

The Effect of Provided Education Services on Meeting Residents' Satisfaction in the United Arab Emirates, the Case of Ajman Emirate

Hajar Al Hubaishi, Abdelrahim Ali

Ajman Statistics and Competitiveness Center, Ajman, UAE

Email: aaastudies@yahoo.com, hsaeed@ajman.ae

How to cite this paper: Al Hubaishi, H., & Ali, A. (2022). The Effect of Provided Education Services on Meeting Residents' Satisfaction in the United Arab Emirates, the Case of Ajman Emirate. *Creative Education*, 13, 1511-1528.

<https://doi.org/10.4236/ce.2022.134093>

Received: August 31, 2021

Accepted: April 26, 2022

Published: April 29, 2022

Copyright © 2022 by author(s) and Scientific Research Publishing Inc.

This work is licensed under the Creative Commons Attribution-NonCommercial International License (CC BY-NC 4.0).

<http://creativecommons.org/licenses/by-nc/4.0/>



Open Access

Abstract

The UAE is an emerging mature education market in the Middle East and North Africa (MENA) region, ambitiously looking forward to being an attractive destination for education's investors, education's providers, and regional and international students. But this depends largely on the quality of the education services provided and the residents' level of satisfaction. The purpose of this paper is to identify the level of Ajman's resident satisfaction on education services and to assess what do the trends over time, tell about the education quality, and residents' level of satisfaction? To this end, a sample of 992 was selected out of a total of 95,531 household who lived in Ajman and had prior experience in education provided services. Data were analyzed using the Statistical Package for the Social Sciences (SPSS) version 22 and AMOS version 22. Structural Equation Modeling (SEM) analysis showed an acceptable model fit used to measure residents' satisfaction both for government and private sector. Findings for Ajman showed that all dimensions of accessibility, reliability, and safety, except for responsiveness dimension of education service in government sector, correlated positively with education service quality, which also had a strong, positive correlation with residents' satisfaction. For private sector, all of accessibility, reliability, safety and responsiveness dimensions correlated positively with education service quality, which also had a strong positive correlation with residents' satisfaction. Generally, about 93% of Ajman residents claimed that they were satisfied with education services, where satisfaction level on education services provided by the government sector reached 94% and about 92% in the private sector. Both government and private education had the same highest scoring dimensions, with safety dimension had the highest satisfaction of about 97% for government sector and 96% for private sector. Responsiveness dimension satisfaction was the least with 92% for government sector and quality dimension in

private sector was the least with 87%. Findings of this study were expected to support the concerned decision makers for improving education services within the Emirate of Ajman. The UAE being among the top destinations for FDI in the region enhanced this trend, by recently introducing ownership laws to allow for 100% foreign investors ownership of companies outside free zones, together with 10-year residency visa options—a move designed to drive more foreign investment into the country and attract longer term residents. Consequently, more and more private equity firms in the region were growing their education portfolios in light of this climate, with the education sector ranking second in terms of private equity transactions among all sectors in the MENA region. Besides, the cost of living in the UAE continues to rise, and the degree to which this and the introduction of VAT will affect education sector growth is yet to be determined.

Keywords

Ajman Emirate, UAE, Education, Service Quality, Satisfaction, Dimensions

1. Introduction

The Ministry of Education in the UAE indicated that the region has gone through four iterations of educational development. These are the Mutawa and the Katateeb, Educational Circles, Semi-Organized Education, and the Modern Education System (Alhebsi et al., 2015). Varied tools to support learning as part of the technological advancement, offered a whole range of possibilities for educators, such as flipped and blended learning. More importantly, there has also been a substantial move away from factual recall and memorization to development of higher order thinking skills and nurturing students, for creativity and critical thinking. The private school sector in the UAE is expected to continue to drive UAE's education market to 2020. Over 175,000 additional seats will be required in the K-12 segment in the next three years, and 90 percent of this will come from private school enrolls (This data was released through a study published by PwC Middle East, Understanding the GCC Education Sector, Country Profile: UAE in 2017). Based on historical demographic trends, Dubai is forecast to require 74,500 additional seats in 50 new private schools by 2020, while 62,000 other places in 52 new private schools in the same period would be needed in Abu Dhabi.

Many countries around the world are carrying out satisfaction studies, by conducting surveys within their communities, to know the satisfaction levels of their residents, regarding rendered public and private services. In fact, customer satisfaction surveys are generally used for several different purposes, each of which is very important for the feedback of the services' providers, to improve their customers' level of satisfaction. In this respect, the top objectives for customer satisfaction surveys include, among others, fixing any meaningful prob-

lems occurring for the customers, assessing the performance of the providers' customer-facing units, improving the processes and standards for the services delivery and understanding and meeting customers' needs, to keep them fully satisfied with the delivered services.

To this end, Ajman Statistics and Competitiveness Center, initiated a number of residents' satisfaction surveys. It is noteworthy that, according to the Global Competitiveness Report 2017-2018, to further increase its competitiveness, the UAE has to double its efforts in speeding up progress in terms of spreading the latest digital technologies and upgrading education (Schwab and Sala-i-Martin, 2015).

Recent evidence of a substantial link between quality of schooling and individual productivity suggests that, from an economic efficiency perspective, quality aspects of education deserve attention. Empirical evidence provides some support for the contention that the quality of education may be improved by offering higher salaries to teachers. Also rates of return are higher for individuals from regions with better-educated teachers and with a higher fraction of female teachers. However, holding constant school quality measures showed no evidence that parental income or education, affected average state-level rates of return.

