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Fall 9-30-2008

E-Banking Jordan Commercial Banks

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Abstract

This study aims to introduce various new electronic banking services in Jordan commercial bank, as a result of the government concerns for the development of e-business services in Jordan which includes: Electronic cards, ATM, Mobile bank, Internet bank, Voiced bank, Short messages services, Electronic payment and the effect of these services in customer acceptance and satisfaction.

This study will be developed depending on the previous studies and on the new information collection by designing questionnaire, and using statistics to analyze the study assumptions. This study can be understood through the following questions:

Does the new electronic banking services assist in the increase number of customers?

What are the acceptances of customers for these electronic services?

Keywords: E-business, e-Banking Services, e-Cards, Automated teller Machine (ATM), Mobile Bank, Internet Bank, Voiced Bank, Short Messages services, e-Payment.

1. Introduction

The financial companies and banks were started to use the new technology since 1980s [7]. First they concentrated their tension on the technology that accelerate the main bank operations. It was discovered that the use of new technology would increase the following issues:

- The quality of services that were offered to the customers
- Number of banking services that were offered to the customer
- Competition between banks
- Customer satisfactions with services which are provided by banks
- Customers' tendency to deal with banks.

Recently new electronic services are discovered that are concentrated on communications and telecommunication technology which will add new services to banking sectors [15].

The Impact of Electronic Banking Services on Banks:

The use of new technology and internet in banking services was contributed in solving many obstacles and challenges that banks and customers face, when they use traditional services channels, and variety of banking services are provided 24 hrs daily for customer to satisfy their needs from banking services.

These new technologies are contributing in offering many new banking services such as: automated teller machine (ATM), voiced bank, internet bank, and so on.

These new automatic services were made banks work more efficiently, more attractive to customers, and concentrating the management and employee efforts for helping customers [10].

Since 1990s, most commercial banks were started to provide automating bank services for customers, especially credit cards and national express cards, which is considered to be one of the most popular services in Jordan. These services are developed continuously to satisfy customers needs, especially in the increases of competitions between banks, and the increase number of commercial banks in Jordan as it is known that the number of national and Arab commercial banks in Jordan exceed twenty one banks. Generally these commercial banks are providing the same services from credits, investments, and different other services that are depending directly on customers whom are persons, or companies.

So its found that these automated banking services help bank in increasing their ability for competition and customers' trust in commercial bank, in addition to the other properties that play an important rule in providing good services for customers that utilize their time and effort especially it is known that these services are provided 24 hrs daily.

So from here the bank can develop its services depending on these new technology and the feed back that are supplied by customers suggestions about these services.

1.1 Electronic Banking Services

There are many electronic banking services that use new technology in doing many banking facilities and it will be explained later.

1.1.1 Automatic Teller Machine Services (ATM)

The banking sector in Jordan faced a great revolution [16], which is presented, used instead of money in (ATM) machines.

The principle of work for this magnetic cards in (ATM) was built upon the development of telecommunication network which is specialized to (ATM). So they connect these universal networks by smaller network in the world to enable customers to take these services in any part of the whole entire world with a very short response time.

1.1.2 Types of Banking Cards [11]

1.1.2.1 Automated Teller Machine Cards

These cards are one of the most famous card in Jordan, that enable any customer in the bank to obtain it, if he has a count, and enable him to: withdrawal or invest any time in his account, or know his account amount, or transfer from one account to another.

1.1.2.2 Credit Cards

These credit cards include the following types:

- Visa card, Master Card and American Express Cards: These Cards have the following types depending on their properties (Traditional cards (silver cards), Gold cards and Platen cards)

1.1.2.3 Visa Electronic Cards

These cards solve the (ATM) cards disadvantages by enable customer to control their account.

1.1.2.4 Smart Cards : These cards are not familiar and have a restrict applications.

1.1.3 Mobile Bank: It was built depending on WAP technology that enable customers to conduct with bank easily in both Arabic and English languages. This service is developed rapidly as a result of mobile telecommunications revolution. It is used to pay bills and convert customers' accounts.

1.1.4 Internet Bank: Internet banks help customers to do all the bank's operations by using the Internet facilities. It is considered to be one of the most important applications of electronic business (e-business) depending on the virtual working banking environment.

1.1.5 Voiced Bank: It is considered one of the most famous electronic banking services that enable customer to order their needs directly by using their voice, which is register on the service machine.

