

ANALYSIS OF FACTORS INFLUENCING CONSUMERS' USE BEHAVIOR WITH MOBILE BANKING SERVICES IN JORDANIAN COMMERCIAL BANKS

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ABSTRACT. *The purpose of the study is to investigate and evaluate the variables influencing consumers' online transaction behavior with e-banking services. The author employed survey data from 384 Jordanian commercial bank clients. SPSS software was used in the study as a technique for analysis. Four criteria were identified by multivariable regression analysis as influencing e-banking service intention: perceived usability, bank identity, perceived preference, and behavioral control. It shows that the intention to utilize e-banking services is most significantly influenced by perceived ease of use, bank branding, and bank brand components. The component of perceived behavioral control comes next. The study's findings are also used as the foundation for a survey that Jordanian banks will conduct to encourage clients to use their e-banking services while creating electronic goods at their commercial banks.*

Keywords: Factors affecting Intention to Use, E-banking Services

1. INTRODUCTION

The advancement of online banking services has emerged as a highly advantageous facet in the financial sector, paralleling the technological advancements in the digital realm [1]. The evolution of information technology (IT) has driven a shift towards online service-centric marketing, serving as the primary catalyst for the transformation from traditional banking to the realm of online banking services [2]. Recent IT developments have thoroughly revolutionized the landscape and concept of services, particularly within the banking domain, prompting companies to overhaul their sales and purchase systems for both services and products [3].

Online banking streamlines processes, eliminating the need for clients to physically visit a bank for routine transactions such as opening accounts, fund transfers, or initiating fixed deposit accounts. These tasks can now be effortlessly executed through a personal computer (PC) from the convenience of one's home or workplace (4). With a simple internet connection, clients gain access to a plethora of services and can conduct transactions and inquiries without incurring additional charges [5]. The augmentation of services enhances quality, fostering greater trust among clients as online banking addresses various financial concerns [6].

Jordan, like many other developing nations, boasts extensive internet coverage and a robust information and communication technology (ICT) infrastructure [7]. The country has invested significantly in advancing infrastructure across homes, workplaces, and schools to facilitate widespread access to IT services, including online banking [8]. The information and communication technology (ICT) industry, including banking, has witnessed substantial investments in recent years, contributing to Jordan's economic growth [9].

The role of national infrastructure, such as computers and public and private networks, is pivotal in realizing strategic IT initiatives [10]. Jordan's telecommunications landscape includes one main company, four mobile network operators, and numerous internet service providers (ISPs), all privately owned and operated. The government introduced additional ISPs in response to the growing demand for enhanced quality, wider bandwidth, and faster internet connectivity in 2014 [11].

In the early 2000s, significant technological developments prompted Jordanian banks to adopt online banking to maintain a sustainable competitive advantage [12]. The financial sector's substantial contribution to the economy has driven changes in laws and regulations, including the legislation of new rules governing online banking. These changes aim to enhance infrastructure and adaptability to the era of openness and globalization, enabling the Jordanian economy to integrate into the global market [13]. Jordan has positioned itself as a hub for the internet-related industry in the Arab region, leveraging its location to compete with neighboring countries still developing their internet infrastructure and industry, presenting growth opportunities for Jordanian banks [14].

Despite these advancements, the adoption of online banking by Jordanian bank customers remains comparatively low, especially when compared to neighboring countries like the United Arab Emirates (UAE) (14). The Department of Statistics (DOS) of Jordan (2016) notes that Jordanians primarily use the Internet for information and entertainment purposes, with banking services and the purchase and sale of goods registering lower usage compared to activities such as watching movies, TV programs, and social networking (15, 16).

2. LITERATURE REVIEW

2.1 Continuous-Use Intention (CUI)

The interpretation of intention varies across literature, with most scholars concurring that it represents an individual's desire or inclination to partake in specific behaviors. [17]. defines intention as the likelihood of engaging in a purchase. Additionally, intention can signify an individual's preference to act based on their emotions, knowledge, or evaluation of experiences. Theories in social psychology and information systems confirm this, as supported by references [18] and [19]. emphasize intention as a crucial predictor of behavior, encompassing the influences of external factors and various beliefs, categorized as either appropriate or inappropriate. [19] characterizes intention as an attitude towards purchasing a product/service rooted in experience, strongly influencing users' intentions to repurchase or recommend the product or service. In the realm of e-commerce, the intention to use pertains to the extent of customers utilizing an information

system (IS), considering factors like amount, nature, frequency, appropriateness, and purpose of use [19]. Continuous-use intention (CUI) holds greater significance than initial acceptance [20], defined as the behavior following the first use [21]. argues that CUI is more suitable for post-adoption studies, such as assessing information system success (ISS). Consequently, in the context of online banking, CUI refers to a user's ability to repeatedly and over an extended period utilize the system [22].

