



**The Role of Electronic Banking in Achieving Competitive  
Advantage from the Point of View of Employees of a  
Sample of Private Banks  
in the City of Erbil**

Submitted to the Department of Finance and Banking, as Part of the  
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Sciences

**By :-**

**Mohammed Abdullah Mala  
Amina Obeid Hassan  
Esra Arsalan Mohammed**

**Supervised By :-**

**Asst. Prof. Dr. Khadeeja Qader Smael**

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# **DEDICATE**

**We dedicate this research to the:**

Our great Moms and Dads

Our sisters and brothers

our whole family

Our Friends

Whom always give us the power to complete this work

**Researchers**

# ACKNOWLEDGE

First and foremost, thanks to Allah. He has always opened up our narrow and closed paths. If one day we finish our work, it is because we believe in His greatness, which has blessed us in times of discouragement. Thank you, our Lord, for answering our prayers by making it possible for our work to be completed.

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**Researchers**

## **Abstract**

This research seeks to identify the role and impact of electronic banking in improving the competitive advantage of a sample of private banks in the city of Erbil, which numbered (7) private banks. A number of solid research approaches were relied upon, represented by the descriptive and analytical approach, to consolidate the concepts addressed in the research. (83) questionnaires were distributed to workers in those banks, including members of the Board of Directors, department heads, and employees, and (74) questionnaires were returned. The two ready-made statistical programs, SPSS and Easy Fit, were used in the analysis process. When analyzing the study, it was concluded that: The independent variable (electronic banking) affected by (60.8%) the dependent variable (competitive advantage). This means that there is a positive (direct) relationship between the two variables. It was clear from the results that the effect of electronic banking on the dimensions of competitive advantage, but each dimension separately was positive. Also, its greatest impact was on the cost dimension, as it amounted to (56.8%). At the end of the study, a number of conclusions and recommendations.

**Keywords:** electronic banking, competitive advantage, Channels of the electronic banking and dimensions of the competitive advantage.

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# Chapter One

## The General Entrance to the Research

### 1.1: Introduction

The banking sector is considered one of the most important and sensitive sectors in the growth of countries' economies because of its impact on achieving economic development through the mobilization of sufficient savings and their optimal distribution among various investments. Banks of all types operate in competitive markets, and thus they try to occupy the largest size of this market by achieving profitability and ensuring continuity in activity, which makes everyone search for the latest electronic means that enable them to provide their modern banking services and that allow them to keep pace with this development at the same time. Enhances its competitiveness. Using modern banking channels efficiently and effectively is one of the important means that in turn leads to maximizing profitability, increasing cash liquidity, and reducing operational costs. The more the bank expands in providing its services through the latest electronic means and technologies, this will help in providing its services to customers at any time, place, and within 24 hours. This reflects positively, in one way or another, on the bank's overall performance and competitive ability.

### 1.2: Importance of Research

The importance stems from the role that electronic banking plays in achieving competitive advantage through the in-depth use of electronic banking channels in light of modern technological developments, as well as highlighting the different methods used by private banks in the city of Erbil through electronic banking channels to enhance their competitive ability in the banking market.

### 1.3: Problems of the Research

It consists of answering the following main question: What is the extent of the impact of electronic banking in achieving a competitive advantage for a sample of private banks in the city of Erbil? The following sub-questions emerge from this main question:-

- Is there an effective role for electronic banking in achieving competitive advantage from the point of view of employees in a sample of private banks in light of the current study?
- What is the impact of electronic banking on each dimension of competitive advantage separately for a sample of private banks in light of the current study?

#### **1.4: Hypothesis of the Research**

In order to answer the questions of the research problem, the following hypotheses were formulated:-

- H<sub>0</sub>: There is no significant, statistically significant effect of electronic banking in achieving competitive advantage from the point of view of employees of a sample of private banks in the city of Erbil.
- H<sub>1</sub>: There is a significant, statistically significant effect of electronic banking in achieving competitive advantage from the point of view of employees of a sample of private banks in the city of Erbil.
- H<sub>0</sub>: There is no statistically significant effect of electronic banking on dimensions of achieving competitive advantage for a sample of private banks in the city of Erbil.
- H<sub>1</sub>: There is a statistically significant effect of electronic banking on dimensions of achieving competitive advantage for a sample of private banks in the city of Erbil.

#### **1.5: Objectives of The Research**

Trying to become familiar with the subject of electronic banking and competitive advantage in banks and its impact on developing the banking sector in general, and then explaining the impact of electronic banking through its channels in achieving competitive advantage according to the viewpoint of scholars with a sample of private banks in the city of Erbil, as well as reaching a group of The results, from which recommendations can be written to benefit from developing the banking sector in the city of Erbil.

#### **1.6: Methodology of the Research**

The descriptive analytical approach was used in order to describe and analyze various aspects of the topic. Both the desk survey and field survey methods were relied upon by distributing a questionnaire to employees of a sample of private banks in the city of Erbil, The two ready-made statistical programs, SPSS and Easy Fit was used for descriptive analysis. The research variables, which are: It was represented by:-

- The dependent variable: competitive advantage and its dimensions (cost, quality, flexibility, creativity and innovation, and rapid delivery).
- The independent variable: electronic banking with its channels, which include (online banking services, the bank's website service, ATM, electronic cards, and text message service (SMS) via mobile phone).



## **1.7: Limits of the Research**

It is represented by :-

-Spatial boundaries: It includes a group of private banks in the city of Erbil.

-Time limits: Questionnaire forms will be distributed to a sample of private banks the questionnaire forms were distributed to a sample of private banks in the year 2024.

## **1.8: Structure of the Research**

It includes three chapters: the first chapter is a general introduction to research, the second chapter is related to the theoretical side of the subject, which includes three sections, and the third chapter is related to the field (applied) side, which also includes three sections. At the end of the research, a number of conclusions and recommendations.

## **1.9: Previous Studies:**

-In the study of Hamid (2012: pp1-133) the researcher distributed 260 to the Customers in 13 commercial banks in Jordanian, but 206 questionnaires were analyzed, and the results of the study showed that E-banking services have a positive effect on customer value and customer loyalty. In addition, the research indicated that there is an indirect effect of E-Banking Services on Customer Loyalty through Customer Value as mediator.

-In the study of Bazini (2015: pp214-219) the researcher distributed 100 to the Customers in Banks that provide electronic banking services in Albania, but 62 questionnaires were analyzed, this study is designed to evaluate e-banking as a strategy and related methods adopted in the banking sector in Albania to improve customer satisfaction. The aim was to analyze customers' perception of e-banking services, the quality of e-banking services provided by the banks and the constraints in achieving customer satisfaction. The study also recommends the possible and practical additional measures the banks should take in order to achieve maximum customer satisfaction.

-In the study of Mwangi (2020: pp1-60) the researcher distributed a questionnaire to the head of strategy or finance in each of the banks or their assistants the entire Kenyan 42 commercial banks were covered, and the results of the study showed that concludes that mobile banking, internet banking, ATMs and POS machines have a positive influence on competitive advantage.

-In the study of Yuonis (2022:pp1-161) the researcher distributed 289 to the managers and

employees in 18 private banks in In the Kurdistan Region - Iraq, but 240 questionnaires were analyzed, and the results of the study showed that Modern banking services have a positive impact on the competitive advantage among the banks under study, and the text message service (SMS) channel via phone had the greatest impact on the competitive advantage of the sample of banks studied, while other channels also had a positive impact, but in varying proportions.

After reviewing the previous studies related to the current study, it can be said that the current study has benefited from all these studies in one way or another. There is an agreement between the previous studies and the current study. They used the questionnaire to collect data to achieve the objectives, of the study The current study differs from previous studies in terms of the geographical location in which the study was conducted, which is the city of Erbil, Kurdistan Region - Iraq, as well as the sample studied from the selected private banks that were chosen, The questionnaire forms were distributed to a sample of private banks in the year 2024.

## **Chapter Two**

### **Electronic Banking and Competitive Advantage**

#### **Section One: The Concept of Electronic Banking**

Electronic banking has become an opportunity to increase the bank's profitability and market share by using more electronic banking tools and fields. The future of the bank does not depend only on serving the customer through branches distributed in various regions, but rather on the modern technological environment, where the customer gets accustomed to using various technical means in the banking world, such as ATM, the talking bank, the cellular bank, Internet banks, points of sale, and electronic money transfer tools, which have become the channels. Head of customer service (Al-Lat & Zuhair,2008, p.24).

