Adoption and Use of Internet Banking in the Sultanate of Oman: An Exploratory Study

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Abstract

The aim of this paper is to explore the drivers and inhibitors of customers's Internet banking adoption in the Sultanate of Oman. Data from 225 respondents were used to address the aim. Our preliminary findings indicate that, in Oman, only two banks offer Internet banking services to customers. The main drivers of adoption appear to be compatibility, usefulness and ease of use. The extent of use is affected by lack of government support, poor quality of connection and page loading speed. Trust and face-to-face personal banking preference have been found as major inhibitors of IB adoption. Some preliminary implications for practitioners are highlighted.

Introduction

The Internet is transforming the banking and financial industry in terms of the nature of core products and services and the way these are packaged, proposed, delivered and consumed (Sathye, 1999). Subsequently, consumers' adoption of Internet banking (IB) has received significant research and practitioners attention (Al-Ashban and Burney, 2001; Guru et al, 2000; Polatoglu and Ekin, 2001). In this paper, we explore the factors that affect Omani consumers' adoption and use of IB.

The National Bank of Oman (NBO) pioneered the Sultanate's first Internet banking service in February 2002. Bank Muscat (BM) followed suit by launching online service in June 2002. As of September 2003, these two banks are the only banks providing IB services in Oman. However, other banks such as Oman International Bank, Oman Arab Bank, and Central Bank of Oman maintain an informational Website with basic interactive capability (Guru et al, 2003).

Theoretical Background

Adoption of innovation has a well-established research tradition. Rogers (1983) suggested five important characteristics of an innovation that influence its adoption. These are relative advantage, compatibility, complexity, observability and trailability. Subsequent studies have expanded this list and it is now possible to find as many as 15 items describing the characteristics of an innovation affecting its adoption. Davis (1989), on the other hand, used the theory of reasoned Action (TRA) and developed the technology acceptance model (TAM). TAM and TAM based studies posit that two sets of beliefs, i.e., perceived ease of use (PEOU) and perceived usefulness (PU) determine individual's acceptance of a technology. While PEOU refers to the degree to which an individual believes that using a particular system would be free of physical and mental effort, PU is related to users' perception of the degree to which using a system will be beneficial. In another related work, Ajzen (1985) developed the theory of planned behaviour (TPB) which was later decomposed by Taylor and Todd (1995) and posits that intention to adopt and use a technology is affected by attitude, subjective norms and perceived behavioural control.

The theories mentioned above informed most of the studies that looked into the drivers and inhibitors of consumers' IB adoption and usage (Polatoglu and Ekin, 2001; Mattila, 2002; Tan and Teo, 2000). Some of these studies have also introduced perceived risk, trust, security and privacy concerns and IB cost structure as additional variables affecting consumers' adoption of IB. We have used the findings and research instruments from previous studies as basis in conducting our research.

Research Method

Data were collected through a survey administered in Oman during September- November 2003. Based on the literature review, we developed a questionnaire containing 25 major questions and several items. Some of the questions use dichotomous scale whereas others use Likert type scale assessing the degree of agreement or disagreement. The questionnaire was initially prepared in English and later translated into Arabic by a professional translator. To ensure readability, we pilot tested the questionnaire with 16 users.

Our intention was to get as many responses as possible from customers with bank accounts but with or without IB experience; hence we followed convenience sampling to distribute the questionnaire. 500 bank customers were approached in three places, i.e., shopping malls, voting polls and bank branches. A total of 225 usable responses were collected.

Demographic Profile

The respondents' demographic profile (Table 1) shows mainly young, educated group, employed either in the private and public sector. 78% of them have used the Internet. Therefore, the rest of the analysis will proceed with 175 dataset.

Table 1: Respondents demographic profile

		Frequency	Percentage
Gender	Male	135	60%
	Female	90	40%
Age	20- 35	147	65%
	36-50	50	22%
	>50	28	14%
Occupation	Public sector	101	45%

	Private sector	79	35%
	Others	45	20%
Education	Completed primary education	25	11%
	Completed secondary education	42	19%
	Diploma holder	51	23%
	First degree holder	73	32%
	Post graduate degree holder	34	15%
Monthly Income (in Omani Rial, 1OR=$2.5)	<200	5	2%
	200- 600	108	48%
	600-1200	91	41%
	>1200	21	9%
Internet User	Yes	175	78%
	No	50	22%

Internet Banking Adoption

Of the175 Internet users dataset, 85 (49%) are banking with the two banks- National Bank of Oman and Bank of Muscat- offering consumer IB services. However, only 25 respondents actively use Internet Banking. Table 2 shows the length of IB use and the most frequently used IB services of the 25 IB users.

