



ELECTRONIC ACCOUNTING REQUIREMENTS IN IRAQI BANKS: AN EXPLORATORY STUDY OF A SAMPLE OF EMPLOYEES IN IRAQI BANKS UNDER THE APPLICATION OF THE MASTERCARD

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Article history:	Abstract:
Received: 6 th April 2023 Accepted: 6 th May 2023 Published: 8 th June 2023	The aim of this study is to exhibit how the execution of modern technologies, specifically MasterCard, in banks can influence the necessity to update and establish electronic accounting requirements. The data necessary to achieve that goal were collected by adopting a questionnaire that was formulated by the researcher to suit this goal. The research sample included a group of accountants and managers working in a group of banks listed on the Iraq Stock Exchange .As the number of forms suitable for analysis reached (63) forms, and the descriptive analytical approach was adopted to achieve the goal of the research. And an important impact on the requirements of electronic accounting in terms of enhancement and modification.

Keywords: Electronic accounting, accounting information technology, Master Card.

INTRODUCTION:

Advancements in technology have led to the emergence of electronic accounting, which is a novel approach to recording accounting transactions. Accounting plays a crucial role in any economic unit as it reflects the work being done, and the adoption of electronic accounting has brought about a significant transformation in the way various services are delivered to the public. This phase has been marked by milestones and starting points that indicate the end of complexities and obstacles encountered, particularly in the banking sector. Electronic accounting is a vital aspect of building a modern perception of new concepts, and it is poised to revolutionize the way transactions are recorded.

The introduction of electronic accounting as a mechanism for providing banking service, improving and developing it resulted in prompting and motivating various banks to enter into this new electronic pattern in order to achieve concepts that represent in their content the pillars of transparency, control and accountability, As well as the speed of response of services and others related to its objectives to make decisions leading to the improvement of banking services

Therefore, electronic accounting as a term used to describe an accounting system that relies on computer technology to capture and process financial data in organizations (Teru et al., 2019:8), as it still uses the

foundations of accounting systems to record, analyze, monitor and evaluate the financial status of units.

The primary objective of electronic accounting is to offer top-notch services to the beneficiaries in an environment that is conducive to the optimal utilization of modern technology. This is manifested in the skills and competencies of the workers, which in turn fosters the trust of the beneficiaries. However, several major constraints such as data security, broadband speed, network connectivity, among others, are associated with electronic accounting. The requirements of electronic accounting are determined by the level of preparedness of the economic unit for its success and its ability to overcome the obstacles that impede its success.

Banks in various countries of the world have been able to develop electronic cash transactions of all kinds, such as electronic banking, which includes various electronic payment tools, Thus, financial transactions are carried out via the Internet, as electronic payment methods represent the electronic image of traditional payment methods, where all operations are conducted electronically, Information technologies also created a new infrastructure for the global economy and provided users of new technologies with a competitive advantage over others, and the electronic banking system in developed countries became the main revolution in making payments for financial transactions, and thus stimulated many international banks towards investing in and adopting



communication and information systems, Banking institutions in Iraq have been keen to keep pace with this development in order to get rid of many challenges that have exhausted them, and in order to continue and expand business, it was necessary for those banks to adopt electronic services in their business, The Iraqi government began directing its institutions to strategic change in the completion of its financial transactions through modern advanced means by relying on what is known as the salary localization system, which is one of the forms of electronic payment (Master Card) (Abedi, 2021: 141) indicated that the Iraqi government directed in 2016 that the salaries of all employees in all government institutions be localized.

Therefore, the importance of the research was represented in attempts to assist bank departments, officials, and decision-makers in banks in developing electronic banking services and modernizing and introducing the necessary requirements for electronic accounting in those banks. The research also derives its importance from the importance of the banking sector, which contributes to supporting the Iraqi national economy. To reflect this benefit from the current research in bridging the research gap represented in the following question: What are the requirements of electronic accounting in Iraqi banks in light of MasterCard transactions and what are their obstacles? Accordingly, the research aimed to identify the most important requirements of electronic accounting and the impact of these requirements in light of the adoption of Master Card in banking transactions in the Iraqi environment. To achieve this purpose, a questionnaire was designed and distributed to a random sample of employees working in Iraqi banks, and the analytical description approach was adopted in the research.

To attain the research objective and address the research question, the remainder of the paper has been segregated into three sections. The first section outlines the requirements of electronic accounting in the context of MasterCard transactions, culminating in the formulation of research hypotheses. The second section delves into the practical aspect of the research, wherein the research variables are explicated using descriptive statistical criteria. The outcomes are then scrutinized, and the hypotheses are put to the test. The final section encompasses the research findings and conclusions.

2. REVIEWING STUDIES AND BUILDING HYPOTHESES

2.1 Concept of electronic accounting:

In the current era of technological advancements, electronic accounting has emerged as a necessary and

significant aspect. It is a modern term in the accounting field at the global level and a contemporary concept in information technology. Electronic accounting is a recent advancement in business, facilitating the exchange of data and information both within and between organizations. Numerous establishments have already started transitioning to electronic accounting, and the International Accounting Standards Board endorses the development of enterprises towards adopting the electronic accounting system. In fact, the board has developed new standards that can be utilized for electronic accounting at the international level.

