

THE INTERNATIONAL JOURNAL OF BUSINESS & MANAGEMENT

Perceived Importance of Different Dimensions of Internet Banking Service Quality and Its Perceived Impact on Gender

Akshya Singh

Research Scholar, ITM University, Gwalior, Madhya Pradesh, India

Deepti Verma

Lecturer, Anand Engineering College, Agra, Delhi, India

Vandana Bharti

Associate Professor, ITM University, Gwalior, Madhya Pradesh, India

Abstract:

Advances in technology along with increasing labor costs have caused service firms to explore self service delivery options. Nowadays, the service industry in the world is changing, thus new technology has changed the method of customer provide services in many service organizations. As a result Internet Banking was introduced as a channel where bank customers could perform their financial transactions electronically via their banks' Web sites. It is quite evident that adoption of Internet Banking by customers is a function of various service quality dimensions and extent of adoption is determined by the level of importance of various dimensions. This study attempts to examine levels of perceived importance of distinct dimensions of Internet Banking Service Quality and to contrast perceptual difference regarding Gender. In order to respond to these questions a field study was conducted and data was collected from a convenience sample of 150 users. Analyses results indicated different dimensions have different levels of perceived importance by users of Internet Banking and there were significant perceived differences between males and females concerning all the Internet Banking service quality dimensions.

Keywords: *Perceived importance, Service quality, Internet banking*

1. Introduction

Banks used the Internet technology as a strategic weapon to revolutionize the way they operate, deliver, and compete against each other (Seitz and Stickel, 1998) because the rapid advancement in electronic distribution channels has produced tremendous changes in the financial industry in recent years, with an increasing rate of change in technology, competition among players and consumer needs (Hughes, 2001). Internet banking is a kind of system that enables financial institutions, customers, individuals or businesses, to access accounts, transact business, or obtain information on financial products and services through the Internet. The incredible growth of Internet is changing the way corporations conduct business with consumers (Siu and Mou, 2005). Customers' expectations and perceptions of Internet services have been constantly changing; therefore, service quality perceived importance of different dimensions is becoming an important issue. This study investigates how customers have perceived importance of different dimensions of electronic banking services and to compare perceptual difference regarding Gender.

2. Literature Review

Identifying factors that affect individual's intention to use internet banking services, enables banks to respond properly towards this factors and use their marketing strategies to promote internet banking that meets the needs of customers (Wang et al, 2003). Parasuraman et al. (1988) proposed that higher levels of perceived service quality result in increased customer satisfaction. According to Cronin and Taylor (1992), the distinction between consumer satisfaction and service quality is important to practitioners and researchers alike because service providers need to know whether their objective should be to have consumers who are "satisfied" with their performance or to deliver the maximum level of "perceived service quality". Jun and Cai (2001) identified 17 service quality dimensions of Internet banking service quality. These are reliability, responsiveness, competence, courtesy, credibility, access, communication, understanding the customer, collaboration, continuous improvement, content, accuracy, ease of use, timeliness, aesthetics, security, and divers features. Mc Quitty and Peterson (2000) referred to Georgia Institute of Technology study which revealed that the quality of information, ease of ordering and reliability are significant in Internet Banking than security aspect. To Howcroft, et. al., (2002) the principal characteristics that inhibit online banking adoption are security and privacy. Parasuraman et al. (2005) conducted an extensive exploratory study based on an empirically tested multiple item scale called E-S-Qual to assess service quality of online shopping providers. The identified 4 prominent factors which influence buying decision which are efficiency, fulfilment, system availability and privacy. in Aladwani's (2001) study of online banking, potential customers ranked internet security

