

**THE IMPACT OF SELF-SERVICE TECHNOLOGY ON CONTINUOUS BEHAVIORAL INTENTIONS: A STUDY ON E-BANKING USERS IN JORDAN**

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**Abstract**

*The aim of this study is to investigate the impact of Self-Service Technology on Continuous Behavioral Intentions, Consumer Readiness as a Moderate Variable on a Sample of E-Banking users in Jordan. To achieve the research's objectives the researcher used the descriptive analytical method because of its relevance to this kind of research. Research's population consisted of the customers of (25) Jordanian Banks, commercial and Islamic Banks, while the research sample was a random sample selected from the banks' customers. Data collection was conducted from primary and secondary sources. A questionnaire designed by the researcher was used for collecting the primary data. SPSS program was used for data analysis; the results showed that there is impact of overall dimensions of self service technology on continuous behavioral intentions in Jordanian banks.*

*Keywords: Self Service Technology (SST), Continuous Behavioral Intentions, Banking, Jordan.*

**INTRODUCTION**

Recently, the interest has greatly increased in the usage of the modern technology and the information systems in the operating banking sector in Jordan, the banks had made a great step in adopting this trend ( trend to technology ) that contributed to the emergence of the term called self-service technology ( Al-Elwan& Al-Dmooor , 2008 ). The banking reality in Jordan indicates that the Jordanian banks had moved from the electronic banking stage that was limited to the informational site in which the bank provides the minimal limit of the electronic banking activity to the communicative site reaching the transactional site which is the level at which the banks practice their activities and services in an electronic environment.

So, the evolution of the self-service technology made it easy for the clients reaching the services they wish without attending the bank , also contributed to reaching the designed goal without the help of the employee or even making a contact with him .

Generally, the use of the technology, and the self-service technology particularly might give the service organizations the great opportunity in creating the competitive advantage in the services and products they provide to the consumers in the targeted market. So, the organizations are able through this technology to find the differences and the differentiation in the services they provide or in the production systems of these services and delivering them from what the competitors provide in the targeted mark ( Al – Shban& Burney, 2001).

Many studies had admitted that the self-services technology includes many forms among them : The mobile banking , online banking , ATM , EFT ( Electronic Finance Transfer ) , electronic cheques, home banking, phone banking , call center , digital television , SMS services , and electronic payment service. This leap in services technology did not only contribute to providing new services, rather also contributed to developing and changing the way through which the services produced and delivered.

According to the traditional concept to produce the services and delivering them to the clients in the banks they were done in a traditional way since the greater dependency was on the service employee regarding producing and delivering the service. The clients activities were limited to a specific circle of activities such as paying the bills, presenting the order for the good or service, the client did not pay much interest in learning how the service produced, and how to receive it, because he depends originally on the employee who delivers the service ( Al – Elwan& Al – Dmoor , 2008 ) .ATM for example is a computerized electronic set places outside or in front of the bank`s branches , where all the sets linked with main center through developed electronic net to withdraw the money, in addition to another services, also , most of the ATMs are used inside the trade establishments to buy the goods and services, as relevant mean to serve the client out of the working hours or during the official work hours (24) hours all week days, these machines are not only means to increase the bank`s revenues, they generally from the instrument to reduce the costs, since the percentage of the banking transactions through the ATM (10%) from the cost of performing them through the branches or the traditional way, in addition, it is possible to use ATM by other banks clients such as the cash withdraw transactions, ATM has another feature integration between the Jordanian banks, and serving the foreign clients who have international cards from outside Jordan ( Al – Elwan& Al – Dmoor, 2008 ).

The study has addressed the special variables related to evaluating the self-service technology: Ease of use, perceived usefulness, perceived risks, continuous behavioral intention, taking customer readiness variable as moderate variable for the research. These dimensions form the basic factor in the clients continuity in dealing with the banks through the self-service technology. Manu studies indicate that the customers readiness to use the banking services

technology is the basic factor for the dissemination self-services technology and considering it popular service.

