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An Investigation into the Determinant of Customers' Preferences and Satisfaction of Internet Banking (Empirical Study of Iranian Banking Industry)

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Abstract: We have observed a considerable growth of internet based services from last many years. Managing service quality while using internet as a distribution channel, is the challenge for the service provider. In this study researcher Investigate the customers' preferences and satisfaction with five various service quality dimensions which affect the customers' satisfaction and indicates the relationship between the various demographic variables and satisfaction level of customers. The results of the analysis of the factors reveals that the five factors influenced on satisfaction level of customers are Responsiveness, Reliability, Efficiency and Privacy of Information and Easiness to use. Then the quality performance of all the five dimensions was shown to have a strong impact on customer satisfaction. Finally, some suggestions have been proposed to develop of Internet Banking in Iran.

Key words: Customer satisfaction, service quality, Internet banking, Iranian banking

INTRODUCTION

For over a decade, information technologies have significantly affected the banking industry. Banks and other financial institutions have improved their functions as a financial intermediary through adopting various information technologies (Chang, 2002; Gourlay and Pentecost, 2002; Hannan and McDowell, 1984; Haynes and Thompson, 2000; VanHoose, 2003).

Generally, when the information technologies combine with functions of banks and financial institutions, it is called electronic banking. Electronic banking technologies have led banks and financial institutions to improve effectiveness of distribution channels through reducing the transaction cost and increasing the speed of service (Chang, 2002; VanHoose, 2003). Globalization of finance, integration, advances in information technologies and financial innovations in the last couple of decades have deeply changed banking business not only in Iran but in also other markets and forced the state authorities to deregulate national financial systems. Deregulation allowed banks to flourish their businesses and enter into new markets with new technologies involving both individual and institutional customer interaction (DeYoung *et al.*, 2004). In addition, developments of modern computer technology have also enabled banks to lessen the cost of bank transactions by having the client interact with an e-banking facility rather than with a human being. E-banking applications, which include Automated Teller Machine (ATM), telephone banking, mobile banking, digital television, debit and

credit cards, internet banking, etc., became one of the main battlefields of the banking industry. For instance, Hanson and Kalyanam (2007) points out that e-banking grew rapidly, ATMs made customer visits to a branch less necessary and then in the late 1990s the rapid growth in banking web sites made a wide range of services available from almost everywhere. Among various banking technologies, Internet banking which is the act of conducting financial intermediation on the Internet, is the latest banking technology and the most rapidly diffused banking technology in the Iran. Internet banking has advantages for banks to maintain competition, to save costs, to enhance mass customization, marketing and communication activities and to maintain and attract consumers (Daniel and Storey, 1997; Mols, 2000; Read, 1998; Sheshunoff, 2000; Tomkin and Baden-Fuller, 1998). The primary advantage of Internet banking is to save time and cost. Lee and Lee (2001) indicated that Internet banking allows consumers easier access to their bank accounts, lower service charges and time saving. Moreover, Chang (2002) showed that Internet banking had a low transaction cost and a high speed of service when compared to other banking services. For example, while the cost of transaction for money transfer was 95¢ for checking and 27¢ for ATM, while it was only 1¢ for Internet (Chang, 2002). Hence, internet is increasingly becoming a diverse global marketplace with global business opportunities for financial services delivery as well as challenges.

Financial sector is the spinal cord of sovereign economy of any country. Iran is no exception; the

technology adaption in banking operations in Iran was a few decades behind that of in developed countries. In terms of international and global comparison, Internet usage in Iran is still in the infancy stage. Presently in Iran, an important function of e-commerce is the handling of payment Over the Internet. Most e-commerce involves the exchange of some form of money for goods and services. Implementation of payment system currently competes for dominant the results of research could help bank managers to make informed decisions, thereby providing better service to their customer and formulate more efficacious strategies to ensure rapid migration of customers to Internet Banking.

Customer satisfaction: Early concepts of satisfaction research have typically defined satisfaction as a post choice evaluative judgment concerning a specific purchase decision (Churchill and Surprenant, 1992; Oliver, 1980). Most researchers agree that satisfaction is an attitude or evaluation that is formed by the customer comparing their pre-purchase expectations of what they would receive from the product to their subjective perceptions of the performance they actually did receive (Oliver, 1980). Several authors have defined satisfaction in a different way. Satisfaction is a person's feelings of pleasure or disappointment resulting from comparing a product's perceived performance (or outcome) in relation to his or her expectations (Kotler, 2000) Customer satisfaction is a collective outcome of perception, evaluation and psychological reactions to the consumption experience with a product/service (Yi, 1990).