2. Research Problem

The quality education is the corner stone of the development of countries. It is the basic and primary condition to cultivate knowledge and civilize people for their all-round development. The issues of education in the UAE seem to be debatable and researchable as well. So, the major purpose of this paper is to analyze the status of the UAE public and private education, in terms of quality education and residents' satisfaction. Likewise, the main objective of this paper is also to enhance the researchers for the knowledge of quality education in schools and complement and supplement knowledge, through different theories related to quality education.

Considering the UAE then, now and tomorrow education, reveals that, its landscape has come a long way, from rustic schools with minimum infrastructure to technologically advanced classrooms fitted with smart boards. However, from the late 70s to the late 80s, students had nothing but books and the inspiration from their teachers, whereas since the 90s, educational institutions in the country have evolved to suit the needs of a highly-competitive job market. Besides, the UAE's Ministry of Education has developed an Education 2020 Strategy, which is a series of ambitious five-year plans designed to bring significant qualitative improvement in the education system, especially in the way teachers teach and students learn. Moreover, smart learning programs, new teachers' codes, licensing and evaluations methods, as well as curriculum revision, including teaching math and science through English, are all part of the strategy. More importantly, there has also been a substantial move away from factual re-

call and memorization to development of higher order thinking skills and nurturing students for creativity and critical thinking (Dhanusha, 2018). In this respect, previous scholars also asserted that, public satisfaction is closely linked to country's economic stability and resident's general feeling of well-being and concluded that, it is important for public satisfaction to be measured constantly, to assess the areas that affect education quality, determine which items should be prioritized and which require alteration in the service based, on the community responses.

Based on the current context, this study aims to determine the factors that influence the education service quality in the United Arab Emirates, measure the residents' satisfaction level on education services and determine the relationship between education service quality and residents' satisfaction. The paper has the following structure: The section following the research problem revises the literature about the definition of quality and factors affecting education quality. The section thereafter briefly describes customers' satisfaction and the relationship of education quality and satisfaction. Subsequent two sections contain the methodology and the results (Analysis), respectively. In the last section, the main findings and conclusion of the study are drawn.

3. Definition of Service Quality

The quality education has been a corner stone of the development for all countries, as it is a basic and primary condition to cultivate knowledge and civilize people for their all-round development. However, until the late 1980's, the results of much of International Association for the Evaluation of Educational Achievement research programs, were shared mainly among researchers and educators, with an interest in comparative education, curriculum, and quantitative research methodologies. However, things began to change in the 1990's, as governments became interested in monitoring and evaluating the quality of education (Ross & Genevois, 2006).

No consensus has been reached on a definition for quality, as the term is defined differently for products and services, for different industries, and for different levels of dimensionality. The UAE has its belief that, the quality education in schools is the major strategy to give assurance to parents and that can win the heart of people, depending upon the teaching learning skills of teacher, students' learning capacity and their staying hour at school. Besides, the role of parents may also have significant value to establish the quality education in schools.

Regarding the quality education, parents may have the various options to choose the schools for their children nowadays. However, they may choose private schools, paying fees rather than free education in public schools. Until the late 1980's, the results of much of International Association for the Evaluation of Educational Achievement research programs were shared mainly among researchers and educators with an interest in comparative education, curriculum, and quantitative research methodologies. However, things began to change in

the 1990's, as governments became interested in monitoring and evaluating the quality of education (Ross & Genevois, 2006).

The quality of product and service may influence the customers which they demand. If the service and products are qualitative, people may demand the products. In this aspect, leadership role in school may be required for the quality education, as people have become increasingly hypnotized by the idea of leadership for a long time. They believe that, leadership is a way to improve their personal, social and professional lives. Corporations seek those with leadership ability, as they believe that they bring special assets and improve their organization (Bush, 2007).

4. Education Service Quality

Contrasting the approach to the measurement of stocks of education that is adopted by growth economists on the one hand and governments wishing to improve economic performance through education on the other, revealed that, progress in demonstrating the link between human capital investment and economic growth, for a range of countries world-wide, was disappointing (Steedman, 1996).

Recently, the OECD, in partnership with UNESCO, unveiled a draft set of guidelines on quality assurance and accreditation in cross-border higher education, which was immediately opposed, by the faculty unions concerned, as the guidelines ignored their interests.

According to UNESCO, Quality in higher education is defined as, a multi-dimensional, multilevel, and dynamic concept, that relates to the contextual settings of an educational model, to the institutional mission and objectives, as well as to specific standards within a given system, institution, programme, or discipline. It's suggested that the threshold notion of quality is about setting certain norms and criteria such that any programme, department, or institution, which reaches these norms and criteria, is "deemed to be of quality". However, Quality, as a concept, is quite separate from the processes of quality assurance, assessment, evaluation, audit or other forms of monitoring. It's argued that more research is needed to determine the feasibility of developing a universal definition of quality that would apply to different types of institutions, in diverse geographic locations. Second, more research is needed to better understand the influence of culture on the use and meaning of quality terminology. Specifically, research is needed to determine whether the terms, quality and quality assurance, are applicable across cultures and, if so, whether there are distinct regional and national meanings of these terms. Finally, the relationship between quality assurance and accreditation in the literature is unclear.

5. Customers' Satisfaction

In fact, education in many countries is facing pressure to improve value in its activities. Government as well as private universities, are striving to maintain the

quality of education. The evaluation of customers' perception is essential to provide motivation for and to give feedback on the effectiveness of educational plans and implementation for them. It is essential to find out the students' perception as well as level of satisfaction about the higher education in private and public universities. The satisfaction evaluation is to begin with the basic SERVQUAL survey instrument and the use of the satisfaction grid to tell where to put one's efforts based on what students deem to be of high importance.