## LECTURE REVIEW

A large body of past studies on SST, and this studies despite their merit have some limit with regard to the objective of this study Wang, Jennifer Harris and Paul G. Patterson (2010), A supermarket self-checkout machine is the SST under Investigation. A mixed qualitative research design was used and a total of 209 observations and 47 interviews were obtained from customers in five supermarket stores in Australia. The purpose of this paper was to explore situational influences on customers' actual choice between self-service and personal service and to examine the impact of experiences on self-service Technology (SST) attitudes and behavior. In addition, Perceived waiting time, perceived task complexity, and companion influence are the three Situational factors that affect a customer's actual choice between self-service and personal service. Past experiences influence SST attitudes and behavior in a more complex manner than SST Characteristics and other individual difference variables. By understanding, what factors affect a customer's choice, better strategies can be developed to manage and coordinate multiple service delivery options. The findings also highlighted the importance of preventing frequent failure and providing speedy recovery in the SST context.

Second, most past studies either focused on technology readiness in SST (Jiun-Sheng Chris Lin. Hsing-Chi Chang, 2011). Study proposes a research framework to suggest the direct and moderating roles of TR in the TAM. Extant research from various research streams is reviewed, notwithstanding a significant amount of literature on the technology acceptance model (TAM), past research has overlooked the role consumers' technology readiness (TR) plays in adoption of self-service technologies (SSTs). This study aimed to fill this research gap by developing and testing a model that integrates the role of TR into the TAM. Resulting in 13 hypotheses. Data collected from customers with SST experiences are examined through Structural equation modeling (SEM) and hierarchical moderated regression analysis. Results indicate that customer TR enhances perceived usefulness, perceived ease of use, Attitude toward use, and intention to use. Results also show that TR attenuates the positive Relationship between perceived ease of use and attitude toward using SSTs, This research represents an early attempt to explain the role of TR in the TAM in the context of SSTs. Findings showed that TR influences perceived usefulness, perceived ease of Use, attitude toward using SSTs, and behavioral intentions. Therefore, to achieve better SST service Outcomes firms implementing SSTs should give increased attention to customer TR. Firms should Stimulate the use of technological services by strengthening positive TR drivers (the optimism and Innovativeness dimensions) to encourage use of technological services and positive attitudes toward

Technology, while also reducing TR inhibitors (the discomfort and insecurity dimensions) to lower Reluctance to use technology.

Third, we found very few past studies investigated the differences of public and private SST (Joel E. Collier, Daniel L. Sherrell and Emin Babakus, Alisha Blakeney Horky, 2012). Existing customers of private and public self-service technology were surveyed from the same industry. Using Structural equation modeling, the authors examine how relevant self-service constructs influence evaluations and attitudes of customers across both Settings. The purpose of these studies was to explore the potential differences between types of self-service technology. Specifically, the study explored how the dynamics of public and private self-service technology influence customers' decision to use the technology. The analysis revealed that customers' control and convenience perceptions differ across public and private self-service technology. Additionally, customers placed a heavier emphasis on the hedonic or utilitarian evaluation of a service experience based on the type of self-service technology. The study concluded that for managers of self-service applications, understanding the unique differences of public and private self-service technology can aid in the implementation and adoption of the technology. By properly understanding the differences of the self-service types, managers can provide a beneficial experience to the customer.

Fourth, there is Adopting self-service technology to do more with less this study of (Toni Hilton, Tim Hughes, Ed Little and Ebi Marandi, 2013). The study presented findings from 24 semi-structured interviews that focus on the everyday experiences of consumers in using SST. Both genders and all socio-economic categories within all adult age groups from 18 to 65 p were included. Employees have traditionally played a major role in the customer's service experience. Yet self-service technology (SST) replaces the customer-service employee experience with a customer-technology experience. This study identified risks when customers become partial employees and concluded that customers should perceive the value they gain from using SST to be at least commensurate with their co-production role. The application of service-dominant logic highlights potential risks and managerial challenges as self-service, and consequent value co-creation, relies on the operant resources of customers, who lack the tacit knowledge of employees and are less easy to manage. There is also the need to manage a new employee role: "self-service education, support and recovery". The qualitative study was confined to the consumer perspective.

