.

Non-academic aspect

This dimension consists of several items related to the administration or support staff duties and responsibilities that enable students to achieve their role as students. Students' perception of good quality services depends on their interaction with the administrative staff (Bitner et al., 1990). Therefore, it is important to emphasize the role of non-academic staff in providing equal treatment, a positive attitude, accessibility, friendliness and having good communication skills. Sohail and Shaikh (2004) support this by demonstrating the staff support is the most vital factor influencing students' assessment on the service quality. In addition, Sultan and Wong (2012) argued students consider the ability of administration response in delivering promises on time as a key

factor that reflects the quality of services provided by the university.

Academic aspect

The university faculty plays an important role regarding students' perception of higher education service quality since they have direct interaction with students. This factor reflects the commitments of academics in delivering effective instruction with a positive attitude and to provide regular feedback regarding students' progress and clear communication in classrooms. Oldfield and Baron (2000) highlighted that instructors' teaching skills, commitment, knowledge and attitude enhance student's perception of the university service quality. This aspect of higher education is consistent with the findings of a study collected by Hinson (2006) that revealed students' perception of the institutions service quality depend heavily on the providers of the service especially the faculty capability to deliver both teaching quality and interpersonal skills.

Reputation

Higher education institutions attempt to advance their professional image through establishing degrees that are recognized by reputable educational accreditation bodies. Jalasi (2015) stressed the importance of a university's reputation in shaping students' perception of service quality. Students perceived the university's high ranking and the national and international recognition as a key determinant of high quality service. Moreover, the institution's ability to offer variety of programs, that have distinctive content and flexible structure, tends to enhance the university reputation (Jalasi, 2015).

Access

The accessibility dimension relates to other important aspects of the service quality such as convenience, ease of contact, suitability, approachability and availability.

Several scholars demonstrate that students' perception of university service quality influenced by their access to university facilities and services (Ling et al., 2010; Abdullah, 2006). Sia (2013) found that one of the criteria that students use to select a university is its services accessibility and convenience. Thus, this dimension is important in shaping students' experience in the higher education institutions.

Program issues

The university program quality and the university's ability to offer a wide range of programs/specializations influence students' perception of the service quality (Abdullah, 2006). This dimension assesses students' evaluation of the university's ability to offer undergraduate and graduate programs as well as a flexible structure.

Recently, researchers assessed students' service quality perception in tertiary education institutions using different measurement tools such as PAKSERV (Raajpoot, 2004), EDUQUAL (Mahapatra & Khan, 2007), HiEdQUAL (Annamdevula & Bellamkonda, 2012), COURSEQUAL (Vajda et al., 2015), PESPERF (Yildiz & Kara, 2009) and TEDPERF (Rodríguez-González & Segarra, 2016). In 2004, Raajpoot developed a PAKSERV scale to measure the service encounter quality in the non-western Asian culture. PAKSERV model included culturally sensitive multi-item scale that was developed based on SERVQUAL scale. The scale consisted of six dimensions (tangibility, reliability, assurance, sincerity, formality and personalization) to measure service quality in a Pakistani cultural context. Another scale developed specifically for the measurement of education quality in technical institutions is EDUQUAL (Mahapatra & Khan, 2007). EDUQUAL was based on SERVQUAL model and comprised of five dimensions (learning outcomes, responsiveness, physical facilities, personality

development and academics).

Furthermore, a new instrument was developed based on SERVQUAL named HiEdQUAL in 2012 by Annamdevula and Bellamkonda (2012) aimed to measure service quality in higher education context. It comprised of six dimensions namely: teaching and course content, administrative services, academic facilities, campus infrastructure, internationalization and support services. Additionally, in 2015, Vajda and others developed COURSEQUAL, a specific scale based on SERVQUAL that aimed to capture the students' perception of available courses in their institutions. This scale consisted of five main dimensions (tangibles, reliability, responsiveness, assurance and empathy).

In 2009, Yildiz and Kara (2009) developed a specific service quality performance scale to measure service quality in the School of Physical Education and Sports Sciences (PESS). The authors argued that HEdPERF is a generic scale designed specifically for the university level rather than a unit or department within a university. Therefore, they developed PESPERF (namely Physical Education and Sports Sciences PERFormance) based on HEdPERF scale with three main variables namely: academic aspects, empathy, and access. Another new performance scale is TEdPERF (Tertiary Education PERFormance) developed by Rodríguez-González and Segarra (2016). This scale is based on HEdPERF model and has proved to measure service quality in Mexican higher education institutions. The scale comprises of four service dimensions (non-academic aspects, academic aspects, reputation and program issues)

To conclude, the literature shows variance in the choice of the scale to measure service quality in a particular higher education context (Abdullah, 2006). Generic service quality measures such as SERVQUAL and SERVPERF may not be suitable for assessing

perceived quality in different contexts such as higher education. Therefore, this study adopted HEdPERF model because it has been supported by many scholars as an effective tool to measure service quality in higher education institutions (Brochado, 2009; Kimani, 2011; Kumar & Yang, 2014). Moreover, all the five dimensions namely: non-academic, academic, program issues, reputation and access are identifiable at Qatar University. Hence, the model was an appropriate service quality measurement tool for this study.

Emotional Brand Attachment

The concept of emotional attachment was established in the field of psychology and centers on the relationship among parents and children in order to comprehend the process of affection regulation (So et al., 2013). The concept has been developed based on the interpersonal attachment theory (Bowlby, 1979). It demonstrates the extent of the individual's emotional attachment to a specific object that can then easily predict an individual's behaviors and attitudes toward that particular object (Bowlby, 1979). In the marketing context, the interpersonal attachment theory suggested that consumers attach to some brands as an innate propensity (Chinomona, 2013). Therefore, it is crucial for companies to build good relations with their customers in order to develop the brand equity and long-term relationships. Marketers should consider that the drivers of customers' brand attachment can be a result of emotional experiences, self-connections with the brand or related to the institution itself as brand characteristics (So et al., 2013).

Psychological theories such as the social-cognitive theory suggest that attachment is an outcome of both cognitive and emotional bonding (Baldwin et al., 1996), reflecting

customers' self-connection through establishing links between the brand and themselves (Grisaffe & Nguyen, 2011). Consistent with that, Louis and Lombart (2010) view attachment as an emotional link between the customer and a brand. Emotional brand attachment can be defined as the emotional bond and strength of the relationship of an individual to an object (Thomson et al., 2005; Park et al., 2010). According to Jiménez and Voss (2007) emotional attachment is "a relationship-based construct that reflects the emotional bond connecting an individual with an object" (p. 290–291). Brand attachment then informs the emotional quality and strength of the relationship of the individual to a brand. The Pioneering work on attachment highlights that customers with high service brand attachment are more willing to commit to invest in their relationship with the brand (Frasquet et al., 2017). Thus, marketers are developing new strategies to understand customers' needs to build good relationships (Malaïr et al., 2011). For instance, in the automobile industry, Loureiro et al. (2012) found that customers attached to a brand are more willing to trust, love and be loyal toward that brand. In the retailing context, Vlachos et al. (2010) research confirms the impact of emotional brand attachment on enhancing a positive word of mouth attitude and customer loyalty. In the luxury industry, studies showed that emotional attachment is a key driver of brand loyalty (So et al., 2013).

Therefore, service brands, including HEIs need to understand the influence of emotional brand attachment on increasing profitability as well as enhancing customer lifetime value (Grisaffe & Nguyen, 2011). However, the interest in examining customers' emotional brand attachment is growing especially in today's highly competitive markets.

Batra et al. (2012) argued that exploratory work is needed to examine the boundaries and contents of the brand attachment construct. Hence, this research study addresses that gap by exploring the antecedents and consequences of this key construct from the customer's point of view.

Measuring Emotional Brand Attachment

Emotional brand attachment could be considered as a type of self-extension where customers tend to attach themselves to a particular brand. According to Schmitt (2012) brand attachment is a prominent construct that explains the mechanism under which consumer's attach to a specific brand. Thomson (2006) mentioned that researchers should study the brand attachment antecedents and consequences because it is essential for understanding customer-based brand equity. Thomson et al. (2005) measured brand attachment by conceptualizing it as emotional bonds between the customer and the brand. Park et al. (2006) argued that brand attachment captures both emotional and cognitive bonding between the customers' 'self' and the brand. On the other hand, Rossiter and Bellman (2012) measured brand attachment with four factors, bonding, resonance, love and companionship.

The literature reveals that there are two recent scales used to measure brand attachment. Thomson et al. (2005) were the first to develop a higher order scale to measure emotional brand attachment. This scale includes three factors, affection, passion and connection that capture the feelings that reflect emotional attachment. Park et al. (2010) developed a scale that focused on the cognitive aspect of attachment including

both brand identification and brand prominence. Accordingly, consumers tend to develop links between the brand, their self-image and personality (Baumgarth, 2014). This can be explained by brand identification that describes the extent customers are attaching the brand to themselves. The other factor is brand prominence that can be explained as the customers' ability to access and retrieve positive memories and feelings associated with a particular brand.

In summary, Park et al. (2010) measures the strength of more cognitive bond connecting the customer with the brand while Thomson et al. (2005) scale measured the emotionally laden bond, which consist of an individual's connection, affection and passion related to a brand. Because of these distinctions, this research aim to examine the role of emotional attachment in higher education context. This study will adapt items from the study of Abdullah et al. (2015) because it is conducted in the higher education sector and includes emotional attachment characteristics that motivate students to be committed to the brand and have deep and long-term relationship with their university. Positive emotional brand attachment is positively related to consumers' positive attitudes and behavioral responses including extra role behaviors toward a brand and its marketing activities (Grant & Gino, 2010). In addition, according to Thomson et al. (2005) attachment take time and multiple interactions with the brand to form. However, research demonstrates that emotional evaluations can occur immediately (Schwarz & Clore 1983; Edwards 1990).

Antecedents and consequences of emotional brand attachment

There are limited studies that examine the emotional brand attachment construct in terms of its determinants and outcomes. Regarding emotional brand attachment antecedents, Kim (2005) suggested that emotional brand attachment could be predicted by the congruity between self-concept and the brand personality. Also, Thomson (2006) claimed that brand responsiveness leads to emotional brand attachment. Vlachos et al. (2010) revealed that gratifying, enabling and enriching the customers' self leads to a strong brand attachment. However, the literature demonstrates that emotional brand attachment positively enhances brand loyalty and increases customers' willingness to pay a premium price (Thomson et al., 2005). Emotional brand attachment leads to an increase in the actual purchase, minimizes the influence of negative word of mouth and encourages extra-role behaviors (Rossiter & Bellman, 2012; Park et al., 2010; Schmalz & Orth, 2012).

Japutra et al. (2014) explored the determinants and outcomes of emotional brand attachment using a qualitative method. The results are displayed in Figure 1. Based on their results, this current study hypothesized that service quality will lead to emotional brand attachment which influences customers behaviors and attitudes.

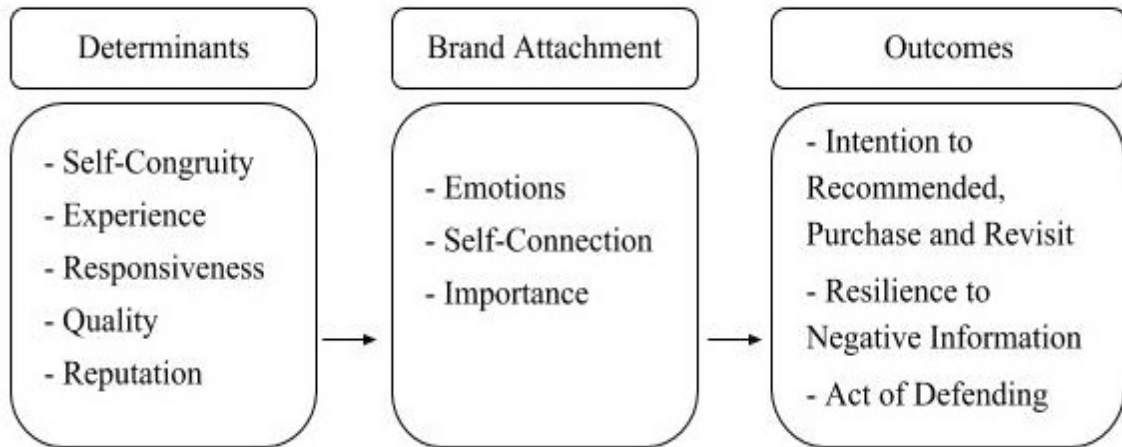


Figure 1. Conceptual model of the determinants and outcomes of brand attachment.