1.1.6 Short Message Services (SMS): The banks support their customers' needs through using short message services by sending any vital information to their customers, after the operation is completed.

1.1.7 Electronic Payment: This service was developed and built depending on the techniques that are used in mobile bank. It enables the customers to know the value of their goods instantaneously when they are shopping and gives them the opportunity to pay using the mobile.

1.2 The Effected Factors in Customers Attractions to Banks

1.2.1 Relations Built with Customers [8]

The use of new techniques in banking marketing and promotions play an important rule in customers trust to deal with banks, so as a result of this banks have two techniques to achieve their trust:

1. Marketing on personal level by trying to satisfy personal customers needs (i.e.) concern with their personality needs.
2. Their personal needs include their birthdays, social occasions and so on, to built a strong relation with them such as sending congratulations and gifts for them in these occasions.

1. **Forecasting Models:** These techniques are very important methods to build strong bridges with customers by forecasting their needs through the use of Frequently Asked Questions (FAQ).

1.2.2 Factors That Determine Service Quality From Customer Viewpoint

These factors can be classified as follow [12]

without needs for queuing or waiting to achieve these services.

- **Security:** It means that the service is free from dangers.
- **Trust:** The service is trust free from error.
- **Understandability:** The service is simple and has well-defined procedures. It does not need training.
- **Responsibility:** It means real time and fast response to provide these services.
- **Employee Skills:** What are the skills that employees have to own in order to perform their works efficiently, and how they can use their analysis and prediction skills to provide banking services to customers.
- **Tangible Assets:** Normally service quality can be evaluated through the tangible facilities that were provided to customers, like tools, machines, human resources, and communication devices that are related to service provider.
- **Communication:** Does the service provider able to introduce customers about the services, and the methods that the customers play to obtain the required services. Does the service provider introduce the customers a bout the troubles that occur in the system of service evaluation.

1.2.3 Factors that effect customers expectation: There exist five factors that effect customer expectation, which include the following [8]: Reputation, Customers' needs and preferences, External communication and Social engineer scenarios by knowing how to effect customers sympathy.

1.2.4 Factors That Effect Deposit Attraction [4]

The deposits attraction depend on the following factors: economical and political stability, the trust to deal with banks increase with the increasing of stability environment, as it is a vital thing for banks' development and bank properties. Moreover customers like to deal with banks that have the following properties: - good reputation, good environment, fast response time to services, reliable services and high employee performance

Providing new and incentive courage to customers: banks continually change the interest rate as a result of their strategies to be able to face competitions. Develop services level and types of banking services. Banks try to promote for new services to customers and train their employees to provide a good service to customer by having an office for development and training.

- **Bank location:** The bank location is a vital thing for customers' success because customers do not like to travel and like to receive services from a close location. So banks try to open many branches as possible to reduce travel distance to customers.
- **Main bank policies and the strength of its financial position**
As the bank policies are correct and stable, the banks will do their works efficiently. Also as bank liquidity is sufficient this will support their reputation.
- **Providing new services:** People like new things and changes, so providing modern banking services will have a positive influence on banks performance.

1.3 New Banking Services [2]

The Banks and financial services sectors are facing dynamic changes and main challenges that include the increase of competition between bank and competition between banks and other services or production sectors.

So as a result of these rapidly competition and diversity of investment sectors, banks develop the services that they provide for their customers to run concurrently with the society development.

These new banking services are considered the main source for banks incomes, also these services include the following.

- **New Creating Accounts:** include increase interested rate or investment accounts, Contracting investment accounts, Student investment account for learning, and collection accounts that provide several integrated services for customers.
- **Authorization Services:** include buying invoices from vendors and pay their values then generate their values from buyers by taking especial commission from vendors. These authorizations have many types depending on the type of commission.
- **Checks insurance Card:** These Cards are discharged by banks to their customers, In order to use them as an Insurance for commercial markets to take checks instead of money, but these cards have a limit duration (i.e.) it can be used for a fixed period of time for one month as an example.
- **Automated Teller Machine:** The ATM devices can be worked indifferent tradition or in tradition operations such as money depositing or withdrawing or other banking services.