##### **2.1.1: Definition of Electronic Banking**

Electronic banking is defined as conducting banking operations electronically using new information and communication technology (Hussein, 2008, p. 147). Abdel Fattah (2003, p. 426) defines it as a group of administrative and financial operations that take place either within the bank or among a group. of banks, using modern electronic means, which came in order to address the slowness or lack of administrative and financial efficiency of banking activity in

general. As Safar (2006, p. 90) defined it, it is all operations or activities that are held, implemented, or promoted by electronic means. Or optical, such as telephone, computer, ATM, Internet, digital television...etc, by banks or financial institutions of all types or their promoters, as well as institutions that deal with electronic cash transfers.

### **2.1.2: Characteristics of Electronic Banking**

Electronic banking services are characterized by several characteristics, including (Hejazi, 2003, p. 199): -

- 1-These are services that are performed remotely and without direct contact between the service parties.
- 2- Services that do not have geographical restrictions. It is international in nature.
- 3- These are services based on contracts without paper documents, and this raises a number of legal issues related to evidentiary evidence.
- 4-Payment is made via electronic money, or via electronic checks.
- 5- Cost reduction One of the most important advantages of electronic banking is that it saves expenses, as it is an alternative to reducing a large portion of capital.
- 6-It helps in forming ongoing relationships between the bank and the customer.
- 7- Correspondence, meaning that the service is produced and consumed at the same time.
- 8- Technology contributes to the inability to determine identity, meaning that the two parties to electronic transactions do not see each other.

### **2.1.3: The Importance of Electronic Banking**

The importance of electronic banking service can be summarized in the following points (Al-Hajj, 2012, p. 22)

- 1- Reducing the expenses incurred by the bank to conduct transactions.
- 2- Increase customer engagement with the bank.
- 3- Possibility of reaching a broader customer base.
- 4- Providing complete and new banking services.
- 5- Resilience in the face of other banking institutions.

### **2.1.4: Electronic Banking Channels**

These are electronic systems through which one can benefit from the required banking services and obtain the banking products provided by the bank without the need for direct contact with employees. There are many, including: -

- 1-Internet banking services: This service allows a customer to conduct his financial transactions

anywhere, 24 hours a day, without the need to bear the costs of transportation, effort, and time to go to the bank he deals with. This service depends on the Internet and a package of software and modern electronic devices(Al Ali, 2002, p. 27).

2- The bank's website service: It is a website through which the bank provides a channel through which banking operations are performed, such as statement of account, paying bills, or purchasing a specific thing. It can be done by anyone without the need to open an account with the bank or acquire a personal computer to be provided with special financial programs from the bank. The term Internet banks is sometimes applied to banking operations via personal computers(Al-Sisi, 2014, p. 130).

3- Automated teller machine: It is among the most common and used electronic units in the field of banking services, and is known as a system that allows! Customers can carry cards to deal with their bank accounts at any time, whether during official working hours or other times and during vacations and vacations 24 hours a day, as ATM services depend on the presence of a communications network linking the branches of one bank or the branches of all banks. In this case, the ATM serves any customer from any participating bank, which requires immediate access to customer account data.

4-Electronic cards have multiple names, the most important of which are (plastic money, credit cards, plastic payment cards). They are plastic cards issued by the bank for the benefit of its customers instead of carrying cash. They have a rectangular shape and bear the name of the issuing institution, its logo, and its expiration date prominently on the face of the card, its number, the name of the holder, his account number, and his signature, enabling him to withdraw cash amounts from ATM machines and present them as a fulfillment tool for goods and services.

5- SMS text message service via mobile phone: These are the banking services that are available through the mobile phone, through the customer's use of a secret number that allows him to enter his account to inquire about his balances as well as to make deductions in order to carry out any of the required banking services. This service allows the customer many Among the banking services and transactions that took place on his account include receiving short messages, in addition to promotional information about the bank that he receives regularly on his mobile phone at any time and in any place, as well as providing the service of recharging mobile phones and paying bills(Boras & Barika, 2014, pp. 102-103).

## **Section Two: The Concept of Competitive Advantage**

The topic of competitive advantage has become one of the topics that preoccupies banks and banking services companies in particular because it plays a fundamental role in it, as competitive advantage represents a legitimate ambition for all banking institutions that seek continuous access and change in all fields, as it is considered the source that enhances the position of banks by offering their banking services. In the market in order to achieve economic profits, by distinguishing itself from its competitors in the areas of product, price and cost (Buhadid, 2018, p. 10).

### **2.2.1: Definition of Competitive Advantage**

Competitive advantage is known to arise as soon as an organization discovers new methods that are more effective than those used by competitors. It will be able to embody this discovery in the field, in other words, by simply creating a process of creativity in its broad sense (Porter, 2005, p. 48). Al-Sulami (2019, p. 104) defined it as the distinct skill, technology, or resource that allows the organization to produce values and benefits for customers that exceed what competitors offer them and confirms its distinction and difference from these competitors from the point of view of customers who accept this difference and distinction, as it brings them more benefits. And values that outperform what other competitors offer them. Armstrong & Kotler (2011, p. 495) defined it as the advantage that is gained by providing greater value to the customer, either through lower prices, or by providing more benefits that justify higher prices.

### **2.2.2: The Importance of Competitive Advantage**

The importance of sustainable competitive advantage lies in the following points (Haddash, 2017, p. 185):-

- A- It is the means through which one can excel over competitors.
- B- It emanates from within the organization and creates value for it.
- C- It aligns the organization's unique resources with opportunities in the environment.
- D- Through which the organization can survive and grow in a highly competitive environment.
- E- It represents an indicator of the institution's competitive position in the market.

### **2.2.3: Types of Competitive Advantage**

There are many types of competitive advantage that an institution adopts in competing against other institutions within the sector in which it operates, the most important of which can be

identified as follows (Khalil, 1998, p. 18) and (Amal & Broja, 2012, pp. 77-91):-

1- Creativity: Creativity is considered a key dimension of competitive advantage through its ability to explore new opportunities in the external environment, monitor them, and quickly respond to them by achieving a specific development or creative work, whether in the field of services and technology used, or finding new, more value-creating methods in the areas of banking activity. .

2- Cost leadership advantage (cost reduction): That is, the institution seeks to make the cost of its services less expensive in the market, as some institutions or companies are distinguished by their ability to provide the same services at a lower price than competitors, and this comes from reducing the cost of providing this service.

3- Distinction: This means the institution's ability to provide a distinct and unique product of high value from the customer's point of view, including "higher quality, unique characteristics, and after-sales services that competing institutions cannot provide." There are several sources for achieving differentiation, the most important of which are financial resources. Intellectual capital, organizational capabilities, and competitive advantage in institutions are achieved by convincing markets, customers, competitors, and other parties that the institution's choices depend on unique features that competitors cannot match in this uniqueness or imitate this advantage.

4-The advantage of service differentiation at a lower cost: This advantage combines two previous advantages, as the organization must provide services that are different and distinct from competitors' services to meet the same needs of all consumers, and at the same time at low prices resulting from the low costs of those services.

#### **2.2.4: Dimensions of Competitive Advantage**

Through the dimensions of competitive advantage, the organization's performance and continuity are improved, and the dimensions are (Haitham, 2015, p. 203) and (Hadid, 2017, p. 10): -

1- Cost: It means providing products of similar or better quality than competitors' products, but at a lower price. That is, the organization's ability to design, manufacture, and market the product at the lowest cost, which ultimately leads to achieving greater returns.

2- Quality: The quality of services provided to beneficiaries gives this service an advantage compared to what other competing banks offer, and making continuous improvements to it is

one of the most effective ways to develop at work because it is considered a competitive advantage in itself that contributes to improving the bank's reputation and increasing its share. It has been defined as: "Doing the right work from the first moment while relying on evaluating the work to determine the extent of mastery in performance. It is also: The method used by institutions in order to achieve actual results and is a good path to achieving rapid growth and profits.

