

Customer Satisfaction with Internet Banking: Exploring the Mediating Role of Trust

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Abstract

Banks all over the world have succeeded in promoting new services to its customers. Current customers are tempted to do business online. Traditional branch-based retail banking remains the most widespread method for conducting banking transactions in United Arab Emirates (UAE) as well as any other country. However, Internet technology is rapidly changing the way personal financial services are being designed and delivered. Current customer account relationships are found to be predictive of electronic services use in general. This paper focuses on the use of internet banking and satisfaction by existing banks customers through an investigation of the factors that influence customer's acceptance of Internet banking services. An exploratory study of the customers in six banks is conducted to identify the factors which enhance satisfaction with internet banking services with the help of data reduction technique called Factor Analysis. Further the mediating role of trust in affecting customer satisfaction with internet banking is explored through regression analysis.

Keywords: customer, internet banking, trust, factor analysis, UAE

INTRODUCTION

Rising numbers of financial institutions are introducing and expanding their offerings of electronic banking products. Banks have augmented their distribution networks with transactional websites, which allow customers to open accounts, apply for loans, check balances, transfer funds, and make and receive payment over the Internet. Some institutions view Internet banking as a way to lower costs or to create new revenue streams by attracting additional customers and selling more services to current customers. Other institutions have begun to offer internet banking services as a defensive step out of concern that current customers may switch to another financial institution with more advanced electronic banking services. Internet banking refers to the practice of conducting financial transactions by customers over the Internet through a bank's website (Shao, 2007). Internet banking is gaining growing popularity particularly among retail customers due its 24/7 availability and low transaction costs (Talmor, 1995), and its ability to serve as a convenient alternative channel (Seyal, 2011). The world of banking is moving away from the traditional 'bricks and mortar' approach and is focusing on the potential of online banking (Stehling and Moormann, 2002).

LITERATURE SURVEY

There is need for research to identify the factors that determine acceptance of Internet banking by the users.

It also demonstrates the significant effect of computer self-efficacy on behavioral intention through perceived ease of use, perceived usefulness, and perceived credibility. Traditional branch-based retail banking remains the most widespread method for conducting banking transactions in United Arab Emirates (UAE) as well as any other country. However, Internet technology is rapidly changing the way personal financial services are being designed and delivered. In the UAE banks have tried to introduce internet-based e-banking systems to improve their operations and to reduce costs.

Factors affecting the acceptance of a new IT are likely to vary with the technology, target users, and context (Kim, 2009). Recent research has indicated that "trust" has a striking influence on user willingness to engage in online exchanges of money and personal sensitive information (e.g. Hoffman, 1999; Friedman, 2000). The first dimension of trust, perceived credibility, is the extent to which one partner believes that the other partner has the required expertise to perform the job effectively and reliably (Ganesan, 1994). The second dimension of trust is benevolence, benevolence is rooted in repeated buyer-seller relationships (Ring and Van de Ven, 1992; Zaheer, 1998) Perceived credibility is usually impersonal and relies on reputation, information and economic reasoning (Pavlou, 2001). It is more related to one's judgment on the privacy and security

issues of the internet banking systems. Consequently, perceived credibility is used as a new construct to reflect the security and privacy concerns in the acceptance of Internet banking.

The bank product quality is primarily associated with product variety and diverse features. (Strieter, 1999) noted that one of the most important developments in banking is the increased emphasis on marketing a wide array of financial services. (Dixon, 1999) also argued that the key to getting more customers for the banks through online service is not attraction of the internet itself but the product offered to the customers. This argument was supposed by (Latimore, 2000), who found that 87 percent of internet banking customers want to make a variety of financial transaction at one side (so called “one-stop shopping”), including paying their bills electronically and automatically and viewing their monthly bank statements, and purchasing stocks and insurance. Therefore it could be noted that since the present banking customers, with the advent of the internet technology, can have unlimited access to financial information and enjoy a wider range of choice in selecting competitive products and financial institution than ever before, the subtle “differentiating” quality levels (e.g. diverse features) of bank products and their timely introduction on the marketplace have become a key driving force in attracting new customers and enhancing customer satisfaction (Moles, 2000).

As electronic banking becomes more wide spread, managers of financial institutions need to be able to assess the impact of losing relationships and accounts to aggressive online alternatives. (Kennickell, 1997) examined the determinants of demand for electronic media for financial transactions; they found that the likelihood of using electronic media to obtain banking services rises with higher levels of financial assets and education. Additionally, younger consumers tend to use computers, ATMs, and debit cards more. However, the use of direct deposit rises with age. (Kolodinsky, 2000) also found that age and education had an influence on whether consumers use electronic banking products. However, they conclude that positive attitude toward e-banking services matter more than demographic factors in determining whether such services are used. These items included statements related to perceived use, convenience, relative advantages and risk associated with electronic banking. (Mantel, 2000) investigated the factors that influence consumers' willingness to use electronic bill payment. (Jeevan, 2000) observes that the Internet enables banks to offer low cost, high value added financial services. Banks as well as consumers view the security threat as perhaps the most serious threat. (Denny, 2000) observes that the security of

internet access to client account is the biggest challenge facing banks.