Distinction between brand attachment and other constructs

The literature also indicated that brand attachment has been considered to share several similarities with other constructs. Vlachos and Vrechopoulos (2012) argued that it is difficult to differentiate brand attachment from brand love because the two constructs describe the formation of the strong emotional bond between the customer and a brand. However, other researchers considered brand attachment and brand love as distinctive constructs (Loureiro et al., 2012). Batra et al. (2012) suggests that brand attachment is needed in order to create brand love. Therefore, love is an emotion that build attachment bond, not the actual attachment bond. In another words, a person might feel love in the presence of attached object or brand but attachment is more than this feeling (Park et al., 2008). Brand love entails the intensity of emotional bonds towards the brand, while

emotional attachment does not necessary require such intensity (Hwang & Kandampully, 2012).

It has been argued that satisfaction is similar to brand attachment. However, satisfied customers might not be attached to the brand (Abdullah et al., 2015). Satisfaction may occurs immediately after consumption. Unlike brand attachment that requires several interactions with the brand. Also, the two constructs are different in term of their nature. Satisfaction is an evaluated judgment construct while brand attachment considered the emotions that attached customers to a brand (Thomson et al., 2005). On the other hand, Fournier (1998) emphasize the important of distinguish brand attachment from brand loyalty since brand attachment involves emotional component such as passion and self-connection.

Customer Citizenship Behavior

In the service context, customers are considered as "partial employees" (Choi & Lotz, 2016) since they can influence organization employees' work in certain situations (Yi & Gong, 2008). For instance, customers might help other customers by providing effective information and optimum use of the provided services. Therefore, considering customers as value creators encouraged several researchers to examine the antecedents and consequences of co-creation behavior. Previous service literature revealed that customer value co-creation behavior includes in-role and extra-role behaviors. First, in-role behavior refers to the required behaviors for the effective completion of service. The second type is customer citizenship behavior that includes extra behaviors that enhances the organization's performance (Yi & Gong, 2008). According to Yi et al. (2011), there

are different antecedents and consequences for the in- role and extra-role behaviors since they do not follow the same patterns. Therefore, researchers should recognize the nature of these behaviors and design scales to measure each behavior separately.

Organ (1988) introduced the concept of organizational citizenship behavior (OCB). He defined OCB as the constructive and appreciated behavior exhibited by the individual without any formal rewards from the organization. Based on this concept, customer citizenship behavior refers to the voluntary behavior and extra-role behavior that emerges from customers that provides long-term benefits to the organization. For example, customers giving feedback to the service providers suggesting productive ideas that will help in the development of service provision. These behaviors prove their effectiveness to advance the organization performance, profitability and facilitate better quality services (Ambrose et al., 2015). Therefore, this study focuses on the extra-role behaviors that students perform toward the university.

Measuring Customer Citizenship Behavior

Studies demonstrate that there is no consistency in classifying the dimensions of the customer citizenship behavior construct. Smith et al. (1983) distinguished two key dimensions, namely altruism (helping others) and compliance (behaviors toward the organization). Groth (2005) proposed that customer citizenship behavior has three dimensions: feedback, helping, and providing recommendations. Yi and Gong (2013) argued that customer citizenship behavior comprises four dimensions: feedback, helping other customers, advocacy and tolerance. To conclude, Yu and Chu (2007) stress the significant of identifying the construct dimensions based on the study context.

Considering the importance of capturing the voluntary behaviors that benefit the organization as well as the individual, this study will consider the dimensions of advocacy, tolerance, helping behavior and feedback. In the higher education setting, students play a major role in improving the university services and provide support to the institution. Therefore, students' voluntary behaviors are required for value co-creation (Groth, 2005). Thus, advocacy behavior is related to customers recommending university services to friends and family that will increase the university value (Yi & Gong, 2008). Tolerance is another crucial dimension of customer citizenship behavior that reflects the customer's willing to be patient even when services do not perform or deliver as expected (Yi & Gong, 2008). For example, students might tolerate the delay of the university's admission processes. Other dimensions are helping behavior and providing feedback to improve the service delivery process.

CHAPTER 3: THEORETICAL FRAMEWORK

Higher education institutions were recently regarded by researchers (Abdullah, 2006) as a service where the service provider ensures delivering services that meets or even exceed students' needs and expectations. In this current study, service quality was measured using performance based measuring scale —Higher Education PERFormance-only (HEdPERF). This is a comprehensive instrument that attempts to capture service quality dimensions within the higher education setting. Students as customers are expecting universities to provide them with an excellent learning environment containing appropriate and well-supported lectures and facilities. Therefore, it is important to

measure students' perception of the service in order to assess both its advantages and disadvantages. Based on previous literature, the relation between service quality and student satisfaction is well established (Athiyaman, 1997; Clemes et al., 2008; Casidy & Wymer, 2016). However, in the higher education context where long-term relationship reaps greater benefits, emotional attachment rather than satisfaction believed to be the most important to be measured (Abdullah et al., 2015). Yet, there are only a few studies that link service quality with emotional attachment.

According to Bowlby (1979), an attachment is an emotional connection between a person and a specific target such as people, places, products and brands. Previous research confirmed that there is a strong impact of emotional attachment on customers' motivations and behaviors. Those who show a strong attachment bond to a brand tend to preserve the closeness to the attachment target (Japutra et al., 2014). Hence, it can be hypothesized that emotional attachment increases the probability of extra-role behaviors. Blau (1964) argues that customers' citizenship behavior can be predicted by the social exchange theory by explaining the interpersonal relations between two parties based on estimates of rewards and costs using cost-benefit analysis. In the higher education service context, when students received a good university service quality they will feel that they are responsible to reciprocate (Bagger & Li, 2011). Thus, the parties involved in a social exchange are more willing to perform extra roles to maintain their relationship (Anaza & Zhao, 2013). Therefore, it can be hypothesized that when students perceive the service as high quality they will obligate extra behaviors toward the university.

As emphasized by Grisaffe and Nguyen (2011) the emotional attachment

construct is relatively new in the marketing literature particularly in regard to consumer behavior (Abdullah et al., 2015; Dennis et al., 2016). Hence, there is an absence of empirical studies evidence about the antecedents and consequences of emotional attachment. This study attempts to address this gap by developing an integrated conceptual model including service quality, emotional attachment and customer citizenship behavior.

Social Exchange Theory

The Social Exchange Theory (SET) developed by Blau (1964) explains the nature of behavioral choices and interpersonal relationships between two parties that are based on estimates of rewards and costs. The theory posits that any relationships in all aspects of social life is a result of series of cost and benefit analyses. Examples of benefits that a person can derive from a social system include love, honor, friendship, status, information and respect. These benefits support the relationships between two actors (Chang et al., 2015). On the other hand, individuals spend their time and energy as a cost of value exchange in a social system. Thus, social exchange theory is based on the fact that positive actions are a result of reciprocity through service and expression of gratitude.

This theory explains workplace behaviors in the higher education context when students perceive the institution services with high quality they are most likely to have an obligation to reciprocate by engaging in voluntary behaviors (Balaji, 2014). The social exchange relationship between students and their university is straightforward. Students

who are attached to the university and satisfied with their experience go beyond the usual duties to maintain and further their relationship with the university (Balaji, 2014). These students will engage in voluntary extra-role behaviors, such as helping their colleagues, providing feedback, promoting the university services and encouraging others to study in the university. Therefore, this study's conceptual model uses social exchange theory to predict students' customer citizenship behaviors in the higher education setting.

Conceptual Framework

The current study adopted a marketing perspective in designing a research model considering services marketing and consumer behavior streams. It incorporated the concepts of service quality, emotional brand attachment and customer citizenship behavior into a single conceptualized model. As shown in Figure 2, service quality was conceptualized as comprising four dimensions namely reputation, academic aspects, non-academic aspects and access. The service quality dimensions were hypothesized to influence the customer emotional attachment, that had an impact on customer citizenship behavior including helping others and advocacy. The model presented the possibility of emotional attachment as a mediator. The study framework consisted of ten hypotheses. The subsequent sections discussed the hypothesized relationships between the study constructs.

Hypotheses Development

In HEIs, it is important to have a dynamic interaction between teachers and students. This interaction is analyzed as a particular service, where extended relationship

with a special attention can be a significant determinant of positive feelings (Price et al., 1995). Faculty should deal with students as active participants in the service delivery. The ability of the faculty to deliver quality instructions influences students' perceptions of the university services. The contact and interactions between students and faculty might create attachment to the faculty and enhance students' social need for affiliation to others (Curth et al., 2014). As conceptualized by Low and Lamb (2000), emotional attachment is associated with perceived teaching quality. Hence, previous literature demonstrated that the study of emotional attachment and service quality is crucial to build student loyalty. When students perceived the academic service as pleasing, this lead to positive and favorable behaviors. In accordance with the arguments above, it is hypothesized that:

H1a: Academic dimension has a positive impact on university emotional brand attachment.

H1b: Academic dimension has a positive impact on customer citizenship behavior.

In any service context, the interaction between customers and the organization employees play a major role in shaping and influencing customers' perception of the service (Bhuiyan, 2016). In the current study's context, the faculty and staff's ability to deliver an outstanding service by providing students with the necessary assistance, resolving students' issues and respond quickly to their problems are likely to positively influence a student's attachment to the university. Also, the positive interaction between students and non-academic staff might satisfy a social need such as belonging and may

lead to a sense of attachment (Anselmsson et al., 2014). When customers perceive non-academic services as beneficial, they become more attached to the university (Park et al., 2010). Then, they behave in a manner that maintain and support their long-term relation with the university (Park et al., 2010). Therefore, it is hypothesized that:

H2a: Non-academic dimension has a positive impact on university emotional brand attachment.

H2b: Non-academic dimension has a positive impact on customer citizenship behavior.

University reputation and image is very important especially with increasing competition in the higher education sector (Sung & Yang, 2008). Students who perceive their university as having a good reputation are more likely to be attached to the university. A good reputation encourages customers to be more loyal towards the brand. According to Fournier (1998) as customers believe that the brand fulfill their needs and provide superior performance capabilities, they are willing to perform extra roles to reward the brand by maintaining a long-term relationship with the brand. Comparable to the human relationships, customers prefer special characteristics in the brand that will motivate them to establish cognitive and emotional connections to that brand. Previous studies demonstrate that customers have a higher propensity to trust brands with credibility because they believe that these brands are able to meet their expectations (Morgan & Hunt, 1994). As a result, customers are willing to intensify their relationships with the brand. Consequently, it is hypothesized that:

H3a: Reputation dimension has a positive impact on university emotional brand

attachment.

H3b: Reputation dimension has a positive impact on customer citizenship behavior.

Previous studies did not focus on the effect of facilities' quality surrounding customers (Abdullah et al., 2015). The availability and easy to access the physical environment should influence students attachment to the university. Especially, their true feeling that the university designed these facilities to help them and enhances their experience. The university non-academic services tend to satisfy students functional needs. Thus, functional needs related to the substantial value that students expect from university service as helping students and providing them with immediate assistant (Sweeney & Soutar, 2001). Customers are likely to establish customer-brand relationship as the brand enhances customers feeling of comfort (Fournier, 1998). Thus, it is hypothesized that:

H4a: Accessibility dimension has a positive impact on university emotional brand attachment.

H4b: Accessibility dimension has a positive impact on customer citizenship behavior.

The attachment theory proposed that customers with a high brand attachment level to an object are more likely to perform satisfactory behaviors and attitudes toward that object. Both brand-self connection and brand prominence influence customers' attitudes especially when customers have strong feelings regarding a service brand (Thomson et al., 2005). Customers are willing to make investments in their relation with

a brand that they are attached to such as a university (Thomson et al., 2005). Therefore, students who are attached to their university are more likely to volunteer in doing extra-role behaviors and be active in the university environment. Prior research highlighted the impact of attachment on customers' in-role behaviors such as willing to pay a premium price and showing strong purchase intentions (Hyun & Han, 2015; Cheng et al., 2016; Park et al., 2010). However, as Cheng and others mentioned in their research that the previous literature has sparingly addressed the extra-role behavior in regard to brand emotional attachment (2016). Therefore, this study attempts to reduce this gap by addressing the following hypothesis:

H5: University emotional brand attachment has a positive impact on Customer Citizenship Behavior.

Customers' emotional attachment represents customers' feeling of connection and passion toward the brand (Thomson et al., 2005). Consequently, these emotional bonds affected customers' attitudes such as the willing to invest both cognitive and financial resources (Feeney & Noller, 1996). Prior research confirmed the role of customer emotional attachment on advancing and maintaining a long relationship with the brand (Thomson et al., 2005). In the higher education context, students evaluate the university service based on a cost-benefit analysis, in such a way that if they perceives a superior service they tend to demonstrate extra role behaviors and actively participate in the university activities.

