



وزارة التعليم العالي والبحث العلمي
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The Usage of Automatic Teller Machine (ATM) in Kurdistan Bank-Erbil

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Abstract

This study tested the attributes of the theory of diffusion of innovation empirically, using Automatic Teller Machines (ATMs) as the target innovation. The study was situated in Kurdistan bank . The mean of this study is to find out the use of ATM by the customer in Kurdistan Bank .

There are some key factors that have an important impact on use the ATM in banks The main findings of the study will indicate that the factors, which are relative advantage, compatibility, complexity, trialability . The information of the research have gathered by a questionnaire survey among the employees of Kurdistan Bank. We have distributed 30 questionnaires and obtain 25 .

We have collected data from the survey and then analyzed it. After analysis, We get important results about dependent variables and independent variables. From this, now we can get an idea that how ATM impacts on customer in bank.

Key word : ATM , e-banking , bank service , ATM function .

1. Methodology

1.1 Research Problem

The development in IT especially in bank sector growth every year. So the bank should understand how to use this IT and make benefit from it , the mean of this research is to investigate the usage of ATM in banks

Therefore, the research problem is: how the bank can adoption ATM in bank sector and use it ?

1.2 Research Importance

- 1- To understand the e-service that use in bank especially the ATM service .
- 2- To answer research question and test the hypothesis and give conclusion and recommend .
- 3- To present a theoretical background of the ATM .

1.3 Research Hypothesis

According to the research problem and importance, this study specified the basic hypothesis as below:

H1: the Relative Advantage is affect on adoption ATM in banks .

H2: the Compatibility is affect on adoption ATM in banks .

H3: the Complexity is affect on adoption ATM in banks .

H4: the Trialability is affect on adoption ATM in banks .

H5: the Observability is affect on adoption ATM in banks .

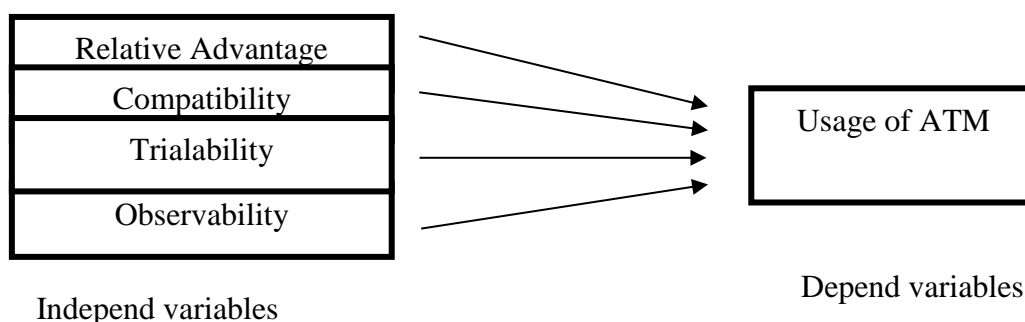
1.4 Research Methods

This research uses qualitative approaches on both primary and secondary data by use the (Excel) program. The primary data was collected from questionnaires distributed aiming employees of Kurdistan Bank. The secondary data was collected from books, journals and websites.

1.5 Research Sample

The researcher selected banks ,to see how banks deal with electronic service. For adoption evolution purpose by determent factors : compatibility, relative advantage, complexity, trialability, observability.

1.6 Conceptual Framework



2. Overview of Theoretical

2.1.1 Historical background of E- Banking

Before 30 years ago many financial service development especial in electronic bank sector. (Devlin ,1995) mention that until the 1970 the function was making in traditional way and that was affect on the competition in domestic market and global market . So, there was totally dependence on local branch to providers of banking service .between 1980 and 1990, service change, whilst during this time, the interest in technology and communications increasingly raise every day.

The Digital world become the best way for making banking services. Its early form of Current e- bank services. However, it not have acceptance from customer, but, with quick changes of other services, banks back again to depend the e-service in their branches. (Berger,2007)

2.1.2 E- Banking definition

Internet banking is defined as a provision of services , products by electronic channels like electronic payments , and all that making electronically (Yibin,2003).Electronic banking, or electronic funds transfer (EFT), is the new use of electronic service to transmit money or other service from account to another by depend on internet .(Shah & Clarke,2009).

According to (Vyas,2009) E-bank is the e- bank that provides their services for the customer by Internet.

electronic banking as “an umbrella term for the process by which a customer may perform banking transactions electronically without visiting a brick-and-mortar institution”.(Driga &Isak,2014).

