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Abstract *Service quality is becoming more critical for banks to maintain their market shares. This paper develops a modified SERVQUAL for measuring service quality in the United Arab Emirates commercial banks. The instrument includes thirty items that belong to the five dimensions of SERVQUAL. The developed instrument was tested for reliability and validity and the results indicated that the instrument had only three dimensions. This paper also investigates the difference in significance between the instrument's dimensions. This is supposed to help managers focus their attention on the service quality dimension that matters most to customers.*

Introduction

Customer retention has a significant impact on bank profitability (Newman and Cowling, 1996). It is estimated that a 5 percent increase in customer retention adds 25-150 percent in bottom line (Reichheld and Sasser, 1990). Banks service quality is commonly noted as a critical prerequisite for satisfying and retaining valued customers (e.g. Howcroft, 1991; Cronin and Taylor, 1992; Taylor and Baker, 1994). Of customers who switch financial institutions in the USA, 40 percent do so because of service quality problems (Raddon, 1987). Service quality problems are also the cause of 25 percent of closures of bank accounts (Grubbs and Reidenbach, 1991). Because of the importance of service quality in banking as a route to competitive advantage and corporate profitability, it has become difficult to identify a single bank which has not initiated some kind of service quality improvement (Soteriou and Stavrinides, 2000; Newman, 2001).

United Arab Emirates (UAE) commercial banks are not exempted from the urge to improve service quality. In 2000, the number of branches reached to 430 while the number of automated teller machines (ATMs) reached 880. This indicates that there are 7,228 people per branch and 3,532 people per ATM. UAE commercial banks are also providing the same varieties of products and services provided by any commercial bank in developed countries. These facts do not necessarily indicate a high level of service quality. The main purpose of this study is to develop a modified SERVQUAL for measuring service quality in the UAE commercial banks

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There are 47 commercial banks in UAE, 20 of which are local banks and the remaining 27 are foreign banks (branches of banks located outside the UAE such as Citibank, Standard Chartered Bank, HSBC Middle East, previously The British Bank of the Middle East). In 2000, local banks' total assets were Dh.207,599 billion (about US$56,759 billion) compared with Dh.68,396 billion (about US$18,601 billion) for foreign banks (Emirates Banks Association, 2000). According to the UAE Central Bank regulations, foreign banks are not allowed to have more than eight branches. For this reason the number of branches of local banks is higher than that of foreign banks. In 2000, local banks had 321 branches, whereas foreign banks had 109 branches.

Only seven foreign banks have reached the maximum number of branches, while there are seven other banks that have one branch only. This indicates that foreign banks still have a good opportunity to attract more customers and to open more branches if they succeed in continuously anticipating and satisfying customer needs. (Beckett *et al.*, 2000).

Local banks, on the other hand, need to better understand their customers and to continuously evaluate their service quality in order to maintain their market share. Local banks also need to be in line with development in the banking service industry. The banking industry has been changing rapidly in the last few years. Many of these changes have been brought about by evolving technologies such as the increased use of computers, telephone and online banking.

This paper develops a modified SERVQUAL for measuring service quality in UAE local and foreign banks. It also determines the most important dimension of the instrument. This is intended to help UAE commercial banks assess and improve their service quality. It will enable UAE commercial banks to know the significant service quality dimensions and identify the most important among them.

Literature review

Service quality is a vital antecedent of customer satisfaction (Cronin and Taylor, 1992). In turn, customer satisfaction is believed to affect post purchase and perception and future decisions. Parasuraman *et al.* (1985) have originally identified ten determinants of service quality generic to the service industry. These determinants were tangibles, reliability, responsiveness, competence, courtesy, credibility, security, access, communication, and understanding the customer.

At a later stage, Parasuraman *et al.* (1988) developed a 22-item instrument, recognized as SERVQUAL, that has become widely used as a generic instrument for measuring service quality. The instrument items represent the five dimensions explained below:

(1) *Reliability*. This dimension refers to the ability to perform the service dependably and accurately.

(2) *Responsiveness*. This dimension refers to the willingness to help customers and provide prompt service.

(3) *Tangibles*. This dimension refers to the Physical facilities, equipment, and appearance of personnel.

(4) *Assurance*. This dimension refers to employees knowledge, courtesy and ability to convey trust and confidence.

(5) *Empathy*. This dimension refers to the level of caring and individual attention provided to customers.