Customer satisfaction can be understood as either an outcome or a process. It can be theorized that customer satisfaction is a static concept, which is a cognitive and an effective response obtained through a current transaction or current consumption experience. This concept of customer satisfaction orientation examines whether the whole processes of consumption experiences achieve an expected result or not. It looks at the entire consumption processes and finds a specific process that might lead to customer's satisfaction. This approach seems to draw more attention to the perceptual, evaluative and psychological processes that combine to generate customer satisfaction. Customer's satisfaction or the customer's perception of their experience is generally the measure of greatest concern to organizations. This concern is driven by the organization's belief that customer's satisfaction leads directly to customer retention. Consequently, researchers continue to explore new models and methods for uncovering meaningful information about customer's satisfaction.

In fact, satisfaction has become a major important factor for educational institutions to survive. [Elliott and Shin \(2002\)](#) stated that student satisfaction is shaped through various outcomes and their experiences in campus. In this context, [Richardson \(2005\)](#) used many dimensions to measure the quality of the learning environment and the student satisfaction. These dimensions include student evaluation of teaching, course modules, perceptions of academic quality and student satisfaction. [Duque and Weeks \(2010\)](#) indicated that support resources, educational quality and learning outcomes affect student's satisfaction in a positive way. Moreover, student's involvement has a significant impact on learning outcomes which contributed to student's satisfaction. So, it is important to evaluate student learning outcomes that reflect student satisfaction ([Duque and Weeks, 2010](#)).

6. Relationship between Education Service Quality and Customer Satisfaction

The education is not only a major sector nowadays, but it is also an investment by parents for their children. Thus, it is necessary to investigate the effect of the dimensions (reliability, tangibility, responsiveness, assurance and empathy) of service quality in primary education on parent satisfaction, using SERVQUAL model.

Customer satisfaction is highly related to service quality and it is an important aspect for service organizations. To develop relationship with current customers

and to magnetize new customers, many companies think that service quality has strategic importance. Customers are interested very much with the quality of received output. Positive perception on the quality of services being delivered occurs when it exceeds the customers' expectations. In primary education parents are one of the most important stakeholders and they make decision which school parental satisfaction. Parental satisfaction is tried to measure by many schools in order to find ways of improving the schools and to evaluate the quality of the education provided to children.

The usage of the most convenient measurement tool helps management to evaluate the service quality which is provided by their schools.

It's stated that the customer satisfaction is the customers' perception that his or her expectations are met or surpassed. In other words, satisfaction is a state which is felt when a person has performance, experience or an outcome that meets her or his expectation. When a customer's expectations are met or exceeded by a product or service, the customer is generally satisfied. It is evident about the satisfaction that customers normally appreciate the services and goods if they feel special after purchasing. One of the critical issues in the success of any business system is the customers' satisfaction. Today's market conditions require that any organization wants to be successful; it must be customer-centered and give superior value to its customers. In establishing customer relationship organizations must be adept.

Satisfaction is considered as a central concept in marketing. Customers' satisfaction is generally the most efficient and the least expensive source of market communication since the satisfied customers usually spread their positive thoughts to other customers. Otherwise, they will disseminate negative appraisal if they are dissatisfied. Management of institutions must care the customer satisfaction if they want to survive. Customers are very important for successful business and they keep companies in existence. The satisfied customers repeat the purchase of the product or service and give positive messages about it to others. On the other hand, the dissatisfied customers look for different alternatives. Therefore, the basic and significant role of any business is to fulfill the expectation and needs of its customer. The message is clear that business is improved by the satisfied customers and it is impaired by the dissatisfied customers. Satisfaction is the result of the study of an organization's administration as well as educational system's consistent performance. [Töremen et al. \(2009\)](#) stated that the most important customers are the parents of students in primary school. Parent satisfaction depends on different experiences of parents about school. Meeting the parents' expectations is considered to be necessary for creating customer satisfaction. It is expected that more participated parents in school activities are more satisfied. Also, it is expected that the parents of successful students are more satisfied than the parents of less successful students. Some aspects of schools such as teachers, employees and cafeteria have effect on the parent satisfaction. The satisfied parents feel better and informed about their

children's school activities. They believe that their children are safe in the school and think that the school values their involvement. The dissatisfied parents can change easily their school decisions. Therefore, they can send their children to private schools or they can move to different school areas. Increasing satisfaction of parents is thought one way of developing the quality of the schools (Salisbury et al., 1997).

In general, it is believed that there is a positive complete correlation between consumers' perception of service quality and their satisfaction. Accordingly, the following hypotheses are deemed relevant.

Hypothesis 1: Tangibles correlate positively with education service quality.

Hypothesis 2: Reliability correlates positively with education service quality.

Hypothesis 3: Responsiveness correlates positively with education service quality.

Hypothesis 4: Assurance correlates positively with education service quality.

Hypothesis 5: Empathy correlates positively with education service quality.

Hypothesis 6: Education service quality correlates positively with Residents satisfaction.

7. Research Methodology

7.1 Sample and Data Collection

Success of any country depends on its people's quality of education. So it is very important to promote and upgrade education rendered services, to surpass all expectations. In order to check this assumption, an empirical research, in which primary data were collected by a field survey, using a questionnaire. It was a causal study, based on purposive sampling, which is done in a natural non-biased environment. The purpose of this study was to find out satisfaction level about the education sector, located in the emirate of Ajman. Dependent variables used in the study comprised students and their parents, whereas, the independent variables contained, reliability, responsiveness, assurance, empathy and tangibles.