A mediation effect occurs when a variable (Mediator) explains the underline

relationship between an independent and dependent variable. It is used to describe the mechanism or process that underlies an observed relationship between two variables (MacKinnon & Cox, 2012). However, the model of mediation effect of emotional attachment is not theoretically established in previous literature (Ramli et al., 2015). This study extended the literature by proposing that emotional attachment mediates the relation between service quality and customers citizenship behavior with a specific regard to higher education sector. Therefore, the subsequent hypothesis was developed to address this gap:

H6: Emotional attachment mediates the relation between service quality and customer citizenship behavior.

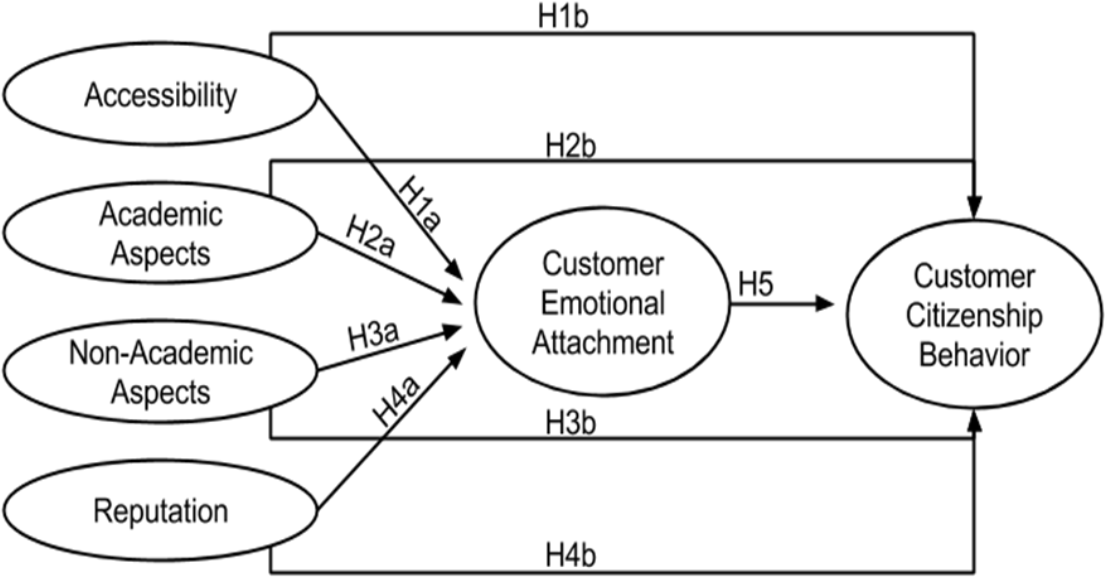


Figure 2. The conceptual model.

CHAPTER 4: RESEARCH METHODOLOGY

Research Approach

Positivism approach was adopted in this study because it allowed the researcher to test the research hypothesis and explain the causal relationships between variables. Using the hypothetic-deductive method, the researcher could empirically approve the proposed research model. In addition, the existing literature on service quality, emotional brand attachment and customer citizenship behaviors developed theoretical framework and provided good knowledge about these constructs. Furthermore, quantitative method was adopted as the study has a clear research questions, specific hypothesis and comprehensive body of knowledge (Malhotra, 2004).

Ethical Considerations

Social researchers follow ethical conventions to avoid any possible negative influence during the collection, analysis and interpretation of data. Ghauri and Gronhaug (2010) suggested the importance of considering the ethical issues not only at the research design stage but also to implement the ethics principles in all research stages. Therefore, this thesis was conducted in line with the Social Research Association Ethics Guidelines (SRA). The SRA was followed to address and avoid any factors that might obstruct the implementation of all research ethical principles. The SRA ethical code included several regulations mainly related to the obligation to Society, Funders and Employer, Colleagues and Subjects. These regulations reflect the morals and standards that social researcher should follow. In particular, researchers should strive to objectively conduct

their work in light of the society's morals with respect to their commitments to colleagues, funders and/or employers. The security and confidentiality of individual information and protection of subject's rights is required.

Parts of SRA guidelines were consistent with the QU-IRB code of Ethics such as the obligation to society and subject. The focus of QU-IRB rules and regulation is mostly to protect human subjects involved in research. An application for QU-IRB was sent to QU-IRB office with the research instrument questionnaire in both Arabic and English. The IRB exemption letter with research ethics approval number QU-IRB 738-E/17 was received on 5th April 2017 (See Appendix A). The participants were informed about the project purpose and the procedure in order to avoid any element of deception (Silverman, 2006). The instrument consent stated that the participation in the research is voluntary and that all participants have the right to withdraw from the survey at their own discretion (See Appendix B). In addition, the confidentiality will be maintained, responses will be kept anonymous and there were no foreseeable risks involved in participating in the study.

Research Method Used

Quantitative research methods were used to address the study objectives. The researcher used an online self-administrated survey to collect the data and to test the relations between the study constructs. According to Veal (2006) this is the most reliable and used method in research. The researcher followed the suggestion of Sax et al. (2003) to use an online questionnaire since it is methodologically and financially beneficial for

studies involving student subjects.

Measures and Research Questionnaire

The questionnaire included three main parts. These were survey consent, measurement items and demographic information. The questionnaire consisted of three constructs including university service quality, students' emotional attachment and customer citizenship behavior. All the measurement items used for assessing the study constructs were adopted from previous researches. To measure the service quality of higher education, a multiple-item scale of HEdPERF (Abdullah, 2006) was modified for the Qatar University setting. The service quality measures adapted from HEdPERF instrument included 25 items representing five dimensions including reputation, access, academic aspects, non-academic aspects and program issues. Student emotional attachment construct was measured using items selected from previous literature. Five items were selected and adapted to measure students' emotional attachment to their university from the study of Abdullah et al. (2015). The customer citizenship behavior construct was measured by selecting and using 14 items from Groth (2005) and Yi and Gong (2013) studies. Respondents were asked to indicate their response on a five-point scale. It ranged from 1 (strongly disagree) to 5 (strongly agree). The last section of the research questionnaire was respondents' demographic information that included gender, age, nationality, year of study, level of study (undergraduate or graduate) and profession.

Pre-testing

To establish questionnaire validity, it was sent via email to ten faculty members in

Qatar University (See Appendix D). Six faculty members were from the College of Business and Economics and four faculty members were from College of Education. The researcher received five responses and made the necessary changes accordingly. First draft of the questionnaire was sent to a convenient sample of 16 students from Qatar University for further testing. The test aimed to determine any ambiguous items that needed clarification. The results revealed that several students could not understand the questionnaire language (English). This was largely due to Arabic being the language of instruction in several colleges of Qatar University (such as the College of Shariaa and Islamic Studies and the College of Art). Therefore, the survey was back-translated to Arabic (the process required translating the English version to Arabic and then translating back to English and comparing the two versions for accuracy) with the help of two bilingual experts from the Department of English at QU. In addition, the researcher modified the wording of several items.

Sample design and Data Collection

Target Population

As the research context is the higher education sector, this study was conducted in Qatar University and the research population consisted of all students. The university attracts a mix of local and international students to its undergraduate and graduate programs. In the academic year 2015-2016, the student body at QU was roughly 17,500 including approximately 4,500 Males and 13,000 females (Ministry of Development Planning and Statistics, 2016). About 45% are Qatari students. A majority consists of

undergraduate students whereas about 900 are postgraduate students.

Sample Size

In this study, the sample size was determined based on the nature of the study, analytical procedures, number of research variables and both the financial and resource constraints (Malhotra et al., 2013). Based on the study nature, the appropriate sample size for most researches ranged from 30 to 500 participants to achieve significant results (Roscoe, 1975). This research used the Krejcie and Morgan's (1970) sample size determination table (See Appendix E), in order to select the appropriate sample size. This table was derived from the following equation:

$$S = \frac{X^2 NP(1 - P)}{d^2 (N - 1) + X^2 P(1 - P)}$$

Where:

S = Required Sample size

X = Z value; table value of chi-square for 1 degree of freedom at a confidence level (0.05 = 3.841).

N = Population Size

P = Population proportion (.05); the probability of making a type error I is less than 5%

d = Degree of accuracy (.05); It is the margin of error.

Therefore, a sample size of 377 was determined sufficient for this study.

Regarding the research analysis technique, it was recommended by Hair et al. (2010) that a sample size of 400 is adequate to apply Structural Equation Modeling.

Sampling Method

Since the study was conducted in Qatar University, all students were considered as the population of interest. The Communications and Public Affairs Department at QU possessed the list of all the students enrolled in the university. The researcher selected a saturation sampling suggested by Sue and Ritter (2011) for an online survey sampling. The saturation sampling cannot be considered as sampling technique since it aims to survey everyone in the population. It can be considered as a part of conducting a population census. The saturation sampling approach was suitable for this study since everyone in the population had an opportunity to participate in the research.

Data Collection Procedure

An online survey was designed and managed using Qualtrics Experience Management Platform. Qualtrics enabled several valuable functions including actual time spent on the survey and sending cookies to the participant's device to prevent him/her from responding more than once. The online survey link was sent in both Arabic and English to all Qatar University students through the Communications and Public Affairs Department. The email clarified that this research is personally conducted by the researcher in order to fulfill the requirement for the degree of Master of Science (M.Sc.) in Marketing at Qatar University and does not officially represent QU.

Sample Characteristics

The final sample for this study consisted of 568 valid responses. In the respondents' profile, 35.9% were Males (204) and 64.1% were females (364). The

majority of the sample 50.2% was between 20-24 years old. Approximately, the sample consisted of two equal groups in terms of nationality, 50.7 were Qatari (288) and 49.3% were other nationalities (280). Most of the students in the sample were in their first (158), second (148) or third year (106). Unemployed students (362) accounted for 63.7 of the sample followed by 20.8% fully employed (118) students. Most enrolled in undergraduate programs (470) and the remainder were postgraduate students (98). Table 2 shows the respondents demographics.

Table 2.

Respondent's Demographics		
Students details (n=568)	Frequency	Percentage
Gender		
Male	204	35.9%
Female	364	64.1%
Age		
19 years old and below	100	17.6%
20-24 years old	285	50.2%
25-29 years old	96	16.9%
30 years old and above	87	15.3%
Nationality		
Qatari	288	50.7%
Non-Qatari	280	49.3%
Students level of study		
Bachelor	470	82.7%
Diploma	16	2.8%
Master	74	13%
PhD	8	1.4%
Student year of study		
1 year	158	27.8%
2 years	148	26.1%
3 years	106	18.7%
4 years	83	14.6%
5 years	43	7.6%
More than 5 years	30	5.3%
Employment		
Part-time employed	67	11.8%
Fully employed	118	20.8%
Unemployed	362	63.7%
Others	21	3.7%

Data Analysis

The proposed research model and the research hypotheses (Figure 2) were evaluated using Statistical Package for Social Science (SPSS) software version 24 and AMOS Version 24. These two statistical analysis programs are commonly used in marketing researches. The main reason for using these programs was their ease of use, ease of access (the Qatar University provide free license), perform almost any statistical analysis and user friendliness as they do not require knowledge of programming. This research study followed a two-step approach to analyze the research model pathways and hypotheses. First stage was the examination of the measurement model using SPSS. This was followed by the analysis of structural model including hypotheses testing. In addition, to confirm/disconfirm the mediation affects, SPSS macro developed by Hayes (2013) named PROCESS was utilized. This plugin is commonly used for path analysis involving mediation and moderation effects.

In order to assess the fitness of the proposed model, the following measures were used: the chi-square ratios (X^2/df), p-value, goodness-of-fit index (GFI), comparative fit index (CFI), Tucker-Lewis Index (TLI), normed fit index (NFI), the root mean square error of approximation (RMSEA) and the standardized root mean square residual (SRMR). This study followed the suggestions of Hooper and others (2008) and adopted the following cut off values as indicators of good model fit: $X^2/df < 5.0$, P-value less than 0.01. Values greater than 0.9 for GFI, CFI, TLI and NFI. Values below 0.05 for RMSEA and SRMR indicated an excellent fit whereas values within 0.06 and 0.08 range showed an acceptable fit.

Data Screening and Preliminary Analysis

Prior to conducting any further analysis, the data were first subjected to a series of data screening tests to ensure the validity, reliability and eligibility of the data. Hair et al. (2010) stressed the importance of having error free data in order to obtain credible results. The questionnaire reached 923 students, 17; of them declined to answer and 906 agreed to participate in the study. However, only 577 completed questionnaires were received representing a response rate of 63%. A descriptive data analysis was run to check for missing data and revealed that there were missing data (See Appendix F). Additionally, all research items had acceptable values for skewness ± 1 and Kurtosis ± 10 .