SERVQUAL consists of two sections. A 22-item section measuring the service quality expectation within a specific sector and a corresponding 22-item section measuring the perception of service quality of a particular company in that sector (Parasuraman *et al.*, 1988, 1991). SERVQUAL scores were defined as the differences between the expected service quality and the perceived one. No particular study investigated the difference in significance between the five dimensions of SERVQUAL. Parauraman *et al.* (1988, 1991) have consistently observed that reliability had the strongest regression coefficient, assurance and responsiveness had the next strongest coefficients, and empathy and tangibles had the weakest coefficients. These observations were, however, not verified statistically.

SERVQUAL has been widely used (Dabholkar *et al.*, 1996; Hussey, 1999; Nielsen and Host, 2000; Engelland *et al.*, 2000; Getz *et al.*, 2001). It was however challenged in a number of subsequent studies (Carman, 1990; Babakus and Boller, 1992; Cronin and Taylor, 1992, 1994; Teas, 1993, 1994; Brown *et al.*, 1993; Chase and Stewart, 1994). Van Dyke and Kappelman (1997) and Babakus and Boller (1992) questioned the conceptual appropriateness of SERVQUAL. They challenged the operationalization of perceived service quality as a difference or gap score, the ambiguity of the expectations construct, and the unsuitability across different industries.

The psychometric properties of SERVQUAL have been examined in many studies. The evidence provides general support for the validity and reliability, of the instrument (Finn and Lamb, 1991; Kettinger and Lee, 1995; Lam, 1997). The major empirical problems of the instrument lie in its unstable dimensionality (Carman, 1990; Van Dyke *et al.*, 1997) and in using measures defined as differences in a multivariate analysis. Cronin and Taylor (1992) have examined a performance-based measure of service quality, called SERVPERF in four industries (banking, pest control, dry cleaning and fast food). SERVPERF is composed of the 22 perception items in the SERVQUAL scale, and therefore excludes any consideration of expectations. They found that this measure explained more of the variance in an overall measure of service quality than did SERVQUAL. They also indicated that a psychometrically superior assessment of service quality can be obtained through the SERVQUAL performance items alone. Babakus and Boller (1991) also found that perception

scores, by themselves, had stronger correlation with independent measures, such as overall quality, than do the SERVQUAL measures (expectations minus perceptions). Babakus and Boller (1992) suggested that the dimensionality of service quality may depend on the type of industry being studied. They further argued that measures designed for specific industries are more appropriate than using a generic one.

There have been a few empirical studies that dealt with the application of SERVQUAL instrument in the banking industry such as Kwan and Lee (1994), Blanched and Galloway (1994), Jun *et al.* (1999), Natarajan *et al.* (1999) and Lassar *et al.* (2000).

Jun *et al.* (1999) studied the service quality of delivering loan products. They found out that substantial differences existed between bankers and customers groups in the perceived importance of service quality dimensions. Blanched and Galloway (1994) used the SERVQUAL technique in examining quality in retail banking. In order to provide useful insights into how service might be improved, the authors attempted to develop an alternative model. They, however, adopted most of the items of the original model in their survey. They claimed that their model was general enough to be very widely applicable, and specific enough to give actionable diagnostic information. Natarajan *et al.* (1999) examined the continuous improvement of service operations in which the actual service experience is assessed through a customer survey. Their study was condcuted on the Ram Najar branch of the bank of Bangalore in Bangalore, India. The SERVQUAL instrument was not used, though many of its items were adopted.

Finally, Lassar *et al.* (2000) adopted two techniques in their study of service quality in private banking. The first technique was SERVQUAL and the second was a measure of technical/functional. Technical quality involves what service is provided while functional quality considers how it is provided (Arora and Stoner, 1996). The two service quality measures were subsequently compared and contrasted as their ability to predict customer satisfaction. The study provides initial support in favor of the idea that SERVQUAL- and technical/functional-quality-based models may be unequally or asymmetrically applicable across differing settings and situations. The authors suggested to employ both of these two measures in varying situations and contexts, as well as with different customer groups.

Methodology

In 2000, the ratio of UAE commercial banks total assets to GDP (FIR) was 1.08. Goldsmith (1969) considered countries with a high FIR (in excess of one) are to be advanced countries. This ratio gives evidence of the vital role of the UAE commercial banks. This paper develops and tests an instrument for measuring service quality in UAE commercial banks. This paper also determines the most important dimension of the instrument. This will help the UAE commercial

banks assess and improve their service quality. This study is, to our knowledge, the first study that addresses the banking service quality in the UAE. It is also the first study that compares the significance of the dimensions of service quality.