2.1.4 The services of E-banking

The E- banking give to customer many function and services in bank sector, so these function are : (Hernando & Nieto ,2007)

- 1- the client can ask about any information in their account , such as the history of their account or the translate in their account .
- 2- Balance Transfer , the customer can make a transfer to another account in different country.
- 3- Accounts Aggregation , enables a customer to all his information (current account, saving account, etc.) on a one page.
- 4- Electronic Funds Transfer, make all transfer process on PC without paper.
- 5- reporting about loss the account, the customer can report to the bank missing his account or be stolen .
- 6- Customer account management, The customer can change his account , such as password, stopping or deleting cards and so on.

2.2 The Automatic Teller Machine (ATM)

2.2.1 Definition of ATM

Payment systems have developed fast in many places in last decades. The enable of electronic service especially in payment has improved. For example, in some countries the customer use cards instead of cheques , and e-service has become a accepted means of paying invoices. The developments in payment systems and especially in cash usage are very important for central banks. Central banks should to enhance steady , safe and effective payment systems. Furthermore, the maintenance of currency supply is one of the main responsibilities of central banks.

So the ATM can be define as an electronic telecommunication device that enables the client of a financial institution to perform financial transactions without the need for a cashier , human clerk or bank teller (Siu & Jain,1995) . While (Leonhard,1995) define the ATM as a machine in order to perform transactions such as deposits , cash withdrawals ,obtaining account information , etc .

According to (Snellman,2006) is a machine at which a customer can withdraw cash. Typically, these machines also provide other functions, reporting the balance on a customer's account.

(Khalifa & Saadan,2013) define the ATM as a computerized telecommunications device and real-time system that provides the clients of a financial institution with access to their bank accounts in a public space without intervention administration of financial institution.

2.2.2 The ATM Component

According to (Hossain, 2006) there are components of ATM machine :

- 1-Card Reader: Customer inserts their card in it when there is written “Please Insert your card” on the screen.
- 2- Keypad: Use PIN for code input, , input some money or withdrawal some money to the ATM machine.
- 3- Display Screen: the screen offer all the information for the customers .
- 4- Screen Buttons: When options are show on the screen the user can choose any buttons to doing the order that he ask about it .
- 5- Cash Dispenser: it is the device which the allowed the customer to withdraw the money
- 6- Speaker: give the customer the instruction and what he should do.
- 7- Receipt Printer : 7- Receipt Printer : give the customer a receipt with all information about his money.
- 8- Deposit Slot : is the place that customer can deposit money in ATM machine . As figure(1) show :

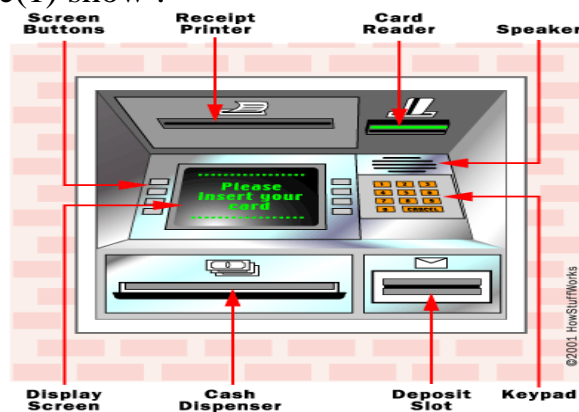


Figure (1) ATM Component

Source : Hossain, 2006, Understanding of ATM (Automated Teller Machine).

2.2.3 The Benefit of ATM

According to (ATMIA,2010) there are some benefit when banks and customers using the ATM machine as follow :

- 1- ATM reduce queues in banking halls and save cost .
- 2- ATM have become most common and use tool between the bank and customer in transactions.
- 3- ATMs make the banks to re-design their branches for more active and efficient
- 4- make the payment easy for the bank and the bill.
- 5- help cardholders to control their accounts by balance enquiries.
- 6- ATMs are linked in an international system of interlocking networks which make it possible for tourists and other overseas travelers to draw foreign currency using their domestic bank card .

2.2.4 The Factors Affect on ATM Adoption in banks

(Olatokun & Igbinedion,2009) mention that there are factors affect on use the ATM machine in banks and adoption it in institutions :

1- Relative Advantage : is mean what the benefit of using a new-fangled products or service in company , and it better than old one by ease of use , profit , cost , etc .

2- Compatibility: is the relate that occur between the user and the new products without problems or conflict.

3- Complexity : is how the user understand the new product or service and how use it without any hard of difficulty , because more than the user like and have a benefit from new-fangled product more than make easy to adoption it .

4- Trialability : is the ability to use the new service for the customer and see the reaction from use it before take decision to adoption it .

5- Observability : It is about the noting and see if this effect on the result.

