User Perceptions of Web-Site Quality for Banks in Oman

[1]Preeti Shrivastava, [2]M. Balasubramanian, [3]Mithun Shrivastava
[1]Dept. of Business & Accounting, Muscat College, Muscat, Oman
[2]Dept. of Market Development (Toyota & Daihatsu), Saud Bahwan Automotive LLC
[3]Dept. of Management, WCAS, BIT International Centre, Muscat, Oman

Abstract
During the past two decades, Internet has transformed businesses at glocal level. With increased globalization, customization and personalization, Internet Banking has become the need of the hour. Electronic banking channels like ATM, Internet, telephone, and mobile phone have been recognized as alternative delivery channels. Amongst these channels, one of the most significant interfaces is the web interface. More and more banks are strengthening their web presence through improved portfolio of e-banking services rendered online.
The objective of this paper was to evaluate perceived website quality of banks in Oman with reference to Internet Banking services. The respondents comprised individual customers who use multitudinous Internet banking services in Oman. A bilingual questionnaire was developed using E-Qual 5.0 to evaluate the customers' perceptions of their bank's website by evaluating the quality of banking services rendered to them, on the five important parameters, viz.; usability, site-design, information, trust and empathy. The questionnaire was administered on a convenience sample of 300 individual respondents. 155 completed questionnaires were received, yielding a response rate of 52% approximately. The websites of 5 banks, viz.; Bank Dhofar, Oman Arab Bank (OAB), Oman International Bank (OIB), National Bank of Oman (NBO) and Bank Muscat, have been evaluated based on the responses obtained and the results have been compared and reported accordingly. The findings highlighted that banking customers in Oman are reluctant to use Internet banking due to lack of information and trust in the e-banking services.

Keywords
E-Banking, E-Qual, Website Quality, Internet Banking

I. Introduction
With the advent of e-commerce, the financial sector, esp. banking industry, has become increasingly competitive. The banking industry world-wide has been witnessing intense competition not only amongst banks but also competition created by the presence of non-banking financial organizations offering a multitude of financial products and services, viz.; Toyota's credit card, GM's auto financing, Merrill Lynch investments etc. Banking customers have started evaluating numerous options in choosing banks, based on the portfolio of service offerings, esp. the ones rendered online. Internet provides a delivery channel which is convenient as well as economical. The banks have tapped the potential of online channels to provide online services, viz.; transferring funds, paying bills, viewing and checking the account balances, paying mortgages, and purchasing financial instruments and certificates of deposit [1]. Banks' websites can enhance competitive advantage associated with their product and service offerings. A customer's intention to visit and revisit the website is categorised as an important factor of website quality [2-3]. Customer's trust in e-vendor is also dependent on his first time experience with the organisation's website quality [4]. Hence, banks' websites quality may definitely be considered as one of the most critical factors for improved satisfaction and retention of their existing customers.

In Oman, the banking industry comprises of 17 commercial banks, including seven national banks and ten branches of foreign banks.
Moreover, there are two specialized banks, viz.; Oman Development Bank (ODB) and Oman Housing Bank (OHB). Central Bank of Oman (CBO) was established in 1974 and has, since its inception, been actively involved in reinforcing trust between the different parties involved in the country's banking operations. It holds the major responsibility of maintaining external and internal value of the national currency and it is the single integrated regulator of Oman's financial services industry. The commercial banks have been operating in Oman with a network of 444 branches as per 2010 figures. The locally incorporated commercial banks in Oman are Bank Muscat, National Bank of Oman, Oman International Bank, Oman Arab Bank, Bank Dhofar, Bank Sohar and Al Ahli Bank. Foreign banks operating in Oman includes SBC Bank Middle East, Standard Chartered Bank, Habib Bank, Bank Melli Iran, Bank Saderat Iran, Bank of Baroda, State Bank of India, National Bank of Abu Dhabi, Bank of Beirut and Qatar National Bank. In 2010, the commercial banks in Oman had 914 ATMs in total (of which 470 were off-site). As far as the assets are concerned, the banking system remained fairly concentrated with the three largest local banks accounting for over 60 % of total assets, 63 % of total credit, 57 % of total deposits, and combined assets of RO 9.43 billion (US $ 24.5 billion) as at the end of 2010 [5].
Internet banking in Oman started in February 2002 with the initiative of the National Bank of Oman (NBO). It launched Netb@ank in 2002 and was closely followed by Bank Muscat (BM) online services in June 2002. Moreover, Bank Muscat enhanced their channel offerings by adding mobile as well as Internet channels for the services rendered by them. According to ITU (International Telecommunication Union), Internet users in Oman in June, 2010 increased to 41.7% of the total population as compared to 16.3% in 2009. These figures clearly reveal the rate of technology transition, acceptance and diffusion in Oman [5]. In the light of the above-mentioned discussion, it would be interesting to analyze the extent to which Omani people have been availing and feel comfortable in using e-banking services.