One of the best services that ATM provide, it can expose false money from real ones and when it is emphasized from the money, the device add the deposit money amount to the client account.

want, then transferring these to bank employees. These centers can be placed instead of traditional banks and play a vital role especially in industrial countries.

- **Smart card:** These cards contain computer chips and microprocessors without the need to connect with computers for banks. These include: visa cards, master cards, and American Express cards. These cards enable clients (Customers) to buy anything they want; also, they can be charged by any amount of money by using an ATM machine. Also, these cards can be worked as electronic bank packets that give clients no need to carry money. One of the famous smart cards globally is the Mondex card that generates many advantages for its users.
- **End of sale points services:** These include multi-financial services to automatically lift up in commercial markets such as checks assurance, indirect payment by electronic translation from buyer accounts to merchant accounts by using client cards and the merchant processing devices. Also, there are direct payment services but portend the involvement of the creditor in the automatic payment system.
- **Electronic check translation services:** Translating check write information to electronic information and then using this information for commercial transactions does this. There is a complete check system that is called check transaction.
- **Banking services through the INTERNET networks:** Nowadays many banks in the world have their position on their website, that enable them to promote them along the world in addition to the fast communication with a low cost and this results in the increase in the number of services via the internet. One of the famous banks in the world that use the Internet to provide services via the net is American Citi bank.

1.4 Research Problem

The bank sectors and banks nowadays play a vital position in the economic sector, since they receive money from customers and invest them in other economical development national sectors such as: industry, agriculture and other sectors, in addition to the other services that offered toward their clients. The Jordan commercial banks are developed greatly especially in the last three years. The numbers of commercial banks in Jordan are increased to attract clients toward invest their money in these banks, since most of these banks budgets depend on customers' deposits. As a result of these banks revolution, banks' managers understand the importance of the marketing techniques to attract more customers toward their banks.

In Jordan, since the market is limited and small, banks start to develop their services to satisfy their customers needs, through continuously inserting the new discovered technology in banking services.

The new technology are developed greatly because of the wide spread of Internet network and the fast degree of communication media, so banks began to take advantage of these new electronic channels to satisfy their customers' needs by developing the quality of services, which are provided. The study problem is presented by determining the type of relation between new electronic services and the degree by which these services influence in attracting more customers to deal with these commercial banks in Jordan, so the study problem can be presented through the following questions:

- (1) Do the new electronic services attribute in increasing the number of customers in Jordan commercial banks that use these services?
- (2) What is the acceptance of customers toward these services?

1.5 The importance of the study

The commercial banks as mentioned play a vital role in Jordan economy, since these banks do many tasks that depend on collecting inputs of the national economy to use them in society development programs in addition to their importance in keeping money stability in national economy.

Banks should interest in developing their services, in order to attract more customers, since most of their budgets depend on clients (local or foreign) deposits.

So banks start to use the new electronic services toward their customers' loyalty and acceptance through increasing the services speed, reliability, and quality with minimum cost.

The study are vital for both the banks and customers, for banks through developing their services, increase the number of their customers, and conserve their current customers.

For customers through enabling them to get there needs.

1.6 Research objectives

This study aims in finding the influence of using new electronic services upon increasing the number of customers in Jordan commercial banks. Also measuring the relation between the banks that use these new electronic services and the effect of this in increasing the number of customers. Offering suggestions and recommendations that direct Jordan commercial banks to use these services in order to satisfy their customers needs.

2. Literature Review

As it is known that the implementation of new electronic services in Jordan commercial banks is recent, so the studies and researches in this field have a shortage and leakage.

From these studies which are related to these topics are:

- The study which is done by Osma [5] that aimed in collecting information about the external and internal factors that affect the works of Jordan commercial banks, one of these factors is the affect of using new technology development in the working of these banks. This study found that there is a high statistical influence between the use of new technology development and acceptance of commercial banks' clients.

The study which is done by Atal [6] that aimed in the introduction of commercial banks' managers in the investment in new technology and telecommunication services such as the use of the Internet in practicing various banks services. This study found that there is a high intensity of manager toward using the Internet in promoting their banks' services and marketing programs.

The study which is done by Meqdady [13] that aimed in the measurement of customers acceptance and understanding of these new information systems and the influence of these system towards dealing with banks. This study found that most of commercial banks use these services toward developing the degree levels of these services, which are offered to their customers. The study which is done by Barnewell [14] that aimed in introducing the opinion of customers toward the services that offered by banks' sector. This study found that there is a leakage of strategic planning toward developing the quality of the services that are provided to customers.