An investigation into the factors affecting the acceptance of E-Banking by clients who have access to the internet and elicit the opinion of non-internet users was done in Jordan (Mansumittrchai, Somkiat; Chiu, Candy, 2012). Technology acceptance model (TAM) and its various adaptations have been studied by (Ihab Ali El-Qireem, 2013). Perceived usefulness, perceived ease of use, self-efficacy, relative advantage and compatibility have been tested in a study conducted in Nairobi County, Kenya (Njuguna,etal, 2012). A Customer Adoption of Internet Banking: in Taiwanese Banking was undertaken and analyzed empirically (Chao Chao Chuang, Fu-Ling, 2012) and a study on perceived barriers towards adoption of internet banking among non-metropolitan internet users was done in Pakistan (Aslam , et all, 2011) . Another study focuses on the adoption of retail internet banking among consumers in the Klang Valley, Malaysia and the impact of demographics factors on such adoption behavior have been done by (Jayaraman, 2012) and (Muzividzi, Mbizi, Mukwazhe, 2103). The rise of low cost online services for individual's research has been done in France (Marceau, Guillaume, 2013).

CONCEPTUAL FRAMEWORK

The conceptual framework adapted for this study seeks to find out the factors responsible for customer satisfaction with internet banking and explores the role of trust as a mediating variable between internet banking and customer satisfaction. The framework postulates the factors under customer satisfaction with internet banking which consist of reliability, efficiency, security, comfort, dependence and confidence. The aim of this study was to examine the impact of trust on these six internet banking service dimensions of customer satisfaction.

Customer Satisfaction

Oliver (1997) explained that customer satisfaction is full meeting of customer expectation of the products and services. If the perceived performance matches or even is beyond customers' expectations of services, they are satisfied. If it does not, they are dissatisfied. Under this theory, consumers form expectations of product performance prior to purchase. These expectations are derived from past experience with the product itself or with similar products, other marketing stimuli, and existing attitudes and confidence felt by the consumer (Moon et al., 2011). The literature has taken two approaches to operationalizing satisfaction. The first sees consumer satisfaction as the transaction-specific evaluation (Høst and Knie-Andersen, 2004). This view

refers to customers' feelings in response to a particular product or service encounter (Bitner and Hubbert, 1994). The other operationalization defines consumer satisfaction and dissatisfaction as cumulative satisfaction. This view is determined by satisfying and dissatisfying with a product or service over time (Zeithaml et al., 1993). In this study, customer satisfaction is understood as an overall customers' actual evaluation of satisfaction and dissatisfaction service encounters with the bank over time (Fornell et al., 1996; Høst and Knie-Andersen, 2004). Previous researchers have identified various factors that determine customer satisfaction in the Islamic banking industry and differences in how consumers perceive services across countries and cultures that cannot be generalized. For example, Levesque and McDougall (1996) highlighted that convenience and competitiveness of the bank were two important factors which were likely to influence the overall satisfaction levels of a customer. In Malaysian Islamic banks, it has been found that fast and efficient service, friendliness of bank personnel, confidentiality, and transaction speed are the key criteria that Malaysian customers have identified concerning their satisfaction with the services of their banks (Amin and Isa, 2008). A study examined how the personality trait need to evaluate moderates the effects benevolence, image and service quality have on customer satisfaction (Hansen, 2008). The banks' ability to deliver these benefits on an on-going basis probably influences the level of customer satisfaction. Therefore, in order to maintain and expand their customer base, it is important for Islamic banks to understand the criteria consumers use to evaluate banking services, and to have a system by which consumer satisfaction are continuously measured and improved.

Trust

Trust is defined as the willingness of a party to be vulnerable to the actions of another party based on the expectation that the trustee will perform a particular action important to the trustor, irrespective of the ability to monitor or control that other party (Mayer et al., 1995). Morgan and Hunt (1994) argue that trust is central to understanding relationship marketing. Trust, together with commitment, distinguishes productive, effective, relational exchanges from those that are unproductive and ineffective. The importance of trust on the internet has been consistently argued (Fang et al., 2011; Kim et al., 2009; Palvia, 2009). Trust is crucial in online transaction processes, given the impersonal nature of the online environment (uncertainty), and the inability to judge product quality prior to purchase (information asymmetry) (Ba, 2001). The survival of internet banking depends on the bank's ability to convince customers to bank online, therefore building

customer trust is vital to internet banking. Customers' trust in internet banking transactions has some unique dimensions: the impersonal nature of the online environment, the extensive use of technology, and the inherent uncertainty of using an open infrastructure for transactions (Yousafzai et al., 2009). Extant research has identified a number of factors leading to customer trust in internet banking, for example, perceived trustworthiness, perceived security, and perceived privacy (Yousafzai et al., 2009). Trust is a dynamic and multi-faceted concept (Dimitriadis et al., 2011).

