



Connected Facility Quality and Customers' Consummation: A learning Study Report of the Selected Commercial Banks in Riyadh (Saudi Arabia)

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ABSTRACT

Online banking is one of the main functions of modern banking in existing banking operations across the globe. Online banking operations improve the performance of the banking industry and helps customers to reduce their transaction costs. This study aims to investigate the relationship between online banking services offered by Al Rajhi Bank, National Commercial bank and Riyadh Bank. Various dimensions such as movable, tangible assets, reliability, responsiveness and empathy as determinants of customer satisfaction have been used. These dimensions are based on the SERVQUAL model developed by Han and BEC (2004). The reliability and validity of the dimensions were examined by the alpha value of the Cronbach test. The value of this test is 0.74, representing a good internal scale consistency. Descriptive statistics and dichotomous logistic regression model have been used to study the relationship various dimensions and customer satisfaction. The sample size is consisting of 100 customers. Purposive sampling technique was used to select customers who familiar with online banking. Thus various university students were selected from the Kingdom of Saudi Arabia in Riyadh. The names of these universities are: King Saud University, University of Islamic Imam Muhammad Bin Saud and Prince Sultan University. The study shows that the selected dimensions; tangible, reliability, responsiveness and empathy are important determinants of overall satisfaction of the customer, but with different levels. Moreover, the study shows that tangible property and reliability to improve most influential dimensions of the overall probability of the customers' satisfaction with the rest of the dimensions proposed in this study.

KEYWORD: Online banking, Customer satisfaction, Islamic banks

JEL classification codes: M39, O32

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1. INTRODUCTION

Web-oriented services have brought novel changes in all sectors of a modern economy particularly, in the banking sector. Perhaps the banking industry is more competitive, innovative and customer oriented than any other industry in the services sector. Online banking services are an interesting alternative to the information store service to visit or telephone call centers to increase the number of clients (Kenova P, 2006). E technical service facilitates both; Stakeholders and customers in different ways and channels. Internet Banking banks help create and maintain close relations with its customers reduce operating costs and corrected and is a more efficient and improved financial performance (Rod M, 2008). On the other hand, the customers also benefit from this technology having easy access to financial services and reduction in transaction cost (Yang, 2004). The provision of online quality services to the banking customers plays a vital role to maintain or enhance customer satisfaction. The facility of internet banking to the customers is considered as a competitive necessity. The banks assure quality online services to their customers in order to enable them to enjoy the latest wide range of financial facilities with minimum transaction cost (Rod M A. N., 2008). The success or failure of any business entity including the banking sector depends on their corresponding customers' satisfaction. Increasing customer satisfaction will yield material benefits such as higher market shares, more profit and non-material benefits such as good reputation, confidence of the customers, good will etc.

The study aims to investigate the relationship between online banking services provided by different banks in Riyadh (Saudi Arabia) namely; Al- Rajhi bank, National commercial bank and Riyadh bank- Riyadh to gauge how efficiently these banks provide online banking facilities to their corresponding clients? Different dimensions such as; tangibles, reliability, responsiveness, and empathy have been taken as determinants of customer satisfaction. These dimensions are created on the SERVQUAL model proposed by (Han Sang, 2004).

There is no principal difference between conventional and internet banking except accessing and making transactions of financial matters through your computer rather than paper completed transactions. Internet banking facilitates you in performing multiple financial tasks such as checking your balance, payment of utility bills, money transfers, online purchasing and investment etc. This ease has attracted many customers and has enhanced customer satisfaction across the world.

2. Material and Methods

In order to investigate the Study the relationship between service and customer satisfaction online, the theoretical framework developed under the model, the SERVQUAL and modified, developed by (Zeithaml 1990). We have refined the modified version of the SERVQUAL model, by (Han Sang, 2004). This model proposes four important aspects in terms of the quality of the service. These are namely; Tangibility, reliability, responsiveness and empathy. The following table contains a detailed description of these dimensions.