The study which is done by Stone [9] that aimed on the knowledge and introduction of environmental challenges that have a great influence on banks manufacturing sectors, especially the economical changes. The study found that, the banks should adapt certain rules toward organizing their practices, and marketing strategies through offering their customers the best services they have. Study which is done by Shafeg [1] that aimed on knowing the factors which, effect customers' selection of the banks they prefer to deal with. The study found that the factors that effect the selection of banks are: location, reputation, incentives, services response time, existing of atm machine and speed.

3. Research Model

This study will concern with studying the relation between these variables and the influence of dependent variables on the independent variables as it will be seen later.

Dependent variable: It is represented by customers' attractive factors.

Independent variables:

The use of electronic banking services which can be classified as follow:

- The ease of using new technology
- The speed of performing operations and transactions
- The reliability and accuracy of operations
- Client's trust
- Client's satisfactions
- Security and protection of data
- Availability of new electronic banking services
- Bank's experience
- Providing of incentives and prizes

Many hypotheses were built to develop the scope of the study as follow:

Table 1 Study Hypothesis

1	H0	The use of new technology has no influence on increasing number of banks' customers
	H1	The use of new technology has influence on increasing number of banks' customers
2	H0	The simplicity of technology does not courage customers to deal with banks
	H1	The simplicity of technology encourages customers to deal with banks
3	H0	Security and protection have no effect on customers attraction to deal with banks
	H1	Security and protection effect on customers attraction to deal with banks
4	H0	The speed of transactions and operations has no effect on customers ability to deal with banks
	H1	The speed of transactions and operations has effect on customers ability to deal with banks
5	H0	The accuracy of performing operations has no effect on customers satisfaction
	H1	The accuracy of performing operations has effect on customers satisfaction
6	H0	Client's trust with bank has no effect on the number of customers
	H1	Client's trust with bank effect on increasing the number of customers
7	H0	Bank's reputation and experience has no effect on the increase number of customers
	H1	Bank's reputation and experience has effect on the increase number of customers
8	H0	The wide spread of bank's branches has no effect on the increase number of customers
	H1	The wide spread of bank's branches has effect on the increase number of customers
9	H0	Customers satisfactions have no effect on the increase number of customers
	H1	Customers satisfactions have effect on the increase number of customers
10	H0	Providing of incentives and prizes does not increase the numbers of bank's customers
	H1	Providing of incentives and prizes increase the numbers of bank's customers

In this study two types of questionnaires were developed one for commercial banks' clients (customers), and the other for commercial banks' employees. These questionnaires are put in the index of the study.

3.2 Data Analysis

3.2.1 Data Analysis That are Related to Customers

3.2.1.1 Test first hypothesis

H0: The use of new technology has no influence on increasing number of banks' customers.

H1: The use of new technology has an influence on increasing number of banks' customers.

From the analysis of the study related questions to this hypothesis, it is found that 78% of clients emphasize that the use of new technology is a reason that courage them to deal with banks. The measure of the first hypothesis using Chi-Square. So according to the analysis of Chi-Square the table value =7.815 , which lead to the accept of alternative hypothesis(H1) and reject of (H0).

Table 2 Chi square for hypothesis 1

Test Statistics			
	q1	q3	q4
Chi-Square ^a	25.000	23.000	7.600
df	3	3	3
Asymp. Sig.	.000	.000	.055

a. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 10.0.

H1: The simplicity of technology encourages customers to deal with banks.
 From the analysis of the study related questions to this hypothesis, it is found that 68.5% from the clients emphasize that the simplicity of using technology contribute on persuading them to deal with banks. The measure of the second hypothesis using Chi-Square. So according to the analysis of Chi-Square the table values (Q1 =9.488, Q2=7.825) which lead to the accept of alternative hypothesis (H1) and reject of (H0).

Table 3 Chi square for hypothesis 2

Test Statistics		
	q2	q17
Chi-Square ^{a,b}	36.250	11.000
df	4	3
Asymp. Sig.	.000	.012

- a. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 8.0.
- b. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 10.0.

3.2.1.3 Test Third Hypothesis

H0: Security and protection have no effect on customers attraction to deal with banks.