Research questions

This study intends to answer the following two questions:

(1) What are the dimensions of banking service in the UAE commercial banks and how valid and reliable are these dimensions? This question is a necessary question because of the recognized instability of the dimensionality of SERVQUAL (Van Dyke *et al.*, 1997; Van Dyke and Kappelman, 1997; Carman, 1990). The convergent validity and discriminate validity are addressed in the conduct of factor analysis. Predictive validity is tested using correlation and regression analysis. Reliability is tested using the Cronbach coefficient alpha. A coefficient alpha higher that 0.7 is considered to be good (Nunally, 1978).

(2) Do the dimensions of service quality contribute equally to the variations in the overall service quality. This question finds out the most significant dimension in the instrument. The answer of this question will hopefully enable UAE commercial banks to focus on the service quality dimension that matters the most to customers. A pair-wise comparison between the dimensions resulting from the factor analysis will be conducted using the *F*-test (Chattergee and Price, 1991).

The instrument

Studies on banking service quality revolve around SERVQUAL (Parasuraman *et al.*, 1988). The authors have therefore decided to develop an adopted version of this generic instrument. The conceptual and psychometric problems linked with using differences between perceptions and expectations (Cronin and Taylor, 1992; Babakus and Boller, 1992), and the desire to make the task of the respondents of this study easier, led the researchers to include only the perception of quality.

The developed questionnaire includes thirty items where seven items correspond to the tangibles dimension, five items correspond to the reliability dimension. Seven items correspond to the assurance dimensions, four items to the responsiveness and seven items to empathy. The questionnaire also included three questions that measure overall service quality. Respondents were asked to indicate their degree of agreement with each of the items on seven-point Likert scale.

Data collection

In order to get the answer on the two research questions, 800 questionnaires were distributed to 800 bank customers. Because some customers may not

master the English language, the questionnaire was designed in two versions, Arabic and English. The targeted population includes customers of major local and foreign banks whose total assets exceed AED7 billion or US$1.9 billion (Emirates Banks Association, 2000). in the three largest cities of UAE, namely, Abu Dhabi, Dubai and Sharjah. These cities host more than 80 percent of the UAE population. The authors handed questionnaires to branch managers who were kindly requested to pass the questionnaires to their customers. Questionnaires were also distributed to students who were requested to distribute them among their family members. Respondents were given the choice of sending the questionnaires to the authors through fax, post or electronic mail. From the 800 questionnaires, 480 responses were received. The data provided were then examined. The screening process resulted in excluding 18 responses from the study because of missing data items. The remaining responses 462 represent an effective response rate of around 58 percent of the total sample. A total of 62 percent of the respondents were customers of local banks and 38 percent were customers of foreign banks. On the other hand, 74.46 percent of the respondents were expatriates while 25.54 percent of them were nationals. The high psercentage of expatriates among the respondents can be expailined by the fact that expatrtates make about 80 percent of UAE residents.

Results

Factor analysis

To test the dimensionality of the instrument, all thirty items were factor analyzed using oblique rotation. The number of factors was unconstrained. For the sake of convergent validity, 0.4 was used as a factor loading cut-off point. Factors including less than three items were eliminated. Items had to display a 0.3 loading difference with any other factor to ensure discriminant validity. Using these criteria resulted in three factors totaling 22 items. These factors are labeled human skills, tangibles and empathy. The same procedure was repeated, but using principal component extraction with an orthogonal (varimax) rotation. This procedure resulted in the same three factors. The dimensionality of this instrument supports the suggestions made by Babakus and Boller (1992) and Cronin and Taylor (1992) that the dimensions of SERVQUAL may depend on the type of Industry being studied.

The alpha coefficients of these three factors were 0.9256, 0.790, and 0.7656 respectively (see Table I). These results indicate that three factors are reliable (Nunally, 1978). This supports the internal cohesiveness of the items forming each dimension.

