Investigating the Determinants of e-Banking Loyalty for Large Business Customers: Two Empirical Models

A. Fragata and E. Moustakas

***Abstract*—The current research paper proposes two models for the determinants of E-banking Loyalty for large business customers. The results demonstrated that five main quality dimensions were identified for the e-banking portals: assurance, reliability, convenience and quality monitoring by the financial director of the company. The results also confirm that e-banking quality has a strong impact on e-banking loyalty via the mediating effect of e-trust and switching costs have strong a impact on e-banking loyalty. Further our findings also suggest that interpersonal relationships generated between the bank manager and the decision maker of the company have a strong impact on the perceptions of service quality in online banking, and will also affect positively E-Banking Loyalty.**

***Index Terms*—Banking, e-loyalty, e-banking quality.**

I. Introduction

A large number of research studies have focused on analysing the determinants of bank loyalty in retail banking. However, there is limited research related to investigation of loyalty determinants in business banking in online environments, especially for medium/large banking customers. The current research investigates the main determinants of e-banking loyalty for this important and profitable bank segment in Portugal. Despite the low percentage of large companies in Portugal these organisations are generating a large percentage of the national turnover in the country. Also an important issue is that substantial differences exist between how the banks interact with SMEs and large organisations. The high competence and the specified advanced needs of the larger companies characterize the exchange with banks. The movement of customers from traditional branch banking to stand-alone forms of banking via the internet, telephone and mobile devices means a shift from personal relationships and face-to-face contacts to faceless digital relationships. The high cost of acquiring new e-customers can lead to unprofitable customer relationships for the first three years. As a consequence, it is critical for online companies to create a customer loyal base, as well as to monitor the profitability of each segment. Despite the growth of internet banking, many investigations also demonstrated that corporate banking customers still prefer personal relationships as the principal means of communication and exchange between bank and client firm.

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II. Literature Review

The most important step in providing a sophisticated level of service through e-banking portals is to identify and measure the dimensions of portal quality. A major determinant of e-banking loyalty is the perception of service provided by the website of the bank. E-banking Service Quality is defined as the overall customer evaluations and judgments regarding the excellence and quality that influences consumption decisions in the context of electronic banking [1]. For this study we considered seven e-banking quality dimensions for the business customers. These dimensions will be briefly discussed:

1) *Product variety.* Online customers are more inclined to patronize firms which offer a substantial variety of services. The primary reason for this choice is that it is more likely that their diverse needs can be fulfilled [2].
2) *Assurance.* It is defined as the customer's perceived security and privacy when using the e-tailers services. Security concerns the risk of third parties obtaining critical information about the customer, whereas privacy relates to the concern about the potential misuse of personal information by marketers [3].
3) *Responsiveness.* Is defined as the speed, timeliness, and convenience of service delivery [1]; Customers expect online banks to respond to their inquires promptly [4].
4) *Accuracy.* Means operational precision [4], making the content and the interface of the bank's web site, and online transactions free of error [1].
5) *Reliability.* It is the ability of the Internet bank to perform the promised service dependably and accurately [1], and the ability of the web site to fulfil orders correctly, deliver promptly and keep personal information secures [5].
6) *Convenience*. Since individuals can use e-banking over the Internet at any time in any properly equipped location, the quality attribute of time and location convenience is likely to be significant in differentiating it from traditional retail banking [4].
7) *Overall E-banking Quality*. Evaluation for the overall quality of the main online bank used by the decision maker of the company.

Trust has been identified as key to e-commerce, because it is crucial wherever risk, uncertainty and interdependence exist. Customers are reluctant to adopt e-banking because of security and privacy concerns and trust related issues. Thus, the lack of customers trust both in the attributes of the bank

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and in the overall on-line environment has been and remains an obstacle in the widespread adoption of e-banking [6]. Lowering perceived risks associated with online transactions as well as maintaining transaction trust is vital keys to attracting and retaining customers [7]. The quality elements of the e-service are expected to affect e-trust directly [8], because they represent trust cues that convey the trustworthiness of the site and the system to customers [9].The authors in [10] found that trust, habit and reputation have a significant influence on customer loyalty towards individual Internet banking websites, and in an investigation by [11] service quality, e-satisfaction, and e-trust have a strong direct effect on e-loyalty. The authors in [12] also investigated trust and switching costs as a way to build e-loyalty in Internet markets. The authors in [2] investigated the moderating effects of switching costs on customer loyalty through both satisfaction and perceived-value measures. The results, evoked from a Web-based survey of online service users, indicate that companies that strive for customer loyalty should focus primarily on satisfaction and perceived value. The moderating effects of switching costs on the association of customer loyalty and customer satisfaction and perceived value are significant only when the level of customer satisfaction or perceived value is above average.