Satisfaction formation: In marketing literature (Churchill and Surprenant, 1992; Oliver, 1980) as well as in recent information system studies (McKinney *et al.*, 2002), the disconfirmation theory emerges as the primary foundation for satisfaction models. According to this theory, satisfaction is determined by the discrepancy between perceived performance and cognitive standards such as expectation and desires. Oliver (1980) described the process by which satisfaction judgments are reached in the expectancy-disconfirmation framework. Buyers form expectations of the specific product or service before purchase and perceived quality level which is influenced by expectations (Khalifa and Liu, 2003). Customer expectation can be defined as customer's pretrial beliefs about a product (McKinney *et al.*, 2002). Expectations are viewed as predictions made by consumers about what is likely to happen during impending transaction or exchange (Zeithaml, 1988). Perceived performance is defined as customer's perception of how product

performance fulfills their needs, wants and desire (Cadotte *et al.*, 1987). Perceived quality is the consumer's judgment about an entity's overall excellence or superiority (Zeithaml, 1988). Disconfirmation is defined as consumer subjective judgments resulting from comparing their expectations and their perceptions of performance received (McKinney *et al.*, 2002; Spreng *et al.*, 1996). Ho and Wu (1999) identified five antecedents of customer satisfaction to be appropriate for online shopping on the Internet. These are logistical support, technical characteristics, information characteristics, home page presentation and product characteristics. Eastin (2002) presented the model that demonstrate the adoption of four ecommerce activities currently available to Internet users: (1) online shopping, (2) online banking, (3) online investing and (4) electronic payment for an Internet service (i.e., access to exclusive sites). Author also explained six attributes common to the model. These are-perceived convenience and financial benefits, risk, previous use of the telephone for a similar purpose, self efficacy and Internet use and all six attributes play a significant role in the adoption processes.

Online service quality: Opeewal and Vriens (2000) developed an application for measuring retail banking service quality, which consists of 28 attributes including four service quality dimensions such as: accessibility; competence; accuracy and friendliness; and tangibles. The accuracy and friendliness dimension turned out to be the most important factor out of four determining banking preference, followed by competence, tangibles and accessibility. Kamalia and Nantel (2000) proposed an alternative measure of perceived service quality in retail banking that comprises 31 items with six underlying key dimensions. These dimensions are: Effectiveness and assurance, access, price, tangibles, service portfolio and reliability. Madu and Madhu (2002) proposed 15 dimensions of online service quality dimensions based on literature review: Performance, features, structure, aesthetics, reliability, storage capacity, serviceability, security and system integrity, trust, responsiveness, product/service differentiation and customization, web store policies, reputation, assurance and empathy. Wolfenbarger and Gilly (2003) have found four online retailing service quality dimensions through focus group interviews and an online survey. These are web site design, reliability and privacy/security and customer service. They found that reliability and fulfillment is the strongest predictor of customer satisfaction.

Internet banking: Berger (2007) argued that a sound understanding of client is required for improvement of

e-banking. Thus, all relevant information about the clients should be taken into account and a client-centric strategy should be developed by Confirming Berger (2007). Electronic banking research has attracted much attention from marketing researchers about client perception (Maenpa *et al.*, 2008), client attitudes (Liao and Cheung, 2002; Mols, 1998), client satisfaction (Gonzalez *et al.*, 2004) service quality Bauer *et al.* (2005) but it attracts relatively less attention from the finance and banking researchers about the economic consequences of e-banking. One of the papers that examine the economic outcome of e-banking is that of Parker and Parker (2008) who investigated the money velocity in Finland following wide spreading of e-banking in Finland. Their results interestingly show that money velocity has decreased despite the expectations. Durukan (2003) evaluated the impact of internet banking on the performance of Turkish commercial banks. Adoption, perception and usage of internet banking by consumers is one of the topics heavily examined in e-banking literature. Centeno (2004) argued that speed, the convenience of remote access, 7/24 availability and price incentives are the main motivation factors for the consumers to use internet banking. Durkin *et al.* (2008) noted that the simplicity of the products offered via internet banking facilitates the adoption of internet banking by consumers. Calisir and Gumussoy (2008) compared the consumer perception of internet banking and other banking channels and report that internet banking, ATM and phone banking substitute each other. Maenpaa *et al.* (2008) examined the consumer perceptions of internet banking in Finland and their findings indicate that familiarity has a moderating role in the perception. Guerrero *et al.* (2007) examined the usage of internet banking by Europeans and their results indicate that ownership of diverse financial products and services, attitude towards finances and trust in the internet as a banking channel influence clients' usage of internet banking. Sohail and Shanmugham (2003) documented accessibility of internet, awareness of e-banking and resistance to change are found to be influencing Malaysian's use of internet banking. Another factor that promotes clients usage of internet banking is seller support (Nilsson, 2007). While the adoption of e-banking by clients is heavily researched there is less research on the supply side of e-banking. We can list the advantages of e-banking as the competitive advantage, member/client retention, increased revenues and reduced costs (Esser, 1999). The Woolwich Bank case study conducted by Shah and Siddiqui (2006) revealed that understanding clients, organisational flexibility, availability of resources, systems security, established brand name, having multiple integrated channels, e-channel specific marketing, systems integration, systematic change management, support from top