7.2. The Model

The model used, deals with the interactions among all factors developed, to measure the Ajman residents' satisfaction on education services. To this end, five null hypotheses were considered to be tested, namely:

H1: Accessibility correlates positively with education service quality;

H2: Safety correlates positively with education service quality;

H3: Responsiveness correlates positively with education service quality;

H4: Reliability correlates positively with education service quality;

H5: Education service quality correlates positively with Residents' satisfaction.

According to Malhotra et al. (2006), one of the approaches to measure reliability is to use the coefficient alpha. Each construct must have a value of coefficient alpha or as a guide to eliminate survey questions that do not contribute to the construct Cronbach (1951). Structural equation modeling (SEM), using the

Statistical Package for the Social Sciences (SPSS) version 22 and AMOS version 22, is a tool employed to examine the relationship between education service quality and residents' satisfaction, as depicted by **Figure 1** below.

The processes followed contain research questions, sampling, designing the questionnaire, data collection, enumerators' preparation and training, pilot study, quality control, data analysis, adequacy of the design study. Examining education service quality and residents' satisfaction necessitated addressing the following:

- Are the service quality dimensions (reliability, responsiveness, accessibility) correlated positively with residents' satisfaction?
- Are education service quality correlates positively with residents' satisfaction?
- What is the residents' satisfaction level on availed education services?

7.3. Sampling and Data Collection

The survey population comprised 95,531 households residing in Ajman, based on 2017 Census data, collected by the Statistics and Competitiveness Center. The sample is randomly selected, including those 18 years of age and above, accounting for 424 UAE nationals and 481 non-national residents, each with 5% marginal error, at 95% confidence level. This sample size is applicable to the three areas of Ajman, Masfout and Manama. This random selection provided equal chance of selection for the different social classes to the groups of occupation, income strata and geographic proximity to government presence.

Data collection was carried out through face-to-face interviews, using an electronic standardized questionnaire accessed through tested and verified KIG-SMS (Kafaat International Group Study Management System) device.

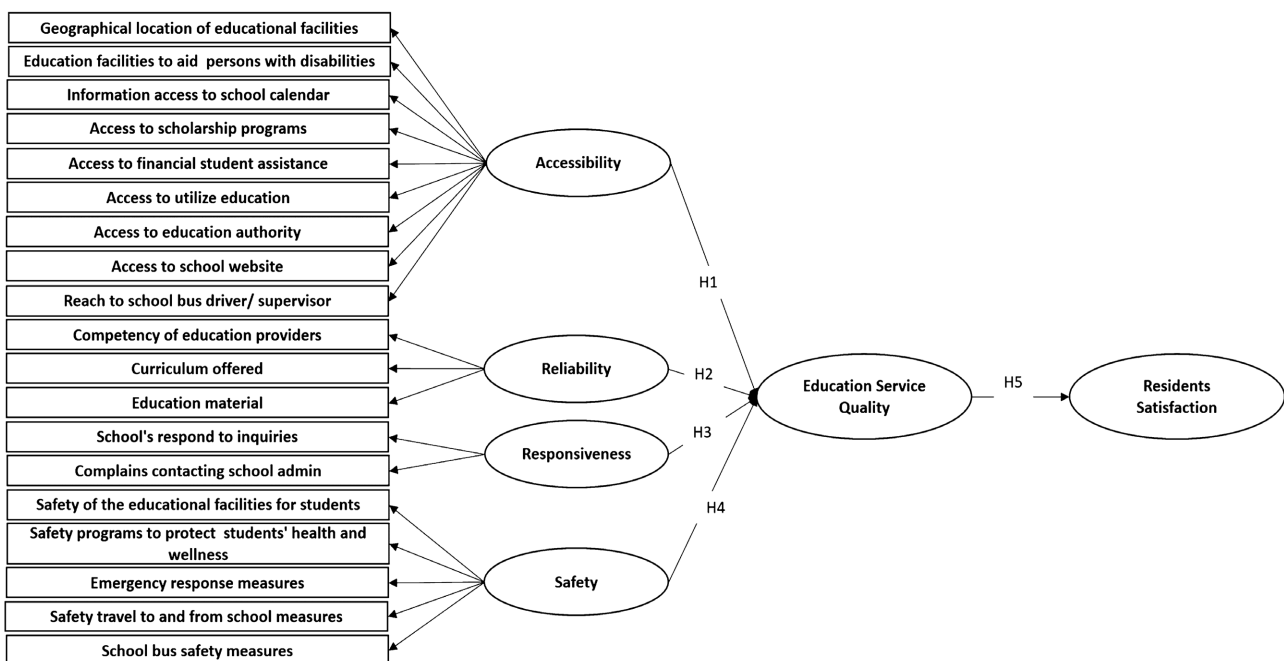


Figure 1. Proposed model on Ajman residents' satisfaction on education services.

7.4. Data Analysis

Data were analyzed using the SPSS version 22 and AMOS version 22. SPSS was used to assess respondents' profiles, and test reliability and validity, and AMOS was used to conduct SEM analysis.

8. Findings

8.1. Introduction

The total number of households surveyed amounted to 3804 households, of which 2347 did not respond, accounting for 62% of the selected sample. The rest of the sample summing to 1457 households or 38% of the total sample, responded. Out of these responding households, 242 or 17% refused to be interviewed. Additionally, 322 or 22% of the households did not pass the eligibility screening. Thus, only, 893 households were interviewed, accounting for 61% which represents the response rate. However, Quality control, validation and checking of the completed interviews led to exclusion of 40 completed interviews or 4.5%. Consequently, the final number of completed and verified interviews was 853 households or 95%.