H1: Security and protection effect on customers attraction to deal with banks.

From the analysis of the study related questions to this hypothesis, it is found that 63.75% from the clients emphasize that security and access control to their data are strong factors that lead them to deal with any bank. The measure of the third hypothesis using Chi-Square. So according to the analysis of Chi-Square the table values=7.815, which lead to the accept of alternative hypothesis (H1) and reject of (H0).

Table 4 Chi square for hypothesis 3

Test Statistics		
	q6	q8
Chi-Square ^a	9.400	3.600
df	3	3
Asymp. Sig.	.024	.308

- a. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 10.0.

3.2.1.4 Test Fourth Hypothesis

H0: The speed of transactions and operations has no effect on customers ability to deal with banks .

H1: The speed of transactions and operations has effect on customers ability to deal with banks.

From the analysis of the study related questions to this hypothesis, it is found that 71.25% from the clients emphasize that speed of performing bank's transactions are strong factors that lead them to deal with banks. The measure of the fourth hypothesis using Chi-Square. So according to the analysis of Chi-Square the table values=7.815, which lead to the accept of alternative hypothesis(H1) and reject of (H0).

	q10	q11
Chi-Square ^a	10.000	40.200
df	3	3
Asymp. Sig.	.019	.000

- a. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 10.0.

3.2.1.5 Test fifth hypothesis

H0: The accuracy of performing operations has no effect on customers satisfaction.

H1: The accuracy of performing operations has effect on customers satisfaction.

From the analysis of the study related questions to this hypothesis, it is found that 55% from the clients prefer accurate operations. The measure of the fifth hypothesis using Chi-Square. So according to the analysis of Chi-Square the table values=9.488, which lead to the accept of alternative hypothesis (H1) and reject of (H0).

Table 6 Chi square for hypothesis 6

Test Statistics		
	q13	q14
Chi-Square ^a	26.250	13.500
df	4	4
Asymp. Sig.	.000	.009

- a. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 8.0.

3.2.1.6 Test Sixth Hypothesis

H0: Client's trust with bank has no effect on the number of customers.

H1: Client's trust with bank effect on increasing the number of customers.

From the analysis of the study related questions to this hypothesis, it is found that 71.25% from the clients' factors that lead them to deal with banks their trust.

The measure of the sixth hypothesis using Chi-Square. So according to the analysis of Chi-Square the table values=7.815, which lead to the accept of alternative hypothesis (H1) and reject of (H0).

Table 7 Chi square for hypothesis 6

Test Statistics		
	q12	q19
Chi-Square ^a	37.400	25.400
df	3	3
Asymp. Sig.	.000	.000

- a. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 10.0.

3.2.1.7 Test Seventh Hypothesis

H0: Bank's reputation and experience has no effect on the increase number of customers.

H1: Bank's reputation and experience has effect on the increase number of customers.

From the analysis of the study related questions to this hypothesis, it is found that 74.375% from the clients deal with banks according the banks' reputation and experience. The measure of the seventh hypothesis using Chi-Square. So according to the analysis of Chi-Square the table values=7.815, which lead to the accept of alternative hypothesis (H1) and reject of (H0).

	q9	q16	q21	q22
Chi-Square ^{a,b}	19.750	16.000	23.000	14.600
df	4	3	3	3
Asymp. Sig.	.001	.001	.000	.002

- a. 0 cells (.0%) have expected frequencies less than 5.
The minimum expected cell frequency is 8.0.
- b. 0 cells (.0%) have expected frequencies less than 5.
The minimum expected cell frequency is 10.0.

3.2.1.8 Test Eighth Hypothesis

H0: The wide spread of bank's branches has no effect on the increase number of customers.

H1: The wide spread of bank's branches has effect on the increase number of customers.

From the analysis of the study related questions to this hypothesis, it is found that 72.5% from the clients deal with banks according the ease of reaching banks (i.e.) wide geographical spread. The measure of the eighth hypothesis using Chi-Square. So according to the analysis of Chi-Square the table values=9.488, which lead to the accept of alternative hypothesis(H1) and reject of (H0).

Table 9 Chi square for hypothesis 8

Test Statistics

	q5	q18
Chi-Square ^{a,b}	21.800	38.000
df	3	4
Asymp. Sig.	.000	.000

- a. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 10.0.
- b. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 8.0.

