MANAGERIAL GAPS IN E-BANKING QUALITY DRIVERS: AN EMPIRICAL ASSESSMENT

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ABSTRACT

Providing quality service to the customer is a main issue for e-banking. The extant literature on e-services has preferentially examined quality factors as perceived by customers. On the other hand, quality depends on the managerial perceptions about quality drivers and the decisions that would follow from these perceptions. According to SERVQUAL - the most known service quality model - any gaps between management's and customers' perceptions would affect the experienced quality drivers for e-banking through a preliminary empirical survey.

Keywords

Electronic Banking, Internet, Quality, Quality Gaps

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INTRODUCTION

E-banking can be defined as the delivery of financial services through electronic means and networks (Rust, Kannan, 2003), including the Internet (Bradley, Stewart, 2002). Strictly speaking, electronic banking can include other remote distribution channels, such as television (Daniel, 1999), but the Internet is the most relevant and interesting case. Acceptance of e-banking is much faster than previous technologies, such as ATM (Bradley, Stewart, 2002). The benefits brought by e-banking to banks are numerous: reduced operational costs, mass customization, reputational advantages, enhancement of marketing activities, attraction and retention of customers (Bradley, Stewart, 2002). Benefits are relevant for customers too; technology can improve the quality of services delivered to customers: customization/flexibility, service recovery, spontaneous delight (Bitner, Brown, Meuter, 2000).

For the success of any e-banking project, management should focus on service quality design and delivery to customers. Quality (and the resulting satisfaction) derives from a comparison between what the e-company delivers on one hand and the perceptions of the customer on the other. The extant literature has extensively dealt with the latter, which is the system of drivers of e-service quality as assessed by customers. Less attention has been spent studying management perceptions of what is relevant in e-banking quality. This paper aims to fill this gap, by addressing the factors that are perceived by bank managers as being more relevant for e-banking quality.

QUALITY IN E-SERVICES AND E-BANKING

The literature has developed various models of web quality (Bauer et al., 2006; Loiacono et al.; Yoo, Donthu, 2001). This current literature has focused mainly on customer perceptions of quality. However, as the service management literature shows, quality is a twofold phenomenon: on one hand there is the perception by the customer, on the other hand there is the design and delivery of the service by the company. Quality as experienced by customers emerges from the appreciation by the customer herself of the quality delivered by the organization and received by the client. A key and consolidated model of service quality is SERVQUAL (Parasuraman, Zeithaml, Berry, 1998). According to SERVQUAL, five factors are generally considered by subjects in their assessment of service quality: tangibles, reliability, responsiveness, assurance, and empathy. Although some authors (Cronin, Taylor, 1992) would challenge the paradigm of the disconfirmation-based model of SERVQUAL, the comparison between delivered quality and customer expectations is a widespread and well consolidated tenet of service marketing literature (Joseph *et al.*, 1999).

E-banking quality has not been extensively investigated (Jun, Cai, 2001). Like any other technologies, e-banking is adopted by the customers following the guidelines of the Technology Adoption Model (TAM) (Davis, 1989). However, e-banking shows a peculiar relevance of trust. Safety is a requirement for any Internet experience, since risks are many, such as privacy violations, fraud, software viruses. E-banking presents all these aspects, magnified by the fact that what money is at stake is the customer's money. The literature that focuses on ebanking adoption adds trust as a further dimension to the ease of use and usefulness devised by TAM. In their study, Eriksson et al. (2005) include trust, measured as reliability and integrity of the bank. In their empirical model, trust is an antecedent of ease of use and usefulness. Reliability, safety, and privacy are considered by Polagotlu and Ekin (2001). Sathye (1999) discovers that security concerns are the main factor in explaining the adoption propensity of Australian customers. Jun and Cai (2001) consider security among other 13 quality factors. According to them, two dimensions form the construct of security: privacy and safety of transactions. Joseph et al. (1999) identify six dimensions of e-banking quality: convenience, feedback, efficiency, queue management, accessibility, and customization. Among them, customization and queue management score substantially below the overall average of importance for the customer, showing a moderate relevance as compared to the other factors. On the contrary, convenience/accuracy and accessibility are above the average. Jun and Cai (2001) discover 17 dimensions of e-banking service quality, divided into 3 broad categories: customer service quality, online system quality and banking service product quality. The 10 dimensions that form customer service quality confirm the five SERVQUAL factors and add two new variables, namely collaboration with the customer and continuous improvement. Access (another factor of customer service quality) gains a peculiar relevance for Internet banking compared to the general SERVQUAL model. Clients seem to prefer email to other means of communication when they use e-banking. Customers want quick replies to their requests and enquiries. A second aspect related to access is the integration between ATMs and the Internet. Customers who are abroad may encounter difficulties in getting cash, since the ATMs of the home bank may be not available. The factors that form the online system quality according to Jun and Cai (2001) are six fold: content, ease of use, accuracy, timeliness, aesthetics, and security. The research by Jun and Cai (2001) adds to the current literature aesthetics as a relevant dimension. Finally, banking service product quality includes one factor referring to the variety of financial products and their features. A bank cannot compensate a weak financial offer with a sophisticated electronic system.