II. Objectives
1. To understand the relative importance attributed to factors affecting Internet Banking in Oman, by the banks' customers.
2. To analyze the customer's perceptions of the banks' websites, based on quality of banking services rendered online, on the five important parameters, viz.; usability, site design, information, trust and empathy.
3. To analyze and rank the five leading commercial banks of Oman based on customers' perceptions about the website quality of their banks.

III. Literature Review
Numerous studies conducted worldwide have highlighted the importance of Internet banking. With the increased dynamicity

associated with technological applications and improved customer awareness levels, Internet has become a necessity rather than just a different delivery channel for marketers [6]. Banks' website is a platform where the customers interact and do their transactions [7]. An expectation gap may exist if the user expectations from the website and information available on website are not matching [8]. Studies have further elaborated that this gap may be due to the user perception of the information, background and text color, navigation style and complexity of the website. Poorly built website lacks security and clarity; rather poses noise and distortion; hence may affect the transaction which can lead to customer dissatisfaction [9]. Website should be simple to operate with few complexes so as to attract large number of users from different backgrounds and computer proficiency. Acceptance of Internet services highly depends on ease of use and perceived usefulness [10]. Other website acceptance attributes are connectivity, clarity of instructions, upload and download speed [11-12]. It is extremely important to identify the key website success factors for improving online presence [13]. In the light of above-mentioned discussion, it is evident that the banks, not only need to identify the factors affecting customers' perception of their websites, but also need to take corrective actions based on their customers' feedback.

Different researchers have developed and used a number of instruments for studying and evaluating website quality as a multi-dimensional construct, from users' perspective [13-16]. Till date there's no consensus on the measuring scales developed for measuring website quality. SITEQUAL, a 9-item scale developed in 2001 [16] for measuring perceived quality of an internet shopping site, comprised four factors, viz.; ease of use, aesthetic design, processing speed and security factors. As the scale was validated based on responses obtained from 47 subjects only, the sample was considered inadequate for assessing website quality [15]. Another scale was developed in 2007 on similar lines to measure website quality [15]. WebQual's focus was to know and explore how the consumers' perception about the website can affect the buying behavior and their intention to revisit the website. The scale comprised 36 items with 12 constructs (informational fit-to-task, tailored communications, trust, response-time, ease of understanding, intuitive operations, visual appeal, innovativeness, emotional appeal, consistent image, on-line completeness, and relative advantage) [15]. The sample size used for performing reliability and validity analysis of the scale comprised 377 students. The scale had larger applicability and was tested on twelve different websites comprising of websites for books, CDs, hotels and airlines.

The present study uses WebQual5.0, a scale developed by Barnes and Vidgen in 2001. WebQual (www.webqual.co.uk) is based on quality function deployment (QFD) - a "structured and disciplined process that provides means to identify and carry the voice of the customer through each stage of product and or service development and implementation" [17]. QFD has been developed to understand customers' quality requirements using words and phrases which are simple and meaningful to customers. The respondents are asked to rate the sites against one another based on a range of qualities on a 7-point scale. The users are also asked to rate each quality factor based on associated perceived importance in order to construe the relative importance attributed by customers to different factors concerning website quality. The simplicity of the scale in fact, helps to get the relevant data from the customers quite effectively. The scale has been based on fundamental concepts associated with SERVQUAL [18], information quality and usability literature [19]. The scale is valid and reliable and has been tested for wide range of websites in service sector. Although e-SERVQUAL is very well known for measuring service quality and can be applied to various e-service areas [18], but the present study focusses on the quality of Internet banking websites alone rather than comprehensive assessment of concerning e-services rendered by banks. Based on the reasons stated above, WebQual 5.0 seemed to be a justified choice of scale for the present study.

