



Journal of Internet Banking and Commerce

An open access Internet journal (<http://www.arraydev.com/commerce/jibc/>)

*Journal of Internet Banking and Commerce, August 2008, vol. 13, no.2
(<http://www.arraydev.com/commerce/jibc/>)*

Quantitative Evaluation of the Internet Banking Service Encounter's Quality: Comparative Study between Jordan and the UK Retail Banks.

Yazan K.A. Migdadi

PhD Student, Bradford University, United Kingdom

**Postal Address: School of Management. United Kingdom, Bradford, West
Yorkshire, BD9 4JL,**

Email: Y.K.A.Migdadi@Bardford.ac.uk

Abstract

The purpose of this study is to identify the differences in the internet banking service encounter's quality between clicks-and-mortar retail banks in Jordan and the different internet banking models of the UK retail banks, and between clicks-and-mortar and dot com. retail banks in the UK, the web sites were evaluated by using the web site quantitative evaluation method (QEM) that developed by Mateos et al. (2001) and Miranda et al. (2006), the evaluation of the banks' web sites was conducted in March 2008 for sixteen clicks-and-mortar retail banks in Jordan, eleven clicks-and-mortar retail banks in the UK, and six dot com. retail banks in the UK, the results indicated that; the internet banking service encounter quality of the clicks-and-mortar in Jordan retail banks is very close to the UK banks, further quality of internet banking service encounter quality of the clicks-and-mortar retail banks in the UK are very close to the dot com. retail banks in the UK.

Keywords: Internet banking, Service encounter, quality, Retail banks, Comparative study, Jordan, UK

© Yazan K.A. Migdadi, 2008

INTRODUCTION

The adopting of internet banking has been increased dramatically during the last few years by the banks in Jordan and the UK; as a response for the changes of customers' needs in Jordan (Siam, 2006), and the deregulation practices in the UK since 1980s (Joseph et al. 2005), accordingly a lot of customers decided to use internet banking services in Jordan and the UK, and different internet banking models have been emerged particularly in the UK as clicks-and-mortar and dot com. bank.

The banks in Jordan and the UK should focus on providing a better service encounter's quality to their customer as a result of the impact of encounter's quality on the customers' retention (Wakefield, 1996; and Reimer and Kuehn, 2005).

The banks adopting of internet banking was affected by the national context (Brown et al., 2004), the different internet banking models will have different internet banking operations capabilities (Oilvera, 2002), further the bank web applications of banks in emerging markets as Jordan differ from developed countries as USA (Awamleh et al., 2003).

Accordingly the internet banking service encounter's quality may differ as a result of different internet banking models and different country context, so the banks in different countries can benefit from experience of each other and the banks adopting different models of internet banking can benefit from the experience of each other, but these issues not covered probably in the previous studies, so this study aims to answer the following research questions:

What are the differences between clicks-and-mortar retail banks in Jordan and clicks-and-mortar retail banks in UK in the quality of internet banking service encounter?

What are the differences between clicks-and-mortar retail banks in Jordan and dot com. retail banks in the UK in the quality of internet banking service encounter?

What are the differences between clicks-and-mortar retail banks in the UK and dot com. retail banks in the UK in the quality of internet banking service encounter?

LITERATURE REVIEW

The internet banking service quality is the attributes of electronic banking that perceived by the customer, service provider, or other party. The quality of internet banking service encounter is one dimension of the overall internet banking services quality (Rowley, 2006), the majority of previous studies that evaluated the quality of internet banking service encounter employ subjective evaluation factors such as accuracy, security, content, timeliness, aesthetics....etc, by surveying the customers' attitude (e.g Joseph, et al., 1999; Jan and Cai, 2001; Wail, 2004; and Yang et al., 2004), and few studies employ the objective evaluation factors (Miranda, 2006).

To minimize the subjective evaluation of web site attributes as suggested by Evans and King (1999); a large group of evaluators is needed, and the evaluation should be given

precise guide lines to rate each factor, accordingly for the better understanding, assessment and improvement of the quality of web-based systems we should more and more use the software engineers methods, models and techniques (Olisna et al., 1999).

In this direction, some researchers as Evans and King (1999), Olisna et al. (1999), Mateos et al. (2001) and Miranda et al. (2006) used the web site quantitative evaluation method (QEM) as a powerful approach to assess the artifact quality, the process of (QEM) is; categorizing, identifying factors, identifying weights, rating the factors, and identifying the total quality indices.