Despite the growth of internet banking, the bank branch has been enjoying resurgence in popularity, in a study developed by [13]. For three key products, online high interest savings accounts, personal loans and credit cards, branches surged ahead of the internet as a favored channel for acquisition. Branches also saw an increase in frequency of visits by consumers. In a study conducted by [11], the key finding were that customers both small and bigger companies, place greater importance on personalized interaction than any form of technological interaction. They also found that business banking customers place greater importance on personal and face-to-face interaction as they become more satisfied with e-mail communication. There still remains a strong inclination in business banking towards the use of the personal relationship between the banker and company client as the principal vehicle of exchange. In a research conducted by [13] they concluded that corporate customers feel internet banking is a good channel to interact with the bank faster, however, the web-based services contribute only a small part of overall relationship strength. Corporate customers do not seem to see the web as a channel to replace traditional relationships, but rather as a way to supplement and enhance the relationships. They also concluded that for these customers, it is important that bank managers modify their standard business plans away from stand-alone interpersonal or online channels, if they seek loyalty and stronger usage of the Internet. In an investigation in electronic banking conducted by [6] it was suggested that the presence of a physical branch and the brand name are important for the trustworthiness in the online banking. Previous investigations emphasize the idea that the personal contact is the preferable mean of contact for business customers, thus the relation between the bank staff and the decision maker of the company can affect the perceptions of the quality of the bank web site and e-loyalty.

According to what was discussed above, we propose two complementary models (Model A and B) for the determination of E-banking Loyalty, as a way to supplement and enhance the relationships in online banking, with the following hypothesis:

HA_1: E-Banking Service Quality perceptions have an indirect and positive effect on E-Banking Loyalty via the mediating effect of E-Banking Trust.

HA_2: Perceived switching costs have a direct and positive effect on E-Banking Loyalty.

HB: Interpersonal relationships in traditional banking have an indirect and positive effect on E-Banking Loyalty via the mediating effect of E-Banking Service Quality.

III. Methodology

The research included qualitative interviews with decision makers of five large companies in Portugal. The proposed model was tested with the use of a questionnaire which was given to medium-large corporate customers of the main Portuguese banks. We randomly selected organisations between the 220 major companies in Portugal, mailed the questionnaire and received 72 valid responses. The sample was randomly selected from the database of Dun & Bradstreet and it is representative of the medium/large companies in Portugal. In our sample work, 60% of the companies have more than 250 employees while 80% have over 50 million euro annual turnover. The 7-point Lickert scale was used to measure all items. Empirically validated scales were adapted to the context of the study and used to measure the respective constructs. The empirical validation of the measurement models were performed by exploratory and confirmatory factor analysis as well as reliability analysis. In addition to Cronbach ́s Alpha, the local fit indices – indicator reliability, variance extracted, factor reliability and total variance explained – were employed to test the validity of the obtained factor. We also tested the composite reliability, the variance extracted and discriminant validity for each construct. After this analysis, we estimated the final structural models with Amos 19.0.

IV. Findings

The current research proved that companies have split bank arrangements, with 42, 9% working with more than 4 online banks. We found that the larger the size of the corporate segment, the greater the number of banks used, with the larger companies using the services of four or more banks on average as we can see in fig. 1. Same results were obtained in a research study which was conducted by [14] with data from Portugal, where the average number of banks was 1.4 for very small firms (with less than 10 employees) and 5 for those with over 200 employees. Most of the latter borrowed from 4 banks. Although most of the responding companies use the services of four or more banks, strong loyalty existed between organisations and their lead commercial bank, as discussed in the previous study conducted by [15]. The data also showed that 50% have been working with the main online bank between from 4 to 6 years, strong loyalty exists between companies and their lead commercial online bank.

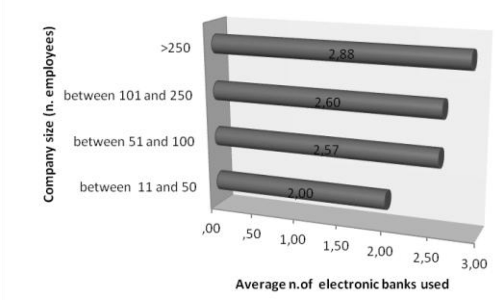

Fig. 1. Average number of online banks according to firm size.

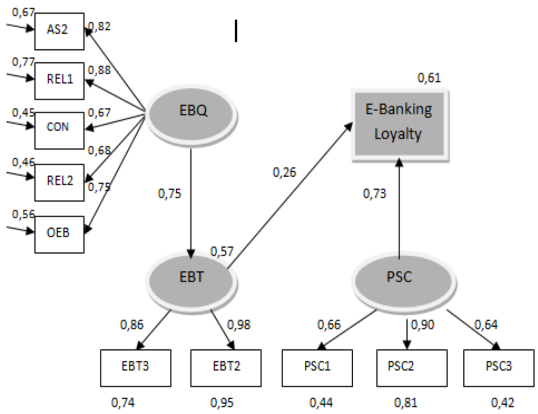

Fig. 2. Structural equation model A.