IV. Research Design

This study is a quantitative study based on descriptive research. The required information has been collected from primary sources (individual banking customers). The data was collected through surveys and the data collection instrument was based on E-Qual 5.0. A structured non-disguised bilingual Questionnaire was developed using the scale (E-Qual 5.0 - Stuart Barnes, Richard Vidgen), which is one of the valid and reliable tools used to evaluate the customers' perceptions of their banks' websites by evaluating the quality of banking services rendered to them, on the five important parameters, viz.; usability, site-design, information, trust and empathy. The questionnaire has addressed two important aspects of Internet Banking in Oman. The first component reflected customers' perception about their primary Bank services in Internet banking and second component assessed the perceived importance given to each of the above-mentioned parameter concerning Internet Banking services. The questionnaire was administered on a convenience sample of 300 individual respondents. 155 completed questionnaires were received, yielding a response rate of 52% approximately. Except age of the respondent, all data was captured either at nominal or ordinal level. The data collection was carried out for six months during 2010.

V. Analysis & Findings

Banks in Oman were ranked in April, 2010 according to their banking performance [20]. The data collected was from published financial statements of the banks, CBO reports and other secondary sources. The banks were evaluated according to the parameter of growth, sustainability, asset quality, productivity and efficiency. Growth (CAGR growth of gross loans, customer deposits, fee income, operating profit, net worth and net profit during the period from 2006 to 2009) and sustainability parameters were used for ranking the local commercial banks of Oman in the period from 2006 to 2009. Ahli bank and Bank of Sohar, being relatively new establishments, were excluded. Ranking for sustainability was done by calculating the four year average of three key factors like asset quality, productivity and efficiency [20]. The following is the ranking achieved by the banks.

1. Bank Muscat (BM)
2. Oman Arab Bank (OAB)
3. Bank Dhofar (BD)
4. National Bank of Oman (NBO)
5. Oman International Bank (OIB)

The primary objective of this study was to rank Omani banks according to their website quality, as perceived by their customers, in terms of usability, site-design, information, trust and empathy. To achieve this, the data collected has been presented in tables and radar chart. The present research results have shown a different side of the story related to e-banking services based on customers' perceptions concerning website quality of banks.

Table 1: Summary of E-Qual Scores Concerning Websites of 5 Local Banks in Oman

Group	Items	Importance	BD	OAB	OIB	NBO	BM
Usability	1,2,3,4,5,7,9,10	5.685	5.03	5.20	4.81	5.57	5.48
Site Design	6,8,11	5.740	4.98	5.18	4.82	5.39	5.46
Information	12,13,14,15,16, 17,18,19	5.644	4.92	5.10	4.76	5.28	5.47
Trust	21,25	5.884	5.10	5.25	5.43	4.91	5.38
Empathy	20,22,23,24,26,27	4.785	5.02	5.10	4.78	4.98	5.22

Table 2: Summary of Website Ranks Based on E-Qual Scores Concerning Websites of 5 Local Banks in Oman

	Rank (Usability)	Rank (Site Design)	Rank (Information)	Rank (Trust)	Rank (Empathy)
Bank Dhofar	4	4	4	4	3
OAB	3	3	3	3	2
OIB	5	5	5	1	5
NBO	1	2	2	5	4
BM	2	1	1	2	1

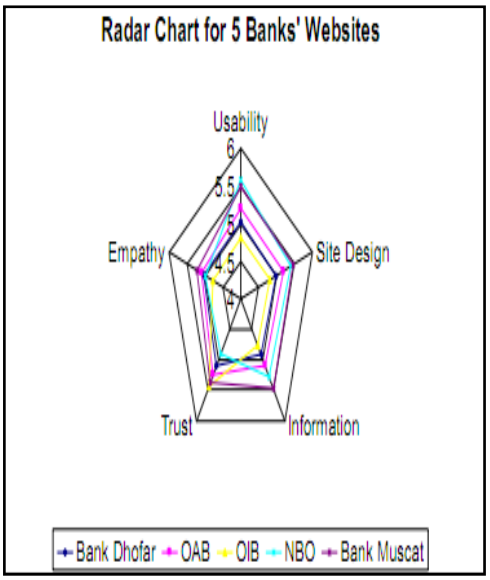


Fig. 1: Radar Chart Based on E-Qual Scores Concerning Websites of 5 Local Banks in Oman

The following results have emerged through the survey.