Fifth, past studies have identified consequences of consumer satisfaction with self-service technology in retail setting (Michael Chih-Hung Wang, 2012). In cooperation with a survey firm, 424 respondents were collected from among consumers who had experience of using multimedia kiosks at convenience stores in Taiwan. The conceptual model was tested by using structural equation modeling. The purpose of this study is to investigate the antecedents

and consequences of consumer satisfaction with the use of self-service technology (SST) in a retail setting. The results show that perceived usefulness and perceived enjoyment both, initially, influence perceived control and convenience and then affect consumer satisfaction, which in turn has an impact on consumer continued behavior intention. In addition, perceived enjoyment is found to enhance consumer satisfaction, but perceived usefulness is not.

Sixth, researcher study the Self-service technology complaint channel choice exploring consumers' motives (Nichola Robertson, 2012). Qualitative self-report data from consumers who had recently experienced dissatisfaction with SSTs were collected via an open-ended survey question. Three independent coders used a deductive and inductive iterative process to code the data. This study aims to explore consumers' motives for their choice of complaint channel in the context of self-service technology (SST) failure. Traditional and evolving communication channels are Considered. The findings suggested that both consumer complaint behavior (CCB) theory and media richness theory (MRT) help to explain consumers' motivation for channel choice. However, consumers' Choice appears to be motivated to a greater degree by convenience rather than task-medium fit. Understanding consumers' complaint channel choice is important for organizations to enable them to provide effective and efficient ways for consumers to complain. As complaint channels proliferate, it is difficult for organizations to know which channels to offer. This study was set solely in the SST context and explored consumers' hypothetical complaint channel choice, not actual channel use.

## **HYPOTHESES**

H01: The first basic hypothesis :

**There is no relation with statistically significant effect between the total dimensions of the self-services technology and the continuity behavioral intentions for the internet banks users in Jordan .**

From this hypothesis emerge the following sub hypothesis :

H01.1: The first sub-hypothesis :

**There is no relation with statistically significant effect between the ease of use and the continuity of the behavioral intentions .**

H01.2: The second Sub-hypothesis :

**There is no relation with statistically significance between the usage usefulness and the continuity of the behavioral intentions .**

H01.3: The third sub-hypothesis :

**There is no relation with statistically significance effect between the perceived risks and the continuity of the behavioral intentions.**

H01.4: The fourth sub-hypothesis :

**There is no relation with statistically significance effect between the convenience and the continuous behavioral intentions.**

H01.5: The fifth sub-hypothesis :

**There is no relation with statistically significance effect between the self-control and the continuous behavioral intentions.**

## **METHODOLOGY**

Study population consists of the Jordanian banks clients present in (25) commercial and Islamic banks, while the study sample represents the clients using the self-services technology in all its forms in the Hashemite Kingdom of Jordan within purposeful random sample, based on this the sample unit is the clients using the banking technology .

### **Data Collection Method**

For the purpose receiving the data and information to achieve the research objectives and illustrate its importance the following resources and instruments:

- 1- Primary sources : The researcher will depend on collecting the primary data on the questionnaire , through distributing it to the Jordanian banks sector the research`s sample and helps in building the study`s scientific frame .
- 2- Secondary sources : Information will be received through referring to the books and the previous studies related to the research, the articles and the scientific journals to prepare the theoretical frame and to explain the basic terms in the research and enriching the search, also the researcher will use the electronic sites to attain some information

### **Variables and Measures**

The questionnaire was developed to collect data from the sample of the study after reviewing some of the previous literature addressing each of the variables examined in the study, it contains one main variable which consists of questions, the first group is about demographic question, such as ( age, gender, nationality, marital status, level of education, and bank name) about the study population, the second is about SST which includes five sub domains and was covered by (25 questions): ease of use (5 questions ), usefulness (5 questions), perceived risk

(5 questions), convenience ( 5 questions), self-control (5 questions), The third group is about continuous behavioral intentions which includes four sub domains and was covered by (5 questions).