3- Flexibility: Flexibility includes the ability to respond quickly to deadlines for fulfilling requests, save time, and reduce waste in change and transformation processes while maintaining consistency in the production of goods or services and delivering them to customers.

4- Creativity and innovation: It means improving and developing products, and this is in order to provide new products to customers that are distinguished from competing products. Creativity and innovation are linked to technology and affect institutions. It represents one of the basic necessities within them, which is reflected in the escalation of customers' needs and ambitions. Institutions that do not rely on innovation, we find that its performance is not satisfactory to consumers dealing with it, which leads to its discontinuation.

5-Quick delivery: The intensification of competition has changed the scope of competition to include the element of time and reduce it for the benefit of the consumer and the organization at the same time, by shortening the time of the product's life cycle, reducing the time of manufacturing and the production process, and reducing the cycle time for the customer, which is the period extending between submitting the order and delivering the product.

### **Section Three: The Relationship Between Electronic Banking and Competitive Advantage**

The importance of banks' competitive advantage lies in the fact that they work to provide the appropriate competitive environment to achieve efficient allocation and use of resources, encourage creativity and innovation, which leads to improving and enhancing productivity, and raising the level of type and quality of service provided. The impact of electronic banking on the dimensions of competitive advantage is evident in the following (Al-Khatib, 2014, pp.117-118): -

1- Impact on the quality of banking service: The quality of the banking service provided is the single most important factor that affects the performance of business units in the long run

compared to what other competitors provide, providing a service of superior quality. The application of electronic banking is one of the most effective ways to advance business because quality in business performance leads to both expansion in the market and achieving additional gains by increasing market share.

2- Impact on costs: Electronic channels are means of providing all banking services at a lower cost, in light of many studies, which confirm the lower costs of performing banking services using electronic tools compared to traditional tools.

3- Influencing the response to customers: This means providing many. Banking services at any time according to a pattern that satisfies the customer's needs and the banking services he desires without having to go through the hassle of moving to the bank building and standing in waiting lines. In addition, the customer is not restricted by the bank's working days or official hours.

4- Impact on delivery time: Time, whether in production management or in service management, is a more important competitive advantage than it was in the past. Reaching the customer in the shortest possible time represents a competitive advantage.

5- Influence on creativity and development: Electronic banking is one of the most important means that helps banks to innovate, excel, and achieve a head start over competitors in the business sector, through excellence using modern administrative and technological methods, whether in retraining and motivating workers, or shifting from traditional characteristics or recreating Process engineering.



## Chapter Three

### The Impact of Electronic Banking in Enhancing the Competitive Advantage

#### Section One: Demographic Characteristics of the Study Sample

Here, the chapter deals with the impact of electronic banking in enhancing the competitive advantage in its applied form, in order to answer the questions of the study problem and test its hypotheses. The city of Erbil and the two ready-made statistical programmers SPSS & Easy Fit were used in the data analysis process.

The following is a detailed description of the individuals surveyed in a sample of private banks in the city of Erbil in terms of:

**3.1.1: Research sample:** It represented a sample of private banks operating in the city of Erbil, regardless of their nationality. A random sample was selected on the basis of electronic banking channels and the dimensions competitive advantage, which included (7) private banks. (83) questionnaires were distributed to the research sample, and (74) questionnaires were retrieved, all of which were valid for analysis, as shown in Table (1):

**Table(1): Distribution of questionnaire forms to the sampled individuals from private banks in the city of Erbil**

N	Bank	forms distributed	forms received	the ratio of received forms %
1	Kurdistan International Islamic Bank - KIB *	37	36	48.65
2	Regional Bank for Investment and Trade RT	15	12	16.22
3	Erbil Bank for Investment and Finance	10	8	10.81
4	National Bank of Iraq -NBI	10	8	10.81
5	Mansour Bank	3	3	4.05
6	Bank of Baghdad	3	3	4.05
7	Qi card	5	4	5.41
<b>Total</b>		<b>83</b>	<b>74</b>	<b>100</b>

Source: The table prepared by the researchers based on the questionnaire.

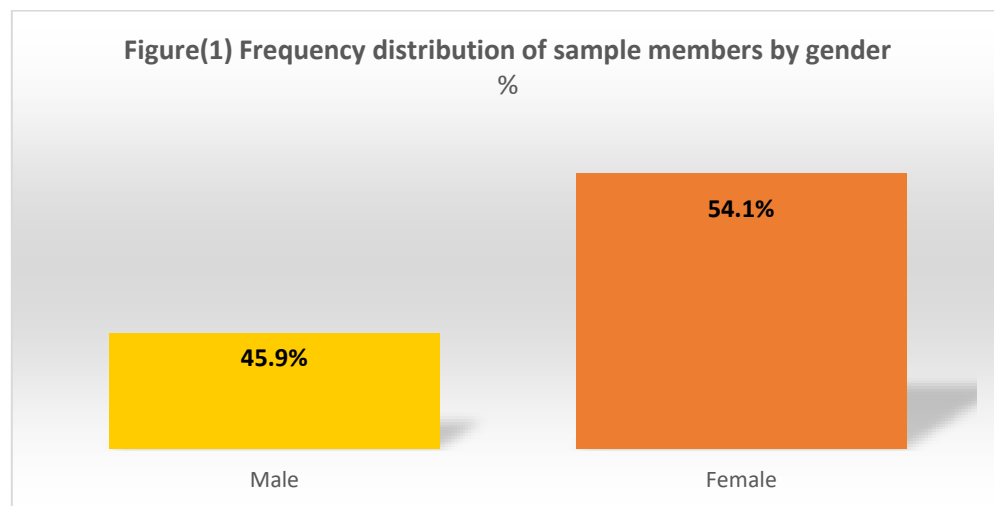
\*- The questionnaire was distributed in both branches of KIB Bank in Erbil.

**3.1.2: Gender:** It appears from Table No. (2) and Figure No. (1) that the rate of (45.9%) of the individuals are males, and that only (54.1%) are females. These percentages are consistent with reality, as we find that the contribution of females, especially In such activities, it is more compared to the percentages of male participation. The reason may be that this type of office job is more compatible with the nature of females compared to males because it does not require muscular effort.

**Table (2): Frequency distribution of sample members by gender**

Gender	Number	Percentage %
Male	34	45.9
Female	40	54.1
<b>Total</b>	<b>74</b>	<b>100</b>

Source: The table prepared by the researchers, based on the questionnaire.



Source: Prepared by the researchers based on Table (2).

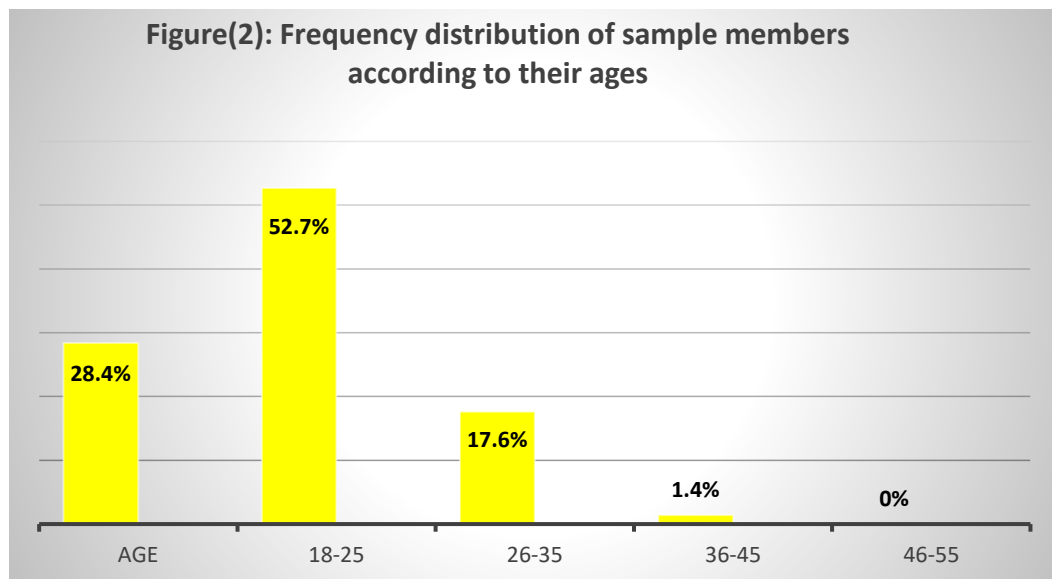
**3.1.3: Age:** It appears from Table (3) and Figure (2) that the largest percentage of the sample members were from the age group (26-35) years, which amounted to 52.7%, followed by the group (18-25) years, which amounted to 28.4%, while the category (36-45) years has a lower percentage of 17.6%, then the category (46-55) years has a percentage of 1.4%, and finally the category (more than 55) years has a percentage of 0% due to the absence of individuals within this category. This indicates that the majority of the work team in the sample of banks included in the study are young people between the ages of 26-35 years, because individuals at this age are more generous compared to other age groups. In addition, they possess several elements such as energy, vitality, creativity, innovation, and enthusiasm, all of which positively affect the

rate of productivity of their work. In addition, they are more capable of dealing with modern marketing methods, which positively affects improving the competitiveness of the sample of private banks in the city of Erbil.