Furthermore, CUI plays a prominent role as a factor influencing online service performance [23], with Hossain *et al.* [34] suggesting it is one of the strongest predictors of online service performance. Consequently, CUI has become a pivotal focus in online service studies [24]. Despite this, the CUI of online banking has received limited exploration compared to numerous studies on initial adoption, introducing uncertainty and risk that may hinder clients' continued usage.

2.2 Online Banking Performance

The globalization of financial institutions has prompted the banking sector in developing countries to enhance electronic service quality, reduce costs, streamline processing times, and improve overall service performance [25, 26]. These indicators serve as crucial benchmarks for evaluating bank performance. Specifically, the effectiveness of the service performance system is influenced by organizational strategies aimed at achieving goals [27]. In essence, online banking performance constitutes a significant aspect of the outcomes of a bank's activities and contributes to goal attainment. Moreover, the banking sector has leveraged online services not only for conducting business activities and introducing new products but also for delivering essential services to customers [28].

The term "online banking performance" encompasses the rate of usage, denoted by the number of online transactions and users engaged in online banking activities [29, 30] and characterized online banking performance as a complex process involving the interplay of technology, environmental factors, internal operations, and external activities. It can also be viewed as a multidimensional construct that includes evaluations from service providers and users, aligning with the inseparability characteristic of services [31]. Additionally, diverse operational challenges and evolving regulations present opportunities for banks to deliver efficient traditional and electronic banking services [32]. Achieving such improvements necessitates a thorough measurement and analysis of online banking performance [33].

Building on this discussion, various factors influence online service performance. In this study, the independent variable is continuous-use intention, which is explored to elucidate its direct relationship with online banking performance. Consequently, this research emphasizes the evaluation of continuous-use intention in the context of online banking. The heightened attention given to continuous-use intention assessment by consultants and academics underscores the growing imperative to enhance online service performance (34).

Hypotheses

H1: Perceived ease of use has a positive impact on customers' decision to use e-banking services.

H2: Bank brand has a positive impact on customers' decision to use e-banking services.

H3: Perceived behavioral control has a positive effect on the acceptance of using e-banking services

H4: Perceived preference has a positive impact on customers' decision to use e-banking services.

3. METHODOLOGY

The study utilized quantitative research methodology. Considerable attention must be devoted to the research design, as it shapes the strategies and techniques that the researcher will employ for gathering and analyzing data, as noted by Harris *et al.* [33]. This study was conducted in 2022, spanning from May to November.

3.1 The population and Sample

The population of this study comprised local and foreign customers of Jordanian commercial banks operating in Amman; hence, the respondents can answer the questionnaire with more confidence and accuracy. In the case of an analysis approach study where structural equation modeling (SEM) is used, the following recommendation must be in mind: [33] Stated that the sample size must be 300 valid responses for factor analysis research. Similar to this, Hair [30], posited that a sample size of 300 or more is deemed fit for an SEM analysis. Others [34], mentioned that a sample size of 50 is very weak, while 100 is weak, 200 is acceptable, 300 is good, and 500 is very good for SEM analysis. Hence, the sample size for the current study is 300. Nevertheless, to avoid sample size error and non-response problems [35], the number of questionnaires distributed was increased to 384.

3.2 Data Collection and Analysis

The study was conducted using a survey technique to obtain primary data from clients of the 13 selected banks. A key feature of surveys is that the researcher can obtain responses within a short time. Furthermore, the convenience sampling technique was used to randomly choose a representative sample of Jordanian commercial bank customers in north, central, and south Amman. Studies on online services indicated that convenience sampling is an acceptable and efficient sampling technique [36, 37]. They stated that convenience sampling is used when many questionnaires need to be collected quickly and economically or when obtaining a sample through other means is impractical.