E-BANKING QUALITY DRIVERS IN THE MANAGEMENT PERSPECTIVE

Moving from customers to banks, the literature has mainly focused on the innovation diffusion of e-banking among banks (Bradley and Stewart, 2001). Daniel (1999) studies the adoption drivers of e-banking by British banks whereas Bradley and Stewart (2001) researched the inhibitors of such adoption. The academic literature is less focused on how to design and deliver actual e-banking offerings. There is little research on the perception held by bank managers about how to deliver an e-banking service of high quality.

In order to empirically study the management approach, we consider together the gaps model by Zeithaml *et al.* (2002) and the e-banking quality factors devised by the literature. The gaps model provides a general frame where the variables of e-quality can be allocated. SERVQUAL has been refined to be applied to the virtual environment (Zeithaml et al., 2002). The model eventually developed is an e-Service Quality (e-SQ) model. E-SQ is based on the gaps paradigm that is at the foundations of service quality. These gaps are adapted to the peculiarities of websites.

E-SQ pinpoints three gaps that management should avoid:

- Information gap. This gap represents the lack of correct understanding by the management about what the customers wish to have in the website. One of the risks, for instance, might be that management overestimates the technological elements of the website. This is the most relevant gap and it is at the root of the other ones.

- Design gap. Even though the management understands the clients' desires for a website, the actual design and operation of the website can diverge from what is required to satisfy clients.

- Communication gap. This gap occurs when the marketing department does not understand the characteristics of a website and its limitations. An example of this gap is the case of a promise given on the website that the company cannot comply with.

The mentioned three gaps – and their possible combinations – determine a resulting inclusive gap: the fulfillment gap. That gap is the overall divergence between what is required by customers and what is actually delivered by the website. This gap determines a low perceived quality and thus dissatisfaction.

E-SQ would suggest four dimensions that management may address to reduce the gaps: efficiency, fulfillment, system availability, and privacy.

Each of the three gaps has corresponding variables in the literature on e-banking quality. Table 1 shows the items that can be used in the empirical research, grouped into the three gaps. For each item, the corresponding variable in banking e-quality are shown in parentheses. In the last row there is a list of other strategic factors drawn from a

previous study by Shah, Braganza and Morabito (2006). Their study focused on the key success factors for e-banking.

Inform	ation gap	
\checkmark	Gathering information about customers' online purchasing behavior	
\checkmark	Gathering useful information about customers	
Design	gap	
\checkmark	User-friendly and attractive web site	
\checkmark	Secure web site and other related systems	
\checkmark	24h/365 days availability of service	
\checkmark	Fast responsive customer service (better that usual)	
\checkmark	Rapid delivery of products/services (quicker than usual)	
Commu	inication gap	
\checkmark	Web-specific marketing	
\checkmark	Personalizing products/services/ advertisements	
Other f	actors relevant to e-banking	
\checkmark	Increasing revenues from electronic channels	
\checkmark	Changeable (flexible) organizational structure	
\checkmark	Expansion of current markets	
\checkmark	Fast responsive and integrated business processes	
\checkmark	Availability of human/financial resources	
\checkmark	Support for e-commerce from top management	
\checkmark	Offering incentives to customers to conduct business on Internet	
\checkmark	Selecting software systems from a single vendor	
\checkmark	Integration of information systems	
\checkmark	Flexible workforce ready to adapt to new business models	
\checkmark	Promotion of electronic commerce culture in the organization	
\checkmark	Selecting and mixing best software products from different vendors	

 Table I: Quality Gaps applied to e-banking

The research is aimed at exploring which gap is considered more relevant by managers when e-banking is concerned.

METHOD

In order to get preliminary findings and to fine tune the theory, we draw our current data from the previous study conducted by Shah, Braganza and Morabito (2007). In that study the authors conducted a postal survey among U.K. financial institutions. The sample included medium and large organizations (more than 100 employees) listed in "The Euromoney Bank Register". The questionnaire was targeted at senior Information Technology managers, since they represent the more informed and competent figures in an organization to handle e-banking; E-banking is their responsibility. The questions asked in the survey referred to the relative importance of items of e-banking. Out of the 510 questionnaires sent, 114 were returned (22%). The return rate is in line with other similar research in the U.K. Finally 77 questionnaires were considered viable for the research. The fairly high rate of non-usable responses could be due to the lack of any e-banking from some surveyed organizations. This would confirm the validity of excluding smaller organizations as they would be even more unlikely to initiate e-banking projects.