3.Data collection and Analysis

3.1 Data collection :

It has been cleared that this research examines the probability between ATM Service and Bank, two statistical approaches used in this research which are Correlation Analysis and Regression Analysis, in order to finalize the research and test hypothesis.

Research was undertaken among a random sample of staff in banks of Kurdistan. The primary data was collected from questionnaires distributed aiming employees of Kurdistan bank . 25 questionnaires distributed to the banks from 30 that have been are obtained.

Convenience sampling had been applied with various analytical tools such as regression analysis is applied to test the proposed hypotheses using SPSS and Excel

3.2 Data Analysis :

Finding of respondents profiles are illustrated in table (1) shows the Demographical Data .The sample size of the research consists of 25 female & 75 male respondents. 75% of male and 25% of female customers participates in this survey which is shown below.

Table (1) Demographical Data

Factors	Factors	Percentage
Gender	Male	75%
	Female	25%
Age	Below 25	20%
	26 – 35	55%
	36-46	15%
	Above 46	10%
Education	Diploma	10%
	Bachelor Degree	70%
	Master Degree	15%
	Doctorate Degree	5%

Source : by researcher

3.3 Multiple Regressions:

These researches summarize the regression analysis results in table 4 as below :

Table (2) Regression Analysis Result

R Square	0.522
Significant value	0.036

Source: by Researchers

In order to check dependency on perception, multiple regression analysis was done. R^2 is .522 this suggests that 59% of the variance factors can be explained. The significant value is 0.036.so the first hypothesis is supported. It means 61% change occurring in dependent variable due to independent variable.

Table (3) Correlation Analysis Result

In depended Variable	Measuring Factors
Dependent	
Usage ATM	0.544*

Source: by Researchers

* $p < (0.05)$

N=10

In order to check dependency of usage ATM on perception, multiple regression analysis was done. R^s is .0.544 this suggests that of the variance of factors can be explained.

Table (4) Coefficients (a)

Standardized coefficient	Beta	P
Relative Advantage	0.288	.048*
Complexity	0.175	.033*
Trialability	0.013	.055 ^{N.S}
Observability	0.344	.038*

Source: created by Researchers

* $P < 0.05$

N.S= Not Significant

Dependent Variable:

Coefficient values which indicate if independent variable is increased by one unit dependent variable shall change by reported value.

Beta indicates that (Beat = 0.048) of Relative Advantage is significant and positive ,which supports hypothesis 1. (Beta = 0.175) of Complexity is not significant and negative , which not supports hypothesis 2 . (Beta = 0.013) of Trialability significant and positive ,which supports hypothesis 3 . (Beta

= 0.344) of Observability is significant and positive , which supports hypothesis 4 .

4.Conclusion and Recommendation

4.1 Conclusion

- 1- The use of ATM in Kurdistan bank give to the bank many advantage that make the customer focus on the bank service .
- 2- The adoption ATM in bank increase the profit , transfer , and make the bank reduce from many process that take long time to do it .
- 3- There is little communication between the bank and customer especially when the bank adoption new technology in service .
- 4- the employees accept the change in bank but they need to understand about the new IT and how to use it .
- 5- from the result we note there is strong relationship between the factors and usage of ATM .

4.2 Recommendation

- 1- the bank must increase the information about any IT decided to use it in bank on website of the Kurdistan bank .
- 2- the bank must use application that employees can understand it .
- 3- the bank must not focus only on bank benefit , it should focus either on customer benefit in service to keep the customer and client .

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Dear teachers

The objective of the study is to identify and analyze the use of ATM in banks . Please be assured that your responses will be strictly confidential. Please put a (√) mark to indicate your preference with all appreciation .

General Questions

1- Age:

Below 20 () 21-35 () 36-50 () 51 and above ()

2- The experience

1- 5 years () 6- 10 years () 11-15 years () more than 15 years ()

3- gender

Male () Female ()

4- Educational Level

Primary() Secondary () Diploma () Degree and above ()

Specific Questions:

Nu.	Statement	Agree	Strong agree	Neutral	Disagree	Strong Disagree
1-	the use of ATM in banks increase the customer transfer and make it easy					
2-	The use of ATM make the bank get more profit and reduce the cost of the process of transfer					
3-	The ATM machine make many benefit to the customer and offer many service .					
4-	All implementation of process are going smoothly in the bank					
5-	The customer understand how to use the ATM machine					
6-	The customer understand all the application hat adoption in ATM machine .					
7-	The customer accept the change that happened in bank in adoption new technology .					
8-	the use of ATM reduce the problem that happened in customer transfer .					
9-	The communication between customer and branches of bank become very easy.					
10-	The use of ATM increase the demand from the customer to have accredit cards .					