**Table (3): Frequency distribution of sample members according to their ages**

Age	Number	Percentage %
18-25	21	28.4
26-35	39	52.7
36-45	13	17.6
46-55	1	1.4
more than 55	0	0
<b>Total</b>	<b>74</b>	<b>100</b>

Source: The table prepared by the researchers, based on the questionnaire.



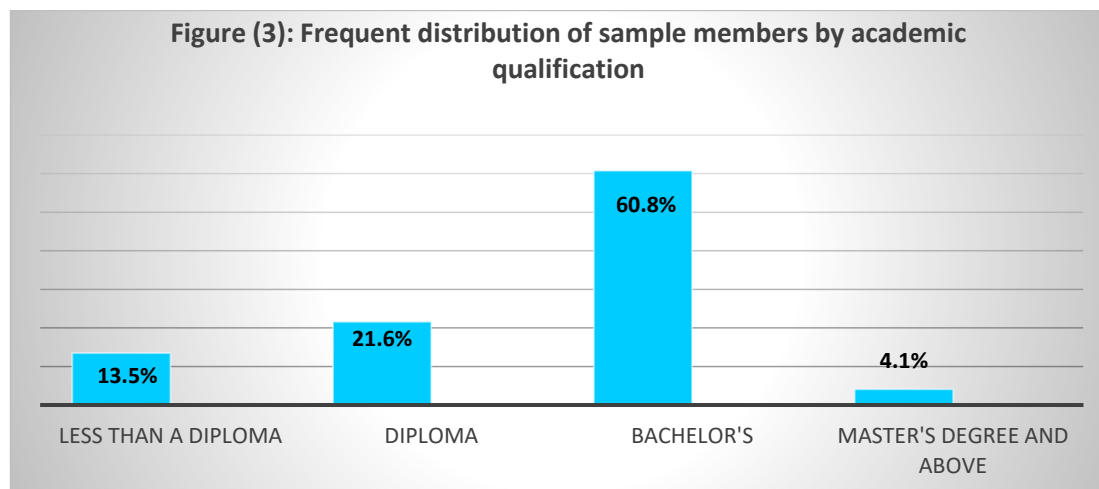
Source: Prepared by the researchers based on Table(3).

**3.1.4: Academic Qualification:** It appears from table (4) and figure (3) that the largest percentage of respondents was from the (Bachelor's) category, which amounted to 60.8%, followed by the (diploma) category, which amounted to 21.6%, and then a category less than diploma at 13.5%. , Finally, a master's category and more with a very small percentage of 4.1%, and this indicates that the holders of bachelor's degrees are the most active group in the sample of the banks surveyed. The cost of their work is less than the cost of the work of holders of master's and doctoral degrees, and this result is consistent with the practical reality of these banks.

**Table (4): Frequent distribution of sample members by academic qualification**

Academic qualification	Number	Percentage %
less than a diploma	10	13.5
Diploma	16	21.6
Bachelor's	45	60.8
Master's degree and above	3	4.1
<b>Total</b>	<b>74</b>	<b>100</b>

Source: The table prepared by the researchers, based on the questionnaire.



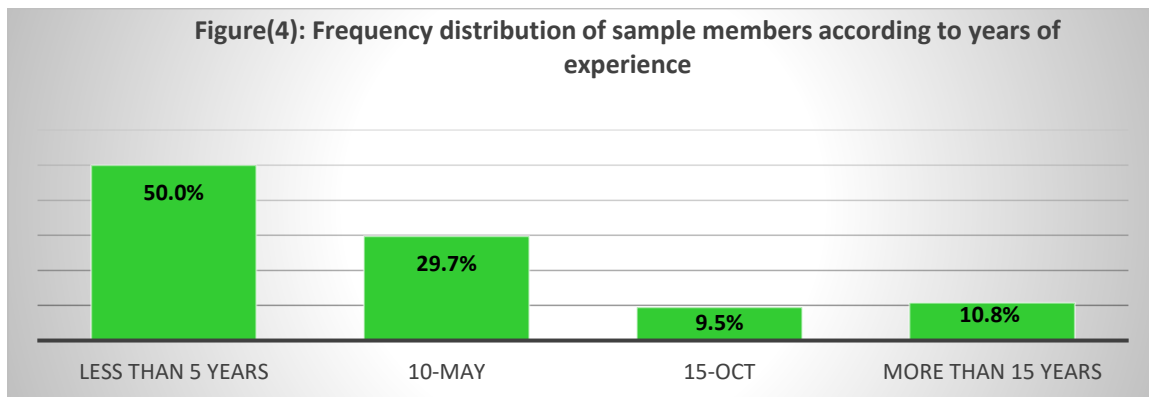
Source: Prepared by the researchers based on Table(4).

**3.1.5: Number of years of experience:** It is noted from table (5) and figure (4) that the largest percentage of respondents was from the category (less than 5 years), which amounted to 50.0%, followed by the category(5-10), which amounted to 29.7%, then the category(15 years and over) was in last place with a rate of 10.8%,while the category(10-15 years) with a rate of 9.5%. This confirms once again that most of the workers in the sample of the banks surveyed are from the youth category, because the years of service are measured by the number of years of work with the bank, and this result is consistent with the highest percentage of the age variable whose ages ranged between (26-35) years and referred to in the table ( 3).

**Table (5): Frequency distribution of sample members according to years of experience**

Years of Experience	Number	Percentage %
Less than 5 years	37	50.0
5-10	22	29.7
10-15	7	9.5
more than 15 years	8	10.8
<b>Total</b>	<b>74</b>	<b>100</b>

Source: The table prepared by the researchers, based on the questionnaire.



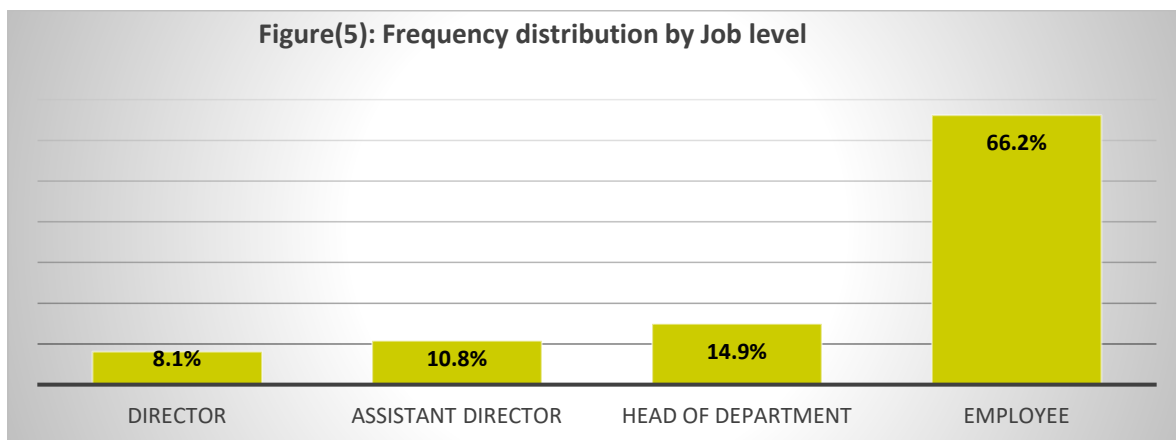
Source: Prepared by the researchers based on Table(5).

