

Adoption of Mobile Banking Services in Jordan

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Abstract:

This study is concerned with the opinion of a number of commercial bank managers towards advantages of using Mobile Banking (MB).

A sample of 59 Jordanian commercial banks branch managers was used. The sample was classified into three groups: branch location, gender and years of experience.

The research finds that the managers who work in Amman feel that using Mobile Banking (MB) provides a high degree of comfort ability for the customers and an easy access to **Wireless Application Protocol** (WAP) and the male managers feel that using Mobile Banking (MB) is concerned with personal contact and it has easy procedures to obtain from a bank.

The research finds that the managers who have less than 8 years experience feel that using Mobile Banking (MB) provide monitoring & following reports related to work more than those who have 15 years experience & above.

Keywords: Mobile Banking, Services and Jordan

Introduction:

Mobile telecommunications have been one of the most dynamic segments in the telecommunications sector over the past few years. Technological progress has enabled almost unprecedented market response. Major innovations, most importantly digital technology, enable the operators to provide the market with new impulses for growth. (H. Gruber & M. Hoenicke, 1999).

In the information age, the accuracy of information provided by the internet, especially because of its ubiquity, low access search cost, and lack of regulatory bodies, need to be critically examined. The internet is a tool that is part of our daily life, for some in the way they search for information, and for others in the way they shop. Similar to advertisers, online companies rely on subjective and evaluative claims to differentiate their web sites from competitors. Such practices may constitute sources of bias, deception, and fraud. Recently, monitoring agencies such as the Federal Trade Commission in

the United States have informed about different ways in which consumers can fall victim of deception or fraud (Mintz, 2002).

Mobile Bank is a service provided by the bank that enables the user to receive information on the accounts and make monetary payments and transfers to third parties based on orders sent via mobile phone and sms service. Transactions can be made to legal or natural persons who have a valid Mobile Payment Reception and whose place of business has been marked accordingly. The Mobile Bank allows its customers to receive information on: account balances of the customer; transactions on the customer's accounts and currency exchange rates.

Literature review:

Essam, E. Ibrahim, Matthew Joseph, Kevin I.N. Ibeh(2006) explore the key factors of the electronic service quality (e-SQ) perceptions of UK banking customers and to evaluate the customers' perceptions of their banks' actual performance on the identified e-SQ dimensions. Design/methodology/approach – A survey has been used to collect primary data and 135 usable questionnaires were used in the analysis. Questionnaire items were developed through a two-stage process involving a review of the main measurement scales employed in previous studies and two focus group interviews to identify a series of attributes for assessing electronic banking service quality. Factor analysis procedure was employed to identify the underlying structure among the explored e-SQ attributes.

Sylvie Laforet, Xiaoyan Li,2005, investigate the market status for online/mobile banking in China. With the recent and forecasted high growth of Chinese electronic banking, it has the potential to develop into a world-scale internet economy and requires examination.

Cheong & Park (2005), state that the success of mobile internet is depending on understanding the concerns of customers and identifying the factors that promote the use of mobile internet.

Laforet & Xiaoyan (2005), indicated that the issue of security was found to be the most important factor that motivated Chinese consumers adoption of online banking.

Rapha K. Akamavi (2005), outline the factors affecting the seamless use in mobile and fixed – line such as satisfaction toward the service provider and customers, previous experience.

Minna Mattila (2004), in his paper indicated the factors influencing adoption of mobile banking services such as costs, data transmission, authentication with mobile phone to internet bank, possibility to conduct banking truly regardless of time, place, and curiosity towards using the services.

Munnukka Juha (2004), in her article showed us that the customers preferred to acquire mobile services in bundles rather than separately and a mobile services bundle should provide three to five services to the clients.

Constoantine & Ioannis (2004), argue that the internet is a fertile territory for deception for two reasons. First, the internet is a representational environment (i.e. users make a mental representation of the situation and product they want to obtain), and second, the internet lends itself to malicious practice as there may be no tangible existence of the product or store being represented. Users can find all sorts of web site categories with the intention to deceive on the internet: counterfeit, malicious, suspicious, fictitious, parodies/spoofs/hacks, misinformation, and disinformation.

Morna S.Y. Lee (2003), has stated that the factors which will help customers to use mobile internet such as , previous experience with mobile phone services and the ability to use 3G mobile .

The term "deception" has been defined as the use of a malicious practice through the internet to intentionally provide a user with an incorrect representation of the situation in a social exchange (Constoantine & Ioannis, 2004).