3.2.1.9 Test Ninth Hypothesis

H0: Customers satisfactions have no effect on the increase number of customers.

H1: Customers satisfactions have an effect on the increase number of customers.

From the analysis of the study-related questions to this hypothesis, it is found that 64.1% from the client's deal with banks according their satisfactions that result from the services that the bank provide. The measure of the ninth hypothesis using Chi-Square. So according to the analysis of Chi-Square the table values=7.815, which lead to the accept of alternative hypothesis (H1) and reject of (H0).

Table 10 Chi square for hypothesis 9

Test Statistics

	q15	q20	q7
Chi-Square ^{a,b}	35.400	21.000	12.000
df	3	3	4
Asymp. Sig.	.000	.000	.017

- a. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 10.0.
- b. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 8.0.

3.2.1.10 Test Tenth Hypothesis

banks according to the encourages provide by banks through incentives and prizes programs. The measure of the tenth hypothesis using Chi-Square. So according to the analysis of Chi-Square the table values=9.488, which lead to the accept of alternative hypothesis(H1) and reject of (H0).

Table 11 Chi square for hypothesis 10

Test Statistics

	q23
Chi-Square ^a	10.750
df	4
Asymp. Sig.	.030

- a. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 8.0.

3.2.2 The Analysis of Bank's Employee Questionnaire

- Personal questions, gender and the analysis of the age of the sample people

Table 12 Age of the sample

Age

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	<25	9	23.7	23.7	23.7
	25-30	16	42.1	42.1	65.8
	30-35	8	21.1	21.1	86.8
	35-40	2	5.3	5.3	92.1
	>40	3	7.9	7.9	100.0
	Total	38	100.0	100.0	

Table 13 The Education Level Of The Study Sample

Qualification

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Diploma	2	5.3	5.3	5.3
	B.Sc	31	81.6	81.6	86.8
	Master	5	13.2	13.2	100.0
	Total	38	100.0	100.0	

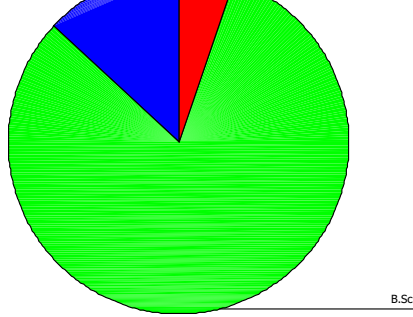


Figure 1 : Education level of the sample

- The Amount of Sample Monthly Income

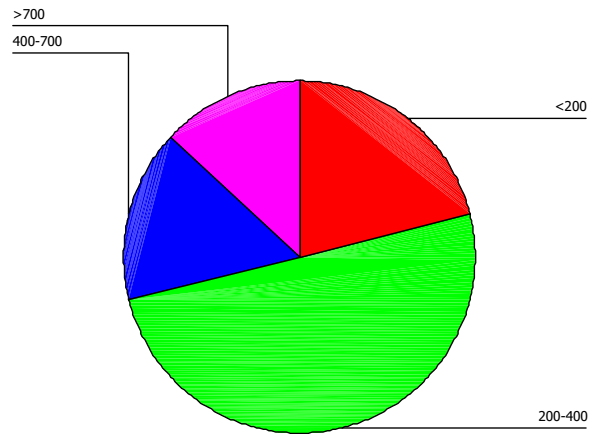


Figure 2 Income of the sample

- According To The Statistical Analysis Of The Sample Data The Following Result Are Found

Table 14 Data analysis

Descriptive Statistics

	N	Mean	Std. Deviation	Variance
Gender	38	1.58	.50	.250
Age	38	2.32	1.14	1.303
Income	38	2.21	.93	.873
Qualification	38	3.08	.43	.183
Valid N (listwise)	38			

	N	Mean	Std. Deviation	Variance
q1	38	1.61	.55	.299
q2	38	1.55	.55	.308
q3	38	1.79	.78	.603
q4	38	2.13	.93	.874
q5	38	1.89	.98	.962
q6	38	1.55	.83	.686
q7	38	1.66	.88	.772
q8	38	2.34	1.15	1.312
q9	38	2.66	.99	.988
q10	38	1.76	.75	.564
q11	38	1.50	.76	.581
q12	38	2.18	1.11	1.235
q13	38	1.42	.55	.304
q14	38	1.53	.69	.472
q15	38	1.29	.46	.211
q16	38	2.29	.87	.752
q17	38	2.45	1.20	1.443
q18	38	1.53	.69	.472
Valid N (listwise)	38			

3.3 Data Analysis for the Employees Questionnaire

3.3.1 Test first Hypothesis

H0: The use of new technology has no influence on increasing number of banks' customers.