The term electronic accounting consists of two words: (accounting) and (electronic). Accounting represents the art of recording, classifying, and summarizing transactions in an important way, while the word electronic means that each record is in electronic form and not on paper. Therefore, in the electronic accounting system, accounting documents and records are present in digital form instead of paper. Electronic accounting is a new development in the field of accounting (Toshniwal, 2016: 580).

"Electronic accounting" means the execution of traditional accounting functions, accounting research, and the educational and training fields of accounting, through the computer and the various elements of the international information network (the Internet) such as digital toolkits, and various Internet resources based on the Web, Databases of institutions and facilities that are based on the Internet, Internet links, accounting programs based on the Internet and electronic financial spreadsheets (Metwally & Mustafa, 2009: 6).

(Venegas, 2017: 75) indicates that the international definition of electronic accounting proves that it is any accounting system based on information technology to capture and process financial information in establishments, and the most important element of electronic accounting is the use of a computer, although it can be performed on any electronic device. Electronic accounting can also be defined as following up on internal and external operational events, documenting, recording, and summarizing those events, and providing brief information to beneficiaries through an electronic environment (Thabet, 2016: 330).

The term electronic accounting is also used to describe an accounting system that relies on computer technology to collect and process financial data in facilities (Amidu et al., 2011: 146).

2. 2 Features of electronic accounting

Electronic accounting has some major advantages due to its features, which are represented in the following:



(Yadav, 2015: 21), (abdallahman, 2015: 1094), (Teru et al., 2019: 3), (Fatima, 2016: 263).

1. Access to applications and accounting software anywhere, at any time, by the authorized person.
2. Accounting software allows managers to see the financial position of the business in "real time" and make adjustments to the business strategy as needed.
3. It does not require deep and experienced expertise to use electronic accounting tools, as anyone in the facility with some training can deal with the entry.
4. Ease of communication between the accountant and the business owner.
5. Availability of more time for business establishments to focus on revenues and the possibility of generating more of them, as a result of shortening and reducing the time required to perform the accounting function and prepare various accounting statements.
6. Low cost As a result of using web accounting procedures such as installation, upgrades, data file exchange, backup and recovery, small and medium-sized enterprise systems can be purchased at a low cost.
7. A facility can access its documents from almost any computer using a broadband connection.
8. Data confidentiality can be maintained by utilizing a password system to ensure security that most accounting software does.
9. Exchanging data files, backup copies and restoring data electronically, even in light of the loss and damage of devices, as in this way it is possible to save a large amount of money spent on manual books and various accounting programs.
10. Benefit from improvements and fixes that are continuously developed and installed by the Service Provider.

2.3 Electronic Accounting Problems:

Electronic accounting has rapidly changed the way traditional accounting functions are performed, posing new challenges to the accountancy profession and increasing the complexity of transactions that are increasingly conducted between parties that have never met. In such an environment, it is therefore important to obtain assurance regarding the quality and reliability of business partners, financial viability of facilities, data security, and reliability of systems, as the use of an electronic accounting system comes with its own set of problems. Among these problems are the following: (Teru et al., 2019: 3), (Yadav, 2018: 397).

1. **Data security:** All facility data is located on a server or computers out of reach of facilities, as their backup copies can be checked regularly, so this data may be erased or lost due to a problem in the computers. Other facilities can also steal data, and be exposed to hacking, and viruses.
2. **Speed:** Work procedures require a high internet connection.
3. **Connection problem:** An Internet connection is a prerequisite for the continuation of the work, so any disconnection in the connection represents a problem in completing the procedures.
4. **Failure to keep up with standards:** Lack of appropriate accounting standards for organizing work and keeping information.
5. **Availability of experience:** requires special training.
6. **Availability of knowledge:** Availability of a special accounting culture for the accountant and the beneficiary to move to this technology.

2.5 Electronic Accounting and contemporary technologies

The recent developments in the field of information technology in the environment surrounding the establishments have led to economic changes and the complexity of the work environment, which has produced an intensely competitive environment, whether local or global. Which made these establishments to constantly strive to strengthen their competitive position by adopting contemporary technological techniques to support their work and strengthen their position in the labor market. The most important of these technologies are:

2.5.1 Blockchains

Blockchain technology is defined as a digital record of transactions distributed via the Internet, where records are stored in blocks linked to each other sequentially in a single list called the chain. And this interdependence and arrangement between the blocks makes it difficult to change the transaction or modify it because all transactions associated with it are affected by the same chain, and this is what distinguishes the technology of blockchains as being distributed decentralized (Shaaban et al., 2021: 53).

One of the characteristics of this technology is that it is not adjustable, which creates confidence in the transaction log. It also works to provide better security through the use of infrastructure suitable for public use that protects against harmful measures to change data, and this technology is more efficient in terms of cost, speed of settlements, and risk management (Al-Jakhlal, 2021: 6).