According to Mintz (2002), researchers have concluded that individuals, even those relatively experienced with the internet, cannot detect deception. In an experimental study, Akamavi (2005) asked a group of MBA students to recommend whether a friend should purchase a laptop from a particular web site. Subjects were allocated randomly to either of two web sites. One was a real online store and the other had been built to manipulate several treatments, namely: seal of approval, a warranty offered by the store, news clips endorsing the store, physical location presence, size of the store, and customer testimonials. The study reports that 82 percent of the subjects did not detect the deception. In addition, assurance factors like seals, warranties, and news clips

reduced consumers' perceived risk, while trust mechanisms like size of the business and reputation also affected the level of trust consumers put in a web site. It is clear that consumers are relying perhaps more than they should on these mechanisms, even assuming that their information was valid (i.e. not deceptive).

Consumers, when presented with a particular piece of information, may derive different meanings from it. Some inferences could be wrong, but the misinterpretation resides on the individual rather than the information provider. It is doubtful, sometimes, whether an online company has intentionally fostered an incorrect cognitive representation to instigate a consumer to take an action that otherwise he would not have taken. (Lee, 2003) provides an empirical evidence of the difference between deception and information biases.

Al-Ashbant & Burney(2001) examine the adoption of tele-banking in Saudi Arabia. The field findings reveal that customers increasingly extend their use of tele-banking as their experience grows with the system. The results also indicate that in general Saudi consumers' income levels and education play a vital role in their adoption and usage of tele-banking technology.

Research Questions:

This study is concerned with the opinion of a number of commercial bank managers towards advantages of using Mobile Bank (MB). In general, it is important to understand how likely is the use of MB affecting people . Also the purpose of this study was to discover if some differences between the managers such as bank location, gender and years of experience are more prone to some biases than others.

1. What are the advantages of using MB as viewed by commercial bank managers?
2. Are there any differences between the managers in their opinion towards using MB?

Research Objective

The main objective of this study was to investigate the advantages of using MB in Jordan viewed by commercial bank managers

Research Limitations

The research is dependent on questionnaire data and the sample size is small.

Hypotheses

The hypotheses are as follows:

- H1: There is no significant difference between the managers towards advantages of using Mobile Bank (MB) with respect to location of the bank branch.
- H2: There is no significant difference between the managers towards advantages of using Mobile Bank (MB) with respect to gender of the managers.
- H3: There is no significant difference between the managers towards advantages of using Mobile Bank (MB) with respect to years of experience in the bank.

Methodology

To collect evidence of potential biases, previous research on the advantages of using MB, MB usage and deception were reviewed. Initially, 20 potential branches were identified for the purpose of this study. Of these, five were discarded after discussion due to disagreement as to the extent to which they either constitute biases or were hard to assess.

The final list of potential branches contained in the information provided is as follows:

- Amman: 7 branches
- Zarka: 5 branches
- Irbid: 3 branches

Data Collection Instrument

In this research, content validity is established through an extensive literature review, face-to-face interviews. Construct validity evaluates the appropriateness of variables.

A questionnaire was designed in a form of two sections. The first section identified the potential managers; the second section consists of 15 variables interpreting the advantages of using MB as viewed by these managers as follows:

Variables	Advantages of Using Mobile Bank (MB)
1	Transmission of data at any time.
2	Concern with personal contact.
3	Increases Bank productivity.
4	Low administrative costs.
5	Provides database at any time.
6	Monitoring & following reports related to work.
7	Easy device to use.
8	Enables bank dealing individually according to customers needs.
9	Provides free of charges services.
10	Easy procedures to obtain from bank
11	Problems can be solved in timely manner.
12	High degree of comfort ability.
13	Accounts are confidential.
14	Easy access to WAP.
15	E-Security.

Fifty nine managers were coded for survey. The coder was given a table containing the list of location, gender, and years of experience and columns with MB advantages. This table was prepared so that independent raters could undertake the same questionnaire, as a measure of reliability. The coder was instructed that they might find none, one, or more than one of the potential managers in each of the advantages. The coder was instructed to register potential managers in each branch reviewed.

A total of 69 questionnaires were used in this research. SPSS (statistical software), ANOVA, t-Test and Scheffe test were used for the 59 respondents result .The chi-square goodness-of-fit test was used for checking non-response bias.

The reliability of scales was assessed by Cronbach's coefficient alpha. Reliability is an assessment of the internal consistency of the construct indicators. The Cronbach alpha values of 0.60 or higher are generally considered to be acceptable. The alpha values for this research scale are 0.79.