management and good client services are the factors critical to success in e-banking. Aktan and Teker (2009) examined the usage of internet in Turkey to make a basic due-diligence investigation for the financial institutions, including banking, stock trading, insurance and provision of financial information within the framework of internet banking by using statistics compiled mostly from the Bank Association of Turkey over the period 2005 and 2008. The findings show that internet usage in Turkey with its young population has continued to grow dramatically in financial services. Sudha *et al.* (2007) studied the banking customer's perception towards security concern and Internet banking adoption. Their research reveals that the customers have much concern about security and privacy issue in adoption of Internet banking, whether the customers are adopted Internet banking or not. Amiri *et al.* (2009) investigated the effective factors on improving e-banking by using Fuzzy Topsis in Parsian Bank. They present a method at solving MCDM problems in which the weights of criteria are unequal. Their results shows factors of operational, technical and strategic have the most effect on Improving of e-banking. Sarlak *et al.* (2009) examined the factors that can speed up the successful implementation of electronic banking innovations in the Iran's country. Their research revealed that there is a meaningful and significant relationship between co-structural, content and context factors and the successful implementation of e-banking in Iran. Pour Mirza *et al.* (2009) in their study showed an understanding of Iranian customer's attitude and adoption of Internet Banking services. They only survey Internet Banking users and non-users of Mellat Bank of Tehran. The results revealed significant differences between demographic profiles and attitudes of users and non-users groups.

RESEARCH DESIGN

The main purpose of this research is to identify the customer preferences towards the online banking and to find out the various service quality dimensions, which affect the customer satisfaction. This study also tried out to find out the relationship between the various demographic variables and satisfaction level of customers.

Development of hypotheses: Researcher developed the hypotheses to identify the relation between age, profession, gender, preferences of bank and satisfaction level.

H1: There is no significant relation between age and choice of bank

- H2:** There is no significant relation between profession of customer and preference of banks
- H3:** There is no significant relation between gender and number of banks usage
- H4:** Factors determining satisfaction level of respondents are independent of their age
- H5:** Factors determining satisfaction level of respondents are independent of their profession
- H6:** Factors determining satisfaction level of respondents are independent of their gender
- H7:** Factors determining satisfaction level of respondents are independent of Status of usage
- H8:** Factors determining satisfaction level of respondents are independent of no. of Bank usage

Sampling and sample size: For achieving the objective, a descriptive study was conducted. Primary data were collected of six kinds of banks (Saman, Parsian, Melli, Keshavarzi (agri Bank), Tejarat and Sepah) in Iran at spring 2010, from Internet banking users of public and private banks in Tehran district, with the help of structured questionnaire. A sample of 300 respondents who actually use internet banking was selected by following non-probabilistic convenience sampling technique as it is appropriate for exploratory studies.

Research instrument: Questionnaire was designed after reading of SERVQUAL. The Service Quality (SERVQUAL) scale developed in an attempt to measure the perception of quality of service (Parasuraman *et al.*, 1988; Zeithaml *et al.*, 2001) has been gaining momentum in application among various service sectors. Still that scale has undergone several revisions, extensions and modifications to suit different sector's needs. The authors, based on qualitative research, formulated a measure of service quality derived from data on a number of services, instead of counting on early dimension of goods quality in the manufacturing sector. The entire approach was formulated on the tenet that the customers entertain expectations of performance perceptions. The authors defined service quality as the degree of discrepancy between customer's normative expectations for the service and their perceptions of the service performance. Concept and after interacting with bank employees and customer who generally use internet banking. Questionnaire had a list of 21 statements related to efficiency, tangibility, responsiveness, reliability and empathy. Respondent has to choose one option of each statement depending on whether he or she is Strongly disagree, Disagree, Neutral, Agree, or Strongly Agree with statement.

Analysis of data: Data presentation and analysis were done with the help of various statistical tools by using

SPSS. Percentage, frequencies, Cross Tabulation and factor analysis methods were used for analysis. For testing of hypotheses, ANOVA and F-test were used.

RESULTS AND DISCUSSION

Demographic profile of respondent: Fifty seven percent of respondent are young, having age less than 30 years. Majority of respondent (84%) were men and 85% respondent belong to Service class. 61% of respondent were using the Internet banking from last one Year. Majority of respondent (89%) having bank account in 1 bank only, while 11% respondents have bank account in 2 or more banks (Table 1). Out of 89 respondent 32 respondents have account in SAMAN bank, 25 in PARSIAN bank, 21 respondents have account in MELLI bank.

Preference of customer towards banks: Table 2 reveals that there is no specific bank preference of customers of all age groups and in Table 3, hypothesis testing also revealed that there is no significant relation between age

Table 1: Demographic profile of respondents

Demographic variable	Frequency	Percentage
Age		
Less than 30 years	171	57.0
31-40 years	60	20.0
41-50 years	57	19.0
Above 50 years	12	4.0
Total	300	100.0
Gender		
Male	252	84.0
Female	48	16.0
Total	300	100.0
Profession		
Service	255	85.0
Business man	42	14.0
Not working	3	1.0
Total	300	100.0
Status of usage		
From last 2 months	45	15.0
From last 6 months	57	19.0
From last 1 years	183	61.0
From last 2 years	15	5.0
Total	300	100.0
Number of bank presently using		
One bank	267	89.0
More than one	33	11.0
Total	300	100.0
Bank name		
SAMAN	96	32.0
MELLI	63	21.0
PARSIAN	75	25.0
KESHA VARZI (Agri)	24	8.0
SEPAH	3	2.0
TEJARAT	3	1.0
SAMAN and MELLI	3	2.0
SAMAN and PARSIAN	18	6.0
MELLI and KESHA VARZI	6	2.0
MELLI and TEJARAT	3	1.0
Total	300	100.0