**3.1.6: Job level:** It is clear from Table (6) and Figure (5) that the largest percentage of respondents was from the (employee) category, which amounted to 66.2%, followed by the category (Head of Department), which amounted to 14.9%, and the category (Assistant Director) with a lower percentage. It reached 10.8%, and finally the category (Director- Manager) with a rate of 8.1%, and this is due to the nature of the organizational structures of the surveyed banks, in addition to their needs more for employee services in order to perform the tasks required to be accomplished in the banks, and this result is considered a logical thing with the results of the variables of the previous tables related to the analysis Demographic characteristics.

**Table (6): Frequency distribution by Job level**

Job level	Number	Percentage %
Director	6	8.1
Assistant Director	8	10.8
Head of Department	11	14.9
Employee	49	66.2
<b>Total</b>	<b>74</b>	<b>100</b>

Source: The table prepared by the researchers, based on the questionnaire.



Source: Prepared by the researchers based on Table(6).

## Second Two: Description of the Study Variables and Diagnosis

In this section, the questionnaire, which included two variables, will be analysed. The sample's answers have been summarized through the following tables (7) and (8):-

**3.2.1: The First variable Electronic Banking:** The arithmetic means of each of the equations from the questionnaire study evaluated by the Likert scale (Strongly Disagree = 1, Disagree = 2, Neutral = 3, Agree = 4, and Strongly Agree =5). On this basis, the level question means according to the importance and the degree of agreement with the hypothesis of the research and summarised in the following table(7):

**Table (7): Descriptive Statistics for the First Variable (electronic banking services)**

Paragraphs*	Mean	Degree of agreement%	Std. Deviation
<b>Channel One: Online banking services</b>			
X1	4.473	89.46	0.707
X2	4.554	91.08	0.622
X3	4.527	90.54	0.707
<b>The Mean of Channel One</b>	<b>4.518</b>	<b>90.36</b>	<b>0.679</b>
<b>Channel Two: Bank website service</b>			
X4	4.338	86.76	0.911
X5	4.487	89.73	0.687
X6	4.351	87.03	0.818
<b>The Mean of Channel Two</b>	<b>4.392</b>	<b>87.84</b>	<b>0.805</b>
<b>Channel Three: Automated teller machine</b>			
X7	4.392	87.84	0.873
X8	4.552	91.08	0.621
X9	4.378	87.57	0.716
<b>The Mean of Channel Three</b>	<b>4.441</b>	<b>88.83</b>	<b>0.737</b>
<b>Channel Four: Electronic cards</b>			
X10	4.419	88.38	0.662
X11	4.297	85.95	0.806
X12	4.551	91.08	0.620
<b>The Mean of Channel Four</b>	<b>4.423</b>	<b>88.47</b>	<b>0.697</b>
<b>Channel Five: Text messaging service (SMS) via mobile phone</b>			
X13	4.378	87.57	0.871
X14	4.311	86.22	0.905
X15	4.162	83.24	1.073
<b>The Mean of Channel Five</b>	<b>4.284</b>	<b>85.68</b>	<b>0.950</b>
<b>Overall Mean</b>	<b>4.412</b>	<b>88.23</b>	<b>0.774</b>

-Source: The table prepared by the researchers based on the questionnaire and the results of the statistical program SPSS.

\*- Note Each of the abbreviations (x1, x2,..etc) in Tables. (7) represents the paragraphs of the questionnaire It was referred to in Appendix No. (1).

Table (7) shows that the overall mean for the first variable (electronic banking services) is (4.412), which is greater than the Likert level of agreement (3), which indicates the agreement of the sample members with the items of this variable. The degree of agreement is (88.23%),

according to the standard deviation. (0.774), which indicates the convergence of the sample members' opinions regarding the items of this variable. Also, all items of the variable were greater than the assumed average (3), which indicates the sample's agreement with each item of this variable. Question (X2), which states "The bank addresses any problem that may face the Internet or the bank's computers through its maintenance and information technology units" from Channel one, received the highest mean of (4.554), which is higher than the default average (3) by (1.455) with a degree of agreement. It reached (91.08%) and a standard deviation of (0.622). Meanwhile, question (X15) which states "Through its text message service, the bank can inform the customer of the existence of a defect or unfavorable circumstances in some of the services it provides, which are temporarily suspended for a period of time" from Channel five was ranked last with an mean of (4.162), which is higher than the default average (3) by (1.162) with a degree of agreement of (83.24%) and a standard deviation of (1.073), while the rest of the items had varying mean and degrees of agreement ranging between them.

As for the overall mean for each channel separately, as shown in Table No. (7), which was explained from the largest mean to the lowest mean, which was as follows: -

-The mean of the first channel (4.518), which is greater than the hypothesised mean (3), which indicates the sample's agreement with the items of this channel (online banking services), with a degree of agreement of (90.36%), with a limited standard deviation of (0.679), which indicates the convergence of the sample's opinions on the items of this channel (online banking services).

-The mean of the third channel (4.441), which is greater than the hypothesised mean (3), which indicates the sample's agreement with the items of this channel (automated teller machine), with a degree of agreement of (88.83%), with a limited standard deviation of (0.737), which indicates the convergence of the sample's opinions on the items of this channel (automated teller machine).

-The mean of the fourth channel (4.423), which is greater than the hypothesised mean (3), which indicates the sample's agreement with the items of this channel (electronic cards), with a degree of agreement of (88.47%), with a limited standard deviation of (0.697), which indicates the convergence of the sample's opinions on the items of this channel (electronic cards).

-The mean of the second channel (4.392), which is greater than the hypothesised mean (3), which indicates the sample's agreement with the items of this channel (bank website service), with a degree of agreement of (87.84%), with a limited standard deviation of (0.805), which

indicates the convergence of the sample's opinions on the items of this channel (bank website service).

-The mean of the fifth channel (4.284), which is greater than the hypothesised mean (3), which indicates the sample's agreement with the items of this channel (text messaging service (SMS) via mobile phone), with a degree of agreement of (85.68%), with a limited standard deviation of (0.950), which indicates the convergence of the sample's opinions on the items of this channel (text messaging service (SMS) via mobile phone).

**3.2.2: The Second variable Competitive Advantage:** The arithmetic means of each equation from the questionnaire study evaluated by the Likert scale. On this basis, the level question means according to the importance and the degree of agreement with the hypothesis of the research and summarized in the following table(8):

**Table (8): Descriptive Statistics for the Second Variable(competitive advantage)**

Paragraphs*	Mean	Degree of agreement%	Std. Deviation
<b>Dimension One: Cost</b>			
Y1	4.365	87.30	0.837
Y2	4.419	88.38	0.641
Y3	4.460	89.19	0.645
<b>The Mean of Dimension One</b>	<b>4.414</b>	<b>88.29</b>	<b>0.708</b>
<b>Dimension Two: Quality</b>			
Y4	4.595	91.89	0.595
Y5	4.419	88.38	0.722
Y6	4.541	90.81	0.645
<b>The Mean of Dimension Two</b>	<b>4.518</b>	<b>90.36</b>	<b>0.654</b>
<b>Dimension Three: Flexibility</b>			
Y7	4.392	87.84	0.737
Y8	4.284	85.68	0.785
Y9	4.500	90.00	0.687
<b>The Mean of Dimension Three</b>	<b>4.392</b>	<b>87.84</b>	<b>0.737</b>
<b>Dimension Four: Creativity and innovation</b>			
Y10	4.487	89.73	0.646
Y11	4.460	89.19	0.666
Y12	4.378	87.57	0.716
<b>The Mean of Dimension Four</b>	<b>4.441</b>	<b>88.83</b>	<b>0.676</b>
<b>Dimension Five: Fast delivery</b>			
Y13	4.527	90.54	0.624
Y14	4.392	87.84	0.699
Y15	4.541	90.81	0.601
<b>The Mean of Dimension Five</b>	<b>4.486</b>	<b>89.73</b>	<b>0.641</b>
<b>Overall Mean</b>	<b>4.450</b>	<b>89.01</b>	<b>0.683</b>

-Source: The table prepared by the researchers based on the questionnaire and the results of the statistical program SPSS.