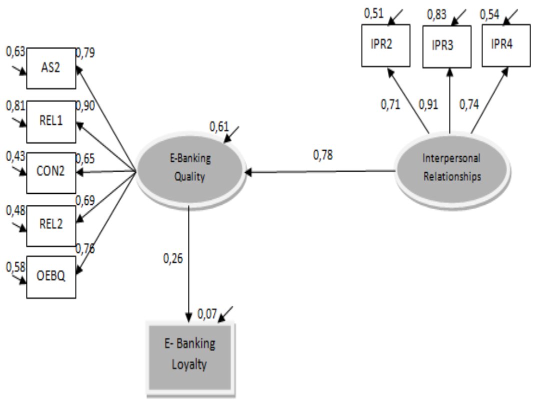

Fig. 3. Structural equation model B.

In Fig. 2 and Fig. 3 we present the final structural models with the accepted hypothesis, in tables I and II the results of the exploratory and confirmatory analysis and in tables III and IV the tests results on convergent and discriminant validity for the two models. In Model A, five items were reduced from the original 15 items to measure E-Banking Quality for the business banking clients. They include Assurance (AS1), Reliability (REL1 and REL 2), Convenience (CON 2) and Overall E-Banking Quality. The results confirm that E-Banking Service Quality (EBQ) has a strong impact on E-Banking Loyalty trough the mediating effect of E-Trust, thus confirming the proposed hypothesis HA1. The quality of the bank's website has a strong factor in the perceptions of trustworthiness, the performance of the online bank in terms of dependably, accuracy, fulfill orders correctly, and the security and privacy concerns have strong impact in assuring E- Banking Trust. We also found a strong impact of 0, 73 in the relation between Perceived Switching Costs and E-Loyalty.

For Model B the results indicate that Interpersonal Relationships have a positive and direct effect on the perception of E-Banking Service Quality, and that Interpersonal Relationships also have an indirect and positive effect on E-banking Loyalty trough E-Banking Service Quality, with a total effect of 0,203.The correlation between the two constructs Interpersonal Relationships and E-Banking Service Quality is high (0,779) consistent with the proposed hypothesis.

TABLE I: EXPLORATORY ANALYSIS

Models	Constructs	Item	Indicator Reliability	Total Explained Variance	Cronbach Alpha
Model A	Perceived Switching Costs	PSC1	0,808	68,90%	0,77
		PSC2	0,882		
		PSC3	0,798		
	E-Banking Service Quality	AS2	0,76	66,32%	0,86
		REL1	0,9		
		CON2	0,67		
		REL2	0,71		
		OEBQ	0,77		
	E-banking Trust	Etrust2	0,959	92%	
		Etrust3	0,959		
Model B	Interpersonal relationships	IPR2	0,826	73,70%	0,82
		IPR3	0,916		
		IPR4	0,831		
	E-Banking Service Quality	AS2	0,76	66,32%	0,869
		REL1	0,9		
		CON2	0,67		
		REL2	0,71		
		OEBQ	0,77		

It has been shown in previous studies that customers are more likely to become loyal if they develop a personal relationship with a contact employee, in a context of the traditional banking. Our findings suggest that the relationships generated between the decision maker of the company and the manager of the bank is an important antecedent of the perception of the E-Banking Service Quality and an important driver of E- banking loyalty.

Corporate customers embrace a wide range of communication interfaces (both personal and online), and it ́s important to develop a strategy which plans an appropriate balance between personal and remote interaction to this segment.

Customer-bank relationships cannot be ignored when implementing Internet Banking. Banks have to work on other relationship elements simultaneously to develop ways to explicitly get customers to perceive high switching costs. This investigation also revealed that besides the fact that business customers proactively adopt technological channels, such technologies provide a useful complement rather than a replacement for traditional personalized interactions.

TABLE II: CONFIRMATORY ANALYSIS

Models	Constructs	Composite Reliability	Variance Extracted	Global Fit
Model A	Perceived Switching Costs	0,89	0,7	X^2= 58 *df*=42 CFI = 0,959 RMSEA = 0,072 TLI =0,946 GFI =0,876 AGFI =0,806
	E-Banking Service Quality	0,88	0,59	
	E-banking Trust	0,96	0,92	
Model B	Interpersonal relationships	0,83	0,63	X^2= 36,8 *df* =26 CFI =0,964 RMSEA = 0,077 TLI =0,95 GFI = 0,906 AGFI = 0,838
	E-Banking Service Quality	0,88	0,59	

TABLE III: TESTS RESULTS ON CONVERGENT AND DISCRIMINANT VALIDITY FOR MODEL A

Constructs	E-Banking Trust	E-Banking Service Quality	PSC
E-Banking Trust	0,92[a]		
E-Banking Service Quality	0,57[b]	0,59 [a]	
PSC	0,01[b]	-	0,70 [a]

a. The diagonal entries represent the average variance extracted by the construct.
b. The off diagonal entries represent the squared correlations between the constructs.