Different categories have been developed and evaluated by the researchers; the categories of the web site quality that examined by Miranda et al. (2006) and sophisticated to internet banking include; site content, speed, accessibility and navigability, the same categories adopted by Mateos et al. (2001) to evaluate the quality of universities web sites.

However Oliver et al. (2002) proposed that different business models such as clicks-and-mortar and dot com. have different operations capability, which will impact the overall business performance. Accordingly the different banking model as clicks-and-mortar and dot com will have different service encounter quality, but this issue not examined empirically by the previous studies.

Furthermore the national environment will impact the customers' adoption of internet banking and their perceived service quality as a result of differences in the technology infrastructure, the ability of customer to use this technology, and the socio economic conditions (Brown et al., 2004 and Pikkaraine et al. 2004), also the banks adopting of internet banking is affected by the national environment (Corrocher, 2006), and the banks in emerging economy as Jordan is adopting different web bank applications in comparison with banks in developed countries as USA (Awamleh et al., 2003).

THE RESEARCH METHODOLOGY AND DESIGN:

The methodology employs in this paper is the quantitative descriptive survey methodology, the same as proposed by Evans and King (1999), Olisna et al. (1999), Mateos et al. (2001) and Miranda et al. (2006), so the reliability of data will be improved.

The Sample:

The list of population is identified by the Jordan Banks Society's Directory (2008) and the UK Banks Online (2008), these two directories are web oriented which allowed the researcher to access the banks web sites, the number of retail banks in Jordan adopting internet banking are 16, and 17 UK (6 dot com. and 11 clicks-and mortar), all of the sampling frame items are included in the research sample.

Data Collection Methods and Techniques:

A total of 16 Jordan banks' websites and 17 UK banks sites were observed directly by the researcher during March 2008, and rated according to websites indices.

The websites were evaluated by using the web site quantitative evaluation method (QEM), this method was employed by some researchers as Evans and King (1999), Olisna et al. (1999), Mateos et al. (2001) and Miranda et al. (2006), according to Evans

and King (1999) a web assessment tool has five main components: categories, factors, weights, ratings and total score.

The first step: is to choose the categories that are critical to web site effectiveness. The four broad categories are selected as the basis for a quality website are: accessibility, speed, navigability and site content, these categories are the same categories employed by Mateos et al. (2001) and Miranda et al. (2006).

The second step: The key factors within each category are selected according to previous studies, the factors chosen and its measures are listed in table (1).

The Third Step: developing the web site index; to do that weights were assigned to categories and factors (the total weights is 100); the weight assigned were the same as the weights developed by Miranda et al. (2006) (see table (1)) with minor modifications; the reasons of employing these indices is that; the indices were developed for the purpose to examine the quality of banks websites; further they follow a rigor methodology.

The fourth step: after assigning the rates to different categories' factors according to scale of 0-100 points; then the rates multiplied by weights, and the quality indices for each bank will be computed by summing the categories indices.

Data Analysis Methods and Techniques:

Independent Samples t-test is used to identify the differences between retail banks in Jordan and the UK (the significance level is $\alpha < 0.05$), and One-Sample Kolmogorov-Smirnov test is used to examine the normality of the data before conducting the t-test, Microsoft Excel package 2003 has been used to compute the indices of internet banking service encounter's quality, further the Statistical Package of Social Sciences (SPSS) version 12 was used to conduct the t-tests.

Table (1)

The Retail Banks' Website Indices

(Adopted from: Miranda, F.J. Corte's, R. and Barriuso, C. (2006). Quantitative Evaluation of e-banking websites: an empirical study of Spanish Banks. *The Electronic Journal Information System Evaluation*, 9(2),73-82.)

Categories	Weight	Categories	Weight
Accessibility	15	Navigability	15
Google Spine Search engine rank	5	Site map	10
Popularity (internal and external links)	10	Keyword search function	3
Speed	15	Number of clicks to log-in the internet banking	2
Home page size (bytes)	15		
Content quality			55
Information content	20	Transactional content	20
General bank information	4	Online banking	10
Products/Services information	4	Online communication	1

Price information	4	General inquires	1
*ATM location	2	Specific inquires	1
*Branch location	2	Funds transfer	1
Financial information	4	Brokerage	1
Communication content	15	Savings and investments services	1
Users feedback	6	Accounts and pay cards	1
Contact telephone	3	Applications	1
Contact address	3	Tax payment	1
Contact E-mail	3	Bills payments	1

Total Weights= 100

*These two factors will be assessed for the clicks-and-mortar banks, but in the case of dot com. banks the weights of these two factors will be added equally to other factors of informational content, so the weights assigned for each factor will be 5.