H1: The use of new technology has an influence on increasing number of banks' customers.

From the analysis of the study related questions to this hypothesis, it is found that 90% of clients emphasize that the use of new technology is a reason that courage them to deal with banks.

- The measure of the first hypothesis using Chi-Square.

So according to the analysis of Chi-Square the table value=5.9911, which lead to the accept of alternative hypothesis (H1) and reject of (H0).

Table 16 Results for hypothesis 1

Test Statistics

	q1	q2	q3
Chi-Square ^{a,b}	17.105	16.158	25.579
df	2	2	3
Asymp. Sig.	.000	.000	.000

- 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 12.7.
- 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 9.5.

3.3.2 Test Second Hypothesis

H0: The simplicity of technology does not courage customers to deal with banks.

H1: The simplicity of technology encourages customers to deal with banks.

From the analysis of the study related questions to this hypothesis, it is found that 85% from the clients emphasize that the simplicity of using technology contribute on persuading them to deal with banks.

- The measure of the second hypothesis using Chi-Square.

Table 17 Results for hypothesis 2

Test Statistics

	q6	q7
Chi-Square ^a	31.263	25.789
df	3	3
Asymp. Sig.	.000	.000

- a. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 9.5.

3.3.3 Test third hypothesis

H0: Security and protection have no effect on customers attraction to deal with banks.

H1: Security and protection effect on customers attraction to deal with banks.

From the analysis of the study related questions to this hypothesis, it is found that 85% from the clients emphasize that security and access control to their data are strong factors that lead them to deal with any bank.

- The measure of the third hypothesis using Chi-Square.

So according to the analysis of Chi-Square the table values=7.815, which lead to the accept of alternative hypothesis (H1) and reject of (H0).

Table 18 Results for hypothesis 3

Test Statistics

	q11
Chi-Square ^a	34.211
df	3
Asymp. Sig.	.000

- a. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 9.5.

3.3.4 Test fourth hypothesis

H0: The speed of transactions and operations has no effect on customers ability to deal with banks.

H1: The speed of transactions and operations has effect on customers ability to deal with banks.

From the analysis of the study related questions to this hypothesis, it is found that 62.5% from the clients emphasize that speed of performing bank's transactions are strong factors that lead them to deal with banks. The measure of the fourth hypothesis using Chi-Square. So according to the analysis of Chi-Square the table values=3.841, which lead to the accept of alternative hypothesis (H1) and reject of (H0).

Table 19 Results for hypothesis 4

Test Statistics

	q15
Chi-Square ^a	6.737
df	1
Asymp. Sig.	.009

- a. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 19.0.

3.3.5 Test Fifth Hypothesis

H0: The accuracy of performing operations has no effect on customers satisfaction.

H1: The accuracy of performing operations has effect on customers satisfaction.

From the analysis of the study related questions to this hypothesis, it is found that 90% from the clients prefer accurate operations. The measure of the fifth hypothesis using Chi-Square. So according to the analysis of Chi-Square the table values=7.815, which lead to the accept of alternative hypothesis (H1) and reject of (H0).

	q14
Chi-Square ^a	32.316
df	3
Asymp. Sig.	.000

- a. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 9.5.

3.3.6 Test Sixth Hypothesis

H0: Client's trust with bank has no effect on the number of customers.

H1: Client's trust with bank effect on increasing the number of customers.

From the analysis of the study related questions to this hypothesis, it is found that 70% from the clients' factors that lead them to deal with banks their trust. The measure of the sixth hypothesis using Chi-Square. So according to the analysis of Chi-Square the table values=9.488, which lead to the accept of alternative hypothesis (H1) and reject of (H0).

Table 21 Results for hypothesis 6

Test Statistics

	q4	q5
Chi-Square ^{a,b}	22.263	12.947
df	4	3
Asymp. Sig.	.000	.005

- a. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 7.6.
- b. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 9.5.