\*- Note Each of the abbreviations (Y1, Y2,...etc) in Tables. (8) represents the paragraphs of the questionnaire It was referred to in Appendix No. (1).



Table (8) shows that the overall mean for the first variable (competitive advantage) is (4.450), which is greater than the Likert level of agreement (3), which indicates the agreement of the sample members with the items of this variable. The degree of agreement is (89.01%), according to the standard deviation. (0.683), which indicates the convergence of the sample members' opinions regarding the items of this variable. Also, all items of the variable were greater than the assumed average (3), which indicates the sample's agreement with each item of this variable. Question (Y4), which states "The electronic banking work environment has helped greatly in improving the quality and type of banking services provided" from the second dimension, obtained the largest mean of (4.595), which is higher than the hypothetical average (3) by (1.595) with a degree of agreement. It reached (91.89%) and a standard deviation of (0.595). Meanwhile, question (Y8) which states "The bank provides its services promptly, quickly, effectively and within the agreed upon dates" from the third dimension was ranked last with an mean of (4.284), which is higher than the average. The default (3) was (1.284) with a degree of agreement of (85.68%) and a standard deviation of (0.785), while the rest of the items had varying mean and degrees of agreement ranging between them.

As for the overall mean for each dimension separately, as shown in Table No. (8), which was explained from the largest mean to the lowest mean, which was as follows:-

-The mean of the second dimension (4.518), which is greater than the hypothesised mean (3), which indicates the sample's agreement with the items of this dimension (Quality), with a degree of agreement of (90.36%),with a limited standard deviation of (0.654), which indicates the convergence of the sample's opinions on the items of this dimension (Quality).

-The mean of the fifth dimension (4.486), which is greater than the hypothesised mean (3), which indicates the sample's agreement with the items of this dimension (Fast delivery), with a degree of agreement of (89.73%),with a limited standard deviation of (0.683), which indicates the convergence of the sample's opinions on the items of this dimension (Fast delivery).

-The mean of the fourth dimension (4.441), which is greater than the hypothesised mean (3), which indicates the sample's agreement with the items of this dimension (Creativity and innovation), with a degree of agreement of (88.83%),with a limited standard deviation of (0.676), which indicates the convergence of the sample's opinions on the items of this

dimension (Creativity and innovation).

-The mean of the first dimension (4.414), which is greater than the hypothesised mean (3), which indicates the sample's agreement with the items of this dimension (Cost), with a degree of agreement of (88.29%), with a limited standard deviation of (0.708), which indicates the convergence of the sample's opinions on the items of this dimension (Cost).

-The mean of the third dimension (4.392), which is greater than the hypothesised mean (3), which indicates the sample's agreement with the items of this dimension (Flexibility), with a degree of agreement of (87.84%), with a limited standard deviation of (0.737), which indicates the convergence of the sample's opinions on the items of this dimension (Flexibility).

### **Section Three: Testing the Reliability Coefficient and Testing the Study Hypotheses**

**3.3.1: Test reliability coefficient (consistency):** The validity of relying on the results of the questionnaire tested in terms of reliability coefficient, which means the stability of scale and lack of contradiction with itself (Answers stability of the respondents and not the random use in the selection of the answer), that is, it gives the same results if re-applied to the same sample. On this basis, it will be used Cronbach's alpha coefficient. To measure the consistency with sincerity (which represents the root of the reliability coefficient) questionnaire for two variables and all the variables are summarized in the following table(9):

**Table (9): Reliability Statistics**

Variable	Cronbach's Alpha	Validity	N of Items
First (electronic banking services)	0.925	0.962	15
Second (competitive advantage)	0.936	0.968	15
All	0.958	0.9798	30

-Source: The table prepared by the researchers based on the questionnaire and the results of the statistical program SPSS.

The reliability coefficient Cronbach's alpha for variables of the study (from Table 9) for the measurement tool has a high degree of consistency and truth because it is greater than 60% and validity greater than 80% since there is an internal consistency of the questions in the questionnaire for two variables and all items studied.

**3.3.2: Test data distribution:** Here will test questionnaire variables and whether the means have a normal distribution or not through the use of a non-parametric test Kolmogorov-Smirnov (K.S.) and a parametric test  $X^2$  (by using the Easy Fit program) which determines the tool and the appropriate test to test the study hypotheses, test the following hypotheses:

-H<sub>0</sub>: The means of the questionnaire variables have a normal distribution.

-H<sub>1</sub>: The means of the questionnaire variables have a non-normal distribution.

The test results are summarized under the significance level (0.05) in the following table(10):

**Table (10): Test of Normality**

Variables	K.S.			Chi-Squared			Result
	Critical Value	p Value	Statistic	Critical Value	p Value	Statistic	
First (electronic banking services)	0.1521	0.058	0.1554	3.7047	0.717	12.592	Normal
Second (competitive advantage)	0.1348	0.124	0.1554	5.9197	0.432	12.592	Normal

-Source: The table prepared by the researchers based on the questionnaire and the results of the statistical program (Easy Fit).

Table (10) shows that by using the (K.S.) test, the first and second variables have a normal distribution since the p-values are equal to (0.058 and 0.124) respectively and greater than the significance level (0.05) and the statistic value (0.1521 and 0.1348) respectively are less than (0.1554). Using the chi-squared test, the first and second variables have a normal distribution since the p-values are equal to (0.717 and 0.432) respectively and greater than the significance level (0.05) and the statistic value (3.7047 and 5.9197) respectively are less than (12.592).

**3.3.3: Test hypotheses of the study:**

The study covered the test of two hypotheses, as follows:-

**1-First hypotheses:**

-H<sub>0</sub>: There is no significant, statistically significant effect of electronic banking in achieving competitive advantage from the point of view of employees of a sample of private banks in the city of Erbil.

-H<sub>1</sub>: There is a significant, statistically significant effect of electronic banking in achieving competitive advantage from the point of view of employees of a sample of private banks in the city of Erbil.

Electronic banking represents the independent variable, and the competitive advantage represents the dependent variable. On this basis, the simple linear regression model will be estimated, and the first hypothesis tested, which is summarized in the following table(11).

**Table (11): The effect of electronic banking in achieving competitive advantage**

Model	Coef.	t	Sig.	F	Sig.	R	R2
(Constant)	1.321	4.429	0.000	111.86	0.000	0.780	0.608
Slope	0.709	10.576	0.000				

-Source: The table prepared by the researchers based on the questionnaire and the results of the statistical program (SPSS).

Table (11) shows that electronic banking, explains 60.8% (coefficient of determination) of the changes in achieving competitive advantage. Linear regression appropriate model for this data because the F-statistic is equal to (111.86), it's greater than the tabulated value under the (0.05) significant level and degrees of freedom (1 and 72) which is equal to (3.84), this is confirmed by the p-value, which is equal to zero and is less than the significance level (0.05).

Since the t-statistic is equal to (10.576) for the coefficient of an independent variable (Slope), and it's greater than the tabulated value under the (0.05) significantly level and degrees of freedom (72) which is equal to (1.96), (the p-value is (0.000), which less than the significantly level (0.05)), its therefore significant and contribute to the interpretation of the model, and finally, the null hypothesis is rejected and accept the alternative hypothesis which states that “There is a significant, statistically significant effect of electronic banking in achieving competitive advantage from the point of view of employees of a sample of private banks in the city of Erbil”. The model is as follows:

$$\hat{y}_i = 1.321 + 0.709x_i$$

There is also a positive and significant relationship between electronic banking and achieving a competitive advantage with a value of 78%

## 2-Second hypotheses:

- H<sub>0</sub>: There is no statistically significant effect of electronic banking on dimensions of achieving competitive advantage for a sample of private banks in the city of Erbil.
- H<sub>1</sub>: There is a statistically significant effect of electronic banking on dimensions of achieving competitive advantage for a sample of private banks in the city of Erbil.

Electronic banking represents the independent variables, and the dimensions of achieving competitive advantage represent the dependent variable. On this basis, the simple linear regression model for each variable will be estimated, and the second hypothesis tested, which is summarized in the following table(12).