and customers' privacy as the most important future challenges that banks are facing. Van Riel (2003) made an extensive study on customer expectations one service quality using 159 samples consisting of college students. Using the SERVQUAL model five dimensions' analysis covered e service quality dimensions such as tangibility, reliability, empathy, customization, security and responsiveness. Akinci et al. (2004) find that the selection of an internet banking service provider is effected by security, reliability and privacy. Sohail and Shaikh (2008) found that the efficiency and security dimension was the most influencing factor in users' evaluation of Internet banking service quality. Security on the Internet can be defined as any factor affecting the perceived risk with both financial and personal matters such as, privacy (Grewal & Dharwadkar, 2002). The importance of security and privacy to the acceptance of online banking has been noted in many banking studies (Sathye, 1999; Hamlet and Strube, 2000; Tan and Teo, 2000; Polatoglu and Ekin, 2001; Black et al., 2002; Giglio, 2002; Howcroft et al., 2002). Santos (2003) uncovered reliability, efficiency, support, communication, security, and incentive as dimensions of online service quality. Hurley and Estelami (1998) reported that while service quality and satisfaction are distinct constructs, a causal relationship exists between the two, and that perceptions of service quality affect feelings of satisfaction which, in turn, influence future purchase behaviour. Kumbhar (2011) examined the relationship between service quality and customers' satisfaction as well as satisfaction in internet banking service provided by the public and private sector banks in India and the results shows E-Fulfillment, Responsiveness, Problem handling and Contact dimensions of internet banking service quality were differed in public and privates sector banks while other dimensions i.e., system availability, efficiency, security, easiness, convenience, cost effectiveness and compensation were same in public and privates sector banks. Gupta and Bansal (2012) developed an instrument for measuring Internet banking service quality in India and also analyzed the impact of Internet banking service quality dimensions on the Overall Internet Banking Service Quality and customer satisfaction. And to measure that they also developed scale of 22 items. Exploratory factor analysis resulted into five dimensions: Security/Privacy, Reliability, Efficiency, Responsiveness, and Site Aesthetics. Model was further validated through Confirmatory Factor Analysis. A survey was carried on a mixed sample of 1350 Internet banking customers of private sector, public sector and foreign banks in the Delhi Metropolitan Area. Results of multiple regression analysis revealed that Security/Privacy dimension carry the maximum impact on the Overall Internet Banking Service Quality whereas customer satisfaction is most impacted by the Efficiency dimension as compared to other dimensions.

- Hypothesis 1: Distinct dimensions of Internet Banking Service Quality have different levels of perceived importance by users of Internet Banking.
- Hypothesis 2: Perceived importance levels of dimensions of Internet Banking Service Quality may vary according to respondents' gender.

3. Methodology

This study aims to find out the perceived levels of each Internet Banking Service Quality dimension among the users of Internet Banking and to examine whether there is a statistically significant perpetual difference amongst respondents who has different gender. In order to test the hypotheses a field research was conducted by using the survey methodology. The survey instrument was a questionnaire including some demographic questions and "an instrument to measure Internet Banking Service Quality", developed by Bansal and Gupta (2012). A convenience sample of 150 adults (who were regular users of Internet Banking) participated in this study. The 'Internet Banking Service Quality' scale has 22 items corresponding to Security/Privacy, Reliability, Efficiency, Responsiveness, Site Aesthetics. Responses are taken by Likert scales where, "1=Not at all important" and "5=Extremely important". Scale dimensionality and factor structure were checked by exploratory factor analysis. To test the hypotheses, mean scores of the distinct dimensions of internet banking service quality were compared by using independent samples t-tests and contrasts was made according to the respondents' gender.

4. Analyses and Results

A total of 150 individuals participated in this study by filling questionnaire. Then the questionnaire was coded and entered into SPSS spreadsheet in order to perform the data analyses. The mean age of subjects was 27.5 years (range 22-58; s.d.=6.5) and 54% were male and 46% were females. Before testing the research hypotheses, we made some preliminary analysis to control the dimensionality and reliability of internet banking service quality scale. Scale dimensionality was controlled by principal component analysis. Principal component analysis with varimax rotation and a factor extraction according to MINEIGEN criterion (i.e. all factors with Eigen values of greater than 1) was employed. Scale reliability was assessed by internal consistency using Cronbach's Alpha coefficients. Descriptive statistics showed that research data was appropriate for factor analysis (KMO=0.872; Bartlett's test of sphericity $p < 0.001$). Principal component analysis suggested 5 factors for internet banking service quality scale, explained 57.66% of the total variation in the data. Table 1 shows the demographic details and Table 2 shows the factor loading of each items; explained variance by each factor and Cronbach's Alpha Values.