Table 2: Internet Banking Use

		Frequency	Percentage
Duration of IB use	< 6months	9	36%
	6months ¨C 1 year	12	48%
	> 1 year	4	16%
Frequently used IB services	Statement enquiry	22	88%
	Utility payments	19	76%
	Loan application	12	48%
	Paying school fee	10	40%
	Debt or credit card application Inquires and complaints	10	40%
	Fund transfer	8	32%
	Bill payments	6	24%
		5	30%

	Check book order	3	12%
	Card lost informing	2	8%
	Check stop order	2	8%
Frequency of IB use	Daily	1	4%
	Bi-Weekly	3	12%
	Weekly	6	24%
	Fortnightly	9	36%
	Monthly	3	12%
	Once in a while	3	12%
IB Access	Home	12	48%
	Work place	9	36%
	Public Internet access points	4	16%

Drivers of Internet Banking Adoption

We asked respondents who have adopted IB (n= 25) to express their degree of agreement or disagreement about the factors that motivated their decision on a five-point, 14 items, likert type scale. In addition, to identify the factors affecting intention of IB adoption, respondents banking with banks that are not offering IB but that have expressed interest to adopt IB, if their bank starts offering it (n=21) were asked about the same 14 items. The results are summarized in Table 3.

Table 3: Drivers of Internet Banking Adoption

	Adopters (n=25)	Intention to adopt (n=21)
	Weighted Mean score	Weighted Mean score
IB is compatible to my banking needs	3.92	**3.84**
IB is easy to use	**3.68**	2.95
IB is a cheaper way to conduct banking	**3.64**	2.84
IB is self service	**3.56**	3.26
IB makes conducting banking transactions easier	**3.52**	**3.63**
IB is a convenient way to manage my finances	3.36	**3.58**
My family members are using IB	3.28	2.89

IB is compatible to my life style	3.24	**3.79**
My colleagues are using IB	3.24	2.84
My friends are using IB	3.04	3.05
IB offers greater control over my finance	3.04	*2.53*
Using IB is a sign of modernity	*2.64*	*2.68*
My bank offers additional benefits for IB users	*2.32*	*2.79*
My bank encourages me to use IB	*2.00*	*2.26*

Scale: 5=Strongly agree; 4= Agree; 3= Neutral; 2= Disagree; 1= Strongly disagree

Table 3 indicates compatibility, relative advantage and ease of use as the most important factors affecting IB adoption (intention to adopt). On the other hand, external influence in the form of peer pressure and supply push don't appear to play a major role in adoption decisions. However, respondents who have adopted IB have indicated that clear government support and policy would motivate them to use more IB services than the one they currently use. In terms of actual benefit and constraints, while time saving (100%) and better service (40%) have been rated as the most experienced IB benefits, frequent interruption of connection (50%) and longer page-loading times (25%) are rated as the primary constraints affecting IB usage.

Inhibitors of Internet Banking Adoption

Inhibitors of IB adoption were identified from the respondents of the two banks offering IB services but that haven't adopted IB (n= 60) and those that haven't expressed interest to adopt IB even if their banks start offering one (n= 69). Table 4 summarizes the results.

Table 4: Inhibitors of Internet Banking Adoption

	Non Adopters (n=60)	Intention not to adopt (n=69)
	Weighted Mean score	Weighted Mean score
I am concerned about the security of IB services	4.7	**4.6**
I don't trust IB services	4.5	**4.8**
I am concerned about the privacy of IB services	4.0	**4.7**
My bank doesn't offer incentive to use its IB service	3.8	**--**
I don't know how to use IB	3.8	3.8
My bank is conveniently located	3.5	3.1

I prefer personal and face to face banking	3.4	**4.7**
My bank doesn't offer training to use its IB service	3.7	--
IB is not relevant for me	3.1	3.7
My bank doesn't offer IB	2.7	3.4

Scale: 5=Extremely Important; 4= Very Important; 3= important; 2= Less important; 1=Not important

Discussion

The findings of the study indicate that IB in Oman is in its early stages of development. In addition, Omani customers appear to make their IB adoption decision based on its compatibility, usefulness and ease of use. This result is consistent to the findings of previous studies. Hence, the combination of diffusion of innovation theory (Rogers, 1995) and technology acceptance model (Davis, 1989) seems to be applicable in the context of Oman. The implication for practitioners is that they need to sensitise and educate customers about the what, how and why of IB.

The extent of IB usage in Oman appears to be influenced, among other things, by the quality of connection and access. For banks offering IB (and those that consider it in the future) this implies that their Websites should be reasonably simple and less graphics-intensive. Another issue affecting level of usage is the perception of government support. In Oman, the value of information and communications technology in national development is well recognised. This is reflected in the sixth development plan, which among other things, set up Oman's information technology task force. Hence, the government need to be very vocal about its plans and intentions.

Perceived security and trust have emerged as the top issues inhibiting IB adoption. Banks along with the government need to address the perception of risk and build the confidence of customers in Internet use in general and IB in particular. Preference of face-to-face persona banking is another inhibitor of IB adoption. This could be due to either lack of awareness or the contextually rich nature of Omani's culture. Hence, banks should make their IB sites as customer friendly as possible and develop relevant marketing strategy to win the trust of customers.

Conclusion

Internet Banking is still a relatively recent phenomenon, especially in Arab countries (Guru et al, 2003). A number of banks in Oman are considering going on-line. However, the wider diffusion of IB and its business value depends on customers' IB acceptance. In this study, we have illustrated some of the factors that drive and inhibit IB adoption and that affect its usage

The relatively short history of Internet Banking in Oman and the limited sample size of the study don't allow generalization of the results. Hence, our findings could only be considered as preliminary and should be explored further with a more rigours study.

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