Sample:

A sample of 59 Jordanian commercial banks branch managers was used. The sample was classified into three groups: branch location gender and years of experience.

52.5% were from Amman, 30.5% from Zarka. 78% were male managers and 18.6% had less than 8 years experience in the bank and 42.4% had experience from 8 to less than 15 years.

Statistical Results:

What is the advantage of using Mobile Bank (MB) that the managers viewed? To answer this question we find the mean for each variable (table I). A quick review of the result in table (I) reveals clearly that variables 7 & 15 (easy device to use & E-Security) have the highest mean value (2.8475) and this means that the managers feel very strongly that the advantages of using Mobile Bank (MB) are: easy device to use & E-Security.

This should not come as a surprise. Indeed, the Jordanian customers feel that MB is an easy device to use.

Variable 1 (Transmission of data at any time.) has the least mean value, which means that the managers feel very weakly that MB transmits data at any time.

To test the first hypothesis (H1: There is no significant difference between the managers towards advantages of using Mobile Bank (MB) with respect to location of the bank branch).

The researchers used the ANOVA test (Table II).

The results shown in table II state that 4 variables are significant at $\alpha \leq 0.05$. To know which locations are higher than the others we used the Scheffé test.

The research finds that the managers who work in Amman feel that using Mobile Bank (MB) provides a high degree of comfort ability for the customers and an easy access to Wireless Application Protocol (WAP) and the managers who work in Irbid and Zarka feel that using Mobile Bank (MB) provides monitoring & following reports related to work and enables bank dealing individually according to customers needs.

To test the second hypothesis (H2: There is no significant difference between the managers towards advantages of using Mobile Bank (MB) with respect to gender of the managers)

The researchers used t- Test (Table IV).

The results shown in table IV state that 5 variables are significant. The research finds that the male managers feel that using Mobile Bank (MB)

concerns with personal contact and it has easy procedures to obtain from bank and easy access to WAP. It also finds that the male managers feel that the advantage of using Mobile Bank (MB) by the customers is problems can be solved in timely manner and accounts are confidential.

To test the third hypothesis (H3: There is no significant difference between the managers towards advantages of using Mobile Bank (MB) with respect to years of experience in the bank)

The researchers used the ANOVA test (Table IV).

The results shown in table IV state that 3 variables are significant at $\alpha \leq 0.05$. To know which years of experience in the bank are higher than the others we used the Scheffe test.

The research finds that the managers who have experience less than 8 years feel that using Mobile Bank (MB) provides monitoring & following reports related to work more than those who have experience 15 years & above, and the managers who have experience from 8 years to less than 15 years feel that using Mobile Bank (MB) provides E-Security and the accounts are confidential more than those who have experience less than 8 years.

Conclusions and Recommendations:

Although empirical evidence shows that the majority of managers who work in Amman feel that using Mobile Bank (MB) provides a high degree of comfort ability for the customers and easy access to WAP, consumers should be aware that they can find Mobile Bank (MB) providing the product or service they are looking for.

The research finds that the male managers feel that using Mobile Bank (MB) concerns with personal contact and it has easy procedures to obtain from bank and easy access to WAP.

It also finds that the male managers feel that the advantage of using Mobile Bank (MB) by the customers is problems can be solved in timely manner and accounts are confidential.

The research finds that the managers who have experience less than 8 years feel that using Mobile Bank (MB) provides monitoring & following reports related to work more than those who have experience 15 years & above.

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First Section:

Mark the appropriate answer with (X):

1. Location of the bank branch:
 Amman Zarka Irbid
2. Gender:
 Male Female
3. Years of experience in the bank:
 Less than 8 years. From 8 years to less than 15 years.
 15 years & above.

Second Section:

Variables.	Advantages of using Mobile Bank (MB)	Agree	Neutral	Disagree
1	Transmission of data at any time.			
2	Concern with personal contact.			
3	Increases Bank productivity.			
4	Low administrative costs.			
5	Provides database at any time.			
6	Monitoring & following reports related to work.			
7	Easy device to use.			
8	Enables bank dealing individually according to customers needs.			
9	Provides free of charges services.			
10	Easy procedures to obtain from bank			
11	Problems can be solved in timely manner.			
12	High degree of comfort ability.			
13	Accounts are confidential.			
14	Easy access to WAP.			
15	E-Security.			