Results

Exploratory Factor Analysis (EFA)

All research scale items were subjected to a series of EFA in order to determine the validity of study constructs. EFA as a multivariate technique was used to validate and test the model since all measures were developed in other geographic settings while the study was conducted in Qatar. Furthermore, the exploratory factor analysis is used by researchers to prepare the study scales and assess overall correlation between variables for further analysis such as confirmatory factor analysis (Pallant, 2010). However, according to Pallant (2016) there are two conditions that determine the propriety of data used with EFA. First, the sample size indicated by Kaiser-Meyer-Olkin (KMO) (Kaiser 1970, 1974) and second the strength of relationship among indicators measured through Bartlett's test of sphericity (Bartlett, 1954). KMO measure of 9.41 with a significance of

less than 0.05 for all the items expressed fit data for further analysis (Field, 2009).

The study adapted a Maximum Likelihood Extraction with an oblique rotation technique in particular promax rotation. The number of extracted factors was fixed to seven factors based on theoretical reasons as well as the research model. It is worth mentioning that the researcher chosen the Maximum Likelihood factoring with oblique rotation (promax) as the study factors are possibly related and correlations between latent variables were expected. Also, the promax rotation was used instead of direct oblimin because of its advantage in handling larger data (Field, 2009). Further, despite the common use of Principal Component Analysis (PCA) extraction (Field, 2009; Pallant, 2011), this study adopted common factor design because of the assumption of an underlying causal model from which factors can be derived (Field, 2009). Additionally, based on the existed literature, the component of latent constructs were expected advocates the use of factor analysis over PCA.

Initial refinement of the questionnaire eliminated 10 items due to cross-loading greater than 0.4 on multiple factors or low communalities below 0.3 (Clemes et al., 2008). The final exploratory factor analysis resulted in seven factors explained by 62% of the total variance. The Appendix G shows the reasons for removing each item or construct from the study analysis. All factors loading exceeded 0.4 and identified the following factors: University reputation, access, academic aspects, non-academic aspects, emotional attachment, helping others behavior and advocacy behavior. The scale reliability was assessed through Cronbach's Alpha (α). All constructs showed $\alpha > 0.7$ which indicated acceptable reliability. Table 3 provided the psychometric properties of the final study measures used for further analysis.

Table 3.

Psychometric Properties, Descriptive Statistics and Reliability of the Measures

Dimension	No. of items	Mean Score	SD	Cronbach's Alpha
Emotional Attachment	3	3.77	.924	.795
Customer Citizenship Behavior	7	4.02	.719	.860
Academic Aspects	4	3.85	.838	.871
Non-Academic Aspects	8	3.44	.843	.918
Reputation	4	3.72	.885	.855
Access	4	3.85	.848	.805

Notes:

SD = Standard Deviation

Measurement Model

Assessment of measurement model was done through performing a confirmatory factor analysis (CFA) to ensure the appropriation of research measures. Before testing the hypotheses, scales reliability and validity should be confirmed before further analysis. The scales internal reliability was tested by Cronbach's alpha and Fornell's composite reliability (Fornell & Larcker, 1981). The construct validity was assessed based on convergent and discriminant validity (Chin, Gopal, & Salisbury, 1997). Convergent validity is the test of two or more theoretically related constructs with the prior of their relation to each other, discriminant validity refers to the degree to which two or more constructs are not theoretically related (Kim, 2012). In order to establish construct validity, both validity measures should be considered together since neither measure alone confirms the construct validity.

Table 4.

EFA and CFA results								
	CFA Loadings	EM	R	Access	AC	NAC	HB	ADV
Emotional Attachment								
(EM)								
EM1	.83	0.885						
EM2	.79	0.800						
EM3	.68	0.405						
Reputation (R)								
R1	.81		0.913					
R2	.83		0.642					
R3	.72		0.632					
R4	.74		0.616					
Access								
Access1	.79			0.883				
Access2	.74			0.703				
Access3	.66			0.650				
Access4	.67			0.513				
Academic Aspects								
(AC)								
AC1	.82				0.882			
AC2	.58				0.830			
AC3	.73				0.717			
AC4	.76				0.587			
Non-Academic								
Aspects (NAC)								
NAC1	.81					0.910		
NAC2	.80					0.853		
NAC3	.78					0.806		
NAC4	.82					0.772		
NAC5	.81					0.742		
NAC6	.76					0.728		
NAC7	.71					0.604		
NAC8	.64					0.594		
Helping Others (HB)								
HB1	.73						0.900	
HB2	.73						0.817	
HB3	.79						0.704	
HB4	.79						0.700	
Advocacy (ADV)								
ADV1	.81							0.982
ADV2	.86							0.807
ADV3	.75							0.669

Confirmatory Factor Analysis (CFA)

Confirmatory factor analysis was applied to test the path model using AMOS software. Two models were created, Model 1 included Customer Citizenship Behavior as a second-order construct with two dimensions: Helping others and advocacy behaviors. Model 2 comprised only the first order dimensions. Both models demonstrated a good fit index to the data. As Model 1: $\chi^2 = 920.914$, $\chi^2/df=2.392$, $p<0.000$, GFI = 0.903, CFI = 0.949, TLI = 0.942, NFI = 0.915, RMSEA = 0.05 and SRMR = .0443. Model 2: $\chi^2 = 963.347$, $\chi^2/df=2.509$, $p<0.000$, GFI = 0.898, CFI = 0.945, TLI = 0.937, NFI = 0.911, RMSEA = 0.052 and SRMR = .0376. The results of the two models were similar. The study adopted Model 1 for further analysis. Table 4 showed the EFA and CFA results.

The model measures were tested for reliability and validity. The reliability of the measures was examined by the computation of composite reliability (CR) and average variance extracted (AVE) scores. As shown in Table 5, all AVE values exceeded the 0.50 and all CR values surpassed 0.7 confirming the reliability of scales (Hair et al., 2010). The convergent validity of the measures was supported by factor loading scores above 0.5 (the cut-off value recommended in the literature (Hair et al., 2010). Finally, two additional tests were performed to assess the discriminant validity. First, the AVE value of each construct exceeded the squared correlation coefficient with other constructs in the corresponding rows and columns (Hair et al., 2010). Second, the AVE scores for each construct were compared with the maximum-shared variance (MSV). This revealed that the AVE values were greater than MSV in all cases. Finally, all correlations between constructs were below 0.9 as suggested by Hair et al., (1998). Hence, Table 5 results confirmed the discriminant validity.

Table 5.**CR, Correlation Matrix and AVE Scores for all the Constructs**

Factor	CR	AVE	MSV	(1)	(2)	(3)	(4)	(5)	(6)
Emotional Attachment (1)	0.815	0.597	0.575	0.773					
Customer Citizenship Behavior (2)	0.752	0.617	0.605	0.758	0.785				
Access (3)	0.808	0.514	0.432	0.468	0.565	0.717			
Non-Academic Aspects (4)	0.919	0.589	0.436	0.473	0.505	0.601	0.767		
Academic Aspects (5)	0.865	0.567	0.543	0.603	0.658	0.627	0.635	0.753	
Reputation (6)	0.860	0.606	0.605	0.748	0.778	0.657	0.660	0.737	0.778

Notes:

CR = Composite Reliability

AVE = Average variance extracted.

MSV = Maximum shared variance.

Structural Model and Hypotheses Testing

This study used the structural equation modeling (SEM) technique to test the hypotheses. The structural model was examined using standardized path coefficients with significance level (t-statistics) and R-squared estimates. Table 6 reported the direct effect results of the hypotheses tests with the exception of the four hypotheses showing a mediation effect. The results indicated that only two service quality dimensions (reputation and academic aspects) had a significant impact on students' emotional

attachment. Perceived university reputation showed a stronger positive significant effect on students' emotional attachment ($\beta=0.715$, $p<0.001$) supporting H_{3a} . University academic aspects positively affect students' emotional attachment ($\beta=0.160$, $p<0.05$), which supported H_{1a} . Both non-academic university service and accessibility had no significant impact on students' emotional attachment thus rejecting hypothesis H_{2a} ($\beta=-0.067$, $p>0.05$) and H_{4a} ($\beta=-0.062$, $p>0.05$). The four service antecedents (reputation, accessibility, academic and non-academic services) explained 57% of the total variance in students' emotional attachment construct. Students' emotional attachment was positively related to customer citizenship behavior ($\beta=0.389$, $p<0.001$), thus supporting H_5 . Finally, students' emotional attachment explained about 69% of the variation in customer citizenship behavior construct.

Table 6.**Structural Model Results**

Hypothesis Paths	Beta	t-Value	Hypothesis results
H _{1a} = Academic Aspects → EM	0.160*	2.332	Supported
H _{2a} = Non-Academic Aspects → EM	-0.067 [^]	1.203	Rejected
H _{3a} = Reputation → EM	0.715***	8.991	Supported
H _{4a} = Access → EM	-0.062 [^]	-0.995	Rejected
H ₅ = EM → CCB	0.389***	4.949	Supported
R ²			
Emotional Attachment	0.57		
Customer Citizenship Behavior	0.69		

Notes:

*** Significant at p<.001.

*Significant at p<.005.

[^]Not Significant

EM = Emotional Attachment

CCB = Customer Citizenship Behavior

Mediation Analysis

Hypothesis 6 predicted that students' emotional attachment mediated the relationship between the four aspects of service quality and customer citizenship behavior. To investigate the mediation effect, the study followed the analytical bootstrapping approach suggested by Preacher and Hayes (2008). This study employed a mediation test based on 1000 bootstrap samples generating 95% confidence intervals using AMOS software. Table 7 showed that emotional attachment partially mediated the effect of the reputation of a higher education institution. However, according to the mediation classification suggested by Zhao et al., (2010), emotional attachment fully mediates the relation between academic aspects dimension and customer citizenship behavior ($\beta=-0.062^*$, $p<0.05$). Zhao et al., (2010) classification indicated that full mediation occurs when there is significant indirect effect. Furthermore, there is no mediation effect of emotional brand attachment between the relation of service access and non-academic aspects dimensions and customers citizenship behaviors.

Table 7.

Mediation Analysis

Independent variable	Dependent variable	Mediator	Direct effect Std regression coef	Indirect effect Std regression coef	Decision
Reputation	Customer Citizenship Behavior	Emotional Attachment	0.372**	0.278**	Partial Mediation
Access			0.097 [^]	-0.024 [^]	No Mediation
Academic Aspects			0.113 [^]	0.062*	Indirect only mediation
Non-Academic Aspects			-0.047 [^]	-0.026 [^]	No Mediation

Notes:

** Significant at $p < .01$.

*Significant at $p < .05$.

[^]Not Significant

CHAPTER 5: DISCUSSION

In the context of higher education, relationship marketing is considered of high importance in order to maintain long-term relationships with students during their study and beyond graduation. The results of this study confirmed that providing students with good services leads to long-term benefits to the university. The following sections discuss the research question in relation to the findings.

Do these service quality dimensions influence emotional brand attachment and extra-role behaviors?

The competitive market propels universities to enhance their service quality because of its strategic role in retaining current students and attracting new students (Sultan & Wong, 2010). Students' experiences from admission until achieving alumnus status involve several communications and experiences. During their time at the university, students build emotional bonds through various aspects of their experience with the services. In a consumer behavior context, emotional attachment has been conceptualized as the strong connection between customer and specific brand (Schmitt, 2012). Regarding higher education, attachment theory explains students' attachment to the university environment and community. Aligned with previous studies, this current study has found that emotional attachment is a result of superior service quality (Belaid & Behi, 2011; Sung & Yang, 2008).

Overall, the results of this study indicated that both service academic aspects and reputation impacts students' emotional attachment behaviors positively confirming H₁ and H₃. From these findings, reputation is the most significant factor that influences

students' emotional attachment to their university. The perceived university reputation construct comprises four items that highlight the good reputation of the university and the offered programs. When students perceive the university as reputable and possessing a good ranking among other universities, they tend to have emotional bonds with that university. Therefore, educational institutions emphasize on their reputation and image to attract enrolled and potential students to develop loyal long-term relationships (Fournier, 1998).