The Results and Discussion:

Table (2) shows that there is no significant differences between clicks-and-mortar retail banks in Jordan and clicks-and-mortar retail banks in the UK (p-value 0.49), this indicates that the service encounter quality of the internet banking in Jordan and the UK is very close.

Table (2)

Independent Sample t-test

The Differences between Jordan and the UK Clicks-and Mortar Banks

Clicks-and Mortar	Accessibility	Speed	Navigation	Content quality	Total
Mean (Jordan Banks)	6.26	6.38	13.25	46.25	71.69
Mean (the UK banks)	6.97	4.48	13.31	47	73.91
Mean difference	-0.71	1.9	-0.06	-0.75	-2.22
P-value	0.69	0.07	0.91	0.58	0.49

Accordingly the answer for the first question is; no differences between retail banks in Jordan and the UK in the quality of service encounter, despite that the UK banks were leaders in adopting the internet banking in comparison with Jordan banks, and the Jordan is fast moving developing country and the UK is well developed country.

Furthermore this indicates that the banks in Jordan invests a reasonable amount of their funds in technology as reported by Arab Bank Advisors Report (2007), also the concern about the quality of internet banking service encounter in Jordan represents a clear direction toward depending more on this channels of service delivery to satisfy the customers needs as indicated by Siam (2006), the closeness of internet banking customer characteristics between Jordan and UK (Jaywadhena, 2000; and Siam, 2006),

may result in providing the same quality of internet banking service encounter.

Moreover table (3) shows that the internet banking service encounters' quality of the Jordan banks is very close to the dot com. banks in the UK, so the answer for the second research question is that no differences in the quality of internet banking service encounters' quality between clicks-and-mortar banks in Jordan and dot com. banks in the UK, despite the specialization of the dot com. in providing the internet banking, and the UK is developed country while Jordan is a fast moving developing country.

Table (3)
Independent Sample t-test
The Differences between Jordan Clicks-and-Mortar and the UK Dot com. Banks

	Accessibility	Speed	Navigation	Content quality	Total
Mean (Jordan Clicks-and-Mortar)	6.26	6.38	13.25	46.25	71.69
Mean (the UK dot com.)	8.015	4.29	12.83	43	68.14
Mean difference	-1.75	2.09	0.42	3.25	3.55
P-value	0.38	0.55	0.58	0.108	0.28

Furthermore this indicates that the different internet banking models could have the same operations competitive capabilities, so the proposition of Olivera et al. (2002) is debatable and requires more verification by future studies to accept or reject it, further the more investment in the advanced technology to satisfy the customers' needs may led to such closeness, finally the adopting of different internet banking models in different countries may not impact the adopting of different operations capabilities as quality.

The table (4) indicates that the different electronic banking models adopted by banks in the same country may not lead to different service encounters' quality (P-value 0.23), despite the specialization of dot com. banks in internet banking, accordingly the answer for the third research question is that the clicks-and-mortar retail banks in the UK have a very close service encounters' quality in comparison to the dot co banks in the UK, moreover the internet banking service encounter of clicks-and-mortar retail banks in the UK is competitive to the dot com. banks, on the other hand this indicates that the clicks banks in UK concern about developing the internet banking as the dot com. banks.

Table (4)
Independent Sample t-test
The Differences between the UK Clicks-and-Mortar and the UK Dot com. Banks

	Accessibility	Speed	Navigation	Content quality	Total
Mean (the UK	6.97	4.48	13.31	47	73.91

Clicks-and-Mortar)					
Mean (the UK dot com.)	8.015	4.29	12.83	43	68.14
Mean difference	-1.045	0.19	0.48	3	5.77
P-value	0.15	0.92	0.54	0.22	0.23

CONCLUSION:

This study was conducted for the purpose to identify the differences in internet banking service encounter's quality between the different internet banking models in Jordan and UK, the results show that, the quality of internet banking service encounter for Jordan and the UK banks are very close, and more than satisfactory, further the different internet banking models have a very close quality indices of the service encounter.