8.2. Reasons of Responding Households for Choosing an Educational Facility (Table 1)

Table 1. The relative importance of reasons why choosing an educational facility.

Reason	%
Location of the School	95%
Quality of education	54%
Cost	50%
School Curriculum	47%
Competence of the school providers	46%
Quality of education facilities	40%
School is well recognized	38%
Safety	28%
Others	6%

8.3. Factors That May Influence Future Decisions of Responding Households with Family Members, Studying in the Emirate of Ajman (Table 2)

Table 2. The relative importance of the factors that might influence future decisions in choosing an educational facility.

Factors to Influence Future Decision	%
Location of the school	21%
Cost	18%

Continued

Quality of education	14%
School Curriculum	12%
Competence of the school providers	11%
School is well recognized	11%
Quality of education facilities	11%
Safety	8%
Others	0.4%

Table 3. Results of reliability—government sector.

Construct	Number of Questions	Cronbach's Alpha
Accessibility	9	0.935
Reliability	3	0.937
Safety	5	0.965
Quality	12	0.962
Responsiveness	2	0.897

Table 4. Results of reliability—private sector.

Construct	Number of Questions	Cronbach's Alpha
Accessibility	9	0.929
Reliability	3	0.940
Safety	5	0.951
Quality	12	0.955
Responsiveness	2	0.861

8.4. Analysis of Reliability

Any research based on measurement must be concerned with the accuracy or dependability or, as we usually call it, reliability of measurement (Cronbach, 1951). The purpose of evaluating internal reliability of the questionnaire is to test the reliability of the dimensions used to measure each construct, with this Cronbach's alpha test was utilized. The test results by using SPSS 22, indicated that all item values were >0.600 and were reliable to measure each construct. In **Table 3**, Cronbach's alpha coefficient results presented for each dimension for government sector questions and found between 0.897 and 0.965, in **Table 4**, Cronbach's alpha coefficient results presented for each dimension for private sector questions and found between 0.861 and 0.955 which are on acceptable levels; questions for each dimension measured the same dimension, and thus the internal consistencies of the measures were verified.

8.5. Structural Equation Modeling (SEM)

SEM Model and Solution Procedure

Education service quality latent construct was measured using reliability, responsiveness, accessibility and safety. Two sets of data were collected: one assessed from government education sector respondents and another from private education sector respondents. The structural relationships between variables are displayed in **Figure 2** and **Figure 3** for government and private sector respectively. Hereafter, the structural equation modeling model (SEM) was performed

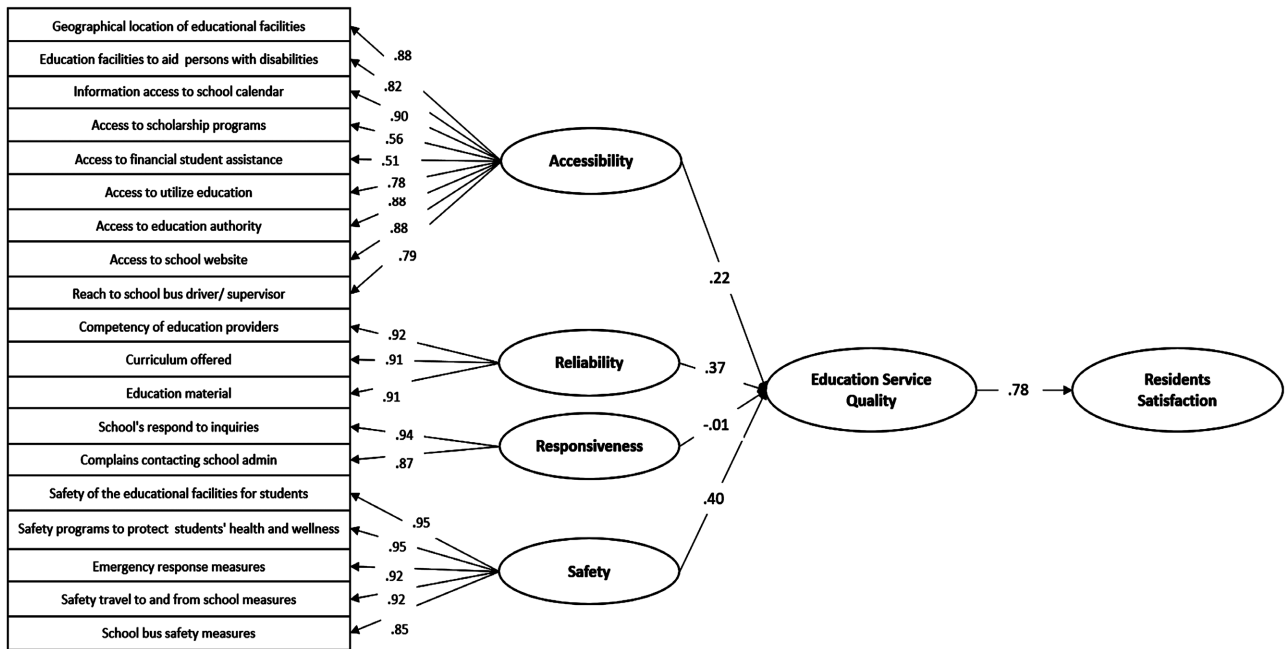


Figure 2. Path diagram for structural model—government sector.