The results also supported the relation between university reputation and customer citizenship behaviors. Research has found that maintaining a good reputation results in increasing customer loyalty (Fournier, 1998; Park et al., 2010) and customer extra-role behaviors (Hong & Yang, 2009). The link between university reputation and students' behavior has been confirmed in several studies (Arpan et al., 2003; Sung & Yang, 2008). According to Bhattacharya and Sen (2003), the more individuals have a positive perception of the organization's image, the stronger the motivations to engage in supportive behaviors such as helping others in that organization. The result can also be explained by considering the nature of higher education institutions as well as students' attitudes. Most individuals have an idea of a specific criteria or major premises they use to evaluate an organization attributes as acceptable or favorable (Arpan et al., 2003). For example, students typically expect that a good university should be able to offer demanding and accredited programs. Knowing that a university has those types of programs will attract that individual to rate the university as acceptable since it meets the student's premises. Likely, the individual would then be attached to the university and willing to preserve that relationship.

Another important finding is the significant relation between academic aspects of the university and students' emotional attachment. In this study, the academic aspects dimension included four items concerning instructors' communication, support, attitudes and knowledge. Based on the attachment theory, that considered attachment as enduring emotional connection between individuals across time and space (Bowlby, 1979). Students foster their emotional attachment to the university based on the perceived academic quality. Students appreciated the faculty' knowledge, assessment and feedback that enabled them to understand the subject. The teaching staffs' ability to help students enhance their academic progress leads students to have positive feelings and behaviors toward the university. However, this result contrasted the findings of a study conducted in Malaysia that found that the relation between academic staff quality and emotional attachment was not significant (Abdullah et al., 2015). This could be due to the differences between cultures and educational systems. As mentioned in that study, each faculty in Malaysian universities has about ten to twelve administrative staff helping students with different inquiries. Therefore, students might not have a direct contact or relationship with the faculty where they can build an emotional connection. Unlike, Qatar University where students and faculty develop relationships during the semester through engagement and interaction in and outside the class.

There are different views of teachers' roles such as caregiver, disciplinarian, and instructor (Brophy, 1988; O'Connor, 2008). It has been suggested that instructors themselves appreciate having relations with their students because it positively impacts teachers' self-esteem, wellbeing and their positive emotions (Riley, 2009; Hagenauer & Volet, 2014). In addition, academic aspects are another major factor influencing students'

discretionary behaviors in higher education through emotional attachment. Social exchange theory can explain this result. The theory suggests that individuals are willing to contribute to the institution when they receive a valued service quality. Maximizing benefits such as knowledge, caring and flexibility are essential to students' positive behaviors. Students' recognition of the teaching quality, and instructors caring about their academic achievement, will encourage them to perform extra-roles toward the university. Within this context, Chung and McLarney (2000) confirmed the importance of instructors to consider students as active participants in the higher education service.

Interestingly, access has no significant influence on students' emotional attachment rejecting H4a. There are four items representing this dimension of accessibility and approachability to university facilities. There is a chance that the sample of this study did not access the university facilities or they lacked knowledge about the services provided by QU. The Qatar university report shows that only 1,003 of about 16000 students used the counseling services (Qatar University, 2014). According to Hagenauer and Volet (2014), it is difficult to build emotional attachment when there is not much interaction with the object or person. Therefore, the lack of awareness about the university facilities such as library, career counseling, the honors program, transportation, dining and access to computer labs and research activities could have resulted in a non-significant impact on emotional attachment.

Santos (2002) stressed the role of tangible aspects when customers evaluated the service. Smith and Ennew (2001) share the same view that tangible aspects directly and indirectly influence the perception of service. However, the cultural norms might affect students' use of the university facilities. In particular, Middle Eastern and South Asian

communities may deter female students from participating in the university activities especially when males are involved (Wilkins et al., 2012). Female students might just attend classes and return home without any interaction or use of the university facilities. Another explanation is the findings of Eldridge and Cranston (2009) that students in some countries perceived the non-educational services as less important than students in other countries. It is possible that students in this study do not find the non-academic services important and this has a negative impact on their attachment to the university.

Employees should recognize how they contribute to the institution's overall quality. This study revealed that there is no influence of non-academic staff on neither students' emotional attachment nor their intention to participate in extra-role behaviors rejecting H2a and H2b. In most cases, the administration offices and the administration departments are in separate buildings making difficult for students to build informal relations with the administrators (Cotten & Wilson, 2006). Also, the kind of support that non-academic staff delivers often does not required any involvement or interaction with students. Typically, students come with a specific inquiry and the administration provides a solution with little interaction with the student. As a result, it is difficult to establish positive attachment when there is limited interaction. Therefore, the non-academic aspects did not contribute to students' motivation to participate in citizenship behaviors.

Does students' emotional attachment influence customer citizenship behavior?

The results of this research study highly support the positive link between emotional attachment and students' voluntary behaviors. These findings are consistent with previous studies examining the relation between those two variables (Miller, 1997; Yi & Gong, 2008). As hypotheses H5 predicted, students with strong emotional

attachment to the university exhibit favorable behaviors such as advocacy and helping other students. This pleasurable experience with the university environment leads to positive emotions (Belaid & Behi, 2011). These emotions encourage customers to actively participate in the organization community and perform favorable behaviors to preserve their relationship with the organization (Miller, 1997). Thus, this strong connection to the service provider promoted extra role behaviors that truly aim to benefit and enhance the service (Mikulincer & Shaver, 2005).

Does students' emotional attachment to the university services mediate the relationship between quality service dimensions and customer citizenship behaviors?

Emotional attachment appears in the literature as a factor that motivates customers' extra-role behaviors (Japutra et al., 2014). Therefore, students with emotional connection to the university will evaluate other alternative higher education institutions as less attractive. As a cost-benefit analysis, customers who believe that the service is superior will not switch to other service provider because the switch is viewed as less beneficial. Thus, emotional attachment increases students' favorable behaviors and their willing to continue their education at the same university. These results, confirmed the partial mediation role of emotional attachment between reputation and customers' citizenship behavior. In other words, students may have a good perception of the service quality that drives them to perform extra-role behaviors if they are emotionally attached to that service. Customers who feel that the university is supportive by offering them good service quality develop the sense of obligation to perform extra role behaviors including providing positive recommendations, helping others, providing a positive word-of-mouth and financial resource such as willingness to pay a price premium (Park

et al., 2010). Thus, students with high level of attachment are likely to favorably evaluate the university services and invest in long-term relations with the institution both during their study and after graduation. Therefore, the results of this study demonstrate that emotional attachment fully mediate the relation between academic aspects and customers' citizenship behavior. Students who are attached to their faculty tend to perform extra role behaviors towards the university.

CHAPTER 6: CONCLUSIONS AND RECOMMENDATIONS

Implications of the Study

This study examined an integrated model of service quality in the context of higher education. The results revealed that perceived superior quality influences students' emotional attachment and enhances their voluntary behaviors. The empirical findings of this research have clear and practical implications for both academicians and practitioners. First on the academic side, the study contributed to the emotional attachment literature by examining its antecedents and consequences in higher education. It also provided support to the importance of assessing students' emotional attachment in building long-term relationships (Belaid & Behi, 2011).

On the practitioners' side, managers can build good relationships with students and gain their loyalty by providing them with good services. This could be achieved through nurturing a student's favorable perception of the different service dimensions. As a first step, marketing practitioners should use various communication channels to inform current and potential students about the provided services. Information about various services assists students in forming an accurate perception about the services offered. It

also provides them with a sense of belonging (Schee, 2011). They cannot build strong relationships or emotion attachment with the university unless they interacted with its tangible and intangible services.

Reputation has been found to be the most influential factor impacting students' emotional attachment and behavioral intentions. Therefore, a good reputation develops customers' attachment to a particular brand and at the same time, develops loyalty to that brand. Thus, higher education management should consider portraying elements such as establishing reputable academic programs that enhances the university reputation. LeBlanc and Nguyen (1996) suggested that managers could develop plans that contribute to the brand image such as the leadership and management styles that focus on other tangible factors that create a healthy environment. However, Williams and Omar (2014) state that it is difficult to build a brand image in higher education settings because it is difficult to maintain long-term relationships with HEIs customers mainly students. Therefore, Qatar University should continue its awareness campaigns regarding its strong reputation, accreditation programs and ranking among other universities in the region and in the world.

Management of HEIs should recognize the significant influence of academic aspects on perceiving service quality. These results provide insights into the role faculty play in enhancing students' emotions and encouraging them to perform extra-role behaviors. Students want faculty to provide them with knowledge, care, be available to answer inquires and provide them with useful feedback to enhance their academic capabilities. Therefore, managers in education institutions should provide qualified instructors who are highly competent in their respective subject area and have the desire

and skills to teach and positively interact with students.

Qatar University has its own strategic plan and one of its KPIs refers to the important of university facilities to enhance students' experience. It is worth mentioning that universities face rapid competition that encouraged them to invest in their services as a competitive advantage tool. Therefore, the university management should understand students' needs and expectations. Once the university addresses these needs by designing services that meet students' expectations, it will maintain good relationships with students resulting in long-term benefits. In order to monitor the effectiveness of the services provided by a university, the university could continue collecting surveys and feedback of the students about its services. This study also emphasized the need to consider cultural perspectives in assessing students' perceptions of the service. According to Sultan and Wong (2012), the perceived administrative and facilities service quality is affected by the differences of culture among students.

The results revealed that the university management should develop training programs designed to enhance employees' performance to meet students' expectations. It is important to encourage employees to go beyond their roles to establish good relationships with students (Yoo & Park, 2007). Employees as service providers should deal with students as customers. Study by Lages and Piercy's (2012) found that front desk employees have the ability to identify customers' needs and therefore they can generate ideas to improve service. Consequently, higher education institutions should encourage and reward the generation of ideas that could improve the university services. Finally, management of HEIs should pay more attention to students' suggestions, complaints and recommendations to improve the service quality.

Limitations and Future Research

The present study contributed to the existing literature including service quality, emotional attachment and customer citizenship behavior in higher education context by providing findings from one university in Qatar. Despite these contributions, the results must be viewed in light of the limitations that could also serve as the foundation for future research. First, this study utilized a web-based survey to collect the data. Therefore, the data might have been influenced by self-selection bias since students choose whether they answer or not answer the survey. Future researchers could consider choosing different methods such as offline survey or conducting qualitative research. It is recommended to use interviews and focus group for better understanding of students' perceptions and expectations of service quality. Future research could consider a mix method approach to examine the antecedents and consequences of emotional attachment.

Second, a major criticism of this study is related to external validity as the sample was drawn from respondents studying in a single national university in Qatar. Further research could expand the sample to private and public universities in order to extend the generalizability of the study findings. According to several studies, taking a sample of university students to study their perceptions and attitudes generate insightful results that can be used for empirical bases for further studies (Stodnick & Rogers, 2008). Future studies could compare between the private and public universities and evaluate if the model changes. Third, this research adapted HedPERF scale comprising of five dimensions to assess student perception of service quality. Future studies would benefit from further examination of other service dimension. Future research could also include

cultural background in investigating the perception of service quality and its relation to emotional attachment and students' extra-role behaviors. Another important suggestion for further research is studying the moderation effect of the demographic variables such as gender, nationality, level of study and maturity.

Conclusions

This study developed and validated an integrated model involving three main constructs that are service quality, emotional attachment and citizenship behavior in the higher education context. The study contributed by extending literature since this is the first study that combined those three factors shaping student experience in higher education. Overall, the research model provided a good explanation of students' emotional attachment to the university and how this relationship contributes in developing and achieving favorable long-term behaviors. The findings suggested that the university should consider this research model in order to enhance its services and gain a sustainable presence in a competitive global market. This model provides universities with an implementation strategy that will enhance their services and develop students who are emotionally attached to the university, engaged in the university community and exhibit voluntary behaviors.

The results of this study emphasized the important of HEIs management to adapt customer focused marketing by determining students' needs in order to guide their marketing activities. These types of activities will enhance the university's relationship to its current and potential students. Furthermore, efficient and effective internal

communications shape the service culture and prove to be important in higher education settings (Becket & Brookes, 2008). All service dimensions are central to achieving good quality service. Therefore, the HEI provider should improve both tangible and intangible aspects of the service. Since there is an intense competition in higher education, students are aware of many services and facilities that universities provide. Therefore, students' standards of service are becoming more demanding and HEIs should meet students' expectation in order to gain their attachment and positive behavioral intentions.

Continuous training and development for staff and faculty is crucial to enhance HEIs services. Knowledge and skills should be considered as a continuous process and therefore the university should continue improving its employee's performance and skills. As a result, the employees will feel motivated to perform extra-role behaviors for the university. These behaviors will enhance students' experience that will lead to high emotional attachment and willing to maintain their relationship with the university (Fedorikhin et al., 2008).