Table 1: Modified dimensions of SERVQUAL model and their description

SERVQUAL Dimensions	Description of dimension
Tangibles	Online banking is with modern facilities. Ease and availability of information on the Bank's website.
Dependability	Includes the technical operation of the website and the accuracy of the promises of service (delivery as promised) and product information
Receptiveness	Quick response and the ability to help, if there a problem or a question
Understanding	Provision of care and discrete care to customers providing by call centers or Web superintendents.

Basis: (Han Sang, 2004)

2.1 Nature of Data and its Description

The study uses a purposive sampling technique because the data is collected from all those clients who are familiar with the online banking system. Therefore, this study takes into consideration only online banking



customers while the rest of the customers are lying outside the scope of the study.

The selected customers are the students of the selected universities of the Kingdom of Saudi Arabia located in Riyadh. These universities are namely: King Saud University, Imam Muhammad Bin Saud Islamic University and Prince Sultan University. The data collected from the students through a detailed survey established by (Han Sang, 2004) to investigate connected online digital banking services and client's satisfaction¹.

The survey covers four dimensions of connected online digital banking services; Tangibles, Reliability, Responsiveness and Empathy. Four to five questions, related to each dimension, were asked from the respondents. The measurement scale of the questions was ordinal scale and thus the responses of the respondents were ordered from 1-5 (1=strongly disagree, 5=strongly agree).

2.2 Analytical Techniques

A set of analytical techniques has been used to investigate the relationship between online banking services available to customers and customers' satisfaction in Saudi Arabia.

Firstly, The Reliability and validity of the dimensions examined by the Cronbach alpha test, Internal reliability can be tested with alpha (Cronbach). It measures the degree to which to respond for collected one, correlate the element strong with each other (Kenova P, 2006; Sidat, 2008)

Cronbach's α is describing as;

$$\alpha = \frac{K}{K - 1} \left(1 - \frac{\sum_{i=1}^K \sigma_{Y_i}^2}{\sigma_X^2} \right) \tag{1}$$

Everywhere, K is the number of components (K items or Test lets) σ_X^2 is the variance of the observed total test results and $\sigma_{Y_i}^2$ the variance of component i in the latest example of People/Persons

Secondly, as with the ordinal data collected, are median and mode the best measures of central tendency of the data.

Thirdly, we have used the binary logistic model than the one of showing the overall probability satisfaction variations assumed that a modification in the designated dimensions occurs. The overall satisfaction has been peroxide by median score. If a respondent scores four or more in at least two dimensions then this situation is considered as overall satisfaction and vice versa.

Logistic perfect model stated as:

$$Y_i = \left[\frac{\alpha_i}{(1-\alpha_i)} \right] = \beta_0 + \beta_1 Y_1 + \beta_2 Y_2 + \beta_3 Y_3 + \beta_4 Y_4 + \beta_5 Y_5 + \mu_i \dots \tag{2}$$

Where;

$Y_i = \left[\frac{\alpha_i}{(1-\alpha_i)} \right]$ are odd relations for an increase in the overall satisfaction of each participant to the probability that a single overall satisfaction has not increased.

Y_1 = Age of the customers

Y_2 = Median tangible score of customers.

Y_3 = Median reliability score of customers.

Y_4 = Median responsive score of customers.

Y_5 = Median empathy score of customers.

3. ANALYSIS AND DISCUSSION

The Cronbach's α result is reported here to show the reliability of different dimensions we proposed for investigating the relationship between online banking services and customer satisfaction.

Table-1: Reliability Statistics

¹ For detail of questionnaire please see appendix-I



Cronbach's Method Alpha	Cronbach's Methods Alpha Founded on Consistent Matter	No. of Matters
0.741	0.743	18

Source: Author's own calculation (SPSS 19 version estimation)

Chronbach's Alpha value is 0.741 which represents a good level of internal consistency of the scale for all eighteen numbers of questions. Preferably, the Cronbach's Method Alpha constant of a gage must be 0.70 and overhead (Pallent, 2009).