Demographic Variables	Categories	No. of Respondents (%)
Gender	Male	81(54%)
	Female	69(46%)
Age (in Years)	20-30	44(29.33%)
	30-40	39(26%)
	40-50	63(42%)
	Above 50	4(2.66%)
Qualifications	Upto 12 th	12(8%)
	Graduates	27(18%)
	Post Graduates	33(22%)
	Professionals	78(52%)
Income (per month)	Below 20,000	12(8%)
	20,000-40,000	80(53.33%)
	40,000-60,000	53(35.33%)
	Above 60,000	5(3.33%)

Table 1: Distribution of Respondents on the Basis of Demographic Factors

Dimensions	Scale Items	Mean	Std. Dev.	Factor Loading	Eigen Value	% Variance Explained	Cronbach Alpha
Dimension 1: Security/Privacy	I feel secure in providing sensitive information (e.g. credit card details) for online transactions	4.50	0.74	0.72	5.48	17.01	0.76
	Web site of Bank X is equipped with adequate security features	4.61	0.68	0.63			
	Bank X does not share my personal information with others	4.19	0.88	0.64			
	Bank X secures information regarding my internet banking activities	4.35	0.81	0.63			
	Bank X is honest concerning its online transaction services	4.41	0.80	0.62			
	Web site of Bank X makes appropriate statements concerning the completion of transactions	4.49	0.78	0.60			
	Bank X does not misuse my personal information	4.53	0.75	0.50			
Dimension 2: Reliability	Bank X keeps accurate records of my account transactions	3.90	0.92	0.75	1.74	12.30	0.72
	Bank X delivers the service exactly as promised	4.02	0.97	0.75			
	Bank X always provides the service at the promised time	3.83	1.07	0.68			
	The Web site pages do not freeze once I enter my transaction information	3.54	1.06	0.56			
	If there is a mistake, Bank X can make it right quickly and effectively	3.83	0.99	0.68			
Dimension 3: Efficiency	Navigating within Bank X's Web site is very easy	4.29	0.80	0.82	1.26	10.99	0.63
	Web site of Bank X loads its page's fast	4.24	0.80	0.79			
	It is quick and easy to complete a transaction on the Web site of Bank X	4.15	0.92	0.78			
	Finding what I need is simple and easy on the Web site of Bank X	3.76	1.03	0.69			
Dimension 4: Responsiveness	Bank X is prompt in responding to my queries/requests by e-mail or other means	3.85	1.06	0.68	1.79	9.27	0.70
	Web site of Bank X contains answers to frequently asked questions	4.03	0.96	0.74			
	In case of problems I can speak with a person (through telephone or in person at a branch) at Bank X	3.91	0.91	0.74			
Dimension 5: Site Aesthetics	Web site of Bank X contains relevant information explained in an easy to understand language	4.51	0.74	0.71	1.90	8.09	0.61
	Web site of Bank X is visually attractive	4.62	0.69	0.64			
	Web site of Bank X is updated regularly	4.18	0.89	0.64			
Overall						57.66	0.778

Table 2: Internet Banking Service Quality Scale Dimensions Principal Components Analysis Result

Overall reliability of the scale is satisfactory i.e. 0.778. Under the light of the principal component analysis results, five composite variables are created by averaging the item score under each factor. These composite variables are used to test the research hypotheses. The mean, standard deviations and interrelations of the composite variables are presented in Table 3.

Composite Variable	Mean	Std. Deviation	1	2	3	4
1)Security/Privacy	4.458	0.528				
2)Reliability	3.889	0.812	0.419**			
3)Efficiency	4.289	0.688	0.345**	0.173**		
4)Responsiveness	4.196	0.783	0.501**	0.362**	0.188**	
5)Site Aesthetics	3.841	0.785	0.364**	0.470**	0.146**	0.339**

Table 3: Means, Standard Deviations and Interrelations of Composite Variables

** Correlation is significant at 0.01 level (2-tailed)

In order to explore the possible variations amongst the perceived importance levels of different dimensions of internet banking service quality, paired contrasts with t tests are run. Table 4 shows the mean scores and paired t tests results for each dimension of internet banking service quality scale.