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APPENDICES

Appendix A: Research Ethics Approval QU-IRB



Qatar University Institutional Review Board
QU-IRB

March 19, 2017

Ms. Mouna Sidi Lemine
CBE Graduate Student Project
College of Business and Economics
Qatar University
Tel.: 33760605
Email: mo091062@qu.edu.qa

Dear Ms. Mouna Lemine,

Sub.: Research Ethics Review Exemption / CBE-Graduate Student Project
Ref.: Project titled, "An Integrated Model of HEI Service Quality: The Case of Qatar University"

We would like to inform you that your application along with the supporting documents provided for the above proposal, is reviewed and having met all the requirements, has been exempted from the full ethics review.

Please note that any changes/modification or additions to the original submitted protocol should be reported to the committee to seek approval prior to continuation.

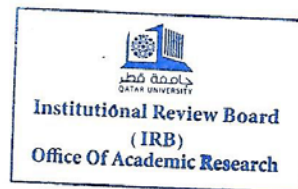
Your Research Ethics Approval No. is: **QU-IRB 738-E/17**

Kindly refer to this number in all your future correspondence pertaining to this project.

Best wishes,

K. Alali

Dr. Khalid Al-Ali
Chairperson, QU-IRB



Qatar University-Institutional Review Board (QU-IRB), P.O. Box 2713 Doha, Qatar
Tel +974 4403-5307 (GMT +3hrs) email: QU-IRB@qu.edu.qa

Appendix B: Study Questionnaire and Letter of Consent

Dear student

You are invited to participate in a research study titled *An integrated model of Higher Education Institution (HEI) Service Quality: The Case of Qatar University*. This is a Master Thesis Project being conducted by Mouna Sidi Lemine, a student at Qatar University. The purpose of this study is to examine student's perceptions of Qatar University services.

Your participation in this survey is voluntary, but your responses will greatly help to enhance the QU services in the future. Your responses will remain anonymous. It will take about 10 min to complete the survey. Confidentiality will be strictly maintained and the given information will not be shared with a third party. Your completion of this survey indicates your consent to participate in this research study.

If you have questions at any time about the study or this questionnaire, you may contact me via email at [mo091062@qu.edu.qa].

Thank you for your time.

By clicking the link below, I confirm that I have read this form and decided that I will participate in the project described above. I understand that I can discontinue participation at any time. My consent also indicates that I am at least 18 years of age.

I agree to participate (link to survey)

I decline (link to close webpage)

Section A

Instruction: Please indicate the degree of your agreement or disagreement with each statement:

Items/Rating	1 Strongly Disagree	2 Disagree	3 Neutral	4 Agree	5 Strongly Agree
I trust Qatar University.					
I feel committed to contribute back to Qatar University.					
If I were to further my study in the future, Qatar University will be my preferred university.					
I would recommend others to study at Qatar University.					
Qatar University is always in my heart.					
I have filled out a customer satisfaction surveys.					
I have provided helpful feedback to customer service.					
I have provided information when surveyed by Qatar University (e.g. Course).					
I have informed the appropriate department at QU about the great service received by an individual employee.					
I have said positive things about Qatar University to others.					
I have recommended Qatar University to others.					
I have encouraged friends and relatives to study in Qatar University.					
I have assisted other students when they needed my help.					
I have helped other students when they seemed to have problems.					
I have taught other students to use the service correctly (e.g. Banner Services).					
I have advised other students regarding university services.					
I have tolerated with it when the service was not delivered as expected.					

I have been patient and waited for the employee to recover from a mistake during service delivery.					
I have adapted to the situation when I have waited longer than I expected to receive a service (e.g. Receive Textbooks).					
Instructors at Qatar University have the knowledge to answer my questions relating to the course content.					
Instructors show positive attitude towards students.					
Instructors communicate well in the classroom.					
Instructors provide feedback about my progress.					
Instructors allocate convenient time for consultation.					
Instructors are highly educated in their respective field.					
Qatar University has a good reputation					
Qatar University's graduates are easily employable.					
The academic program run by Qatar University has a good reputation.					
Qatar University offers a wide range of programs with various specializations.					
Qatar University offers programs with flexible syllabus and structure.					
Qatar University runs excellent quality programs.					
When I have a problem, administrative staff shows a sincere interest in solving it.					
Administrative staff provides caring and individual attention.					
When the administrative staff promises to do something by a certain time, they do it.					
The working hours of administrative offices are					

convenient for me.					
Administrative staff shows a positive attitude towards students.					
Administrative staff communicates well with students.					
Administrative staff has good knowledge of the systems and procedures.					
Students are treated equally by Qatar University staff.					
Qatar University staff ensures that they are easily contactable by telephone or email.					
Health services are accessible (e.g. QU Medical Clinic).					
Qatar University encourages the setting up of a Student's Union (e.g. Students Clubs).					
Recreational facilities are accessible (e.g. Sports activities, student clubs and food services).					
Academic facilities are accessible (e.g. QU Library, Academic Advising and Student Learning Support Center).					

Any other information (i.e. comments, opinions, views or suggestions) that you would like to share

.....

Section B

Instruction: Please tick (√) for the answer and fill in the blanks when necessary

Gender					
Female			Male		
Age					
19 years old and below		20-24 years old		25-29 years old	
30 years old and above					
Level of study					
Bachelor degree		Diploma		Master degree	
PhD					
Nationality					
Qatari			Non-Qatari		
Current year of study					
1 year	2 year	3 year	4 year	5 year	More than 5 years
Employment status					

Part-time employed	Fully employed	Unemployed	Others (please specify)
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Thank you very much for completing this survey.

Appendix C: Translated Questionnaire

عزيزي الطالب/ عزيزتي الطالبة،

ندعوكم للمشاركة في دراسة بحثية تحت عنوان "دراسة متكاملة لجودة خدمات مؤسسات التعليم العالي: جامعة قطر نموذجاً". تمثل هذه الدراسة بحثاً لنيل شهادة الماجستير في علوم التسويق مُعدةً من قبل الطالبة: منى سيد الأمين. تهدف هذه الدراسة إلى التعرف على مدى إدراك طلاب جامعة قطر للخدمات المتاحة لهم.

يجدر التنويه إلى أن المشاركة في هذا البحث تطوعية، إلا أنه من شأنها أن تساهم في تطوير وتعزيز خدمات جامعة قطر مستقبلاً. سنتطلب الإجابة على هذا الاستبيان وقتاً وجيزاً لا يتعدى العشر دقائق. سنتم المحافظة على سرية كافة المعلومات التي تقدمونها، كما أنه ليس بالإمكان التعرف على هوية المشارك/ة. وأخيراً، اتمامكم لهذا الاستبيان هو مؤشر لرضاكم عن المشاركة في هذه الدراسة البحثية.

إن كان لديكم أي استفسار متعلق بهذا الاستبيان يرجى التواصل عن طريق البريد الإلكتروني أدناه:
[mo091062@qu.edu.qa]

وشكراً جزيلاً،،،

بالضغط على الرابط أدناه أقر بأنني قرأت هذه الاستمارة و بأنني أبلغ من العمر ثمانية عشر عاماً أو يزيد ، وعليه فأني اتخذت القرار بأن أشترك في هذه الدراسة البحثية الموضحة أعلاه.

لا أوافق

أوافق

English	Arabic
Emotional Attachment	
1) I trust Qatar University.	(1) أتق بجامعة قطر.
2) I feel committed to contribute back to Qatar University.	(2) أشعر بالالتزام اتجاه جامعة قطر.
3) If I were to further continue my studies in the future, Qatar University will be my preferred university.	(3) إن كنت أنوي إكمال دراستي مستقبلاً، فأني سأفضل الدراسة في جامعة قطر.
4) I would recommend others to study at Qatar University.	(4) أشجع الآخرين على الدراسة في جامعة قطر.
5) Qatar University is always in my heart.	(5) جامعة قطر دائماً في قلبي.
Customer Citizenship Behavior	
6) I have filled out a student satisfaction surveys.	(6) قمت بتعبئة استبيانات رضا الطلبة.
7) I have provided helpful feedback to student services.	(7) قمت بتقديم ردود فعل مفيدة للخدمات الطلابية.
8) I have provided information when surveyed by Qatar University (e.g. Course Evaluation Survey).	(8) قمت بتوفير معلومات لاستبيانات مطلوبة من قبل جامعة قطر (مثل استبيان تقييم المقرر).
9) I have informed the appropriate department at QU about the great	(9) قمت بإبلاغ القسم المختص في جامعة قطر عن الخدمة المميزة المتلقاة من قبل أحد

service received by an individual employee.	موظفي ذلك القسم.
10) I have said positive things about Qatar University to others.	(10) قدمت تعليقات إيجابية للآخرين تتعلق بجامعة قطر.
11) I have recommended Qatar University to others.	(11) قمت بتوصية جامعة قطر للآخرين
12) I have encouraged friends and relatives to study in Qatar University.	(12) قمت بتشجيع الأصدقاء و الأقارب على الدراسة في جامعة قطر.
13) I have assisted other students when they needed my help.	(13) قمت بمساعدة طلاب آخرين وقت الحاجة
14) I have helped other students when they seemed to have problems.	(14) قمت بمساعدة طلاب آخرين حينما بدا لي بأنهم يعانون من بعض المشاكل.
15) I have taught other students to use the service correctly (e.g. Banner Services).	(15) قمت بتعليم بعض الطلاب كيفية استعمال بعض الخدمات بطريقة صحيحة (مثل خدمة البانر).
16) I have advised other students regarding university services.	(16) قمت بتقديم النصح لبعض الطلاب فيما يتعلق بخدمات الجامعة.
17) I have tolerated with it when the service was not delivered as expected.	(17) تقبلت الوضع عند تقديم خدمة دون المستوى المتوقع
18) I have been patient and waited for the employee to recover from a mistake during service delivery.	(18) صبرت وانتظرت أحد الموظفين ريثما يقوم بتصحيح خطأ خلال تقديم إحدى الخدمات.
19) I have adapted to the situation when I have waited longer than I expected to receive a service (e.g. Receive Textbooks).	(19) تقبلت الوضع حينما انتظرت فترة أطول من ما كنت أتوقع لتلقي خدمة (مثل استلام الكتب الدراسية).
Service Quality	
20) Instructors at Qatar University have the knowledge to answer my questions relating to the course content.	(20) الأساتذة في جامعة قطر لديهم المعرفة الكافية للإجابة على أسئلتني فيما يتعلق بمحتوى المقرر.
21) Instructors show positive attitude towards students.	(21) يظهر الأساتذة انطباعات إيجابية اتجاه الطلبة.
22) Instructors communicate well in the classroom.	(22) يتواصل الأساتذة بشكل جيد وفعال داخل الفصل الدراسي.
23) Instructors provide feedback about my progress.	(23) يقدم الأساتذة ملاحظات حول تقدمي الدراسي.
24) Instructors allocate convenient time for consultation.	(24) يخصص الأساتذة ساعات مكتبية مناسبة
25) Instructors are highly educated in their respective field.	(25) الأساتذة على درجة عالية من الثقافة والمعرفة، كل في مجال اختصاصه.
26) Qatar University has a good reputation	(26) تمتلك جامعة قطر سمعة جيدة.
27) Qatar University's graduates are easily employable.	(27) يحصل خريجو جامعة قطر بسهولة على فرص توظيف.
28) The academic program run by Qatar University has a good reputation.	(28) تتمتع برامج جامعة قطر بسمعة جيدة
29) Qatar University offers a wide range of programs with various specializations.	(29) تقدم جامعة قطر العديد من البرامج بتخصصات متنوعة.
30) Qatar University offers programs with	(30) تقدم جامعة قطر برامج بتوصيفات ومحتويات

flexible syllabus and structure.	تسهل على الطلاب التكيف معها.
31) Qatar University runs excellent quality programs.	31) تطرح جامعة قطر برامج ذات جودة عالية.
32) When I have a problem, administrative staff shows a sincere interest in solving it.	32) في حال واجهتني مشكلة، يظهر الموظفون الإداريون خالص اهتمامهم في حل هذه المشكلة.
33) Administrative staff provides caring and individual attention.	33) يقدم طاقم الموظفين الإداريين اهتمامهم و عنايتهم بشكل فردي.
34) When the administrative staff promises to do something by a certain time, they do it.	34) عندما يتعهد موظفوا الإدارة بتقديم خدمة ما في وقت معين، فإنهم يلتزمون بتقديم تلك الخدمة في الوقت المحدد.
35) The working hours of administrative offices are convenient for me.	35) تناسبني أوقات عمل مكاتب الطاقم الإداري.
36) Administrative staff shows a positive attitude towards students.	36) يظهر موظفوا الإدارة انطباعات إيجابية اتجاه الطلاب.
37) Administrative staff communicates well with students.	37) يتفاعل موظفوا الإدارة بشكل جيد مع الطلاب.
38) Administrative staff has good knowledge of the systems and procedures.	38) موظفوا الإدارة على دراية تامة بالأنظمة والإجراءات.
39) Students are treated equally by Qatar University staff.	39) يعامل الطلاب بتساوٍ من قبل موظفي جامعة قطر.
40) Qatar University staff ensures that they are easily contactable by telephone or email.	40) يضمن موظفوا جامعة قطر سهولة التواصل معهم عن طريق الهاتف أو البريد الإلكتروني.
41) Health services are accessible (e.g. QU Medical Clinic).	41) يمكن الوصول بسهولة للخدمات الصحية (مثل العيادة الطبية في جامعة قطر).
42) Qatar University encourages the setting up of a Students Unions (e.g. Students Clubs).	42) تشجع جامعة قطر إقامة الإتحادات الطلابية (مثل الأندية الطلابية).
43) Recreational facilities are accessible (e.g. Sports activities, student clubs, and food services).	43) يمكن الوصول بسهولة للمرافق الترفيهية (مثل الأنشطة الرياضية، الأندية الطلابية، والخدمات الغذائية).
44) Academic facilities are accessible (e.g. QU Library, Academic Advising offices, and Student Learning Support Center).	44) يمكن الوصول بسهولة للمرافق الأكاديمية (مثل مكتبة جامعة قطر، مكاتب الإرشاد الأكاديمي، و مركز دعم تعلم الطلاب).