Table-2: Item-Total Statistics²

Dimension	Questions	Gage Mean Matter Erased	if Gage Modification if Matter Erased	Modified Matters-Total Association	Squared Multiple Association	Cronbach's Methods Alpha if Matters Erased
Tangibility	Q1	67.7250	41.589	.314	.503	.730
	Q2	67.5000	42.205	.409	.620	.725
	Q3	67.8500	42.592	.254	.420	.734
	Q4	67.8500	41.464	.350	.529	.727
	Q5	68.0000	40.615	.375	.498	.724
Dependability	Q6	67.9500	41.741	.297	.657	.731
	Q7	67.6750	42.225	.288	.519	.732
	Q8	67.7250	41.999	.307	.424	.730
	Q9	67.7250	41.897	.259	.636	.735
	Q10	67.7500	42.551	.230	.597	.737
Receptiveness	Q11	67.6500	40.131	.413	.559	.721
	Q12	67.7250	41.333	.322	.390	.729
	Q13	67.7500	40.910	.338	.699	.728
	Q14	67.9500	40.459	.317	.476	.730
Understanding	Q15	68.0000	42.410	.240	.326	.736
	Q16	67.7000	42.010	.336	.410	.728
	Q17	68.2250	38.846	.404	.378	.721
	Q18	67.8500	41.669	.284	.481	.732

Source: Author's own calculation (SPSS 19 version estimation)

The table below presents statistics on the relationships between individual elements and the extent of the whole. Colum 3 and 5 are the most important calculations for the building of a relationship between the variables. Corrected item-total correlations are to scale correlations between the individual elements and complete results. If the scale is consistent, you expect these correlations to be quite strong. The last column represents what Cronbach's methods alpha if we deleted something and recalculated on the basis of the remaining elements. We

² Questions related to different dimesions have been assigned differet colors.



can observe that the removal of all questions would result in a lower Cronbach Method. Therefore, we want to delete not a question. Cronbach's Methods alpha offers just for a set of variables, for example issues a coefficient of reliability.

Next, we calculate descriptive statistics of the proposed dimensions to investigate the average behavior of the respondents regarding their overall satisfaction towards the online banking facilities in Riyadh (Saudi Arabia). The data collected on the ordinal so median and mode is the best measures of central tendency, the area and Inter Quartile Range (IQR) are the best measures of dispersion.

Taking median and mode for each dimension to reveal the respondents' satisfaction about the online banking facility in Riyadh (Saudi Arabia), Table-3 reveals that overall median for each dimension is 4. This reveals that respondents are satisfied with the online banking facilities provided by the commercial banks in Riyadh. These results provide an insight into the updated facilities, use of modern technology, the efficiency of the banking industry in Riyadh in particular and Saudi Arabia in general. Table-3 shows descriptive statistics of respondents' responses.





Table-3 Descriptive statistics of respondents' responses³

	Tangibility					Dependability					Receptiveness				Understanding			
	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15	Q16	Q17	Q18
Mean	4.0	4.4	4.0	3.9	4.0	3.9	4.1	4.1	4.1	3.9	4.1	4.0	4.0	4.5	3.9	4.0	3.8	4.6
Standard Error	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1
Median	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	5.0	4.0	4.0	4.0	5.0
Mode	4.0	4.0	5.0	3.0	5.0	3.0	4.0	4.0	5.0	3.0	5.0	5.0	4.0	5.0	4.0	4.0	4.0	5.0
Standard Deviation	0.8	0.6	0.8	0.8	0.9	0.8	0.8	0.8	0.9	0.9	0.8	0.8	0.6	0.9	0.6	0.5	0.8	0.8
Sample Variance	0.7	0.3	0.7	0.7	0.8	0.7	0.6	0.6	0.8	0.7	0.7	0.7	0.4	0.8	0.3	0.2	0.6	0.6
Kurtosis	-1.3	1.6	-1.5	-1.5	-1.3	-1.4	-1.4	-0.8	-1.2	-1.4	-1.0	-1.6	1.0	1.8	1.4	1.6	1.6	0.9
Skewness	0.0	-0.6	-0.1	0.2	-0.2	0.0	-0.1	-0.3	-0.3	0.1	-0.4	0.0	-0.3	-1.7	-0.4	0.1	-1.2	-1.5
Range	3.0	3.0	2.0	2.0	3.0	3.0	2.0	3.0	3.0	3.0	3.0	2.0	3.0	3.0	3.0	2.0	3.0	3.0
Minimum	2.0	2.0	3.0	3.0	2.0	2.0	3.0	2.0	2.0	2.0	2.0	3.0	2.0	2.0	2.0	3.0	2.0	2.0
Maximum	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Sum	392	437.0	400.0	387.0	397.0	391.0	403.0	406.0	401.0	388.0	405.0	396.0	399.0	448.0	389.0	400.0	380.0	452.0
Count	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0

Source: Author's own calculation (Excel sheet 2010)

³ Questions related to different dimesions have been assigned differet colors.