Internet Banking Service Quality Dimensions		Mean	Std. Deviation	t	p
Pair1	Security/Privacy	4.46	0.53	21.83	0.000
	Reliability	3.89	0.81		
Pair2	Security/Privacy	4.46	0.53	6.43	0.000
	Efficiency	4.29	0.69		
Pair3	Security/Privacy	4.46	0.53	10.31	0.000
	Responsiveness	4.20	0.78		
Pair4	Security/Privacy	4.46	0.53	18.26	0.000
	Site/Aesthetics	3.84	0.79		
Pair5	Reliability	3.89	0.81	12.83	0.000
	Efficiency	4.29	0.69		
Pair6	Reliability	3.89	0.81	-12.01	0.000
	Responsiveness	4.20	0.78		
Pair7	Reliability	3.89	0.81	-10.00	0.000
	Site/Aesthetics	3.84	0.79		
Pair8	Efficiency	4.29	0.69	-1.128	0.280
	Responsiveness	4.20	0.78		
Pair9	Efficiency	4.29	0.69	-6.251	0.000
	Site/Aesthetics	3.84	0.79		
Pair10	Responsiveness	4.20	0.78	2.555	0.000
	Site/Aesthetics	3.84	0.79		

Table 4: Paired Samples t Tests of Perceived Importance Levels

Security/Privacy attained the highest mean score (4.46 perceived as the most important Internet Banking Service Quality dimension) while Site Aesthetics attained the lowest mean score (3.84 perceived as the least important dimension of Internet Banking Service Quality). Except "Efficiency and Responsiveness" pair all of the mean differences were found to be statistically significant. Thus the first Hypothesis is supported.

In order to test the second hypothesis, independent samples t-tests based on the gender of the respondents were run. Analyses results indicated significant differences between males and females concerning all levels. Thus second hypothesis is not supported. Table 5 shows the means, standard deviations and t-test results of independent samples t-test based on the gender of the respondents.

Internet Banking Service Quality Dimensions	Gender	N	Mean	Std. Deviation	t	Sig. (2 tailed)
Security/Privacy	Female	69	4.56	0.43	4.29	0.000
	Male	81	4.38	0.58		
Reliability	Female	69	3.94	0.63	3.37	0.001
	Male	81	3.74	0.79		
Efficiency	Female	69	4.33	0.65	3.28	0.000
	Male	81	4.23	0.71		
Responsiveness	Female	69	4.30	0.64	3.42	0.001
	Male	81	4.08	0.82		
Site Aesthetics	Female	69	3.98	0.75	3.02	0.003
	Male	81	3.78	0.85		

Table 5: Gender and Perceived Importance levels of Internet Banking Service Quality Dimensions

5. Conclusion

In this study, the perceived importance levels of different dimensions of Internet Banking Service Quality are examined. Further, a comparison is made regarding gender. For this purpose, the data is collected on random basis from regular users of Internet Banking. Participants' perceptions regarding the importance levels of distinct components of Internet Banking Service Quality were measured by a multi item scale. Factor structure of Internet Banking Service Quality was analyzed by principal component analysis. It was found that respondents attributed the highest importance to Security/Privacy(M=4.46) of the possible users when seeking for Internet Banking Service Quality. They attributed the least importance to Site Aesthetics(M=3.84) of the potential users. Further analyses revealed that there were statistically significant differences amongst the perceived importance levels of distinct dimensions of Internet Banking Service Quality. Finally, it was found that there is significant difference between the perceived importance levels of Internet Banking Service Quality dimensions regarding the gender of the respondents. Female respondents attributed higher importance to security/privacy, reliability, efficiency, responsiveness, site aesthetics dimensions compared to males. Understanding which factors are valued in the eyes of the users may help banks to develop more effective banking site.