Source: From primary data

Table 2: Cross-tabulation between age and customer's preference of bank

Bank name	Age (years)				Total (%)
	Less than 30(%)	31-40 (%)	41-50 (%)	Above 50(%)	
SAMAN	16.0	10.0	6.0		32.0
MELLI	14.0	5.0	2.0		21.0
PARSIAN	12.0	5.0	6.0	2.0	25.0
KESHAVARZI (Agri bank)	4.0		2.0	2.0	8.0
SEPAH	2.0				2.0
TEJARAT	1.0				1.0
SAMAN and MELLI			2.0		2.0
SAMAN and PARSIN	5.0		1.0		6.0
MELLI and KESHAVARZI	2.0				2.0
MELLI and TEJARAT	1.0				1.0
Total (%)	57.0	20.0	19.0	4.0	100.0

Table 3: ANOVA and F-test for age and customer's preference of bank

Preference	Sum of squares	df	Mean square	F	Sig.
Between groups	110.223	3	36.741	1.5740	0.201
Within groups	2241.487	96	23.349		
Total	2351.710	99			

Table 8: KMO and Bartlett's test

Kaiser-Meyer-Olkin measure of sampling adequacy	Bartlett's test of sphericity		
	Approx Chi-square	df	Sig.
0.818	1183.031	210	0.000

Table 4: Cross tabulation between profession and customer's preference of bank

Bank Name	Profession (%)			Total (%)
	Service	Business	Not working	
SAMAN	27.0	5.0		32.0
MELLI	18.0	2.0	1.0	21.0
PARSIAN	20.0	5.0		25.0
KESHAVARZI	8.0			8.0
SEPAH	2.0			2.0
TEJARAT	1.0			1.0
SAMAN and MELLI	2.0			2.0
SAMAN and PARSIN	4.0	2.0		6.0
MELLI and KESHAVARZI	2.0			2.0
MELLI and TEJARAT	1.0			1.0
Total (%)	85.0	14.0	1.0	100.0

Table 5: ANOVA and F-test for profession and customer's preference of bank

Preference	Sum of squares	df	Mean square	F	Sig.
Between groups	3.928	2	1.964	0.081	0.922
Within groups	2347.782	97	24.204		
Total	2351.710	99			

Table 6: Cross tabulation between Gender and number of bank usage

No. of Bank usage	Gender (%)		Total (%)
	Male	Female	
One bank	67.0	11.0	78.0
More than bank	17.0	5.0	22.0
Total	84.0	16.0	100.0

Table 7: ANOVA and F-test for Gender and number of Bank usage

Preference	Sum of squares	df	Mean square	F	Sig.
Between groups	0.163	1	0.163	0.940	0.335
Within groups	16.997	98	0.173		
Total	17.160	99			

and preference of Banks, thus null hypothesis (1) is accepted (Sig = 0.201 > 0.05) and (F = 36.741/23.349 = 1.574).

Twenty seven percent of service class customers and 5% of business class Customers have account in SAMAN bank (Table 4). Table 5 reveals that there is no significant relation between profession of customer and preference of banks means null hypothesis (2) is also accepted (Sig = 0.922 > 0.05) and (F = 1.964/24.204 = 0.081)

After doing Cross tabulation between Gender and number of Bank usage (Table 6), it was found that most of the customers whether male or female prefer to have account only in one bank. But hypothesis testing (Table 7) revealed that there is no significant relation between genders and number of banks usage thus the null hypothesis (3) is also accepted (Sig = 0.335 > 0.05) and (F = 0.163/0.173 = 0.94).

Factors determining satisfaction level of customers:

Factor analysis is applied on responses provided by respondent. Factor analysis is a set of techniques, which by analyzing the correlation between variables, reduces their number into few factors, which explain much of the original data, more economically (Rajender, 2005).

According to Table 8 Measure of Sampling Adequacy such as Bartlett's Test of Sphericity (Approx. Chi-Square is 1183.031, Degree of freedom is 210, significance is 0.000) and Kaiser-Meyer-Olkin Measure of Sampling Adequacy (KMO) value is 0.818 showed that data were fit for factor analysis. Table 8 indicated the appropriateness of factor analysis i.e., the sample was adequate. Similarly, Cooper and Schindler (2003) argued that while the correlation coefficients in matrix table is less than 0.80, the multicollinearity could be ignored.

For extracting the factors, Principal Component Analysis was used and 5 factors were retained as their Eigen values is more than 1 (Table 9).