The human skills factor includes 12 items. Of these items, six belonged to the original dimension of assurance. Three items belonged to the original dimension of reliability. Two items belonged to the original dimension of responsiveness and one item belonged to empathy. This factor was named

Resulting dimension	Original dimension	Factor loading
Human skills (alpha = 0.9256)		
Bank employees are polite and courteous with customers	Assurance	0.703
Letters sent by the bank are clear and easy to understand	Assurance	0.695
Bank statements are sent regularly	Reliability	0.692
Bank employees always possess the necessary information on the requested services	Assurance	0.656
Bank employees are always available for our service	Reliability	0.654
There is always an employee at the information desk	Reliability	0.625
The employees of the bank are willing to help	Responsiveness	0.617
Bank employees pay attention to the individual problems of customers	Empathy	0.591
Bank employees have clear and precise answers for our inquiries	Assurance	0.581
Bank employees provide services with high competence	Assurance	0.545
The bank continuously provides me with progress information when I apply for a service that needs time to be completed	Assurance	0.529
Telephone calls are answered promptly by the employees of the bank	Responsiveness	0.512
Tangibles (alpha = 0.790)		
This bank looks attractive from outside	Tangible	0.770
This bank has modern equipment and technology	Tangible	0.715
The employees of this bank look professional and are well dressed	Tangible	0.641
The interior of the bank is neat and convenient	Tangible	0.587
The branch of the bank that I deal with is easily accessible	Empathy	0.523
Empathy (alpha = 0.7656)		
There are no long queues in front of ATM machines	Empathy	0.775
Services are provided promptly in this bank	Responsiveness	0.634
ATM machines are easily accessible	Empathy	0.596
The opening hours of the bank are sufficient and convenient	Empathy	0.582
The bank responses to my loan requests are always encouraging	Responsiveness	0.529

Table I.
Factor loading and Cronbach's coefficient alpha

human skills because almost all its items dealt with the abilities of employees to provide desired customer services. The tangibles factor consists of five items that were mostly included under the original dimension of tangibles. The empathy factor consists of five items. Three of these items were included in the original dimension of empathy while the other two were included in

responsiveness. The combination of reliability and assurance appears to be natural given the conceptual similarities between the two dimensions. The same argument can be made about the combination of the empathy and responsiveness.

Table II shows the mean, standard deviation, maximum and minimum for each of the four variables. Table II shows that all variables had means higher than four. This indicates that customers were satisfied with overall service quality as well as with the three dimensions of human skills, tangibles and empathy.

Predictive validity

To investigate the predictive validity of the instrument, the authors conducted correlation and regression analyses. Pearson correlation was used to analyze correlation among the three factors and between these factors and the variable of overall service quality. Table III shows that all three factors were significantly correlated with one another and with the variable of overall service quality at the 0.01 level.

Linear regression analysis was conducted using general overall service quality (OVERALL) as a dependent variable and the three dimensions of service quality, human skills (HUM), tangibles (TANG), and empathy (EMP), as the independent variables.

Table IV shows a summary of the regression results. The model has the following form:

$$\text{OVERALL} = \text{f}(\text{HUM}, \text{TANG}, \text{EMP}).$$

It can be seen from the results provided in Table IV that the R squared is 0.675. This indicates that the three independent variables explain 67.5 percent of the

Variable	Mean	SD	Minimum	Maximum
HUM	5.5	1.03	1.50	7.0
TANG	5.6	1.05	1.00	7.0
EMP	5.3	1.17	1.00	7.0
OVERALL	5.4	1.38	1.00	7.0

Table II. Descriptive statistics of the variables of the study

Variable	HUM	TANG	EMP	OVERALL
HUM	1.00	0.737*	0.691*	0.798*
TANG	0.737*	1.00	0.581*	0.679*
EMP	0.691*	0.581*	1.00	0.667*
OVERALL	0.798*	0.679*	0.667*	1.00

Note: * Significant at the 0.01 level (two-tailed)

Table III. Correlation coefficients between variables

variations in overall service quality. This R square is significant at the 0.01 level. The resulting regression model is:

$$\text{OVERALL} = -1.046 + 0.723(\text{HUM}) + 0.220(\text{TANG}) + 0.233(\text{EMP}).$$

Table IV shows that the coefficients of the three dimensions are significant at the 0.01 level. The results of the correlation and regression analyses indicate a significant predictive validity of the dimensions of the instrument.

Comparing the significance of the resulting dimensions

The factor analysis described above resulted in three reliable dimensions of banking service quality, namely human skill, tangibles, and empathy. This section investigates whether or not the three dimensions contribute equally to the variations in the overall service quality.