FINDINGS AND DISCUSSIONS

We now proceed to a factor analysis of the variables. The results are in the following tables:

	Components					
Variables	1	2	3	4	5	6
Gathering information about customers' online purchasing behaviour	159	.194	.183	.640	315	.266
Increasing revenues from electronic channels	.495	-3.294E-02	-3.968E-02	.454	108	-4.115E-02
Flexible organisationnel structures	.231	.583	.196	.314	218	147
Web-specific marketing	.237	.149	.152	.732	.206	.112

Expansion of current	.698	.293	.260	-4.187E-02	1.126E-02	.105
markets						
Rapid delivery of	.191	.289	104	.475	.450	331
products/services						
(quicker than usual)						
Fast responsive and	.242	.249	.258	.397	.247	274
integrated business						
processes	220		227	207	205	102
Availability of	.229	.505	.227	.307	.287	182
human/financial						
resources	201	140	405	400	297	7.2575.02
Personalising	.321	.142	.405	.409	.287	-7.357E-03
products/services/advert						
	(25	144	202	101	225	1 712E 02
Commerce from top	.035	.144	202	.191	.255	-1./12E-02
management						
$\frac{11}{24}$ x $\frac{365}{42}$ days	544	236	371	250	1 466E 02	2 835E 02
availability of service		.230	.571	.239	-1.400E-02	2.05512-02
Offering incentives to	156	8 601E-02	-3 324E-02	114	105	848
customers to conduct	.150	0.0012 02	5.5241 02	. 1 1 4	.105	.040
business on Internet						
User-friendly and	.739	7.029E-02	.165	5.090E-02	9.751E-02	5.263E-02
attractive website				010702 02		0.2002 02
Secure website and	.254	-8.519E-02	4.355E-03	6.098E-02	.781	5.625E-02
other related systems						
Gathering useful	4.575E-02	5.166E-02	.592	.426	9.828E-02	2.358E-02
information about						
customers						
Fast responsive	159	.241	.223	-2.285E-02	.702	9.441E-02
customer service (better						
that usual)						
Selecting software	-6.047E-02	.327	.758	4.731E-03	-5.583E-02	9.093E-02
systems from a single						
vendor						
Integration of	.316	3.668E-02	.755	7.333E-02	.159	177
Information Systems						
(1S)		<				
Flexible workforce	.144	.658	.263	8.799E-02	.102	.107
ready to adapt to new						
business models	20.4	524	1.0575.00	5 5051 02	4.5545.00	100
Promotion of electronic	.394	.724	-1.35/E-02	5.595E-03	-4.554E-02	109
commerce culture in the						
organisation	0.294E.02	721	5 6075 00	120	211	247
best software products	-9.284E-02	./31	D.02/E-02	.120	.211	.247
from different vendors						
from amerent vendors						

Table II: Factor Analysis

Factors	Cronbach's α	Variables
	0.50	
1	0.72	Changeable (flexible) organizational structure
		Selecting and best of breed software products
		Promoting e-Commerce culture in the organisation
		Flexible workforce ready to adapt changes
2	0.78	Web-specific marketing (COMMUNICATION)
		Rapid delivery of services (quicker than usual) (DESIGN)
		Fast responsive and integrated business processes (DESIGN)

		Availability of human/financial resources
		Personalising products/services/advertisements (COMMUNICATION)
3	0.69	Increasing revenues from electronic channels
		Expansion of current markets
		24 x 365 days availability of service (DESIGN)
		User-friendly and attractive website (DESIGN)
4	0.65	Gathering information about customers' online purchasing behaviour
		(INFORMATION)
		Selecting software systems from a single vendor
		Integration of IS
5	0.52	Secure website and other related systems (DESIGN)
		Fast responsive customer service (better that usual) (DESIGN)
6	0.20	2 variables eliminated from the analysis because of too low score

Table II: Factors and their Cronbach's Alpha

As to information gaps, we notice that one of the items aggregates with technological variables like integration of IS and partnerships with a single vendor. This can signal information is considered an issue that can be solved through technology. The design gap variables do not aggregate in a single common factor. Instead they are spread in different factors and combined with other general variables. Particularly interesting is factor 2 which combines together some design gap variables and the variables of the communication gap. Probably, in the view of the bank managers, designing a good e-banking website (especially in terms of fast response and delivery) means developing good marketing actions. Communication and design gaps are probably addressed as similar issues by banks.

This preliminary overall frame seems to show that banks consider technology as a main solution for e-banking issues. What can be suggested is an increased attention towards marketing and market research as distinct and useful disciplines to develop an e-banking service of high quality.

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