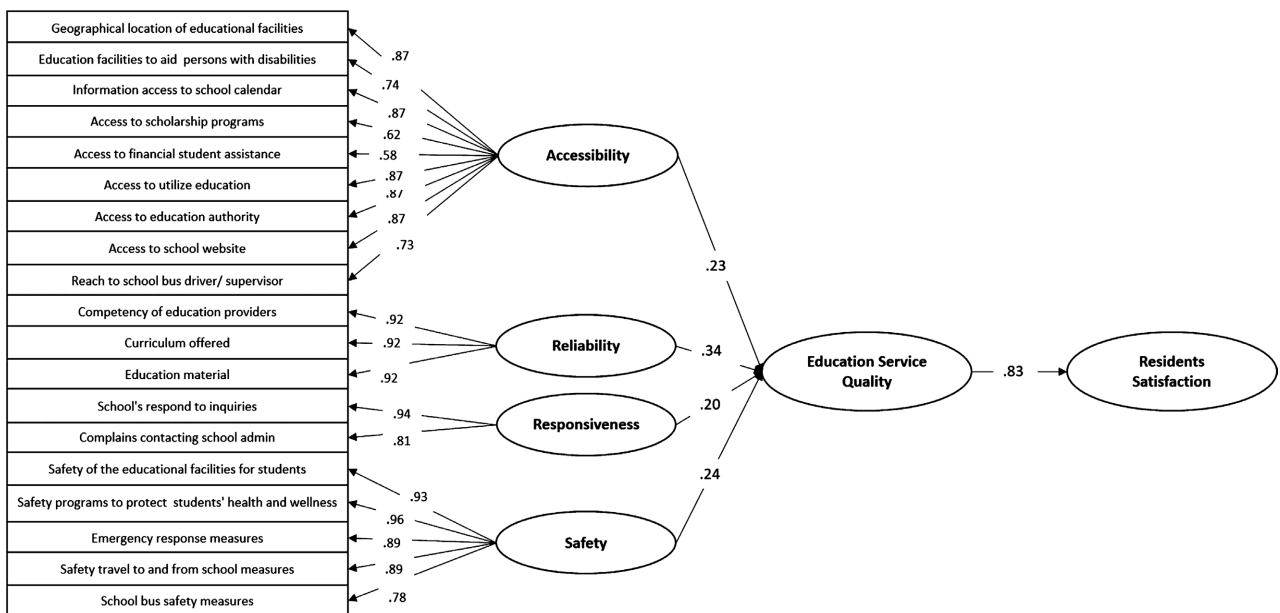


Figure 3. Path diagram for structural model—private sector.

by employing AMOS 22 software to notice the relationship between education service quality dimensions (reliability, responsiveness, accessibility and safety) with residents' satisfaction (related to 21 elements). SEM is an appropriate and analytical technique for testing the relationship between theoretical constructs and visualized through path diagrams. The model validation, then evaluated through convergent, discriminant validity, and reliability.

9. Results

9.1. Fit Analysis

The result in **Table 5** shows results of the fit analysis and indicated that RMR of 0.040 (valid), GFI is 0.825 (moderate), NFI is 0.926 (valid), IFI is 0.936 (valid), CFI is 0.936 (valid) for government education sector. In addition, the result of the fit analysis indicated that RMR of 0.038 (valid), GFI is 0.860 (moderate), NFI is 0.938 (valid), IFI is 0.949 (valid), CFI is 0.948 (valid) for private education sector. In overall the model has met the criteria.

9.2. Measurement Equations: Education Service Quality

From **Table 5**, for government education sector variables estimates shows the main element for each dimension, Accessibility main element is information access to school calendar (0.897), while the main element of reliability is competency of education providers (0.917). Furthermore, the main element of responsiveness is school's response to inquiries (0.938), and the main elements of Safety were Safety of the educational facilities for students (0.948) and Safety programs to protect students' health and wellness (946). Finally, the main element of quality is quality of education facilities to engage students to study (0.932).

All significant dimensions affect each variable with alpha 0.001.

9.3. Assessment of Structure Model and Hypothesis Testing

Assessment of structure model and hypothesis shown in **Table 5** for government education sector:

H1: Accessibility correlates positively with education service quality.

The probability of getting a critical ratio as large as 3.662 in absolute value is less than 0.001. In other words, the regression weight for **AC** in the prediction of

Table 5. Model fit indicators.

Model	RMR	GFI	AGFI	PGFI
Government Education Model	0.040	0.825	0.793	0.697
Private Education Model	0.038	0.860	0.836	0.730

Model	NFI Delta1	RFI rho1	IFI Delta2	TLI rho2	CFI
Government Education Model	0.926	0.918	0.936	0.929	0.936
Private Education Model	0.938	0.931	0.949	0.943	0.948

QL is significantly different from zero at the 0.001 level (two-tailed). It means that this hypothesis is supported and has sufficient evidence to indicate that accessibility influences education service quality.

H2: Reliability correlates positively with education service quality.

The probability of getting a critical ratio as large as 7.481 in absolute value is less than 0.001. In other words, the regression weight for **RL** in the prediction of **QL** is significantly different from zero at the 0.001 level (two-tailed). It means that this hypothesis is supported and has enough evidence to indicate that reliability influences education service quality.

H3: Responsiveness correlates positively with education service quality.

The probability of getting a critical ratio as large as 0.169 in absolute value is 0.866. In other words, the regression weight for **RS** in the prediction of **QL** is not significantly different from zero at the 0.05 level (two-tailed). It means that this hypothesis is not supported and has no enough evidence to indicate that responsiveness influences education service quality.

H4: Safety correlates positively with education service quality.