Accordingly the different country context and different internet banking models may not have an impact on the service encounter quality as the case of Jordan and the UK, but in order to have a better insight about this issue I recommend conducting a longitudinal research in future, further conduct the same study in other country context.

REFERENCES

- Arab Advisors Group. (2007). *Jordanian banking sector, equity research sector report*, July, Amman: Financial Market Research Group.
- Awamleh, R. Evans, J. and Mahate, A. (2003). Internet banking in emergency markets the case of Jordan- a note. *Journal of Internet Banking and Commerce*[online], 8(1), Available from: <http://www.arraydev.com/commerce/JIBC/0306-03.htm> [accessed 18 March 2008].
- Brown, I. Hoppe, R. Muger, P. Newman, P. and Stander, A. (2004). The impact of national environment on the adoption of internet banking: comparing Singapore and South Africa. *Journal of Global Information Management*, 12(2), 1-26.
- Carrocher, N. (2006). Internet adoption in Italian banks: an empirical investigation. *Research Policy*, 35,533-544.
- Evans, J. and King, V. (1999). Business-to-Business Marketing and the world wide web: planning, managing, and assessing web sites. *Industrial Marketing Management*, 28, 343-358.
- Jayawardhena, C. and Foley, P. (2000) Changes in the Banking sector-the case of internet banking in the UK. *Internet Research*, 10(1), 19-31
- Jordan Banks Association. (2008). *Banks in Jordan* [online]. Amman: Jordan Banks Association. Available from: <http://www.abj.org.jo/الصفحةالرئيسية/الأعضاء/tabid/55/Default.aspx>, [accessed 20 March 2008].
- Joseph, M. McClure, C. and Joseph, B. (2001). Service quality in the banking sector: the impact of technology on service quality. *International Journal of Bank Marketing*, 17(4), 182-273.
- Jseph, M. Sekhon, V. Stone, G. and Tinson, J. (2005). An exploratory study on the use of banking technology in the UK: a ranking of important selected technology on consumer perceptions of service delivery performance. *The International*

- Journal of Bank Marketing*, 23(415), 397-413.
- Jun, M. and Cai, S. (2001). The key determinants of internet banking service quality a content analysis. *International Journal of Bank Marketing*, 19(7), 267-367.
- Mateos, M. B. Mera, A. C. Gonza'liz, F. J. M. and Lo'pezo', R. G. (2001). A new web assessment index: Spanish universities analysis. *Internet Research: Electronic Applications and Policy*, 11(3), 226-234.
- Miranda, F.J. Corte's, R. and Barriuso, C. (2006). Quantitative Evaluation of e-banking websites: an empirical study of Spanish Banks. *The Electronic Journal Information System Evaluation*, 9(2), 73-82.
- Olivera, P. Aleda, R. and Gilland, W. (2002) Achieving competitive capabilities in e-services. *Technological Forecasting and Social Change*, 69, 721-739.
- Olsina, L. Godoy, D. Lafuenete, G. J. and Rossi, G. (1999). Specifying quality characteristics and attributes for web sites. Paper presented at the first ICE workshop on web engineering, Los Angeles: USA.
- Reimer, A. and Kuhen, R. (2005). The impact of servicescape on quality perception. *European Journal of Marketing*, 39(7/8), 785-808.
- Rowley, J. (2006) An analysis of the e-service literature: toward a research agenda. *Internet Research*, 16(3), 339-359.
- Siam, A. (2006). Role of electronic banking services on the profits of Jordanian banks. *American Journal of Applied Science*, 3(9), 1999-2004.
- UK Banks Online. (2008). List of UK banks [online]. United Kingdome: UK Banks Online. Available from: <http://Yohlg.free.fr/ukbankonline/banklist.Php>, [accessed 20 March 2008]
- Wakefield, K and Blodgett, J. (1996). The effect of the servicescape on customers' behavioral intentions in leisure service settings. *The Journal of Services Marketing*, 10(10), 45-61.
- Yang, Z. Jun, M. and Peterson, R. (2004) Measuring customers perceived online service quality: scale development and managerial implications. *International Journal of Operations and Production Management*, 24(11/12), 1149-1174.