This question tests whether or not there is a statistical difference between coefficients of these dimensions in the regression model. This is achieved by comparing the coefficients of two dimensions at a time, while assuming the coefficients of the remaining dimensions to be zero (Chattergee and Price, 1991). The results of these tests are summarized in Table V.

We first compare the coefficients of Human Skills and Empathy while assuming that the coefficient for tangibles is zero. We determine the regression model comprising only two dependent variables namely human skills and empathy. Using SPSS, the following model resulted:

$$\text{Overall service} = -0.752 + 0.868\text{HUM} + 0.262\text{EMP}.$$

All coefficient of this model were significant at 0.01 level. This confirms the significance of both human skills and empathy in determining the variations of overall service quality. The R squared for this model was determined to be $R_{\text{p}}^2 = 0.662$. Intuitively, we expect human skills to be more significant than empathy in determining the variations in overall service because the coefficient of the former (0.868) is higher that that of the latter (0.262). This, however, needs to be confirmed statistically.

	Beta	t	Sig.
(Constant)	−1.046	−4.819	0.00
HUM	0.723	11.983	0.00
TANG	0.220	4.221	0.00
EMP	0.233	5.295	0.00

Notes: $R = 0.822$; $R^2 = 0.675$; adjusted $R^2 = 0.673$; $F = 316.603$

Table IV.
Summary of regression results

Constant				R^2	F	Sig.
	Independent variables					
	HUM	EMP	(HUM+EMP)			
−0.752 (3.594)**	0.868 (17.189)**	0.261 (5.877)**		0.662	449.495	0.00
−0.453 (−2.107)*			0.541 (27.768)**	0.627	771.1	0.00
	Independent variables					
	HUM	TANG	HUM+TANG			
−0.868 (−3.934)*	0.875 (16.043)**	0.261 (4.916)**		0.655	435.2	0.00
−0.852 (−3.719)*			0.563 (27.779)**	0.627	771.7	0.00
	Independent variables					
	EMP	TANG	TANG+EMP			
−0.418 (−1.731)**	0.486 (10.942)**	0.577 (11.744)**		0.573	307.4	0.00
−0.373 (−1.567)**			0.578 (24.761)**	0.572	613.4	0.00

Notes: Figures in parentheses are *t*-statistics. * Significant at the 0.05 level. ** Significant at 0.01 level

Table V. Summary of regression results (comparisons models)

To verify whether the coefficients of the human skills and empathy are equal, we test whether the above model is equivalent to a reduced model linking the dependent variable to the sum of both independent variables.

A new variable representing the sum of the two dimensions of concern is defined, then a simple regression model linking this new variable to the dependent variables is developed. Using SPSS, the reduced model was found to be:

$$\text{OVERALL} = -0.453 + 0.541(\text{HUM} + \text{EMP}).$$

Both coefficients of this reduced model are significant at the 0.05 level.

This model had a an R squared $R_q^2 = 0.627$. The F values is given by the following formula:

$$F = \frac{(R_p^2 - R_q^2)/(p - q)}{(1 - R_p^2)/(n - p - 1)}, \text{d.f.} = p - q, n - p - q - 1.$$

In our case $R_p^2 = 0.662$, $R_q^2 = 0.627$, $n = 462$, $p = 2$, and $q = 1$.

Substituting the above values into the F formula, we find an F value of 47.53, which is significant at the 0.01 level. This means that reduced model does not explain the variations in the overall service as adequately as the full model, indicating thereby that the coefficients of human skills and empathy are different. We can therefore conclude that human skills contributes more significantly to the variations in overall service quality than empathy.

Repeating the same procedure to compare the coefficients of human skills and tangibles assuming that the coefficient of empathy to be zero, we find the following full model:

$$\text{OVERALL} = -0.868 + 0.875(\text{HUM}) + 0.261(\text{TANG}).$$

The R squared coefficient for this model is $R_p^2 = 0.655$. All coefficients of this model are significant at the 0.01 level. This confirms the significance of human skills and tangibles. The difference between the coefficients of this model (0.875 and 0.261) gives the intuition that humans skills contributes more significantly to the variations in overall service. To verify this statistically, we also find the following reduced model:

$$\text{OVERALL} = -0.852 + 0.563(\text{HUM} + \text{TANG}).$$

The R squared coefficient for this model is $R_q^2 = 0.627$. The F value for this case is found to be 37.25, which is significant at the 0.01 level. This indicates that the coefficients of human skills and tangibles are statistically different. We can therefore conclude that while both human skills and tangibles are significant, the former contributes more significantly to the variations in the overall service quality.