## **ANALYSIS AND FINDINGS**

The study sample characteristics analysis in table (4-1) showed that the male were male 59 and female 41, and also showed that most respondents were alarabi bank which 46% while age was the highest was (31-41) was 39% while the lowest respondents were less than n 21 and more than 51 which is reflected by 11%, and the highest marital status respondents were married with 54%, and Jordanian respondents were the highest, and in the education section the bachelor degree got the highest number of respondents with 72% of the total respondents.

**There is no relation with statistically significant effect between the total dimensions of the self-services technology and the continuity behavioral intentions for the internet banks users in Jordan.**

Simple regression was performed and the results in table (1-1) showed that the strength of the relation between the overall dimensions of the SST and continuity behavioral intentions in Jordanian banks' users was (  $R = 38\%$ ), and the coefficient of determination ( $R^2$ ) showed that the explained difference percentage in the continuity behavioral intentions because of the impact of SST of Jordanian banks' users is not less than ( $R^2 = .145$ ), which is an acceptable percentage, meaning that (14.5%) of the total differences in continuity behavioral intentions for the Jordanian is determined through the SST, and the remaining percentage is equal to (85.5%) representing contribution percentage of the excluded variables that were not included in the study model as it shown in table (1-1). The value of computed ( $F = 16.561$ ) in addition to significant level of (0.000). This indicates that the curve of regression is good in explaining the relation between SST and continuity behavioral intentions.

The results of the simple regression analysis showed that there is positive impact of the overall SST on the continuity behavioral intentions, ( $\beta = .380$ ) at level of significant (0.000). Accordingly, the researcher rejects the null hypothesis and accepts the alternative hypothesis.

**There is no relation with statistically significant effect between the ease of use and the continuity of the behavioral intentions.**

Simple regression was performed and the results in table (1-1) showed that the strength of the relation between the ease of use and continuity behavioral intentions in Jordanian banks' users

was ( $R = 45\%$ ), and the coefficient of determination ( $R^2$ ) showed that the explained difference percentage in the continuity behavioral intentions because of the impact of ease of use of Jordanian banks' users is not less than ( $R^2 = .002$ ), which is an acceptable percentage, meaning that the (0.002%) of the total differences in continuity behavioral intentions for the Jordanian is determined through the ease of use, and the remaining percentage is equal to (99.998%) representing contribution percentage of the excluded variables that were not included in the study model as it shown in table (1-1). The value of computed ( $F = 0.202$ ) in addition to significant level of (0.000). This indicates that the curve of regression is good in explaining the relation between ease of use and continuity behavioral intentions.

The results of the simple regression analysis showed that there is positive impact of the ease of use on the continuity behavioral intentions, ( $\beta = -.450$ ) at level of significant (0.654).

**There is no relation with statistically significance between the usage usefulness and the continuity of the behavioral intentions.**

Simple regression was performed and the results in table (1-1) showed that the strength of the relation between the usefulness and continuity behavioral intentions in Jordanian banks' users was ( $R = 99.6\%$ ), and the coefficient of determination ( $R^2$ ) showed that the explained difference percentage in the continuity behavioral intentions because of the impact of usefulness of Jordanian banks' users is not less than ( $R^2 = .991$ ), which is an acceptable percentage, meaning that the (99.1%) of the total differences in continuity behavioral intentions for the Jordanian is determined through the usefulness, and the remaining percentage is equal to (99.008%) representing contribution percentage of the excluded variables that were not included in the study model as it shown in table (1-1). The value of computed ( $F = 10869.029$ ) in addition to significant level of (0.000). This indicates that the curve of regression is good in explaining the relation between usefulness and continuity behavioral intentions.

The results of the simple regression analysis showed that there is positive impact of the ease of use on the continuity behavioral intentions, ( $\beta = .996$ ) at level of significant (0.000).