Next to satisfaction, trust has been brought forward as a precondition for patronage behavior (Pavlou, 2003) and the development of long-term customer relationships (Doney and Cannon, 1997; Papadopoulou et al., 2001; Singh and Sirdeshmukh, 2000). Trust generally decreases the perceived risk of using a service (Garbarino and Johnson, 1999). The role of trust could be even more important in an e-commerce setting, since e-customers do not deal directly with the organization, or its staff (Papadopoulou et al., 2001; Urban et al., 2000). Various relationships have been proposed between trust, satisfaction and loyalty in an online context (Reichheld and Schefer, 2000). In a recent study, for example, Corbitt et al. (2003) suggest a strong positive effect of trust on loyalty to online firms, but theoretical foundations as well as empirical confirmations are lacking (Anderson and Srinivasan, 2003; Grabner-Krauter and Kalusha, 2003).

A commonly used definition of trust is that of Moorman et al. (1992), who define it as the willingness to rely on an exchange partner in whom one has confidence. E-trust will therefore be defined as the degree of confidence customers have in online exchanges, or in the online exchange channel. Electronic exchanges are believed to present numerous risks to customers (Grabner-Krauter and Kalusha, 2003), while trust appears to be especially important for creating loyalty when the perceived level of risk is high (Anderson and Srinivasan, 2003). Purchasing online is considered risky, since customers lack direct contact with the organization, i.e. through sales personnel or the physical store (Reichheld and Schefer, 2000), and have to hand over sensitive information, such as credit card numbers, in order to complete the transaction. The absence of interpersonal interaction also suggests that online trust is mainly cognitive, i.e. based on customers' judgments of the reliability and capabilities of the merchant or the exchange channel, and not affective trust, i.e. founded on a bond among individuals (McAllister, 1995). To date, there is a lack of empirical studies on trust in online exchanges (Grabner-Krauter and Kalusha, 2003), and particularly on the effect of e-trust on

customer behavior. Grabner-Krauter and Kalusha (2003) also point to a lack of studies on the trust in e-tailers, since many past studies have only investigated web site browsing, hypothetical purchasing scenarios, or internet banking. It should be explicitly recognized that there are different types of trust, and a distinction needs to be made between a person's disposition, or propensity to trust, system-based trust and interpersonal trust (Grabner-Krauter and Kalusha, 2003). Dispositional trust plays a particularly important role in the interaction between unfamiliar actors (Bigley and Pearce, 1998) and is therefore essential for the initial use of electronic retailers (Grabner-Krauter and Kalusha, 2003), as well as for purchases of goods and services that score high on credence and experience qualities. System-based trust equals e-trust and deals with customers' trust in purchasing or searching for goods/service information online. Since interpersonal relationships do not describe the interaction between customers and e-tailers well, we prefer the term "e-tailer trust" to describe trust of customers in specific online merchants. There is some evidence supporting a positive relationship between e-tailer trust and e-loyalty, in terms of increased spending (Gefen, 2000), and intentions to purchase (Pavlou, 2003) or repurchase (Pan et al., 2002). Lack of trust is frequently cited as a reason for not purchasing.

Trust and User's Satisfaction With Internet Banking

Customer satisfaction and trust in e-banking services has been considered important theoretical and practical issues (Ala'Eddin and Hasan, 2011; Godwin *et al.*, 2010). Customer's satisfaction is partly a measure of product and service size via online transaction and is seriously affected by lack of trust. Therefore, trust is central to e-banking transaction and of paramount importance in satisfying users need (Crumlish and Malone, 2009). Trust is importantly needed in e-banking services as all transactions are conducted with little or no face to face interaction. Owing to the impending dangers to lack of trust in online transaction, customer knowledge on e-banking services is of great value in conducting e-banking transaction (Alrawahdeh, 2010). Thus Trust in e-banking transaction is very important so as to ensure safe transaction that maximizes user's satisfaction. Concern has grown over lack of trust in e-banking services owing to its enormous potentially risk to users satisfaction (Siam, 2006).