1. The most important factors affecting Internet banking in Oman, as perceived by banks' customers are trust, site design and usability in the order as stated.
2. The least important factors affecting Internet banking in Oman, as perceived by banks' customers are information and empathy.
3. NBO's website was ranked No.1 in terms of usability and ranked No. 2 in terms of site-design & information, but in case of trust, the bank was ranked the last.
4. OIB's website was ranked No.1 in terms of trust but perceived extremely poor in terms of usability, site-design, information and empathy.
5. The No.1 ranked Bank of OER (Oman Economic Review) in terms of the banking performance, Bank Muscat has been perceived extremely good in terms of its website quality and was ranked either 1 or 2 for all the categories.
6. In case of Bank Dhofar, the bank's website has been perceived very poor in terms of the usability, site-design, information and trust. The bank's website was ranked fourth in all the categories concerning perceived website quality.
7. OAB's website was uniformly rated as average on all the criteria concerning perceived website quality.
8. Almost all the customers have expressed major concern about the trust and security of the information in their importance ranking.
9. The banking customers have also expressed a need for a user friendly Internet site to navigate faster.

A. Major Concerns About Internet Banking

The most significant outcome of survey is real concern for the security concerning personal information of the customers and safety of the transactions. Almost all the respondents expressed serious concern over safety of their confidential information and over the trust associated with Internet banking applications as compared to the conventional banking.

VI. Conclusion and Suggestions

The present study has clearly highlighted that the website quality is one of the prominent key attributes for online banking adoption. Customers have a tendency to associate the reliability and security of banking transactions with their experiences and their usage of banks' websites. Customers can be motivated for online transactions and for getting real time information by designing websites with simple and effective visual and navigation designs. Moreover, customized information needs to be provided, and corrective measures to enhance online trust need to be taken. Frequent feedback and suggestions can be obtained from customers, esp. ones related to website quality and incorporated suitably. The local Omani banks have to gear up for the competition not just from one another, but also from foreign banks which are technologically much more advanced. As numerous research studies have indicated that website design and purchase intention is based on mutual trust between bank and their customers [21], hence the first step for the banks should be to channelize customers to visit website for various schemes and information which can be initiated through SMS and emails. All Omani banks are offering more or less similar products and services; hence quality of service offerings made through websites can definitely provide them a competitive edge over their competitors. The experience of the customers before and after the transactions impacts their decisions for subsequent transactions and revisits. It is strongly suggested that systematic monitoring of the customer requirements should be incorporated in all e-services rendered by the bank online and systems so as to facilitate efficient and cordial e-banking experience for the customers. Workshops and seminars can be organized for employees and customers to develop and promote a culture for e-banking applications.

VII. Limitations and Scope for Future Research

A major limitation of this study is that the scale used is highly context specific. There is a possibility that the perceived meaning of different dimensions may vary with respect to different banking

websites. Some of the other limitations faced by the researchers include paucity of time and resources for data collection. Moreover, the questionnaire was administered on a convenience sample in Muscat region only, and it may not be representative of the entire population of online banking customers in Oman.

Survey can be carried out for websites of all the banks in Oman, including foreign banks and a comparison can be made, which can further unfurl different dimensions of website quality as perceived by Omani customers. Another dimension concerning nationality of the online banking customers in Oman, may be explored to have a comparative analysis of the results achieved with respect to locals and expatriates for the survey. Other scales like SERVQUAL and SITEQUAL can also be used and results can be compared with WebQual to know the suitability of the scales in present context. In the light of diverse cultural background of residents in Oman, another interesting element could be to compare customers' perceptions about website quality of banks in Oman based on their respective cultural background. Such studies and others based on demographic and psychographic profiling of online banking customers shall provide deeper insights into factors contributing to the adoption of Internet banking applications.

VIII. Acknowledgements

The authors would like to thank all respondents who participated in the survey concerning this research article, and in particular owe deepest gratitude to Bhumika Upadhyaya, Harpreet Reehal, Hiba Sha, and Shoaib Aziz, students of 2007 Batch of BBA at Waljat College of Applied Sciences, for their contribution in data collection.

References

[1] Gkoutzinis A.,"Internet Banking and the Law in Europe: Regulation, Financial Integration", Cambridge University Press, 2006.

[2] Ganguly, B., Dash, S. B., Cyr, D.,"Web-site characteristics, trust and purchase intention in online store: An empirical study in the Indian context", Journal of information Science and Technology, Vol. 6, No. 2, 2009, pp. 22-24.

[3] Ventakesh, V., Johnson, P.,"Tele-commuting technology implementations: A within and between subjects longitudinal field study", Personal Psychology, Vol. 55, pp. 661-687, 2002.

[4] Liu, C., Arnett, K.P.,"Exploring the factors associated with Web site success in the context of electronic commerce", Information & Management, Vol. 38, No. 1, pp. 23-34, 2000.