Table 9: Total variance explained

Component	Initial eigen values			Rotation sums of squared loadings		
	Total	% of Variance	Cumulative%	Total	% of Variance	Cumulative%
1	7.878	37.513	37.513	4.275	20.357	20.357
2	2.127	10.131	47.644	3.259	15.52	35.878
3	1.730	8.236	55.880	2.912	13.865	49.744
4	1.423	6.774	62.654	2.430	11.573	61.317
5	1.056	5.028	67.682	1.337	6.365	67.682

Extraction method: Principal component analysis

Table 10: Communalities

Statements	Extraction
The speed of login of your account is fast.	0.647
Is it easy to find all information from website	0.688
The bank site is easy to navigate and simple to use	0.737
The policy and notice statement are easy to find on website	0.543
The speed of logout/signoff is fast	0.600
You can rely on bank web pages functioning properly	0.546
Bank website is running all the time.	0.630
Bank website do not freeze after you put in all the information	0.689
Web Pages download quickly	0.824
Information provided on website is accurate.	0.811
Language and information content are easy to understand	0.659
When any problem occurs, the bank provides accurate and immediate information to solve the problem.	0.723
Bank is willing to help the customer in providing the solution for problem	0.622
If any error happen by bank ,they will compensate	0.588
You can talk to customer service representative by online chat.	0.719
The confirmation of service ordered is provided by website	0.696
The bank website performs the service, right the first time.	0.704
Quick confirmation is provided by bank website	0.747
Bank carefully collect the personal information	0.650
Bank website is completely secure for credit card information	0.682
You can rely on bank that they don't misuse your personal information	0.709

Extraction method: Principal component analysis.

KMO and Bartlett's Sphericity used to test the sample appropriateness. The variables, which had loadings of less than 0.5, were excluded and dimensions with Eigen values of 1 or above; were retained.

Thus, five factors have been extracted. Extraction communalities are estimates of variance in each variable accounted for by the factors in the factor solution. According to Table 10 all the variables are fit well in factor solution as all factors have value more than 0.40.

Next task is interpretation and naming of factors. It is done by identifying the variables that have high loading on individual factors. For this purpose, Rotated factor matrix (Table 11) is used. Values close to the 1 represent high loading and close to 0 represent low loading.

Table 12 show the Naming of Factors that:

Factor 1 responsiveness: Total variance explained (Table 9) has revealed that this factor explained variance of 20.357%. 7 variables (12, 13, 14, 15, 16, 17 and 18) were

loaded on this factor. Researcher has named this factor as Responsiveness as it includes bank and employees willingness to help the customers.

Factor 2 reliability: It has been found that 2nd important factor have explained variance of 15.521% and 4 variables (8, 9, 10 and 11) are loaded on this factor. As the variables related to reliability and accuracy of bank websites, are loaded on this factor, thus this factor is named as Reliability.

Factor 3 efficiency: This is 3rd important factor, which accounts for 13.865% of the variance and 5 variables were loaded on this factor. As the variables related to speed and efficiency of bank website was loaded on this factor, this factor is named as Efficiency.

Factor 4 privacy of transactional information: 3 variables loaded on this factor and together they account for 11.573% of the variance. Variables related to collection and security of customer's personal information was loaded high on this factor and thus researcher has named it as Privacy of Transactional Information.

Factor 5 easiness to use: Two variables load on this factor and together they account for 6.365% of the variance. Easy to navigate and easiness to find information on website load high on this factor and thus researcher has named this factor as Easiness to use.

ANALYSIS OF VARIABLE AND F-TEST BETWEEN FACTORS AND DEMOGRAPHIC VARIABLES

Comparative age-wise analysis: Table 13 indicates that hypothesis (4) is rejected partially. Thus it can be said that all factors determining the satisfaction level of customers except efficiency and privacy of information are independent of age.

Post-hoc analysis (Table 13 a and b) further revealed that satisfaction level of customers belonging to age group 31-50 years are effected by efficiency of bank

Table 11: Rotated factor matrix

Statements	Component				
	1	2	3	4	5
The speed of login of your account is fast.	-2.80E-02	-7.22E-03	0.791	0.117	8.36E-02
Is it easy to find all information from website	0.252	0.145	0.73	-0.203	-0.169
The bank site is easy to navigate and simple to use	9.17E-02	0.317	0.495	-0.258	0.562
The policy and notice statement are easy to find on website	0.41	0.228	0.219	0.172	0.495
The speed of logout/signoff is fast	7.72E-02	0.373	0.514	0.241	0.365
You can rely on bank web pages functioning properly	0.259	0.333	0.587	0.121	9.27E-02
Bank website is running all the time.	0.172	4.14E-02	0.673	0.331	0.191
Bank website do not freeze after you put in all the information	0.254	0.7	0.226	0.262	0.123
Web Pages download quickly	0.32	0.735	7.36E-02	0.341	0.244
Information provided on website is accurate.	0.122	0.88	7.72E-02	1.43E-02	-0.125
Language and information content are easy to understand	0.324	0.67	0.192	-9.69E-02	0.242
When any problem occurs, the bank provides accurate and immediate information to solve the problem.	0.752	0.387	-2.29E-03	8.19E-02	2.06E-02
Bank is willing to help the customer in providing the solution for problem	0.688	0.234	0.106	0.287	6.38E-03
If any error happen by bank ,they will compensate	0.697	8.10E-02	8.32E-02	0.241	0.177
You can talk to customer service representative by online chat.	0.617	0.243	9.07E-02	0.441	0.276
The confirmation of service ordered is provided by website	0.672	-3.65E-02	0.161	0.375	0.276
The bank website performs the service, right the first time.	0.729	0.122	0.392	-3.35E-02	-5.68E-02
Quick confirmation is provided by bank website	0.748	0.359	0.103	-0.151	-0.157
Bank carefully collect the personal information	0.379	0.291	0.242	0.43	-0.422
Bank website is completely secure for credit card information	0.177	0.281	0.149	0.73	-0.131
You can rely on bank that they don't misuse your personal information	0.149	-2.66E-02	2.75E-02	0.824	7.89E-02