3.3.7 Test Seventh Hypothesis

H0: Bank's reputation and experience has no effect on the increase number of customers.

H1: Bank's reputation and experience has effect on the increase number of customers.

From the analysis of the study related questions to this hypothesis, it is found that 73.75% from the clients deal with banks according the banks' reputation and experience. The measure of the seventh hypothesis using Chi-Square. So according to the analysis of Chi-Square the table values=7.815, which lead to the accept of alternative hypothesis (H1) and reject of

Table 22 Results for hypothesis 17

Test Statistics

	q16	q18
Chi-Square ^{a,b}	14.000	12.842
df	3	2
Asymp. Sig.	.003	.002

- a. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 9.5.
- b. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 12.7.

3.3.8 Test Eighth Hypothesis

H0: The wide spread of bank's branches has no effect on the increase number of customers.

H1: The wide spread of bank's branches has effect on the increase number of customers.

From the analysis of the study related questions to this hypothesis, it is found that 58.75% from the clients deal with banks according the ease of reaching banks (i.e.) wide geographical spread. The measure of the eighth hypothesis

Test Statistics

	q9	q10
Chi-Square ^{a,b}	15.684	3.842
df	4	2
Asymp. Sig.	.003	.146

- a. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 7.6.
- b. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 12.7.

3.3.9 Test Ninth Hypothesis

H0: Customers satisfactions have no effect on the increase number of customers.

H1: Customers satisfactions have an effect on the increase number of customers.

From the analysis of the study related questions to this hypothesis, it is found that 70% from the clients deal with banks according their satisfactions that result from the services that the bank provide. The measure of the ninth hypothesis using Chi-Square. So according to the analysis of Chi-Square the table values=9.488, which lead to the accept of alternative hypothesis (H1) and reject of (H0).

Table 24 Results for hypothesis 9**Test Statistics**

	q12	q13	q17
Chi-Square ^{a,b}	14.895	19.316	7.000
df	4	2	4
Asymp. Sig.	.005	.000	.136

- a. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 7.6.
- b. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 12.7.

3.3.10 Test Tenth Hypothesis

H0: Providing of incentives and prizes does not increase the numbers of bank's customers.

H1: Providing of incentives and prizes increases the numbers of bank's customers.

From the analysis of the study related questions to this hypothesis, it is found that 57.5% from the clients deal with banks according the encourages provide by banks through incentives and prizes programs. The measure of the tenth hypothesis using Chi-Square. So according to the analysis of Chi-Square the table values=9.488, which lead to the accept of alternative hypothesis (H1) and reject of (H0).

Table 25 Results for hypothesis 10**Test Statistics**

	q8
Chi-Square ^a	10.684
df	4
Asymp. Sig.	.030

- a. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 7.6.

4. Conclusions

- These new electronic services are considered to be a major services and it is difficult to get rid of them from customers, since customers tendency towards these services are increased because of the short response time.
- This study shows that there is a strong relation between the use of new electronic services and the increase number of customers whom want to use these services (i.e.). These services are strong attractive factors to deal with banks. So these services increase banks ability to take their position in competition.
- This study shows that the new electronic services contribute in solving many problems and obstacles that face customers when they use traditional methods, since these services are continually diverging, so these traditional methods where unable to handle these changes.
- This study emphasis that the new electronic services contribute in the increase satisfaction of banks' customers, and strength their trust to deal with banks because banks serve them continually and 24 hrs daily.
- This study shows that these services contribute in developing the quality and level of services that are provided to customers, and contribute in developing the level of services by inserting new technology in banks.

4.1 Recommendations

According to the study result, the following recommendations are established:

- The Jordan commercial banks should take advantage of the new electronic banking services and utilize these services in their marketing programs as a tool to attract customers to deal with them, since these services contribute in the increase degree of competition between banks and in developing their market reputation.
- The Jordan commercial banks should promote these services, explain their benefits, and explain how to use these services by using a high level promotion programs and techniques.
- The banks should be on line with customers by having one to one relations, through continually solving their problems and trying to know their needs, opinions, and expectations towards these services, by using electronic dialog boxes, or even using traditional suggestion boxes.
- The banks should continually introduce to customers' visions towards new electronic services, and should try to satisfy their needs.
- The banks should be up to date with any new discovered services that assets customer' transactions and works.
- The banks should continually train their employees about new technology to develop their work level.

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