Model Development and Hypotheses

Customer satisfaction is closely related to interpersonal trust (Geyskens et al., 1996) and is considered an antecedent of trust (Garbarino and Johnson, 1999; Selnes, 1998). A positive effect of satisfaction on trust can be expected in the online environment as well,

though empirical research in this domain is scarce. A positive effect of customer satisfaction on trust with respect to the service provider has been demonstrated for the book e-tailing industry (Pavlou, 2003). Satisfaction with a specific application of the system (the e-tailer) will increase confidence in the system as a whole. It is therefore expected that:

For the present study, six e-satisfaction dimensions chosen were reliability, efficiency, comfort, security, dependability and confidence. These dimensions constitute the theoretical basis of this model and are discussed below. The mediating role of trust between customer satisfaction and internet banking is explained. Reliability refers to the ability of one performing the promised service dependably and accurately. Parasuraman et al.'s (1988) SERVQUAL service quality measurements also include reliability. The pursuit of efficiency is a fundamental concern for all businesses, including financial institutions. The common assumption, which underpins much of the efficiency research and discussion, is that increasing efficiency will lead to improved financial performance. Generally, the concept of "efficiency" can be regarded as the relationship between "outputs" of a system and the corresponding "inputs" used in their production. Within the financial efficiency literature, efficiency is treated as a relative measure which reflects the deviations from maximum attainable output for a given level of input (English et al., 1993; Kwan and Eisenbeis, 1992). Comfort is defined as whatever makes life easy (Kolcaba & Kolcaba, 1991). The mainstream approach to producing comfort has come to focus on measuring physiological responses to a set of environmental conditions, which may be adjusted through the tactical application of different technical systems which in this case is the internet. Socio-technical systems approach might argue that "comfort can only be understood through a perspective that accounts for historical, technical and social change" (Wilhite, 2009: 85). Dependability is an assessment of the quality of the integrated processes applied to technology. (Lincoln & Guba, 1985). Confidence estimate that leads to correctness is dependability (Hamlet, 1987). Confidence is something we may have in institutions. Confidence is closer to the notion of legitimacy and as such is something that institutions have to earn and sustain. While a number of authors seek to maintain a theoretical distinction between trust and confidence, in practice the terms are often used interchangeably. Institutional trust is confidence. The literature also notes that due to the inherent intangibility of the services including internet banking and inseparability of the production and marketing functions, sales people, particularly financial advisers, occupy an important

'boundary-spanning' role in the relationship (Bowen and Schneider, 1988). Research also indicates that there are significant differentiations among consumers in terms of their capacity to understand and process information about financial products: age, ethnicity, gender, level of education and social class have all been shown to have an impact on people's confidence in their own ability to make sensible judgments (King, 2003; Waine, 2009; Clark *et al.*, 2008). From the perspective of banks, trust is a key element in development of the relationship between banks and customers (Hoq *et al.*, 2010). Satisfaction is partly a measure of product and service size via online transaction and is seriously affected by lack of trust.

Therefore it is expected that:

- H1: Reliability as a variable of customer satisfaction is dependent on trust for internet banking.
- H2: Efficiency as a variable of customer satisfaction is dependent on trust for internet banking.
- H3: Security as a variable of customer satisfaction is dependent on trust for internet banking.
- H4: Comfort as a variable of customer satisfaction is dependent on trust for internet banking.
- H5: Dependence as a variable of customer satisfaction is dependent on trust for internet banking.
- H6: Confidence as a variable of customer satisfaction is dependent on trust for internet banking.