The probability of getting a critical ratio as large as 9.424 in absolute value is less than 0.001. In other words, the regression weight for **ST** in the prediction of **QL** is significantly different from zero at the 0.001 level (two-tailed). It means that this hypothesis is supported and has enough evidence to indicate that safety influences education service quality.

H5: Education service quality correlates positively with Residents satisfaction.

The probability of getting a critical ratio as large as 33.07 in absolute value is less than 0.001. In other words, the regression weight for **QL** in the prediction of **SF** is significantly different from zero at the 0.001 level (two-tailed). This means that this hypothesis is supported and has enough evidence to indicate that education service quality in government sector has an influence on resident's satisfaction (**Table 6**).

9.4. Assessment of Structure Model and Hypothesis Shown in Table 6 for Private Education Sector

H1: Accessibility correlates positively with education service quality.

Table 6. Assessment structure model education service quality—Government sector.

Variable estimate—Government Sector			Estimate	Standardized Loadings	S.E.	C.R.
Accessibility	→	QL (Quality)	0.269	0.223***	0.073	3.662
Reliability	→	QL (Quality)	0.364	0.372***	0.049	7.481
Responsiveness	→	QL (Quality)	-0.005	-0.006	0.032	-0.169
Safety	→	QL (Quality)	0.461	0.402***	0.049	9.424
Quality	→	SF1 (Satisfaction)	0.814	0.782***	0.025	33.07

***Significant at alpha 0.05, 0.01, 0.001 respectively; S.E: Standard Error; C.R: Critical Ratio.

The probability of getting a critical ratio as large as 4.341 in absolute value is less than 0.001. In other words, the regression weight for **AC** in the prediction of **QL** is significantly different from zero at the 0.001 level (two-tailed). It means that this hypothesis is supported and has enough evidence to indicate that accessibility influences education service quality.

H2: Reliability correlates positively with education service quality.

The probability of getting a critical ratio as large as 7.479 in absolute value is less than 0.001. In other words, the regression weight for **RL** in the prediction of **QL** is significantly different from zero at the 0.001 level (two-tailed). It means that this hypothesis is supported and has enough evidence to indicate that reliability influences education service quality.

H3: Responsiveness correlates positively with education service quality.

The probability of getting a critical ratio as large as 5.828 in absolute value is less than 0.001. In other words, the regression weight for **RS** in the prediction of **QL** is significantly different from zero at the 0.001 level (two-tailed). It means that this hypothesis is supported and has enough evidence to indicate that responsiveness influences education service quality.

H4: Safety correlates positively with education service quality.

The probability of getting a critical ratio as large as 6.307 in absolute value is less than 0.001. In other words, the regression weight for **ST** in the prediction of **QL** is significantly different from zero at the 0.001 level (two-tailed). It means that this hypothesis is supported and has enough evidence to indicate that safety influences education service quality.

H5: Education service quality correlates positively with Resident's satisfaction.

The probability of getting a critical ratio as large as 34.467 in absolute value is less than 0.001. In other words, the regression weight for **QL** in the prediction of **SF** is significantly different from zero at the 0.001 level (two-tailed). This means that this hypothesis is supported and has enough evidence to indicate that education service quality in private sector has an influence on resident's satisfaction (**Table 7**).

10. Residents' Satisfaction Results

Resident's Overall Satisfaction on Education Services

Table 8 presents the level of satisfaction regarding each of the dimensions and

Table 7. Assessment structure model education service quality—private sector.

Variable estimate—Private Sector			Estimate	Standardized Loadings	S.E.	C.R.
Safety	→	QL (Quality)	0.297	0.241***	0.047	6.307
Responsiveness	→	QL (Quality)	0.208	0.201***	0.036	5.828
Reliability	→	QL (Quality)	0.333	0.336***	0.045	7.479
Accessibility	→	QL (Quality)	0.295	0.231***	0.068	4.341
Quality	→	SF1 (Satisfaction)	0.859	0.825***	0.025	34.467

***Significant at alpha 0.01, 0.001 respectively; S.E: Standard Error; C.R: Critical Ratio.

Table 8. Residents' overall satisfaction on education services.

Main Dimensions Satisfaction —Education Services	Very dissatisfied	Dissatisfied	Neutral	Satisfied	Very satisfied	Total
Accessibility Dimension Satisfaction	1.15	1.75	5	48.95	43.15	100
Reliability Dimension Satisfaction	0.2	1.25	5.2	49.9	43.45	100
Responsiveness Dimension Satisfaction	0.7	1.3	6.4	48.3	43.45	100
Safety Dimension Satisfaction	0.15	0.4	2.7	50.7	46.15	100
Quality Dimension Satisfaction	0.7	2.4	6	48.9	42	100
Overall Education Satisfaction	0.58	1.42	5.06	49.35	43.64	100

the combine overall satisfaction. Overall, about 44 percent of the respondents indicated that they are very satisfied with the educational services at large, while the proportion of those who are just satisfied constitute 49 percent. On the other hand, the proportion of those very dissatisfied is only about 1 percent of the respondents, while the proportion of those just dissatisfied is more than 1 percent.

Variations across the five dimensions show that still, safety has the highest proportion (about 46 percent) of the very satisfied. The next three dimensions accessibility, reliability, responsiveness were all have the same proportion of very satisfied, 43 percent respectively. While 42 percent of respondents were very satisfied on quality dimension.

In contrast, very dissatisfied respondents for all dimensions reached only 1 percent and below.

11. Conclusion

11.1. Hypotheses Results

Based on the results presented earlier, 4, out of five 5 hypotheses of the government sector has four 4 supported hypotheses and all of the five 5 hypotheses for the private sector were supported, as depicted by **Table 9** below.