[5] Central Bank of Oman (CBO)(2010),"Annual Report", [Online] Available: http://www.cbo-oman.org/.

[6] De Young, R.,"The Financial Perform-ance of Pure Play Internet Banks", Economic Perspectives, Vol. 25, No. 1, 2001, pp. 60-75.

[7] Alhudaithy, A.I., Kitchen, P.J.,"Rethinking models of technology adoption for internet banking: The role of website features", Journal of Financial services marketing, Vol. 14, No. 10, pp. 56-69, 2009.

[8] Mukherjee, A., Nath, P.,"A model of trust in online relationship banking", International Journal of bank Marketing, Vol. 21, No. 1, pp. 5-15.

[9] Ganguly, B., Dash, S.B., Cyrs, D.,"Web-site characteristics, trust and purchase intention in online store: An empirical study in the Indian context", Journal of Information Science and Technology, Vol. 6, No. 2, pp. 22-44, 2009.

[10] Davis, F.D.,"Perceived usefulness, perceibed ease of use, and user acceptance of information technology", MIS Quarterly, 13(3), pp. 319-340, 1989.

[11] Agarwal, R., Venkatesh V.,"Assessing a Firm's Web Presence: A Heuristic Evaluation Procedure for the Measurement of Usability", Information Systems Research, Vol. 13, No. 2, 2002, pp. 168-186.

[12] Ndubisi, N. O.,"A structural equation modeling of the antecedents of relationship quality in the Malaysia banking sector", Journal of Financial Services Marketing, Vol. 11, No. 2, 2006, pp. 131-141.

[13] Zeithaml, V.A., Parasuraman, A., Malhotra, A.,"Service quality delivery through Websites: a critical review of extant knowledge", Journal of the Academy of Marketing Science, Vol. 30, No. 4, pp. 362-375, 2002.

[14] Barnes, S., R. Vidgen.,"Assessing the Quality of Auction Web Sites", Proceedings of the Thirty- Fourth Hawaii International Conference on System Science, Maui, Hawaii, January (2001). pp. 3-6.

[15] Loiacono, E., Watson, R.T., Goodhue, D.L.,"WEBQUAL: a Measure of Website Quality", AMA Winter Conference, Austin, TX, 2002.

[16] Yoo,B., Donthu, N.,"Developing and validating a multidimensional consumer-based brand equity scale", Journal of Business Research, Vol. 52, No. 1, 2001, pp. 1-14.

[17] Slabey, R.,"QFD: A basic primer", Excerpts from the implementation manual for the three day QFD workshop. In Transactions from the Second Symposium on Quality Function Deployment (1990), Novi, Michigan, 18th -19th June.

[18] Parasuraman, A., Zeithaml, V.A., Malhotra, A.,"E-S-Qual: A multiple item scale for assessing electronic service quality", Journal of Service Research, Vol. 7, No. 3, 2005, pp. 213-233.

[19] Barnes, S., R. Vidgen,"An evalua-tion of cyberbookshops: the WebQual method", International Journal of Electronic Commerce, Vol. 6, No. 1, 2001, pp, 11-30.

[20] Oman Economic Review (2010),"Stable and mature", [Online] Avaliable: http://www.oeronline.com/php/2010_Apr/cover.php

[21] Dash, S.B., Saji,K.B.,"Role of Effective Website-Design in Online Shopping: A Large Scale Empirical Study in the Indian Context", In Panda, T.K., Donthu, N.(Eds) "Marketing in the new global order, Challenges and Opportunities", Excel Books, pp. 435-451, 2006.



Preeti Shrivastava is a science graduate from Delhi University and a post graduate in management from GGSIPU, Delhi. She has more than seven years of experience in teaching and research and is presently working as a faculty member in Department of Business & Accounting, Muscat College, Oman.



M. Balasubramanian did his B.Sc. from Loyola College Chennai and EMBA from BIT, Ranchi. He has more than two decades of experience in organizations of International repute. At present, he is working at Market Development Department (Toyota & Daihatsu), Saud Bahwan Automotive LLC, Oman.



Mithun Shrivastava is a graduate in physics from Hansraj College, Delhi University and a post graduate in management, with specialization in E-Commerce, from GGSIPU, Delhi. He has been actively engaged in teaching and research for more than ten years and is presently working as a faculty member in Department of Management at Waljat College of Applied Sciences (BIT International Centre), Muscat, Oman.