The formulated hypothesis was tested using PLS-SEM. SEM has become a critical approach to investigating the relationship between latent concepts (38). PLS-SEM is a statistical path modeling method to carry out complex multivariate analyses of relationships between observed and latent variables [39, 40]. The PLS-SEM approach is a robust, superior, and flexible tool for statistical model building, as well as testing and predicting theory [41]. It is stressed that reliable and valid confirmatory factor analysis is better achieved using PLS-SEM.

4. FINDINGS

The aftereffects of hypothesis testing study are addressed as real findings in this work. By testing hypothesizes in this section.

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The goal of this paper is to examine the correlations between latent variables; thus, the latent analysis method was a suitable choice. A total of 372 questionnaires were fit for analysis, indicating a valid response rate of 96.88 percent

[19]. The response rate is similar to previous research hence, it is considered satisfactory.

The characteristics of the 440 respondents in the sample from Jordanian commercial banks' online banking user samples are summarized in Table 1. There are 182 males (48.9 percent) and 190 females (51.1 percent) among the 440 people who responded. The majority of the respondents, 184 in total, were between the ages of 18 and less than 25 (48.9 percent). The age group 53 and older received the lowest responses, with only 10 people responding (2.7 percent). In response to a question about using online banking services, 64.8 percent of respondents chose the option and still use it.

Table Error! No text of specified style in document.: Summary of Respondents' Demography

Category	Frequency	% Percent
Gender		
Male	182	48.9
Female	190	51.1
Total	372	100
Age		
From 18 to less than 25 years	184	49.5
From 25 to less than 32 years	89	23.9
From 32 to less than 39 years	43	11.6
From 39 to less than 46 years	29	7.8
From 46 to less than 53 years	17	4.6
From 53 years and more	10	2.7
Total	372	100
Online Banking System		
Current user	241	64.8
Past user	131	35.2
Total	372	100

4.1 Reliability analysis

The results of the reliability analysis are presented in Table 2. Since the value of Cronbach's alpha for all the variables

is more than or nearly equal to 0.7, the items constructed are reliable and consistent.

Table 2: Reliability analysis

Variable	Cronbach's Alpha
Perceived ease of use	0.86
Bank brand	0.83
Perceived behavioral control	0.89
Perceived preference	0.79
e-banking services	0.88

4.2 Hypotheses testing

The study uses Multiple Linear Regression Analysis to examine its hypotheses. Table 3 model summary shows an R-square value of 0.466, meaning that the independent

variables perceived ease of use, perceived behavioral control, perceived preference, and bank brand account for 46.6% of the variation in e-banking services. Other factors account for 63.4% of the variation in e-banking services.

Table 3: Model summary

Model	R	R Square	Adjusted R Square	Std. Error
1	.605 ^a	.466	.355	.44155
a. Predictors: (Constant), Perceived ease of use, Bank brand, Reliability, Perceived behavioral control, Perceived preference				

Table 4's ANOVA results, which display an F-value of 28.166 and a p-value less than 0.001, demonstrate the

significance of the regression model as a whole at 0.1%.

Table 4: ANOVA

Model	Sum of Squares	Mean Square	F	Sig.	
1	Regression	21.954	5.489	28.166	.000 ^b
	Residual	38.018	.195		
	Total	59.972			
a. Dependent Variable: e-banking services					

b. Predictors: (Constant), Perceived ease of use, Bank brand, Reliability, Perceived behavioral control, Perceived preference

Table 5: Coefficients

	Model	Unstandardized Coefficients		T	Sig.
		B	Std. Error		
1	(Constant)	1.228	.296	4.144	.000
	Perceived ease of use	.155	.069	2.260	.025
	Bank brand	.135	.066	2.030	.044
	Perceived behavioral control	.335	.077	4.380	.000
	Perceived preference	.104	.073	1.420	.157

Findings reveal that ease of use has no significant impact on E-Banking customer satisfaction. The finding is in contrast with the earlier research studies by Asad et al. [17]; Chawla & Seghal.[42]; The difference may be due to the E-Banking services have become essential and natural behaviors to make a transaction in daily life so, the ease of use is not able to affect customer satisfaction. Thus, the customer satisfaction will not increase even if the e-banking system is very tractable to interact.

7. CONCLUSION

This study discussed an important area of the banking sector, particularly the online banking system. It focused on Jordanian commercial banks and assessed the online banking system to find out the influence of continuous use intention criteria on the performance of online banking. A user's survey was carried out to determine the influence of continuous use intention criteria from a client's perspective. Findings indicate that the higher the customers' continuous-use intention for online banking, the higher its performance.

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