Note: extraction method: Principal component analysis. Rotation method: Varimax with kaiser normalization. a Rotation converged in 17 iterations

Table 12: Naming of factors

Factor No.	Name of dimensions	Item No.	Variables	Factor loading
F1	Responsiveness	12	When any problem occurs, the bank provides accurate and immediate information to solve the problem.	0.752
		13	Bank is willing to help the customer in providing the solution for problem	0.688
		14	If any error happen by bank ,they will compensate	0.697
		15	You can talk to customer service representative by online chat.	0.617
		16	The confirmation of service ordered is provided by website	0.672
		17	The bank website performs the service, right the first time.	0.729
		18	Quick confirmation is provided by bank website	0.748
F2	Reliability	8	Bank website do not freeze after you put in all the information	0.700
		9	Web Pages download quickly	0.735
		10	Information provided on website is accurate.	0.880
F3	Efficiency	11	Language and information content are easy to understand	0.670
		1	The speed of login of your account is fast.	0.791
		2	Is it easy to find all information from website	0.730
		5	The speed of logout/signoff is fast	0.514
F4	Privacy of information	6	You can rely on bank web pages functioning properly	0.587
		7	Bank website is running all the time.	0.673
		19	Bank carefully collect the personal information	0.430
		20	Bank website is completely secure for credit card information	0.730
F5	Easiness to use	21	You can rely on bank that they don't misuse your personal information	0.824
		3	The bank site is easy to navigate and simple to use	0.562
		4	The policy and notice statement are easy to find on website	0.495

Table 13: ANOVA and F-test between age and factors

SOV	Sum of squares	df	Mean square	F	Sig.
Responsiveness	0.656	3	0.219	0.873	0.458
Reliability	2.648	3	0.883	2.034	0.114
Efficiency	8.790	3	2.930	9.927	0.000
Privacy of information	11.210	3	3.737	10.723	0.000
Easiness to use	1.439	3	0.480	1.355	0.261

website and privacy of information as compared to customers of age groups of less than 30 years and above 50 years.

Comparative customer's profession-wise analysis: Table 14 indicate hypothesis (5) is completely accepted.

Thus it can be said that all the factors determining the satisfaction level of customers are independent of profession.

Comparative gender-wise analysis: According to Table 15, hypothesis (6) is partially rejected. Thus, it can be said that all the factors except Easiness to use website, determining the satisfaction level of customers are independent of gender.

Comparative status of usage analysis: Table 16 revealed that hypothesis (7) is also partially rejected. So it can be

Table 13a: Post hoc analysis: Age and efficiency

Dependent variable	(I) age (years)	(J) age (years)	Mean difference (I-J)	Std. error	Sig.	95% Confidence interval	
						Lower bound	Upper bound
Efficiency	Less than 30	31-40	-0.6610	0.1412	0.000	0-.9412	-0.3807
		41-50	-0.5439	0.1439	0.000	-0.8295	-0.2582
		Above 50	-1.0965E-02	0.2810	0.969	-0.5688	0.5468

Note: The mean difference is significant at the 0.05 level

Table 13b: Post hoc analysis: age and privacy of information

Dependent variable	(I) age (years)	(J) age (years)	Mean difference (I-J)	Std. error	Sig.	95% Confidence Interval	
						Lower bound	Upper bound
Privacy of information	Less than 30	31-40	-0.6561	0.1534	0.000	-0.9607	-0.3516
		41-50	-0.7325	0.1564	0.000	-1.0429	-0.4221
		Above 50	-0.2061	0.3053	0.501	-0.8122	0.3999

Note: The mean difference is significant at the .05 level.