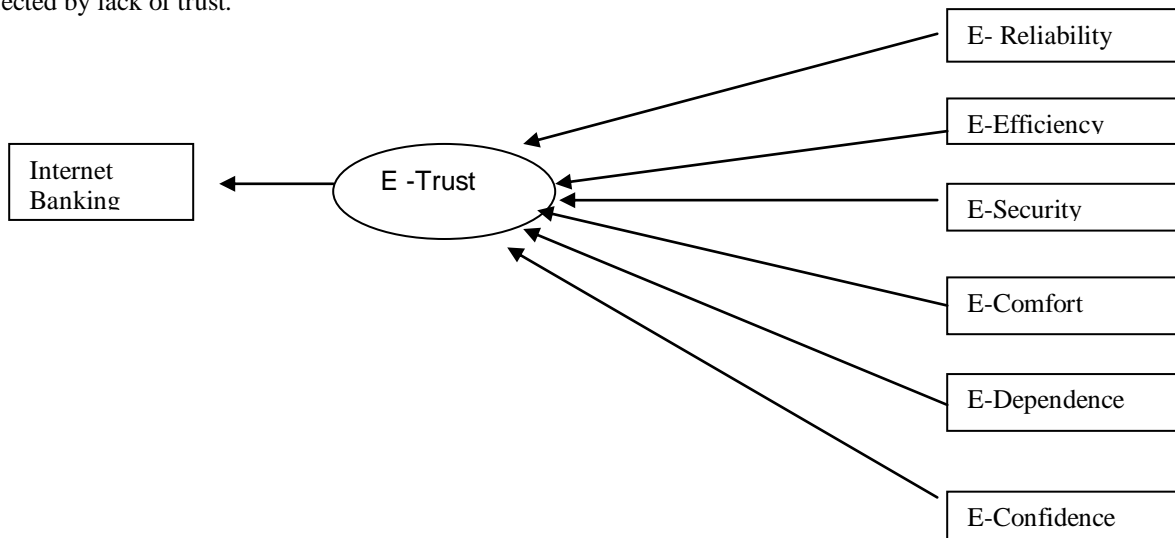


Figure 1: Conceptual framework for study

OBJECTIVE OF THE STUDY & GAPS IN THE RESEARCH

Perceived ease of use and perceived usefulness may not fully reflect the users intention to adopt Internet banking, necessitating a search for additional factors that better predict the acceptance of Internet banking. Recognizing the growing popularity of internet banking, a large number of studies have looked at how various factors influence customers' adoption decisions. Given the evidence of increased adoption of internet banking, it is now appropriate to move beyond adoption factors. Our argument is consistent with the views expressed by Shao (2007), who in a meta-analysis of literature on internet banking, identified the dominance of factor-based research and called for further research to examine post adoption issues associated with internet banking. This is because internet banking has created highly competitive market conditions for bank providers (Beckett *et al.*, 2000) and the changed market conditions demand that banks better understand how best they should use internet banking to support the changing needs of their customers and look into their satisfaction

with internet banking. Thus this research paper tries to fill this gap stated above. On the basis of the reviewed literature the objectives are to identify the various factors which result in customer satisfaction and then explores the mediating role of trust between satisfaction and internet banking.

METHODOLOGY

Sampling and Data Collection

The review of previous literature indicates past study most focused on the Western Internet banking subjects, little research was conducted by scholars for the internet banking adoption in Asian and Middle East customers. Dubai is chosen as the location for this study because Dubai is ranked ahead of other emirates from the perspective of the Internet penetration rate. Because the majority of Internet users in Dubai are students and office workers aged 18 to 50 with a higher education background. They tend to spend more time and have more access to the Internet than other groups, and thus more likely to be Internet banking customers. To examine the factors affecting satisfaction with internet banking service in Dubai, a survey was conducted with

29 variables which will help in enhancing the satisfaction of the customer with usage of internet banking in the UAE. Six UAE banks were chosen where the questionnaire was randomly administered to 492 respondents who were also customers of the bank. Out of 492 questionnaires, 441 were completed questionnaires acquired by means of the convenience sampling method. The banks chosen for the purpose of the study were the ones who have strong retail presence and offer comprehensive range of information to the customer. The survey instrument was a questionnaire based on the preceding literature. To ensure the content validity, almost all of the items on the questionnaire are selected and adapted from previous relevant studies. All items are measured on seven-point Semantic scales as self-reported attitudes. The scales go from extremely satisfied (1) to extremely dissatisfied (7). All data collection procedures are designed to ensure the anonymity. To ensure that the questionnaire reaches the target, a screening question is asked. Only those answering affirmatively proceed to reply to the remaining questions. The responses were transposed from spreadsheet to SPSS where these 29 variables were reduced to six principal components. The six factors were run through regression analysis for assessing on them the impact of trust.

Analysis of the Data

The data was subjected to Principal Component Analysis, a method categorized under the broad area of Factor Analysis. The 29 variables were reduced to six Principal Components through Varimax rotation method. (Table 1)

Factor Analysis is a multivariate statistical procedure primarily used for data reduction and summarisation – large number of correlated variables is reduced to set of independent underlying factors. In our sample the Kaiser- Meyer-Olkin measure of sampling adequacy was .716 which greater than .5. This suggests that the data is adequate for factor analysis.

Principal Component Analysis

Factor 1

The first factor has an Eigen value = 4.61 since this is greater than 1.0, it explains more variance than a single variable, in fact 4.61 times as much. The cumulative percentage of variance is 15.89 % which implies that the six factors extracted account for 15.89 % of total variance (information contained in original 29 variables)

Factor 2

The 2nd factor has an Eigen value =4.22 It is also greater than 1.0 and therefore explains more variance than a single variable. The cumulative percentage of

variance is 30.45 % which implies that that the six factors extracted account for 30.45 % of total variance (information contained in original 29 variables)

Factor 3

The 3rd factor has Eigen value = 3.67 Like the above two factors it is also greater than 1.0 and explains more variance than a single variable. The percent of variance explained = 43.12 % which implies that that the four factors extracted account for 43.12 % of total variance (information contained in original 29 variables)

Factor 4

The 4th factor has Eigen value = 3.40. Like the above three factors it is also greater than 1.0 and explains more variance than a single variable. The percent of variance explained = 54.85 % which implies that that the four factors extracted account for 54.85 % of total variance (information contained in original 29 variables)

Factor 5

The 4th factor has Eigen value = 3.23. Like the above three factors it is also greater than 1.0 and explains more variance than a single variable. The percent of variance explained = 66.01 % which implies that that the four factors extracted account for 66.01 % of total variance (information contained in original 29 variables)

Factor 6

The 4th factor has Eigen value = 2.43. Like the above three factors it is also greater than 1.0 and explains more variance than a single variable. The percent of variance explained = 74.39 % which implies that that the four factors extracted account for 74.39 % of total variance (information contained in original 29 variables). The Eigen values and variance can be seen in table 5.