TABLE IV: TESTS RESULTS ON CONVERGENT AND DISCRIMINANT VALIDITY FOR MODEL B

Constructs	Interpersonal Relationships	E-Banking Service Quality
Interpersonal Relationships	0,63[a]	
E-Banking Service Quality	0,59[b]	0,59[a]

V. CONCLUSIONS

The business customers in our sample also chose to maintain multiple relations with several banks. This means that competition in this segment is fierce and banks have built aggressive strategies to retain their big volume customers.

The results in our data suggest that the quality perceptions of the online bank seem extremely important in e-trust building. The preeminent importance of e-trust can be explained by both the core products of the financial industry, which can be seen as the transmission and processing of highly confidential information , and trust in the medium as such, which again stands for the banks capability to securely transfer and store confidential personal information. Thus the banks must build high quality websites in order to signal competence and trustworthiness to its business customers. The privacy and policy must be presented as manner that is obvious, accessible. Our findings suggest that switching costs have a strong impact in creating retention in the banking online environment and manage to obtain substantial benefits by holding most of their banking business with one bank. Switching barriers make it costly for the customer to switch to another supplier, the implication for this preposition is a positive relationship between switching costs and customer loyalty, therefore an increase in switching costs will lead to an increase in loyalty.

The relationship between the bank and their corporate customer is based on the exchange of financial service and resources in the traditional bank branch and in the online environment. Banking is characterized by interaction between the parties and proceeds by a series of commercial transactions contained in the dimensions above exchange of information, social exchange and by technical or organizational adjustments of responsibilities and routines.

A transaction between two organizations will influence the next transaction between them and create obligations, expectations and interpersonal involvement. The parties may have a long-term relationship which constitutes a framework in which further transactions and activities are carried out. This long –term relationship can be seen as being constituted by a number of ties or bonds between the bank and the customer. It has been shown in previous studies that customers are more likely to become loyal if they develop a personal relationship with a contact employee, in a context of the traditional banking. In previous studies in corporate banking it also was found that this segment also still prefer personal relationships as the principal means of communication and exchange between the bank and client firm [16]. Although most of the studies analysed small companies that are more dependant and desire closer, more socially based relationships with their banks.

In fact, despite a drive towards automation of service delivery, branch reorganization and sophisticated technological linkages between banks and companies, a majority of both bank managers and their corporate customers continues to believe the “old-fashioned” human relationship between bank manager and corporate financial officer should be the natural fulcrum of interaction [16].

The same conclusion was obtained in the study conducted by [17], they demonstrated that personal interaction/face-to-face interaction is more important to small/medium and large companies than technological means.

The authors in [18] also argued that customer-bank relationships cannot be ignored when implementing Internet Banking. Banks have to work on other relationship elements simultaneously to develop ways to explicitly get customers to perceive high switching costs. Our findings suggest that the relationships generated between the decision maker of the company and the manager of the bank is an important antecedent of the perception of the E-Banking Service Quality and an important driver of E-Loyalty. This means that the more the relations between the bank managers and the decision makers of the company are satisfactory one ́s, the more they will have a positive evaluation of the quality of the bank website, and then be more loyal to this channel.

Regarding the study of [17], they refuted the initial theory that there is a negative correlation between personal interaction and the technological interaction channels. They found that the importance of personal interaction and the importance of face-to-face interaction both increase as the level of satisfaction with e-mail communications increases

Further, our findings suggest that other elements of the relation have to be worked simultaneously, in order to develop E-Banking Loyalty.

In fact we found that quality perceptions of the bank in traditional face-to-face transactions have a major impact on the perceptions of quality in an online environment and thus create retention.

The notion that technological channels might go some way replace the need for personal channels in business banking is wrong, by the evidence in this study.

Technology should provide a useful complement, rather than a replacement for the traditional personalized interaction.

It´s important that bank marketers plan to integrate both the traditional and the web channel, providing a good service with a range of supporting services trough many channels, for instance, a good back up call service online and after transaction.

Bank managers should identify the perfect allocation between face-to-face contact in traditional banking and online banking when dealing with business clients and provide a simultaneously strategy for both channels since they have a greater influence in each other.

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