6. References

- i. Aladwani, M. Adel (2001), Online banking: a field study of drivers, development challenges, and expectations, International Journal of Information Management, pp. 213-225.
- ii. Akinci, S., Aksoy, S. and Atilgan, E. (2004), Adoption of internet banking among sophisticated consumer segments in an advanced developing country, International Journal of Bank Marketing, Vol.22 (3), pp. 212-32.
- iii. Black, N.J., Lockett, A., Winklhofer, H. and McKechnie, S. (2002), "Modelling consumer choice of distribution channels: an illustration from financial services", The International Journal of Bank Marketing, Vol. 20 No. 4, pp. 161-73.
- iv. Cronin, J. and Taylor, S. (1992), "Measuring service quality: a reexamination and extension", Journal of Marketing, Vol. 56, No.3, pp.55-68.
- v. Grewal, R., & Dharwadkar, R. (2002). The role of the institutional environment in marketing channels. Journal of Marketing, 66(3), 82-98.
- vi. Giglio, V. (2002), "Privacy in the world of cyber banking: Emerging legal issues and how you are protected", The Secured Lender, March/April, pp. 48-60.
- vii. Gupta, K. K., & Bansal, D. I. (2012). Development Of An Instrument To Measure Internet Banking Service Quality In India. International Refereed Research Journal, Vol.- III, Issue 2(2). , 11-25
- viii. Hamlet, C. and Strube, M. (2000), "Community banks go online", ABA Banking Journal's 2000 White Paper/Banking on the Internet, March, pp. 61-5.
- ix. Howcroft, B., Hamilton, R. and Heder, P. (2002), Consumer attitude and the usage and adoption of home-based banking in the United Kingdom, International Journal of Bank Marketing, Vol.20 (3), pp. 111-121.
- x. Hughes, T. (2001), Market orientation and the response of UK financial services companies to changes in Market conditions as a result e-commerce, International Journal of Bank Marketing, Vol.19 No.6, pp. 222-231.
- xi. Hurley, R. F. and Estelami, H. (1998), "Alternative Indexes for Monitoring Customer Perceptions of Service Quality: A Comparative Evaluation in a Retail Context," Journal of the Academy of Marketing Science, Vol. 26, No. 3, pp. 209-21.
- xii. Jun, M., & Cai, S. (2001). The key determinants of Internet banking service quality: A content analysis. International Journal of Bank Marketing, 19, 276-291.
- xiii. Kumbhar, V. M. (2011). Determinants of internet banking adoption: an empirical evidence from Indian banking. Indian Journal of Commerce and Management Studies, 2(4), 15-25
- xiv. McQuitty, S and Peterson, R.(2000) 'Selling home entertainment on the internet: an overview of a dynamic market place', Journal of Consumer Marketing, Vol.17, Nos.2/3, pp.233-248.
- xv. Parasuraman, A., Berry, L. L. and Zeithaml, V. A. (1988), "Communication and control processes in the delivery of service quality", Journal of Marketing, Vol. 52, April, pp.35-48.
- xvi. Parasuraman, A., Zeithaml, V.a and Malhotra, A.(2005) 'A multiple item for assessing electronic service quality', Journal of Service Research, Vol 7, No.3, pp.213-233.

- xvii. Polatoglu, V.N. and Ekin, S. (2001), "An empirical investigation of the Turkish consumers' acceptance of Internet banking services", *International Journal of Bank Marketing*, Vol. 19 No. 4, pp. 156-65
- xviii. Santos, J. (2003). E-service quality: A model of virtual service quality dimensions. *Managing Service Quality*, 13, 233-246.
- xix. Sathye, M. (1999), "Adoption of Internet banking by Australian consumers: an empirical investigation", *International Journal of Bank Marketing*, Vol. 17 No. 7, pp. 324-34.
- xx. Seitz, J. and Stickel, E., 1998. Internet Banking-An Overview. *Journal of Internet Banking and Commerce*, 3(1), pp. 9801-9808
- xxi. Sohail, M. S., & Shaikh, N. M. (2008). Internet banking and quality of service: Perspectives from a developing nation in the Middle East. *Online Information Review*, 32(1), 58-72.
- xxii. Siu, N. Y. M. and Mou, J. C. W., (2005), "Measuring service quality in Internet banking: The case of Hong Kong", *Journal of International Consumer Marketing*, Volume 17, No. 4, pp.99 - 116.
- xxiii. Tan, M. and Teo, T.S.H. (2000), "Factors influencing the adoption of Internet banking", *Journal of the Association for information Systems*, Vol. 1 No. 5, pp. 1-42.
- xxiv. Van Riel, A., Sumenjn,J. and Janssen, W.(2003) 'E -service quality expectations: a case study', *Total Quality Mangement*, Vol.14, No.4,pp.437-450.
- xxv. Wang, S.L. (2003). Customer testimonials and news clips contextual cues in the consumer cognitive processing of online shopping: how do they build trust and then increase purchase intention. *Journal of promotion management*, Vol. 9, pp. 145-62.