**Table (12): The effect of electronic banking on dimensions of achieving competitive advantage**

Model	Coef.	t	Sig.	F	Sig.	R	R2
(Constant)	0.659	1.692	0.095				
Slope	0.851	9.722	0.000	94.517	0.000	0.753	0.568
(Constant)	1.421	3.324	0.001				
Slope	0.702	7.303	0.000	53.332	0.000	0.652	0.426
(Constant)	0.856	1.848	0.069				
Slope	0.801	7.690	0.000	59.133	0.000	0.672	0.451
(Constant)	1.443	3.512	0.000				
Slope	0.680	7.356	0.000	54.111	0.000	0.655	0.429
(Constant)	2.225	4.827	0.000				
Slope	0.513	4.942	0.000	24.424	0.000	0.503	0.253

-Source: The table prepared by the researchers based on the questionnaire and the results of the statistical program (SPSS).

Table (12) shows that electronic banking, explains 56.8% of the changes in the first dimension (Cost). Linear regression appropriate model for this data because the F-statistic is equal to (94.517), it's greater than the tabulated value under the (0.05) significant level and degrees of freedom (1 and 72) which is equal to (3.84), this is confirmed by the p-value, which is equal to zero and is less than the significance level (0.05).

Since the t-statistic is equal to (9.722) for the coefficient of an independent variable (Slope), and it's greater than the tabulated value under the (0.05) significant level and degrees of freedom (72) which is equal to (1.96), (the p-value is (0.000), which is less than the significant level (0.05)), it's therefore significant and contribute to the interpretation of the model, and finally, the null hypothesis is rejected and accept the alternative hypothesis which states that "There is a significant, statistically significant effect of electronic banking in the first dimension (Cost) from the point of view of employees of a sample of private banks in the city of Erbil". The model is as follows:

$$\hat{y}_{i1} = 0.659 + 0.851x_i$$

There is also a positive and significant relationship between electronic banking and the first dimension (Cost) with a value of 75.3%.

Electronic banking, explains 42.6% of the changes in a second dimension (Quality). Linear regression appropriate model for this data because the F-statistic is equal to (53.332), it's greater than the tabulated value under the (0.05) significant level and degrees of freedom (1 and 72) which is equal to (3.84), this is confirmed by the p-value, which is equal to zero and is less than the significance level (0.05).

Since the t-statistic is equal to (7.303) for the coefficient of an independent variable (Slope), and it's greater than the tabulated value under the (0.05) significantly level and degrees of freedom (72) which is equal to (1.96), (the p-value is (0.000), which less than the significantly level (0.05)), its therefore significant and contribute to the interpretation of the model, and finally, the null hypothesis is rejected and accept the alternative hypothesis which states that “There is a significant, statistically significant effect of electronic banking in the second dimension (Quality) from the point of view of employees of a sample of private banks in the city of Erbil”. The model is as follows:

$$\hat{y}_{i2} = 1.421 + 0.702x_i$$

There is also a positive and significant relationship between electronic banking and the second dimension (Quality) with a value of 65.2%.

Electronic banking, explains 45.1% of the changes in a third dimension (Flexibility). Linear regression appropriate model for this data because the F-statistic is equal to (53.332), it's greater than the tabulated value under the (0.05) significant level and degrees of freedom (1 and 72) which is equal to (3.84), this is confirmed by the p-value, which is equal to zero and is less than the significance level (0.05).

Since the t-statistic is equal to (7.690) for the coefficient of an independent variable (Slope), and it's greater than the tabulated value under the (0.05) significantly level and degrees of freedom (72) which is equal to (1.96), (the p-value is (0.000), which less than the significantly level (0.05)), its therefore significant and contribute to the interpretation of the model, and finally, the null hypothesis is rejected and accept the alternative hypothesis which states that “There is a significant, statistically significant effect of electronic banking in the third dimension (Flexibility) from the point of view of employees of a sample of private banks in the city of Erbil”. The model is as follows:

$$\hat{y}_{i3} = 0.856 + 0.801x_i$$

There is also a positive and significant relationship between electronic banking and the third dimension (Flexibility) with a value of 67.2%.

Electronic banking, explains 42.9% of the changes in a fourth dimension (Creativity and innovation). Linear regression appropriate model for this data because the F-statistic is equal to (54.111), it's greater than the tabulated value under the (0.05) significant level and degrees of freedom (1 and 72) which is equal to (3.84), this is confirmed by the p-value, which is equal to zero and is less than the significance level (0.05).

Since the t-statistic is equal to (7.356) for the coefficient of an independent variable (Slope), and it's greater than the tabulated value under the (0.05) significantly level and degrees of freedom (72) which is equal to (1.96), (the p-value is (0.000), which less than the significantly level (0.05)), its therefore significant and contribute to the interpretation of the model, and finally, the null hypothesis is rejected and accept the alternative hypothesis which states that “There is a significant, statistically significant effect of electronic banking in the fourth dimension (Creativity and innovation) from the point of view of employees of a sample of private banks in the city of Erbil”. The model is as follows:

$$\hat{y}_{i4} = 1.443 + 0.680x_i$$

There is also a positive and significant relationship between electronic banking and the fourth dimension (Creativity and innovation) with a value of 65.5%.

Electronic banking, explains 25.3% of the changes in a fifth dimension (Fast delivery). Linear regression appropriate model for this data because the F-statistic is equal to (24.424), it's greater than the tabulated value under the (0.05) significant level and degrees of freedom (1 and 72) which is equal to (3.84), this is confirmed by the p-value, which is equal to zero and is less than the significance level (0.05).

Since the t-statistic is equal to (4.942) for the coefficient of an independent variable (Slope), and it's greater than the tabulated value under the (0.05) significantly level and degrees of freedom (72) which is equal to (1.96), (the p-value is (0.000), which less than the significantly level (0.05)), its therefore significant and contribute to the interpretation of the model, and

finally, the null hypothesis is rejected and accept the alternative hypothesis which states that “There is a significant, statistically significant effect of electronic banking in the fifth dimension (Fast delivery) from the point of view of employees of a sample of private banks in the city of Erbil”. The model is as follows:

$$\hat{y}_{i5} = 2.225 + 0.513x_i$$

There is also a positive and significant relationship between electronic banking and the fifth dimension (Fast delivery) with a value of 50.3%.

## Chapter Fourth

### Conclusion and Recommendations

#### 4.1: Conclusion

The most important conclusions of the study are:-

1-It is clear from the results of the current study that electronic banking is an effective competitive weapon to increase competitive strength among banks, which increases their dominance over the banking market locally and globally.

2-The banking sector is considered one of the important sectors because it works to transfer financial surpluses from savers to those with financial deficits from investors, who in turn transfer those savings into investments, which contributes to increasing economic growth rates in the country.

3- It is clear from the results of the analysis that the importance of electronic banking channels is ranked according to the answers of the respondents, as the first channel (banking services via the Internet) obtained the largest average of (4.518), which is higher than the hypothetical average (3) by (1.518) with a degree of agreement. It reached (90.36%) and a standard deviation of (0.679), followed by the third channel (ATM) with an average of (4.441), which is higher than the hypothetical average (3) by (1.441) with a degree of agreement of (88.83%) and a standard deviation of ( 0.737), while the fifth channel (text message service (SMS) via mobile phone) was in last place with an average of (4.284), which is higher than the default average (3) by (1.284) with an agreement degree of (85.68%) and a standard deviation of (0.950), and this result may indicate the awareness of the investigated sample banks of the importance of two banking services channels via the Internet and the ATM to them.

4- It is clear from the results of the analysis that the importance of the dimensions of competitive



advantage is ranked according to the answers of the respondents, as the second dimension (quality) received the largest average of (4.518), which is higher than the hypothetical average (3) by (1.518) with an agreement degree of (90.36%). (and a standard deviation of (0.654), followed by the fifth dimension (express delivery) with an average of (4.486), which is higher than the hypothetical average (3) by (1.486) with an agreement degree of (89.73%) and a standard deviation of (0.641), while it was The first dimension (maritality) is ranked last with an average of (4.392), which is higher than the hypothetical average (3) by (1.392), with an agreement degree of (87.84%) and a standard deviation of (0.737). This result may indicate the sample banks' awareness of the importance of Quality and fast delivery are important to them.