After extracting the Eigen Values rotation of principal components is done through varimax rotation. After the number of extracted factors is decided upon, the next task is to interpret the name of the factors as shown below. This is done by the process of identifying which factors are associated with which of the original variables. Factor Analysis was used to summarize the 29 “internet usage variables “into smaller sets of linear composites that preserved most of the information in the original data set. The six factors identified were reliability, efficiency, secure transaction, comfort, dependable and confidence (Table 2 and 3). The diagrammatic representation of the factors can be seen in the Scree Plot (Figure1). The component covariance matrix can be seen in table 3. The Eigen values can be seen in table 4.

Table 1: Principal Component Analysis

Variables	F 1	F 2	F 3	F 4	F5	F6
I am satisfied with the information I obtain through internet banking				.118		
I am satisfied with the money transfer through internet banking			-.731			
I am satisfied with the foreign exchange facility through internet banking			.556			
I am satisfied with the millionaire certificates through internet banking			.698			
I am satisfied with the payments through internet banking						.896
I am satisfied with the reputation of internet banking of my bank	.847					
I am satisfied with the value added services provided through internet banking					.126	
I am satisfied with the availability of internet banking					.601	
I am satisfied with the convenience provided by internet banking				.930		
I am satisfied with the accessibility of internet banking						.977
I am satisfied with the time I save through internet transactions	.691					
I am satisfied with the low cost incurred with internet transactions	.868					
I am satisfied with the reliability of internet transactions						.533
I am satisfied with the security of internet transactions		.882				
I am satisfied with the ease of usage with internet banking money	.768					
I am satisfied with the quick processing through internet banking			.809			
I am satisfied with the instant feedback through internet banking		.762				
I am satisfied with the privacy maintained during transactions through the internet.		.196				
I am satisfied with the concept of self-service which internet banking provides.				.921		
I am satisfied with the bank needs through internet banking.		.964				
I am satisfied with the bank information provided through internet banking		.651				
I am satisfied with the loan facility provided through internet banking			.577			
I am satisfied with the responsiveness of the bank through internet banking					.828	
I am satisfied with the flexibility provided through internet banking				.942		
I am satisfied with the timeliness of information through internet banking				.875		
I am satisfied with the trust in financial transaction done through internet banking.						.558
I am satisfied with error free transactions through internet banking	.545					
I am satisfied with the aesthetics of the internet banking environment		.720				
I am satisfied with credit card payments done through internet banking					.545	

Extraction Method: Principal Component Analysis

Rotation Method: Varimax with Kaiser Normalization, Rotation Converged in 12 iterations.

Table 2 Principal Components

Reliability F1	Efficiency F2	Secure Transactions F3	Comfort F4	Dependable F5	Confidence F6
Reputation	Secure	Money Transfer	Information enquiry	Availability	Payment
Timesaving	Instant feedback	Foreign Exchange	Convenience	Reliable	Accessibility
Low cost	Bank needs fulfilled	Millionaire Certificate	Self service	Responsiveness	Trust
Easy to Use	Bank information	Quick	Timeliness	Value Added	
Error in internet	Aesthetic	Apply for loan	Flexibility	Credit Card	
	Privacy				

Table 3: Component Score Covariance Matrix

Component	1	2	3	4	5	6
1	1.000	.000	.000	.000	.000	.000
2	.000	1.000	.000	.000	.000	.000
3	.000	.000	1.000	.000	.000	.000
4	.000	.000	.000	1.000	.000	.000
5	.000	.000	.000	.000	1.000	.000
6	.000	.000	.000	.000	.000	1.000

Table 4: Eigen Values

Component	Initial Eigen Values			Extraction sums of squared loadings		
	Total	% of Variance	Cumulative Percentage	Total	% of variance	Cumulative Percentage
1	4.610	15.898	15.898	4.007	13.818	13.818
2	4.221	14.555	30.453	3.957	13.646	27.464
3	3.676	12.676	43.129	3.578	12.337	39.801
4	3.402	11.730	54.858	3.420	11.795	51.596
5	3.237	11.161	66.019	3.350	11.551	63.147
6	2.430	8.379	74.399	3.263	11.252	74.399