**There is no relation with statistically significance effect between the perceived risks and the continuity of the behavioral intentions.**

Simple regression was performed and the results in table (1-1) showed that the strength of the relation between the perceived risks and continuity behavioral intentions in Jordanian banks' users was ( $R = 0.169\%$ ), and the coefficient of determination ( $R^2$ ) showed that the explained difference percentage in the continuity behavioral intentions because of the impact of perceived



risks of Jordanian banks' users is not less than ( $R^2 = .029$ ), which is an acceptable percentage, meaning that the (0.029%) of the total differences in continuity behavioral intentions for the Jordanian is determined through the perceived risks, and the remaining percentage is equal to (99.971%) representing contribution percentage of the excluded variables that were not included in the study model as it shown in table (1-1). The value of computed ( $F = 2.893$ ) in addition to significant level of (0.000). This indicates that the curve of regression is good in explaining the relation between perceived risks and continuity behavioral intentions.

The results of the simple regression analysis showed that there is positive impact of the ease of use on the continuity behavioral intentions, ( $\beta = -.169$ ) at level of significant (0.092).

**There is no relation with statistically significance effect between the convenience and the continuous behavioral intentions.**

Simple regression was performed and the results in table (1-1) showed that the strength of the relation between the convenience and continuity behavioral intentions in Jordanian banks' users was (R0.054%), and the coefficient of determination ( $R^2$ ) showed that the explained difference percentage in the continuity behavioral intentions because of the impact of convenience of Jordanian banks' users is not less than ( $R^2 = .003$ ), which is an acceptable percentage, meaning that the(0.003%) of the total differences in continuity behavioral intentions for the Jordanian is determined through the convenience, and the remaining percentage is equal to (99.997%) representing contribution percentage of the excluded variables that were not included in the study model as it shown in table (1-1). The value of computed ( $F = 0.286$ ) in addition to significant level of (0.000). This indicates that the curve of regression is good in explaining the relation between convenience and continuity behavioral intentions.

The results of the simple regression analysis showed that there is positive impact of the ease of use on the continuity behavioral intentions, ( $\beta = .054$ ) at level of significant (0.594).

**There is no relation with statistically significance effect between the self-control and the continuous behavioral intentions.**

Simple regression was performed and the results in table (1-1) showed that the strength of the relation between the self-control and continuity behavioral intentions in Jordanian banks' users was (R0.046%), and the coefficient of determination ( $R^2$ ) showed that the explained difference percentage in the continuity behavioral intentions because of the impact of self-control of Jordanian banks' users is not less than ( $R^2 = .002$ ), which is an acceptable percentage, meaning that the (0.002%) of the total differences in continuity behavioral intentions for the Jordanian is

determined through the self-control, and the remaining percentage is equal to (99.998%) representing contribution percentage of the excluded variables that were not included in the study model as it shown in table (1-1). The value of computed ( $F = .208$ ) in addition to significant level of (0.650). This indicates that the curve of regression is good in explaining the relation between self-control and continuity behavioral intentions.

The results of the simple regression analysis showed that there is positive impact of the ease of use on the continuity behavioral intentions, ( $\beta = -0.456$ ) at level of significant (0.000).

## CONCLUSION

This study potentially contributes to knowledge by examining the impact of SST on continuous behavioral intentions within Jordanian banks' users. The study attempts make some meaningful implications for academics as well as banks' administration. Academically, this work aims to focus academic attention on a much neglected domain such as what user should know about the electronic service that bank provide, making them pay attention and motive them to use. Many banks don't paying attention to SST and how this subject will attract users. There is currently a lack of appropriate study on this subject by academia in Middle East. Although this research has provided great points for SST, it is been subject to some limitations. One of these limitations was considered to be a new concept. In addition, there were no practical applications of this tool in Jordan and the Arab region possibly leading to some inconsistencies in the data collection process. Future research should take more variables to study with more details, and also should take more time to complete it and also sample should be more to get accuracy and reliability. Future research should be also expanded through other Arab countries.

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