11.2. Discussion

What factors influence education service quality in the Emirate of Ajman?

It is evident from this study that, the factors that influenced *education service quality*, included accessibility, reliability, responsiveness and safety. Moreover, the study hypothesizes that these factors have a relationship with *education service quality* as follows:

H1: *Accessibility correlates positively with education service quality. Results indicated a direct correlation between accessibility and education service quality both for government and private sectors, suggesting that accessibility contributed to a better education service quality in Emirate of Ajman.*

H2: *Reliability correlates positively with education service quality. Results indicated a direct correlation between reliability and education service quality both*

Table 9. Education Service Hypothesis H1 to H4.

Research Question	Research Hypotheses	Results	
		Government	Private
What factors influence education service quality in Emirate of Ajman?	H1: Accessibility correlates positively with education service quality.	Supported	Supported
	H2: Reliability correlates positively with education service quality.	Supported	Supported
	H3: Responsiveness correlates positively with education service quality.	Not Supported	Supported
	H4: Safety correlates positively with education service quality.	Supported	Supported

for government and private sectors, suggesting that reliability contributed to a better education service quality in Emirate of Ajman.

H3: *Responsiveness correlates positively with education service quality.* Government and private sectors showed different results regarding correlation between *responsiveness* and *education service quality*. In private sector, the results suggested that responsiveness didn't contribute to a better education service quality. While results in government sector responsiveness dimension didn't contribute to education service quality in Emirate of Ajman.

H4: *Safety correlates positively with education service quality.* Results indicated a direct correlation between *safety* and *education service quality both for government and private sectors*, suggesting that *safety* contributed to a better education service quality in Emirate of Ajman.

In summary, most of the respondents availed education services in private sector than in government. Analysis of Structural Equation Modeling (SEM) showed an acceptable model fit used to measure residents' satisfaction on education services in the Emirate of Ajman, provided by government sector. Findings showed that accessibility, reliability, and safety dimensions were the significant factor to influence positively education service quality, which also influenced the residents' satisfaction strongly. However, these results did not provide sufficient evidence to suggest a direct relationship between responsiveness and education service quality on government sector. While private sector Structural Equation Modeling (SEM) analysis result showed an acceptable model fit used to measure residents' satisfaction on education services all dimensions, namely, accessibility, reliability, responsiveness, and safety were the significant factors to influence positively education service quality, which also strongly influenced the residents' satisfaction.

The overall satisfaction on education services reached about 93%, where government sector scored 94% satisfaction which was higher than that of the private sector of about 92%. Safety dimension is the most satisfactory dimension for the residents both for those who availed the education services in government and private sector.

Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

References

- Alhebsi, A., Pettaway, L. D., & Waller, L. (2015). A History of Education in the United Arab Emirates and Trucial Sheikdoms. *The Global eLearning Journal*, 4, 1-6.
- Bush, T. (2007). Educational Leadership and Management: Theory, Policy, and Practice. *South African Journal of Education*, 27, 391-406.
- Cronbach, L. J. (1951). Coefficient Alpha and the Internal Structure of Tests. *Psychometrika*, 16, 297-334. <https://doi.org/10.1007/BF02310555>
- Dhanusha, G. (2018). *Khaleej Times*. <https://dhanusha.me/>
- Duque, L. C., & Weeks, J. R. (2010). Towards a Model and Methodology for Assessing Student Learning Outcomes and Satisfaction. *Quality Assurance in Education*, 18, 84-105. <https://doi.org/10.1108/09684881011035321>
- Elliott, K. M., & Shin, D. (2002). Student Satisfaction: An Alternative Approach to Assessing This Important Concept. *Journal of Higher Education Policy and Management*, 24, 197-209. <https://doi.org/10.1080/1360080022000013518>
- Malhotra, N. K., Kim, S. S., & Patil, A. (2006). Common Method Variance in IS Research: A Comparison of Alternative Approaches and a Reanalysis of Past Research. *Management Science*, 52, 1865-1883. <https://doi.org/10.1287/mnsc.1060.0597>
- Richardson, J. (2005). Instruments for Obtaining Student Feedback: A Review of the Literature. *Assessment & Evaluation in Higher Education*, 30, 387-415. <https://doi.org/10.1080/02602930500099193>
- Ross, K., & Genevois, J. (2006). *Cross-National Studies of Quality of Education: Planning Their Design and Managing Their Impact*. International Institute for Educational Planning. <https://files.eric.ed.gov/fulltext/ED495399.pdf>
- Salisbury, W., Chin, W. W., Gopal, A., & Newsted, P. R. (1997). Research Report: Better Theory through Measurement—Developing a Scale to Capture Consensus on Appropriation. *Information Systems Research*, 13, 91-103. <https://doi.org/10.1287/isre.13.1.91.93>
https://www.researchgate.net/publication/220079758_Research_Report_Better_Theory_Through_Measurement-Developing_a_Scale_to_Capture_Consensus_on_Appro
- Schwab, K., & Sala-i-Martin, X. (2015). *The Global Competitiveness Report 2015-2016*. World Economic Forum. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2777694
- Steedman, H. (1996). *Measuring the Quality of Educational Outputs: A Note*. CEPDP (302). Centre for Economic Performance, London School of Economics and Political Science. <http://eprints.lse.ac.uk/20662/>
- Töremen, F. et al. (2009). Total Quality Management Practices in Turkish Primary Schools. *Quality Assurance in Education*, 17, 30-44. <https://doi.org/10.1108/09684880910929917>