TABLE I
Mean & Standard Deviation for all Variables

Variable	N	Minimum	Maximum	Mean	Std. Deviation
Transmission of data at any time	59	1.00	3.00	2.3390	.5757
Concern with personal contact.	59	1.00	3.00	2.6271	.6669
Problems can be solved in timely manner.	59	2.00	3.00	2.6441	.4829
Increases Bank productivity	59	2.00	3.00	2.7119	.4568
Provides free of charges services	59	2.00	3.00	2.7119	.4568
Enables bank dealing individually according to customers needs.	59	2.00	3.00	2.7288	.4484
Easy procedures to obtain from bank	59	2.00	3.00	2.7288	.4484
Provides database at any time	59	2.00	3.00	2.7458	.4392
High degree of comfort ability	59	2.00	3.00	2.7627	.4291
Low administrative costs	59	2.00	3.00	2.7966	.4060
Monitoring & following reports related to work.	59	2.00	3.00	2.7966	.4060
Accounts are confidential	59	2.00	3.00	2.8136	.3928
Easy access to WAP	59	1.00	3.00	2.8305	.4215
Easy device to use	59	2.00	3.00	2.8475	.3626
E-Security	59	2.00	3.00	2.8475	.3626

TABLE II
ANOVA TEST FOR LOCATION

Variable		Sum of Squares	DF	Mean Square	F	Sig.
Monitoring & following reports related to work.	Between Groups	1.898	2	.949	6.935	.002
	Within Groups	7.662	56	.137		
	Total	9.559	58			
Enables bank dealing individually according to customer needs	Between Groups	2.064	2	1.032	6.023	.004
	Within Groups	9.597	56	.171		
	Total	11.661	58			
High degree of comfort ability	Between Groups	3.096	2	1.548	11.433	.000
	Within Groups	7.582	56	.135		
	Total	10.678	58			
Easy access to WAP	Between Groups	1.612	2	.806	5.190	.009
	Within Groups	8.694	56	.155		
	Total	10.305	58			

TABLE III
T- TEST FOR GENDER

Variable	Gender	N	Mean	Std. Deviation	Std. Error Mean
Concern with personal contact.	1.00	46	2.7391	.5748	8.475E-02
	2.00	13	2.2308	.8321	.2308
Easy procedures to obtain from bank	1.00	46	2.6957	.4652	6.859E-02
	2.00	13	2.8462	.3755	.1042
Problems can be solved in timely manner	1.00	46	2.6957	.4652	6.859E-02
	2.00	13	2.4615	.5189	.1439
Accounts are confidential	1.00	46	2.8478	.3632	5.354E-02
	2.00	13	2.6923	.4804	.1332
Easy access to WAP	1.00	46	2.8913	.3147	4.640E-02
	2.00	13	2.6154	.6504	.1804

TABLE VI
ANOVA TEST FOR YEARS OF EXPERIENCE

Variable		Sum of Squares	DF	Mean Square	F	Sig.
Monitoring & following reports related to work.	Between Groups	1.006	2	.503	3.293	.044
	Within Groups	8.553	56	.153		
	Total	9.559	58			
Accounts are confidential.	Between Groups	1.756	2	.878	6.834	.002
	Within Groups	7.193	56	.128		
	Total	8.949	58			
E-Security.	Between Groups	1.234	2	.617	5.403	.007
	Within Groups	6.393	56	.114		
	Total	7.627	58			

خدمة المصرف النقال في الأردن

مروان مصطفى شموط و مصطفى سعيد الشيخ

كلية العلوم الإدارية والمالية

جامعة فيلادلفيا ، الأردن

المخلص :

اهتمت هذه الدراسة برأي عدد من مدراء المصارف التجارية حول مزايا استخدام العملاء للمصرف النقال.

وقد أجريت الدراسة على عينة مكونة من ٥٩ مديراً من مدراء فروع المصارف التجارية في الأردن، وقد صنفت العينة إلى ثلاث مجموعات: موقع الفرع، الجنس، وعدد سنوات الخبرة.

وقد توصلت الدراسة إلى أن المديرين العاملين في عمان يشعرون أن استخدام المصرف النقال يعطي درجة عالية من القدرة والراحة للعملاء وكذلك الدخول الميسر على النظام اللاسلكي للمصرف، وأن الذكور من المديرين يشعرون أن استخدام المصرف النقال مرتبط بالاتصال الفردي ويساعد في تسهيل المعاملات المصرفية. كما استنتجت الدراسة أن المديرين ذوي الخبرة التي تقل عن ثمانية أعوام يشعرون أن استخدام المصرف النقال يساعد في المراقبة ومتابعة التقارير المتعلقة بالعمل أكثر من الذين لديهم خبرة تزيد على خمسة عشر عاماً.