Appendix D: Example for the Questionnaire Validation



Validating a Questionnaire

Dear Dr. Chris Diane Coughlin

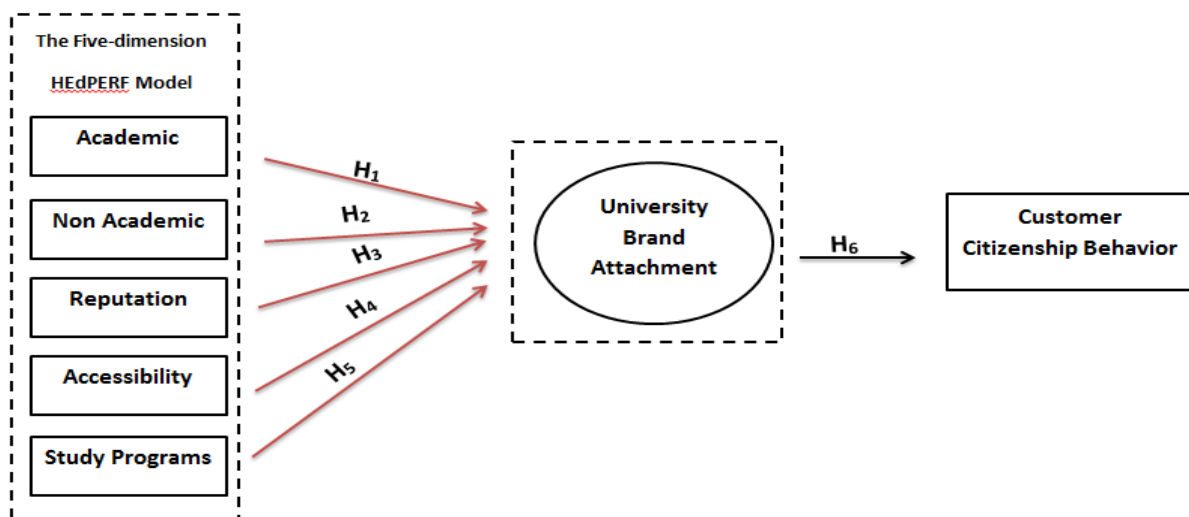
In partial fulfilment of requirements of Master of Science in Marketing, I am conducting a research study entitled “An integrated model of HEI Service Quality: The Case of Qatar University”. My thesis examines the impact of university services in enhancing emotional brand attachment which is a key motivation for students to have voluntary and extra-role behaviors toward the institution.

In view of this, I am seeking your assistant to validate the questionnaire for administering it to the study respondents. I will appreciate writing your comments, suggestions and to verify the content validity of the items associated with each factor, rate each one as follows:

Acceptable as it is (A)

Requires revision as follows: (R)

Unacceptable/ eliminate (U)



Research Model

The current study adopted a marketing perspective in designing a research model considering services marketing and consumer behavior streams. It incorporates the concepts of service quality, brand attachment, customer citizenship behavior into a single conceptualized model in order to highlight the following research objectives:

4. To examine the influence of university quality services dimensions including Academic, Non Academic, Reputation, Accessibility, and Study Programs on brand attachment.
5. To identify which dimension has impact most significantly on university emotional brand attachment.
6. To empirically contribute to the understanding of the dimensionality of higher education service quality.
7. To identify the consequences of university attachment such as customer citizenship behavior.

Scale Items		Acceptable (A)	Requires Revision (R)	Unacceptable/eliminate (U)	Note
Perceive service quality is students' overall appraisal of the services offered by tertiary institutions					
Dimension	Academic Aspects: The items that describe this factor are solely the responsibilities of academics.				
Instructors have the knowledge to answer my questions relating to the course content	A				
When I have a problem, instructors show a sincere interest in solving it	A				
Instructors show positive attitude towards students	A				
Instructors communicate well in the classroom	A				
Instructors provide feedback about my progress	A				
Instructors allocate sufficient and convenient time for consultation	A				
Instructors are highly educated and experienced in their respective field	A				
Dimension	Reputation: This factor is loaded with items that suggest the importance of higher learning institutions in projecting a professional image.				
Qatar University has a professional image		R			Not everyone will know what a professional image is, so need to give an example, or in some

				way clarify what you mean
Academic facilities are acceptable (i.e. QU Library, academic advising and student learning support center)	A			
Qatar University runs excellent quality programs	A			
Recreational facilities are acceptable (i.e. sports activities, student clubs and food services)	A			
Class sizes are kept to minimum to allow so that students can receive personal attention		R (see editing)		Restate it so that it so that it reads better
Qatar University has an ideal location with excellent campus layout and appearance	A			
Qatar University's graduates are easily employable	A			
Dimension	Program Issues: This factor emphasizes the importance of offering wide ranging and reputable academic programs/specializations with flexible structure and syllabus.			
Qatar University offers a wide range of programs with various specializations	A			
Qatar University offers programs with flexible syllabus and structure	A			
Dimension	Non-academic Aspects: This factor consists of items that are essential to enable students fulfil their study obligations, and it relates to duties carried out by non-academic staff.			
When I have a problem, administrative staff show a sincere interest in solving it	A			
Administrative staff provide caring and individual attention	A			
When the administrative staff promises to do something by a certain time, they do it	A			Typo in red
The working hours of administrative offices are convenient for me	A			
Administrative staff show positive attitude towards students	A			
Administrative staff communicate well with students	A			

Administrative staff have good knowledge of the systems and procedures	A			
Dimension	Access: This factor consists of items that relate to such issues as approachability, ease of contact, availability and convenience			
Students are treated equally and with respect by the instructors and administrative staff		R (see my comment)		Is it important to know if they are referring to instructors OR administrative staff? If so, then you need to break this into 2 questions (it is a double-barreled question as stated.)
The instructors and administrative ensure that they are easily contactable by telephone or email		R (see my comment)		Is it important to know if they are referring to instructors OR administrative staff? If so, then you need to break this into 2 questions (it is a double-barreled question as stated.)
Qatar University operates excellent counseling services (i.e. QU Student Counseling Center)	A			
Health services are acceptable (i.e. QU Medical Clinic)	A			Why do you state “excellent” in reference to counseling services and

				only use the term “acceptable” for health services. Also I am assuming you will prove an NA response option given not everyone would have used these services
Qatar University encourages and promotes the setting up of a Student’s Union (i.e. Students clubs)		R		Do you need to include encourages and promotes both in this statement; e.g. can you encourage without promoting and/or promote without encouraging – if not then it is redundant, and if you can, then do you need to make this into 2 statements?
Qatar University values feedback from students to improve service performance	A			
Qatar University has a standardized and simple service delivery procedure		R		Can it be standardized and complex at the same time? I would think so, thus you might need to make this 2 separate statements.

<p>Brand attachment is a cognitive and emotional connection between the brand and self (Chaplin and John, 2005; Escalas, 2004); it is the strength of the bond connecting the brand with self-involving thoughts and feelings about the brand, as well as the brand's relationship to the self (Fournier, 1998).</p>				
To what extent do you feel emotionally bonded to Qatar University		R		Hum....might need to give an example because I am not sure everyone would interpret "emotionally bonded" the same way...
To what extent do you trust Qatar University		R		What do you mean by trust?
To what extent do you feel committed to contribute back to Qatar University		R		You could offer some examples here – would be helpful
If you were to further your studies in the future, to what extent would Qatar University will be your preferred university?		R		Needs rewriting....see comments
<p>Customer Citizenship: Behavior voluntary and discretionary behaviors that are not required for the successful production and delivery of the service but that, in the aggregate, help the service organization overall" (Groth, 2005, p. 11).</p>				
Dimension	<p>Feedback: customers providing feedback to service providers regarding services they have received and suggesting constructive ideas to improve the service business.</p>			
When I have had a useful idea on how to improve Qatar University service, I let the service provider know.		R		I would state QU not service provider because that might be a bit confusing. You could state "I would let the appropriate department at QU know..."

When I have experienced a problem, I let the service provider know about it.					QU not service provider because that might be a bit confusing. You could state “I would let the appropriate department at QU know...”
I have informed the service provider about good service received from individual employees.				R (major revision)	I don't understand this statement at all....
I fill out Qatar University services surveys	A				
Dimension	Advocacy is related to customers recommending university services to friends and family that will increase the university value (Yi & Gong, 2008).				
I have said positive things about Qatar University and/or about its employees to others.	A				
I have recommended Qatar University to others.	A				
I have encouraged friends and relatives to study in Qatar University.	A				
Dimension	Helping: Customers may help other customers or the service provider based on their life mottos or beliefs				
I have assisted other students when they needed my help.				R	Is this specific to other QU students or student in general?
I have helped other students when they seemed to have problems.				R	Is this specific to other QU students or student in general?

I have taught other students to use the service correctly (i.e. Banner Services).		R		Is this specific to other QU students or student in general?
Dimension	Tolerance: reflects the customer's willing to be patient even when services do not perform or delivered as expected (Yi & Gong, 2008).			
I have put up with it when the service was not delivered as expected.		R		What do you mean by "put up with"? -- ambiguous
I have been patient and waited for the employee to recover from a mistake.		R		What do you mean by "recover from a mistake"? -- ambiguous
I have adapted to the situation when I have waited longer than I expected to receive a service (i.e. Receive Textbooks)		R		What do you mean by "adapted"? -- ambiguous

And just a general comment – when you put this together to give to the respondents to complete, you could make a general comment at the beginning that clarifies that all questions refer to Qatar University – that way you don't have to type Qatar University with every question and there should not be any confusion. I found it a bit awkward (not sure that is the precise term) that some questions included "Qatar University" and others did not – thus one could question if the questions without a specific QU reference refer to another University – hope you can see the point I am making as it simply reflects making your questions straightforward, non-ambiguous. Hope this is helpful. Wishing you the best of luck.