Finally, we compare the significance of tangibles and empathy. To do this we repeat the above procedure once again. This results in the following full model:

$$\text{OVERALL} = -0.418 + 0.577(\text{TANG}) + 0.486(\text{EMP}).$$

The R squared coefficient for this model is $R_p^2 = 0.573$. The coefficients for both tangibles and empathy are significant at the 0.01 level. Looking at the model, one can notice that the difference between the coefficients of both variables (0.577 and 0.486) is smaller than what it was in the first two comparisons.

The reduced model was found to be as follows:

$$\text{OVERALL} = -0.852 + 0.563(\text{TANG} + \text{EMP}).$$

The R squared coefficient for this model is $R_q^2 = 0.572$. The coefficients of this model are significant at the 0.01 level. The F value for this case was found to be 1.075, which is insignificant at the 0.1 level. This indicates that there is no significant difference between the coefficients of tangibles and empathy. These two dimensions do, therefore, contribute equally to the variations in overall service quality. We can therefore conclude that while three dimensions are significant in explaining the variations in overall service quality at UAE banks, human skills contributes more significantly to these variations than the other two dimensions. We also conclude that tangibles and empathy have equal significance in explaining the variations in overall service quality.

The above conclusion seems to make sense given the fact that the human skills factor consists mostly of the items of the original dimensions of

reliability and assurance. Respondents valued all three diminsions but seemed to value the dimension that grouped reliability and assurance more than tangibles and empathy. While tangibles and empathy are important, they do not make the essence of overall service quality at UAE commercial banks. This result seems support the consistent observations made by Parasuraman *et al.* (1988, 1991).

Conclusions

This paper developed and tested an instrument measuring service quality in the UAE commercial banks based SERVQUAL. The instrument included 30 items that belonged the five dimensions of SERVQUAL. Unlike SERVQUAL that measures the differences between expected and perceived service quality, this instrument collected only perceptions data. Factor analysis resulted in three dimensions namely human skills, tangibles, and empathy. The three dimensions were reliable and valid. The human skills dimension consists mainly of items that were originally included in the reliability and assurance dimensions. Tangibles consisted of items that belonged originally to the same dimension of tangibles. Finally, the empathy dimension consisted of items that were part of the two original dimensions of empathy and responsiveness.

The fact that the dimensions found were different from the original SERVQUAL dimensions adds to SERVQUAL dimensionality problems that are listed in the literature. It also supports the suggestions made by Babakus and Boller (1992) and Cronin and Taylor (1992) that the dimensions of SERVQUAL may depend on the type of industry being studied.

The combination of reliability and assurance appears to be natural given the conceptual similarities between the two dimensions. The combination of the empathy and responsiveness can also be explained by the conceptual similarities between these dimensions. In fact the overlap between the dimensions of SERVQUAL has been recognized by Parasuraman *et al.* (1991). The resulting number of dimensions can also be related to how stringent discriminate validity requirements are.

This paper also investigated the difference in significance between the dimensions of this instrument. The human skill dimension was found to be more significant than the dimensions of tangibles and empathy. Tangibles and empathy were, on the other hand, found to be equally significant. This supports the consistent observations made by Parasuraman *et al.* (1988, 1991) and outlined in the literature review. This result means that customers value all three dimensions of service quality but they value human skills the most. While banks should pay attention to all three dimension of service quality, they should give more focus to the dimension of human skills in their pursuit to increase overall service quality. Significant budget should be allocated to train employees and improve their skills.

Limitations and further research

Limitations and further research are summarised as follows:

- This study focused on customers living in the three largest cities of UAE. It therefore has not covered residents of smaller towns.
- The data were collected from both nationals and expatriate customers of the UAE commercial banks. The paper did not address the impact of national culture on the perception of banks' service quality. This can be addressed in future studies.
- This paper did not address the differences in service between local and foreign banks. This can be addressed in future studies.
- Further research may consider analysing service quality of UAE Islamic banks.
- Further research may focus on comparing service quality of UAE conventional commercial banks and Islamic banks.

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