Table 14: ANOVA and F-test between customer's profession and factors

SOV	Sum of squares	df	Mean square	F	Sig.
Responsiveness	0.369	2	0.184	0.735	0.482
Reliability	2.256	2	1.128	2.602	0.079
Efficiency	0.598	2	0.299	0.794	0.455
Privacy of information	1.546	2	0.773	1.739	0.181
Easiness to use	3.165E-03	2	1.583E-03	0.004	0.996

Table 15: ANOVA and F-Test between gender and factors

SOV	Sum of squares	df	Mean square	F	Sig.
Responsiveness	2.561E-02	1	2.561E-02	0.102	0.750
Reliability	3.857E-02	1	3.857E-02	0.085	0.771
Efficiency	0.136	1	0.136	0.359	0.550
Privacy of information	5.250E-02	1	5.250E-02	0.115	0.735
Easiness to use	3.150	1	3.150	9.562	0.003

Table 16: ANOVA and F-Test between status of usage and factors

SOV	Sum of squares	df	Mean square	F	Sig.
Responsiveness	0.332	3	0.111	0.436	0.727
Reliability	4.117	3	1.372	3.279	0.24
Efficiency	2.301	3	0.767	2.114	0.103
Privacy of information	2.201	3	0.734	1.659	0.181
Easiness to use	0.658	3	0.219	0.605	0.613

said that all the factors except Reliability of website, determining the satisfaction level of customers are independent of Status of Usage.

Post-hoc analysis (Table 16a) further revealed that satisfaction level of customers who are using the internet banking from last 2 years are more satisfied and influenced by the reliability of bank website.

Comparative status of number of banks usage: Table 17 indicates that hypothesis (8) is again partially rejected. Thus it can be said that all the factors except Responsiveness determining the satisfaction level of customers are independent upon the number of bank usage.

The increasingly competitive environment in the financial services market has resulted in pressure to develop and utilize alternative delivery channels. The most recent delivery channel to be introduced is electronic or online banking. The term electronic banking

is used to describe the provision of information or services by a bank to its customers, the majority of customers are very comfortable and willing to use IB services. Hence, it is very important for Iranian banks to have online banking services. It is well-accepted fact that, providing good customer service will increase the number of adopters after a while.

Several scholars have analyzed the demographic characteristics of IB customers (Pour Mirza *et al.*, 2009) but emphasis has been placed on analyzing behavioral, attitudinal and social characteristics of the bank clients. The empirical findings of the current study show that these characteristics have effective impacts on adoption of IB services. In terms of personal and social characteristics, this study contributes to this purpose, by identifying the Iranian customer's attitude toward IB services.

Finding of demographic characteristics of the research reveals that Reliability and Efficiency are important factors in level of customers' satisfaction and there is a significant relation between these two variables with age and status of usage. This also supports the findings of Ramayah *et al.* (2002) which found that most of the individuals are reluctant to use Internet banking as they concerns over security and privacy issues. This is also supported by the findings of Al-Sabbagh and Molla (2004), who found that perceived security and trust have emerged as the top issues inhibiting Internet banking adoption.

The finding about the impact of age on adoption of online banking services indicates that the effect of age is not prominent. Therefore, age is not a crucial variable for banks that are planning to offer IB services. Gefen and Straub (2003) and Pour Mirza *et al.* (2009) confirm this argument. Moreover (Gefen and Straub, 2000), indicate gender has not been found to have a direct effect on adoption of technology in general, also the results of current study uphold this matter.

Table 16a: Post hoc analysis

Dependent variable	(I) status	(J) status	Mean difference (I-J)	Std.error	Sig.	95% Confidence interval	
						Lower bound	Upper bound
Reliability	2 month	6 months	0.3728	0.2235	0.098	-7.0747E-02	0.8164
		1 year	3.005E-02	0.1865	0.872	-0.3401	0.4002
		2 year	0.7833	0.3341	0.021	.01202	1.4465

Note: The mean difference is significant at the .05 level

Table 17: ANOVA and F-test between number of banks usage and factors

SOV	Sum of squares	df	Mean square	F	Sig.
Responsiveness	1.424	1	1.424	5.998	0.016
Reliability	8.960E-02	1	8.960E-02	0.199	0.657
Efficiency	8.392E-02	1	8.392E-02	0.222	0.639
Privacy of information	0.105	1	0.105	0.232	0.631
Easiness to use	2.821E-03	1	2.821E-03	0.008	0.930

The research show, customers do not trust e-banking for some reasons especially due to lack of the security of the system. Also (Rotchanakitumnuai and Speece, 2003; Pour Mriza *et al.*, 2009) revealed that all the customers are very concerned about security in transaction processes. This results is in consistent with the results, which have been reported earlier by other scholar (Black *et al.*, 2001; Lee and Turban, 2001; Polatoglu and Ekin, 2001; Alam *et al.*, 2007).

Indeed the purpose of this study is to show how the demographic factors are associated with individuals' benefits and costs of adopting Internet banking. This research have a general results for managers and customers, because researcher surveyed the public and private banks of Iran instead of only one bankand therefore can complete other studies of IB in Iran.

CONCLUSION

The present study was aimed to identify the customer preferences towards the online banking and to find out the various service quality dimensions, which affect the customer satisfaction .Factor analysis, reveals that the five factors that influence the satisfaction level of customers are Responsiveness, Reliability, Efficiencyand Privacy of Information and Easiness to use.

Hypothesis testing results show that first null hypothesis (1) is accepted and it can be concluded that there is no significant relation between age and preference of Banks. Twenty seven percent of service class customers and 5% of business class customers have account in SAMAN bank. The 2nd null hypothesis stating that there is no significant relation between profession of customer and preference of banks is also accepted. The third hypothesis, stating that there is no significant relation between genders and number of banks usage is also accepted.