5- The general average of the convergence of the opinions of the researched sample reached their agreement on the measurement items related to the independent variable (electronic banking (4.412) and a standard deviation of (0.774) with a degree of agreement (88.23%), while the general average of the convergence of the opinions of the researched sample reached their agreement on the measurement items related to the variable. The dependent (competitive advantage) is (4.450) and a standard deviation (0.683) with a degree of agreement (89.01%), which means that the banks of the sample studied as a whole agree that the five channels of electronic banking together have an effective role in improving their competitive advantage together.

6- The results of the data analysis showed that there is a relationship with a positive moral impact of modern banking services in increasing support for competitive budgeting for a sample of private banks in the city of Erbil by (60.8%).

7- It became clear from the results of the data analysis results that there is a relationship with a positive moral impact of electronic banking in improving the dimensions of competitive advantage for each dimension separately for private banks in the city of Erbil. The greatest impact of these services was on the cost dimension, at a rate of (56.8%), while in Other dimensions were also affected to varying degrees.

## 4.2: Recommendations

In light of the previous conclusions, the following recommendations were presented:-

- 1-Banks operating in the city of Erbil should pay more attention to electronic banking in order to increase their ability to keep pace with developments in the banking market at the local and global levels, which increases their competitive capabilities.
- 2- More attention to electronic banking channels by senior management in banks.
- 3- Governments must provide advanced Internet networks to banks in order to facilitate their banking operations and improve their competitiveness.
- 4- Banks should work to increase customers' awareness of dealing with electronic banking channels, which helps facilitate conducting their business 24 hours a day, by publishing educational videos for them through various media outlets.
- 5- The need for banks to intensify training courses for their employees in order to increase their qualifications in dealing with electronic banking services. At the same time, the bank must constantly work to update and improve its electronic banking services in order to ensure its excellence and achieve its competitive advantage.
- 6- It is necessary for every bank to have an advanced maintenance and IT unit, in which the best specialized staff work 24 hours a day, who must address the problems that electronic devices may encounter, mobile phone application services, the Internet, etc.
- 7- The members of the study sample on banks see more interest in the banking services channel via the banks' Internet network compared to the rest of the other channels because it has an effective role in raising the efficiency of banking business, in addition to the other channels as well, which also had a positive impact.
- 8- Members of the study sample consider that banks should pay more attention to the quality dimension compared to the rest of the other dimensions because they were more influenced by electronic banking compared to the rest of the other dimensions, which were also influenced by the five channels together for electronic banking.
- 9- Work to conduct more studies similar to the current study in the future, but in other governorates in Iraq.

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## The Appendix

**Salahaddin University - Erbil**  
**Faculty of Administration and Economics**  
**Department of Banking and Financial Sciences**



### Subject / Questionnaire Form

#### Greeting...

So, the researchers are conducting a study to obtain a bachelor's degree in banking and financial sciences at the College of Administration and Economics at Salah al-Din University - Erbil, entitled **(The Role of Electronic Banking in Achieving Competitive Advantage from the Point of View of Employees of a Sample of Private Banks in the City of Erbil)**

Therefore, please kindly read all the paragraphs carefully and put a tick (✓) in the box that expresses your agreement with them. We also thank you for your cooperation with us in the completion of this research, knowing that the information that will be obtained is confidential and will only be used for the purposes of scientific research.

#### **Please Accept our Utmost Respect and Appreciation**

#### **The First Axis: Demographic Information:**

- 1- Gender: Male ( ) Female ( ).
- 2- Age: From 18 years to 25 years ( ) From 26 years to 35 years ( ) From 36 years to 45 years ( ) From 46 years to 55 years ( ) Over 55 years ( ).
- 3- Academic Qualification: Less than a diploma ( ) diploma ( ) bachelor's ( ) Master's degree and above ( ) .
- 4- Number of Years of Experience: Less than 5 years ( ) From 5 to 10 years ( ) From 10 to 15 years ( ) From 15 years or more ( ).
- 5- Job level: Director ( ) Assistant Director ( ) Head of Department ( ) Employee ( ).

## The Second Axis: Electronic Banking

N	Paragraphs	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
<b>Channel One: Online banking services</b>						
X1	The bank has its own Internet network, which is distinguished and of high quality, and it uses it to organize its banking operations internally and externally.					
X2	The bank addresses any problem that may face the Internet or the bank's computers through its maintenance and information technology units.					
X3	Banking services provided via the Internet contribute to increasing the efficiency of banking performance and improving its reputation and image.					
<b>Channel Two: Bank website service</b>						
X4	The bank's website helped it offer its services 24 hours a day, as well as respond quickly to its customers' inquiries, as well as enable the customer to manage his bank account electronically.					
X5	The bank's website is characterized by a good security system, which increases the feeling of security, confidentiality and complete privacy among its customers.					
X6	The bank's website is characterized by continuous updating of information and data related to its electronic banking services.					
<b>Channel Three: Automated teller machine</b>						
X7	The bank has the necessary infrastructure to provide ATM in many geographical locations, which has helped provide its services easier and faster.					
X8	The bank provides electronic debit cards in record time for withdrawals from the ATM.					
X9	The bank constantly provides training courses for maintenance staff on how to maintain and deal with ATM, in addition to providing short videos on its website on how to deal with ATM and their locations.					
<b>Channel Four: Electronic cards</b>						
X10	The bank provides multiple types of electronic cards of good quality so that they can be used in most geographical locations and also saves time, effort and cost for the customer.					
X11	The bank provides credit facilities through its electronic cards, which increases its cash savings.					
X12	There are clear laws and instructions about the content and method of dealing with electronic cards issued by the bank.					
<b>Channel Five: Text messaging service (SMS) via mobile phone</b>						
X13	The text messaging service provided is in several languages, which helps in communication between the bank and the customer 24 hours a day, and these messages					

	are sent via mobile phone as a means of advertising and promoting its services.					
X14	Through mobile text messages, the bank is able to send requirements and procedures for all banking services.					
X15	Through its text message service, the bank can inform the customer of the existence of a defect or unfavorable circumstances in some of the services it provides, which are temporarily suspended for a period of time.					

### The Third Axis: Competitive Advantage

N	Paragraphs	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
<b>Dimension One: Cost</b>						
Y1	Electronic banking services help reduce the cost of paper transactions in the bank's administrative departments, so that they are lower compared to their traditional counterparts, and in some cases they are free.					
Y2	The bank relies on a strategy of lowest prices for the services it provides, in addition to following modern marketing methods with low cost and high quality to advertise and promote its electronic banking services.					
Y3	The bank relies on the principle of constantly developing its services and offering what is new according to market requirements, which makes it distinct in the banking market.					
<b>Dimension Two: Quality</b>						
Y4	The electronic banking work environment has helped greatly in improving the quality and type of banking services provided.					
Y5	The bank has organizational units and modern advanced technologies that work to provide competitive services with the best quality and continuously.					
Y6	The bank's management is keen to monitor the banking market to know its requirements and provide good, high-quality electronic banking services, as well as continuing to apply comprehensive quality management methods to improve the quality of its services.					
<b>Dimension Three: Flexibility</b>						
Y7	The bank offers multiple types of electronic services in order to give its users the freedom to choose the best services that suit the nature of their work requirements.					
Y8	The bank provides its services promptly, quickly, effectively and within the agreed upon dates.					
Y9	The bank is constantly developing methods and techniques for performing its services because it possesses distinguished human capital and an advanced infrastructure for information and communications technology, which helps it achieve the greatest benefit.					

<b>Dimension Four: Creativity and innovation</b>						
<b>Y10</b>	The bank encourages the process of research, development and creativity to improve its current services and introduce new ones. It also allocates a special financial budget annually for it, in addition to opening it for training courses on an ongoing basis and at advanced levels for technicians and technicians responsible for designing banking services.					
<b>Y11</b>	The bank has an advanced database and information about banking services prevailing in the local and global banking market.					
<b>Y12</b>	The bank provides the opportunity for its employees in general to participate in identifying problems and searching for solutions to bring about change and improve the bank's capabilities.					
<b>Dimension Five: Fast delivery</b>						
<b>Y13</b>	Providing electronic services immediately is one of the priorities of the bank's senior management.					
<b>Y14</b>	The bank constantly provides all information related to new electronic services.					
<b>Y15</b>	The bank that provides electronic services is preferred over banks that provide traditional services, and this increases its competitive ability.					