Note: Extraction method principle component analysis

Table 5: Regression Analysis

Independent variables	B	Beta	t-statistic	F	Sig	Conclusion
Constant						
Model 1						
Reliability				76.3		
Hypothesized Relationship H1						
I am satisfied with the reputation of the internet	-.063	-.191	-2.453		.015	Reject H1
I am satisfied with the time saved through internet transactions	-.125	-.305	-5.417		.000	Accept H1
I am satisfied with low cost involved internet banking	-.240	-.451	-7.862		.000	Accept H1
I am satisfied with ease of use of internet banking	-.130	-.128	-2.107		.036	Reject H1
I am satisfied with error free transactions through internet banking.	.161	.561	11.553		.000	Accept H1
R ² = 46.7 % Adjusted R ² = 46.1%						
Model 2						
Efficiency				61.67		
Hypothesized Relationship H2						
I am satisfied with security of internet banking	.013	.028	.389		.698	Reject H2
I am satisfied with the instant feedback through internet banking	-.474	-1.037	-11.938		.000	Accept H2
My bank needs are satisfied through internet banking	-.368	-1.065	-6.219		.000	Accept H2
I am satisfied with the bank information through internet banking	.182	.401	5.023		.000	Accept H2
I am satisfied with privacy provided by internet banking	.011	.011	.299		.765	Reject H2
I am satisfied with the aesthetics of internet banking	.157	.266	2.797		.005	Accept H2
R ² = 46 % Adjusted R ² = 45 %						
Model 3						
Secure transactions				30.3		
Hypothesized Relationship H3						
I am satisfied with money transfer through internet banking	-.150	-.327	-5.791		.000	Accept H3
I am satisfied with foreign exchange facility through internet banking	-.182	-.291	-5.087		.000	Accept H3
I am satisfied with the millionaire certificates through internet banking	-.175	-.316	-5.973		.000	Accept H3
I am satisfied with the quick service provided by internet banking	.043	.112	1.776		.076	Reject H3
I am satisfied with loan provide through internet banking	-.357	-.485	-9.549		.000	Accept H3
R ² = 25 % Adjusted R ² = 25 %						
Model 4						
Comfort				3.69		
Hypothesized Relationship H4						
I am satisfied with the convenience provided by internet banking	.072	.324	2.964		.003	Accept H4
I am satisfied with the self service provided by internet banking	.004	.014	.142		.887	Reject H4
I am satisfied with timeliness of internet banking	-.020	-.071	-.888		.375	Reject H4
I am satisfied with the information enquiry provided by internet banking	-.019	-.048	-1.006		.315	Reject H4
I am satisfied with the flexibility provided by internet banking.	-.089	-.319	-2.921		.004	Accept H4
R ² = 4 % Adjusted R ² = 3%						
Model 5						
Dependence				19.2		
Hypothesized Relationship H5						
I am satisfied with the availability of internet banking	.049	.094	1.583		.114	Reject H5
I am satisfied with the reliability of internet banking	.257	.244	4.239		.000	Accept H5
I am satisfied with responsiveness of internet banking	.214	.353	7.541		.000	Accept H5
I am satisfied with the value added services of internet banking	.045	.038	.864		.388	Reject H5
I am satisfied with the credit card facility provided by internet banking.	-.125	-.166	-2.365		.018	Reject H5
R ² = 18 % Adjusted R ² = 17 %						
Model 6						
Confidence				64.1		
Hypothesized Relationship H6						
I am satisfied with the payment services of internet banking	.044	.081	.832		.406	Reject H6
I am satisfied with the accessibility of internet banking.	.150	.402	4.152		.000	Accept H6
R ² = 22 % Adjusted R ² = 22 %						

Dependent variable: Trust with internet banking.

The table shows the statistical significance significant at $p < 0.05$.