Hypothesis (4) stating that all factors determining the satisfaction level of customers except efficiency and

privacy of information are independent of age is rejected partially. Post-hoc analysis revealed that satisfaction level of customers belonging to age group 31-50 years are effected by efficiency of bank website and privacy of information as compared to customers of age groups of less than 30 years and above 50 years. That mean customers in the middle age group are more concern about the efficiency of bank website and privacy of their personal information. Banks should adopt various tools to improve the efficiency of website.

The 5th hypothesis, factors determining the satisfaction level of customers is independent of profession, is completely accepted. The hypothesis (6) is partially rejected, it can be said that all the factors except Easiness to use website, determining the satisfaction level of customers are independent of gender.

Hypothesis (7) stating that all the factors except Reliability of website, determining the satisfaction level of customers are independent of Status of usage is also partially rejected. Post-hoc analysis further revealed that satisfaction level of customers who are using the internet banking from last 2 years are more satisfied and influenced by the reliability of bank website. That means the customers who are using the internet banking from less than 2 years have not trust on websites and afraid of using internet banking.

The last Hypothesis (8) is again partially rejected. Thus it can be said that all the factors except Responsiveness determining the satisfaction level of customers are independent upon the number of bank usage.

SUGGESTIONS

The website is an important element in a bank's marketing communications activities and giving better customer experience. It is therefore important to use it in an appropriate way and to provide rich contentand to keep it updated to attract and maintain customers. Banks should consider that it is beneficial to spend time on the design because this can help the company attract visitors, which in turn can become customer. Banks should conduct surveys and self assessment tests which should be actually related to the product and service line, which would in turn make the customers more educated about

the companies offerings and this could be done just by starting a blog or chat for the customers. Banks should create platforms wherein customer can be free to express their opinion or give the feedback to the banks. And it is believed that firms who try to create such interaction are considered to be most successful in business. Automated e-mail and instant message should be used more extensively than it is at present. It is essential to assess the effectiveness of a website. By doing this, banks can improve their site and that helps to provide positive web experience to the customer.

Managers must know that ability and opportunity cost of time have significant impacts in explaining consumers' adoption behavior for Internet banking. Also, consumers' benefit and cost associated with attitude should be considered to decide the determinants of Internet banking adoption and attend to consumers' past consumption pattern, current situation and future expectations influenced Internet banking adoption. Although managers must analyzed variables by comparison between individuals' benefit and cost and find out the nature of each variable is based on the past, present and future consumption. Attention to this matter is essential that all of the various financial institutions can have the same functions in the financial market. Therefore, the financial institutions have tried to exert competitive power in the market through various ways such as affiliations with other financial companies, downsizing their physical facilities and expanding their service scope. In this situation, Internet banking has been attractive to the financial sector. Companies can expect to save a lot of the cost of maintaining their large physical distribution systems by adopting Internet banking. Although many financial companies have realized the advantages of Internet banking and launched this service, the companies have not obtained a lot of benefits yet because some consumers have not been ready to adopt Internet banking. Therefore, financial companies need to make an effort to provide information about Internet banking based on accurate customer segmentation. Usage of other banking technologies had a significant impact on Internet banking adoption. This means that customers, who have mainly depended on traditional banking services such as checks, mail and phone, have lower probabilities to adopt Internet banking. Therefore, at first, retailers or marketers in banks and other financial companies should focus on customers who have already used other banking technologies to boost usage of Internet banking. However, if financial companies have not had various banking services, it is difficult to grasp which consumers have experience of other banking technologies. Financial companies need to have various banking services within

a consolidated distribution system to grasp and to meet customers' needs. If a financial company has only a few functions or a small number of distribution channels, the company will find it difficult to survive in the market. Internet banking is growing. Affiliations and business alliances can be an efficient way to increase Internet banking use because marketers or retailers in the financial companies can segment customer groups more accurately based on customers' various use of banking services.

In conclusion, the study shows that Internet Banking is an integral part of web communication and provides a starting point for future studies to explore the issue of web standardization or localization for Unity Internet Banking (UIB) in the world. This research study encourages managers to understand global consumer's perception of Internet Banking and their preference so as to understand the users' psychology and then design UIB to target the global audience.

LIMITATIONS OF THIS STUDY

As only one country has been taken for this study, it is not sure whether the findings will apply to other countries. Due to the limitation of finance and time, a sample of only 300 respondents was taken which may not be representative of the whole population.

SCOPE FOR FURTHER RESEARCH

Rather than offering a complete answer for global Internet Banking strategy, I hope my study opens possibilities for future studies that go beyond description and pursue further to predict global Internet Banking strategies and tactics. In addition, future research can explore the results by considering the standardization of dimensions of Internet Banking for other countries also like Japan, China, Singapore, Malaysia, Dubai, Indian, Australia, Canada, UK, USA, etc. The findings are sure to provide evidence for the robustness of the framework across countries as a basis for future applications.

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