L Logistic regressions estimates are reported along with other statistics are reported in table-4.

Table-4: Logistic Regression Estimates

	Bi	S.E	Wald-test	df	Sig.	Exp(B)
Age	-0.71	.164	.186	1	.666	0.4932
Tangibles	2.467	.986	6.257	1	.012	11.782
Dependability	2.332	.840	7.699	1	.006	10.297
Receptiveness	1.251	.781	2.567	1	.109	3.495
Understanding	.975	.584	2.791	1	.095	2.652
Constant	-22.917	8.360	7.515	1	.006	.000

Source: Author's own calculation (SPSS 19 version estimation)

$$Y_i = \left[\frac{\alpha_i}{(1 - \alpha_i)} \right] = -22.917 - 0.71X_1 + 2.47X_2 + 2.33X_3 + 1.25X_4 + 0.975X_5$$

The binary logistic regression estimates reveal an overall positive relationship between online facilities provided by the banking industry in Saudi Arabia and customers' satisfaction. All slope coefficients are positive except age of the customers. In order to interpret the logistic estimates, it is oftenly preferred by the econometrisions to take an anti-log of the estimates for meaningful interpretation of the results. The effect of age on overall satisfaction of customers is negligible (0.4932). Tangibles dimensions are the most important determinants of customer overall satisfaction. If the median tangible dimensions increase by one unit then the probability of customers' overall satisfaction increases by 11.78 times. Similarly, reliability dimensions are the 2nd important determinants of customers' overall satisfaction. If the median reliability dimensions increase by one unit then the probability of overall customer satisfaction increases by 10.29 times. In the similar way, median reliability and responsiveness increases by one unit the probability in favor of overall satisfaction increase by 3.45 and 2.652 respectively. All dimensions are statistically significant at 99 percent confidence level except reliability and responsiveness.

4. CONCLUSION AND FINDINGS

The study aims to investigate the relationship between online banking services provided by different banks in Riyadh (Saudi Arabia) namely; Al- Rajhi bank, National commercial bank and Riyadh bank- Riyadh. The study uses three empirical investigation techniques e-g, Chronbach's Alpha statistics for internal scale of consistency of various dimensions proposed, Descriptive statistics especially, median and mode to reveal the average satisfaction of the customers and finally, the binary logistic regression model to predict changes in overall level of satisfaction given that a median change in any dimension. The results of the study favor the previous important studies such as; (Yang, 2004; Yang Z. J., 2004; Mobarek, 2007; Nupur, 2010).

The study reveals the following important findings:

1. The Chronbach's Methods of Alpha statistics for internal scale of consistency was used. The value of this test is reported as 0.741 which represents a good scale of internal consistency and relevancy of all questions related to the overall level of satisfaction.
2. The overall median score, for all customers, is 4 which represent an overall level of satisfaction of customers regarding the various online facilities provided by the selected banks in Riyadh.
3. The empirical results of logistic regression reveal that age of the customers does not significantly influence their corresponding overall level of satisfaction. The results further reveal that all the selected dimensions; tangibles, reliability, responsiveness and empathy are the significant determinants of overall satisfaction of the customer but with diverse significance levels.
4. The study further reveals that tangibles and reliability are most influential dimensions to enhance customers' overall probability of satisfaction as compared to the rest of dimensions proposed in this study.

5. RECOMMENDATIONS AND POLICY IMPLICATIONS

Based on the findings of the study, the study summarizes the recommendation of the study as;

1. Diverse online banking facilities are the important determinants of overall customers' satisfaction therefore customers' oriented banks should make note this phenomenon to increase their customers' circle by providing more reliable, innovative online facilities to their customers.