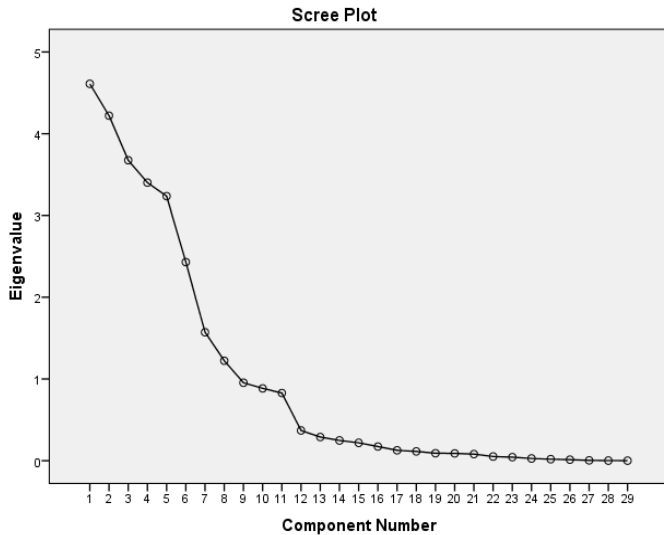


Figure 2 : Scree Plot

Reliability Analysis

Several measures of reliability can be evaluated in order to establish the reliability of a measuring instrument. Reliability is operationalized as internal consistency, which is degree of inter correlations among the items that constitute the scale (Nunnally, 1988). Internal consistency is estimated using a reliability coefficient called Cronbach’s alpha (Cronbach, 1951). In order to assess reliability, the Cronbach alpha was determined for each construct (factor) identified through factor analysis. If the Cronbach alpha is greater than 0.7, the construct is deemed to be reliable. (Teo et al., 1999). All constructs met reliability criteria, as the lowest alpha was .887 for the data. All the values well exceed the obligatory requirement, thereby testifying that all the twenty nine scales are internally consistent.

Regression Model

The next step in the analysis involves accessing the factors that were derived from the factor analysis and putting them through the regression analysis. The dependent variable is trust with internet banking. The six independent variables consist of the six variables derived from the preceding factor analysis, namely reliability, efficiency, security, comfort, dependence and confidence as satisfaction variables with respect to internet banking.

This model has high predictive power with a significant F ratio indicating a good fit of the model and being statistically significant in explaining customers’ satisfaction toward online banking. The Beta’s (standardized coefficient) indicate the relative importance of the independent variables in explaining customers trust with internet banking. For Model 1, H1,

satisfaction with reputation of internet and ease of use are not dependent on trust but satisfaction with variables like low cost of internet, time management and error free transactions the customers have trust in internet banking. The satisfaction with these variables is not dependent on trust. For Model 2, H2, satisfaction with security and privacy with internet banking are not dependent on trust but satisfaction with variables like information needs, most of the bank transactions, the feedback through internet banking and website aesthetics the customers have trust in internet banking. For Model 3, H3, satisfaction with the quick service provided by the internet banking is not dependent on trust but satisfaction with transfer of money, millionaire certificate, foreign exchange and loan are dependent on trust. Model 4, H4, satisfaction with, timeliness, self-service and enquiry information provided by internet banking are not dependent on trust but satisfaction with convenience and flexibility are dependent on trust. This implies that trust is not the anticipated major contributor to satisfaction with internet banking for these variables. Model 5, H5, satisfaction with availability of the internet, value added services and credit card facility are not dependent on trust but satisfaction with responsiveness to needs and reliability of the internet banking services are dependent on trust. Model 6, H6, satisfaction with accessibility of the internet is not dependent on trust but satisfaction with payment through internet banking is dependent on trust. (Table 5) **“Insert table 5”**

CONCLUSION

The objective of the present study was to investigate the role of customer satisfaction with internet banking and specifically the mediating role of trust between customer satisfaction and internet banking were modelled. Data was collected in an e-commerce setting and used to validate the developed model. As expected, customer satisfaction with internet banking was depicted with six factors reliability, efficiency, comfort, security, dependability and confidence. While certain variables under these six factors of satisfaction are dependent on trust while other are not,

MANAGERIAL IMPLICATIONS

In the present study, trust does not appear to play the imperative role suggested by many authors. Still, a significant positive effect of trust on many satisfaction variables is demonstrated, From a managerial point of view, trust is very difficult to influence or control directly, since it results from multiple interactions with multiple online service providers, brand effects and personality attributes such as technology readiness. In an electronic environment, satisfaction with service, can be directly and exclusively controlled by the service

provider. Trust can effectively be inspired by providing a safe, reassuring and reliable web site. Organizations can therefore increase customer satisfaction indirectly by improving the reliability dimension of their web site, by improving their efficiency (e.g. through extensive quality control), or by transferring brand equity built offline. Trust, which contribute considerably to satisfaction can be increased substantially by providing an attractive user interface with security measures which are easy to use.

LIMITATIONS AND SUGGESTIONS FOR FURTHER RESEARCH

Several limitations are related to the sample and the research design. Although the sample in the present study appeared homogeneous in many respects, more demographic information could also be gathered about the respondents, to allow segmentation. The sample was fairly small, and to obtain more reliable estimates it is recommended to replicate the study on a larger scale. Furthermore, a more representative sample selection will increase the validity of the study. Due to a mixed sample of students and academics, the generalizability to a larger population is limited, since both groups are very familiar with the internet and have a high technology readiness (Parasuraman, 2000). A customer looks for satisfaction from internet in services on a number of parameters as derived from the findings above. Thus the bank has to embark upon a strategy to look into the customer needs with different occupations and educational backgrounds with respect to internet banking. Further research into this can give better insights to improve satisfaction with this service in the future.

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