Appendix E: Krejcie and Morgan's (1970) Sample Size Determination

<i>N</i>	<i>S</i>	<i>N</i>	<i>S</i>	<i>N</i>	<i>S</i>
10	10	220	140	1,200	291
15	14	230	144	1,300	297
20	19	240	148	1,400	302
25	24	250	152	1,500	306
30	28	260	155	1,600	310
35	32	270	159	1,700	313
40	36	280	162	1,800	317
45	40	290	165	1,900	320
50	44	300	169	2,000	322
55	48	320	175	2,200	327
60	52	340	181	2,400	331
65	56	360	186	2,600	335
70	59	380	191	2,800	338
75	63	400	196	3,000	341
80	66	420	201	3,500	346
85	70	440	205	4,000	351
90	73	460	210	4,500	354
95	76	480	214	5,000	357
100	80	500	217	6,000	361
110	86	550	226	7,000	364
120	92	600	234	8,000	367
130	97	650	242	9,000	368
140	103	700	248	10,000	370
150	108	750	254	15,000	375
160	113	800	260	20,000	377
170	118	850	265	30,000	379
180	123	900	269	40,000	380
190	127	950	274	50,000	381
200	132	1,000	278	75,000	382
210	136	1,100	285	100,000	384

Note: *N* is population size; *S* is sample size

Appendix F: Descriptive Statistics

	N	Mini mum	Maxi mum	Mean	Std. Deviation	Variance	Skewness		Kurtosis	
	Stat istic	Statis tic	Statis tic	Statisti c	Statistic	Statistic	Statistic	Std. Error	Statisti c	Std. Error
EM1	568	1	5	3.94	1.039	1.079	-1.095	0.103	0.922	0.205
EM2	568	1	5	3.97	0.976	0.953	-1.063	0.103	1.024	0.205
EM3	568	1	5	3.42	1.259	1.584	-0.382	0.103	-0.865	0.205
ADV 1	568	1	5	3.91	0.960	0.921	-0.852	0.103	0.538	0.205
ADV 2	568	1	5	3.74	1.119	1.253	-0.723	0.103	-0.194	0.205
ADV 3	568	1	5	3.77	1.145	1.312	-0.819	0.103	-0.086	0.205
HB1	568	1	5	4.30	0.819	0.671	-1.599	0.103	3.628	0.205
HB2	568	1	5	4.21	0.870	0.757	-1.410	0.103	2.596	0.205
HB3	568	1	5	4.15	0.953	0.908	-1.363	0.103	1.857	0.205
HB4	568	1	5	4.08	0.920	0.847	-1.156	0.103	1.441	0.205
AC1	568	1	5	3.92	1.020	1.040	-0.983	0.103	0.626	0.205
AC2	568	1	5	3.67	1.028	1.057	-0.656	0.103	0.120	0.205
AC3	568	1	5	3.83	0.939	0.881	-0.877	0.103	0.831	0.205
AC4	568	1	5	3.97	0.957	0.916	-0.930	0.103	0.761	0.205
R1	568	1	5	3.74	1.130	1.277	-0.782	0.103	-0.093	0.205
R2	568	1	5	3.18	1.069	1.142	-0.174	0.103	-0.280	0.205
R3	568	1	5	3.68	1.001	1.003	-0.574	0.103	0.051	0.205
R4	568	1	5	3.73	1.001	1.002	-0.749	0.103	0.334	0.205
Acces s1	568	1	5	3.74	1.100	1.211	-0.738	0.103	-0.018	0.205
Acces s2	568	1	5	3.90	0.980	0.961	-0.794	0.103	0.397	0.205
Acces s3	568	1	5	3.82	1.109	1.230	-0.994	0.103	0.409	0.205
Acces s4	568	1	5	3.97	1.079	1.163	-1.137	0.103	0.781	0.205
NAC 1	568	1	5	3.38	1.049	1.099	-0.477	0.103	-0.122	0.205
NAC 2	568	1	5	3.32	1.024	1.049	-0.368	0.103	-0.187	0.205
NAC 3	568	1	5	3.44	1.039	1.079	-0.503	0.103	-0.198	0.205
NAC 4	568	1	5	3.55	0.958	0.918	-0.648	0.103	0.353	0.205
NAC 5	568	1	5	3.58	0.967	0.935	-0.663	0.103	0.321	0.205
NAC	568	1	5	3.42	1.084	1.175	-0.424	0.103	-0.349	0.205

6										
NAC 7	568	1	5	3.36	1.153	1.329	-0.432	0.103	-0.513	0.205
NAC 8	568	1	5	3.49	1.162	1.351	-0.644	0.103	-0.263	0.205
Valid N (listw ise)	568									

Appendix G: Reason(S) to Delete an Item

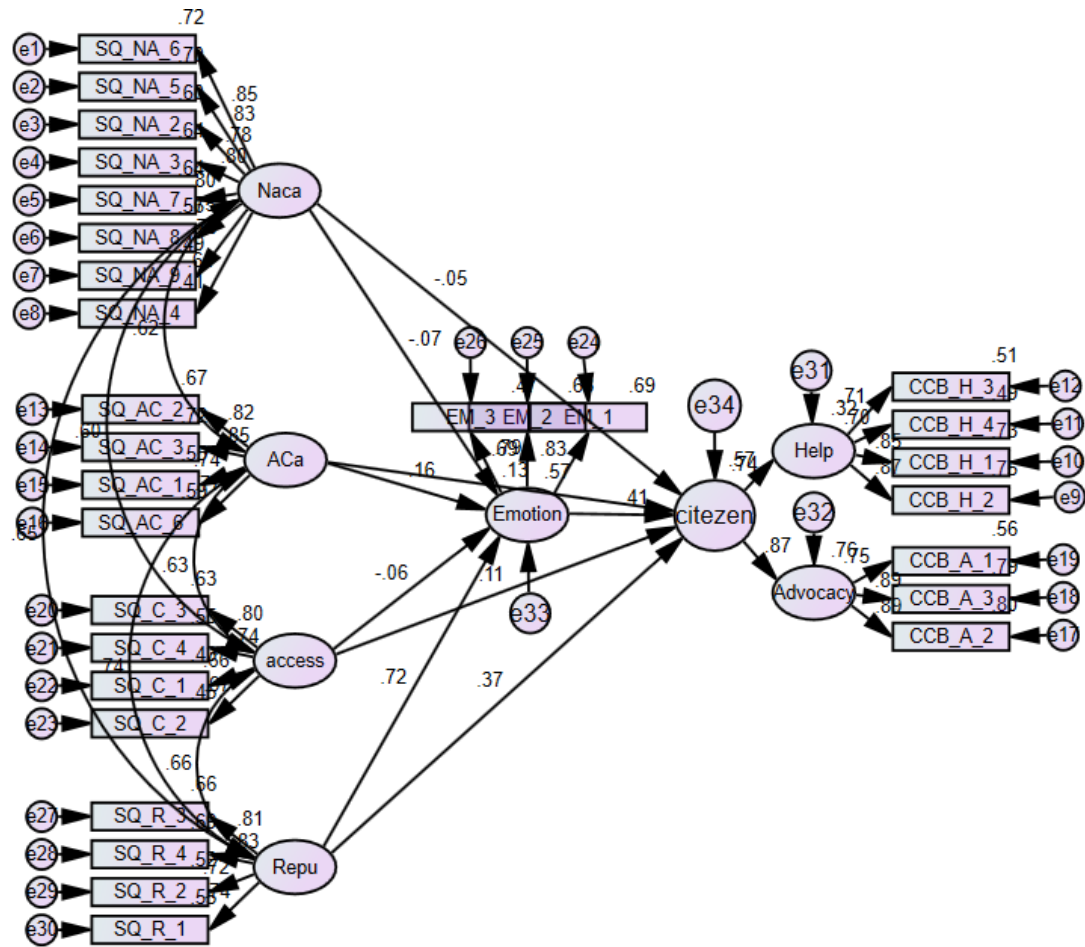
Label	Item	Reason(s) to delete the item
SQ_PI_1	Qatar University offers a wide range of programs with various specializations	The Program Issued dimension was end up loading on the same extracted factor with the reputation dimension. Therefore this study only considered the reputation dimension.
SQ_PI_2	Qatar University offers programs with flexible syllabus and structure	
EM4	I would recommend others to study at Qatar University	High Cross loading more than 0.5 with advocacy dimension.
EM5	Qatar University is always in my heart	High Cross loading more than 0.5 with advocacy dimension.
CCB_F_1	I have filled out a customer satisfaction surveys	Cronbach's alpha less than 0.7 (It is 0.656)
CCB_F_2	I have provided helpful feedback to customer service	
CCB_F_3	I have provided information when surveyed by Qatar University (e.g. Course Evaluation Survey)	
CCB_F_4	I have informed the appropriate department at QU about the great service received by an individual employee	
CCB_T_1	I have tolerate with it when the service was not delivered as expected	Cronbach's alpha less than 0.7 (It is 0.619)
CCB_T_2	I have been patient and waited for the employee to recover from a mistake during service delivery	
CCB_T_3	I have adapted to the situation when I have waited longer than I expected to receive a service (e.g. Receive Textbooks)	
AC_5	Instructors provide feedback about my progress	Low Communalities (.337)
AC_6	Instructors allocate convenient time for consultation	Low Communalities (.345)
NAC9	When I have a problem, administrative staff show a sincere interest in solving it	High Cross loading more than 0.5 with emotional attachment dimension.

Appendix H: Items Labels and Names

NAME	LABLE
EM1	I trust Qatar University
EM2	I feel committed to contribute back to Qatar University
EM3	If I were to further my study in the future, Qatar University will be my preferred university
EM4	I would recommend others to study at Qatar University
EM5	Qatar University is always in my heart
CCB_F_1	I have filled out a customer satisfaction surveys
CCB_F_2	I have provided helpful feedback to customer service
CCB_F_3	I have provided information when surveyed by Qatar University (e.g. Course Evaluation Survey)
CCB_F_4	I have informed the appropriate department at QU about the great service received by an individual employee
ADV1	I have said positive things about Qatar University to others
ADV2	I have recommended Qatar University to others
ADV3	I have encouraged friends and relatives to study in Qatar University
HB1	I have assisted other students when they needed my help
HB2	I have helped other students when they seemed to have problems
HB3	I have taught other students to use the service correctly (e.g. Banner Services)
HB4	I have advised other students regarding university services
CCB_T_1	I have tolerate with it when the service was not delivered as expected
CCB_T_2	I have been patient and waited for the employee to recover from a mistake during service delivery
CCB_T_3	I have adapted to the situation when I have waited longer than I expected to receive a service (e.g. Receive Textbooks)
AC1	Instructors at Qatar University have the knowledge to answer my questions relating to the course content
AC2	Instructors show positive attitude towards students
AC3	Instructors communicate well in the classroom
AC4	Instructors provide feedback about my progress
AC5	Instructors allocate convenient time for consultation
AC6	Instructors are highly educated in their respective field
R1	Qatar University has a good reputation
R2	Qatar University's graduates are easily employable
R3	The academic program run by Qatar University has a good reputation
R4	Qatar University runs excellent quality programs
SQ_PL_1	Qatar University offers a wide range of programs with various specializations
SQ_PL_2	Qatar University offers programs with flexible syllabus and structure
Access1	Health services are accessible (e.g. QU Medical Clinic)

Access2	Qatar University encourages the setting up of a Student's Union (e.g. Students Clubs)
Access3	Recreational facilities are accessible (e.g. Sports activities, student clubs and food services)
Access4	Academic facilities are accessible (e.g. QU Library, Academic Advising and Student Learning Support Center)
NAC1	When I have a problem, administrative staff show a sincere interest in solving it
NAC2	Administrative staff provide caring and individual attention
NAC3	When the administrative staff promises to do something by a certain time, they do it
NAC4	The working hours of administrative offices are convenient for me
NAC5	Administrative staff shows a positive attitude towards students
NAC6	Administrative staff communicate well with students
NAC7	Administrative staff have good knowledge of the systems and procedures
NAC8	Students are treated equally by Qatar University staff
NAC9	Qatar University staff ensure that they are easily contactable by telephone or email

Appendix I: Research Model (Standardized)



Appendix J: Model Fit (AMOS OUTPUT)

Model Fit Summary

Default model

Standardized RMR = .0443

CMIN

Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	80	920.914	385	.000	2.392
Saturated model	465	.000	0		
Independence model	30	10884.462	435	.000	25.022

RMR, GFI

Model	RMR	GFI	AGFI	PGFI
Default model	.046	.903	.882	.747
Saturated model	.000	1.000		
Independence model	.405	.186	.129	.174

Baseline Comparisons

Model	NFI	RFI	IFI	TLI	CFI
	Delta1	rho1	Delta2	rho2	
Default model	.915	.904	.949	.942	.949
Saturated model	1.000		1.000		1.000
Independence model	.000	.000	.000	.000	.000

Parsimony-Adjusted Measures

Model	PRATIO	PNFI	PCFI
Default model	.885	.810	.840
Saturated model	.000	.000	.000
Independence model	1.000	.000	.000

NCP

Model	NCP	LO 90	HI 90
Default model	535.914	450.940	628.581
Saturated model	.000	.000	.000

Model	NCP	LO 90	HI 90
Independence model	10449.462	10112.888	10792.400

FMIN

Model	FMIN	F0	LO 90	HI 90
Default model	1.624	.945	.795	1.109
Saturated model	.000	.000	.000	.000
Independence model	19.197	18.429	17.836	19.034

RMSEA

Model	RMSEA	LO 90	HI 90	PCLOSE
Default model	.050	.045	.054	.565
Independence model	.206	.202	.209	.000

AIC

Model	AIC	BCC	BIC	CAIC
Default model	1080.914	1090.168	1428.284	1508.284
Saturated model	930.000	983.787	2949.086	3414.086
Independence model	10944.462	10947.932	11074.725	11104.725

ECVI

Model	ECVI	LO 90	HI 90	MECVI
Default model	1.906	1.757	2.070	1.923
Saturated model	1.640	1.640	1.640	1.735
Independence model	19.302	18.709	19.907	19.309

HOELTER

Model	HOELTER	HOELTER
	.05	.01
Default model	266	279
Independence model	26	27