2. Dimensions such as tangibles and reliability among others are the most important determinants of customers' overall level of satisfaction. This phenomenon can be used by the banking industry in Riyadh to accelerate the growth of their customer satisfaction by focusing on all other dimensions with a particular focus on tangibles and reliability dimensions of customer satisfaction.

6. LIMITATION OF THIS RESEARCH

The conclusions and recommendations of this study are based on the perception of respondents. The information about the online service excellence and customer satisfaction, regarding the commercial banks in Riyadh is collected from 100 students. The sample is significantly low and thus the value outcome can't be widespread for the entire commercial banks operating across the Saudi Arabia.

BIBLIOGRAPHY

- [1] Han Sang, B. S. (2004). Antecedents and Consequences of Service Quality in Online Banking: An Application of the SERVQUAL Instrument. *Advance in Consumer Research*, 31, 208-214.
- [2] Kenova P, V. J. (2006). *Quality Online Banking Service*. Jonkoping university.
- [3] Mobarek, A. (2007). *E-BANKING PRACTICES AND CUSTOMER SATISFACTION- A CASE STUDY IN BOTSWANA*. Dept. of Accounting and Finance, University of Botswana.
- [4] Nupur, J. M. (2010). E-Banking and Customers' Satisfaction in Bangladesh: An Analysis. *International Review of Business Research Papers.*, 6, 145-156.
- [5] Pallent, J. (2007). *SPSS Survival Manual: A Step by Step Guide to Data Analysis using SPSS for Windows*. McGraw England.
- [6] Rod M, A. N. (2008). An examination of the relationship between service quality dimensions, overall internet banking service quality and customer satisfaction: A New Zealand study. *Marketing Intelligence & Planning*, 27(1).
- [7] Rod M, A. N. (2008). An examination of the relationship between service quality dimensions, overall internet banking service quality and customer satisfaction: A New Zealand study. *Marketing Intelligence & Planning*, 27(1).
- [8] Sidat, S. (2008). *Measuring Service Quality using SEWRVQUAL Model: A Case Study of E-Retailing in Iran*. University Technology Malaysia.
- [9] Yang, F. (2004). Online service quality dimensions and their relationships with satisfaction: A content analysis of customer reviews of securities brokerage services. *International Journal of Service Industry Management*, 15(3), 302-326.
- [10] Yang, Z. J. (2004). Measuring customer perceived online service quality Scale development and managerial implications. *International Journal of Operations & Production Management*, 24(11), 1149-1174.
- [11] Zeithaml, P. . (1990). *Delivering Quality Service; Balancing Customer Perceptions and Expectations*. Free Press.

Appendix-1: Questionnaire

Sizes	Questions
Tangibles	Q-1: "ABC" Online banking has modern equipment & latest Banking technology.
	Q-2: The website of the "ABC" online bank is visually attractive.
	Q-3: The website of the "ABC" online bank easily accessible
	Q-4: The website of the "ABC" online bank provides you with Relevant information.
	Q5) The website of the "ABC" online bank is easy to use and Circumnavigate.
	Q-1: When "ABC" online bank potentials to do somewhat by a Sure time, it does so.



Dependability

Q-2: When there is a problematic; “**ABC**” online bank shows a Sincere Interest in solving it.

Q-3: “**ABC**” online bank performs the service right first time.

Q-4: “**ABC**” online bank provides its services at the time it promises To do so.

Q-5: “**ABC**” online bank asserts on error-free archives.

Receptiveness

Q-1: Management of “**ABC**” online bank tell you exactly when the facility will be done

Q-2: Management of “**ABC**” online bank gives your quick service.

Q-3: Management of “**ABC**” online bank are always eager to help You.

Q-4: Management of “**ABC**” online bank are never too busy to Reply to your queries.

Understanding

Q-1: “**ABC**” online bank gives you individual care.

Q-2: Services or call centers of “**ABC**” online banks have operating Hours convenient for all its customers.

Q-3: Services, call centers, and web administrators of “**ABC**” online Bank gives your personal attention.

Q-4 Services, call centers, and web administrators of “**ABC**” online Banks have your best interests at heart.

Q-5: Services, call centers, and web administrators of “**ABC**” online bank comprehend your exact desire