2. 5. 2 Internet of Things

It is one of the emerging technologies that contribute to reducing the gap between the physical world and the digital world in the context of synchronizing the flow of information with the physical flow to increase the integration of activities. And the operations of economic establishments by relying on the provision of identification, sensing, and processing capabilities to communicate with other devices and services via the Internet (Vass et al., 2018: 1).

The Internet of Things has a positive impact on the qualitative characteristics of accounting information (comparability, verifiability, timeliness, and comprehensibility) and improve the integration of internal business processes, and develop operational efficiency. And the ability to provide timely information for decision-making and greater response times, and automate the decision-making process, improve planning, reduce operating costs, and better communicate with customers (Karmanska, 2021: 26).

2.5.3 Cloud Computing

It is a technology that relies on transferring the processing and storage space of the computer to the so-called cloud. They are server devices that allow users to access them via the Internet. By this, the programs are transformed from products into services, which is considered the ideal solution that helps the establishment to save and manage the organization of data and files (Khamis, 2021: 8).

Cloud computing is divided into several types according to the nature of the service owner and the person responsible for managing it, including: The first type is the private cloud (internal computing). It is an infrastructure rented by one client and works for his own account under his full control over data, security, and quality of service, all systems and resources provided by the service are present within the facility. The second type is the public cloud (external computing), which is an infrastructure that provides computing resources mainly via the Internet to the general public or to several clients, as it may be commercial or free. The third type is the hybrid (hybrid) cloud, which combines both private and public cloud models and is used in facilities with small data or that need their own applications. The customer can choose between public and private cloud applications and services (Abdul Ghaffar, 2019: 232).

2. 5. 4 Electronic Payment Methods

Electronic payment methods are defined as a system based on electronic technologies that are used for the purpose of manufacturing an electronic payment system by collecting the values of the payment methods that were set through bank exchanges through an information document instead of a paper document. And the term electronic payment is a broad

term that combines with it all means of payment that use advanced technology for the fulfillment, such as electronic transfer of funds, electronic check, electronic bill of exchange, electronic card payment, and electronic money payment (Al-Munshed & Majeed, 2021: 846). Among the electronic payment methods are the following:

- a) An electronic check is similar to a traditional check with a payment order from the drawer to the drawee to pay a named amount to the beneficiary (or to the bearer), except that it differs in that it is sent electronically via the Internet, after the beneficiary receives the check, he sends it to the bank for the amount to be transferred to his interest, and then returns it to the beneficiary, confirming the transfer process to him (Al-Hajj & Naima, 2010: 67).
- b) electronic money is defined as a payment instrument created exclusively for the purpose of transferring via an electronic medium and is broadly defined as an electronic store of monetary value on a technical device that can be widely used to make payments to institutions other than the issuer without necessarily involving bank accounts in the transaction, but it acts as a paid bearer instrument (Griffith, 2012: 47). Compared to traditional money, electronic money is fast, low cost, easy to carry, easy to maintain, has high security, and allows for long-distance payments, so people prefer it. (Luo et al., 2021:1)
- c) Electronic cards, which is a plastic card that includes an electronic chip with a large storage capacity. These cards contain a record of data, information, balances, financial expenses, and the customer's password. It is also characterized by elements of protection against forgery, misuse, and theft. These cards are also used to transfer balances, pay bills, book airline tickets, and purchase products. They are also used to make financial transfers on the Internet and on mobile phones. Among these cards are (Visa Card, and Master Card) (Mazal, 2021: 78).

2. 5. Adoption of the MasterCard in banking transactions and the payment of salaries to state employees

MasterCard smart cards can be defined as plastic cards that contain an electronically readable cell or electromagnetic chip on which all data of its holder are stored, such as name, address, issuing bank, exchange method, account number, card number, and pin number, It enables its holder to withdraw and pay



sums of money to be used in a modern electronic environment, and he can interact with automated teller machines, point-of-sale machines, or any other reading mechanisms. (Al-Taie, 2022: 823) The MasterCard allows its holder to access his bank account 24 hours a day and anywhere in the world by performing the following operations: (Central Bank of Iraq, 2019: 30)

- a. Withdrawing money from the cardholder's account without the need to perform any of the usual banking operations, as this withdrawal process takes place directly on ATMs that are available locally and globally and bear the MasterCard logo.
- b. Buying services and products from the merchant without the need to use cash and through point-of-sale devices, which are available locally and globally as well, and in millions of shops such as shopping centers, restaurants, hotels, airline facilities, and other services.

As for the settlement of salaries, it can be defined as one of the types of electronic payment methods for salaries and wages, which provides safety and ease for workers to receive their salaries and wages electronically instead of the old traditional methods. and that is through an electronic card granted to them based on a current or savings bank account in a bank or even without a bank account, and then obtaining their salaries the moment they are deposited in their accounts or bank cards through ATMs or points of sale (Touqan et al., 2020: 250).

2. 6. The beginning of the localization of salaries in Iraq

This system began to spread in many countries of the world with the expansion of banking business and services and with the increase in the volume of electronic transactions, and as a result of the efforts of these banks to shorten the time, effort, and cost in their dealings and the various financial transactions of citizens and leaving dealing with cash and its risks In order to keep pace with these developments, the Council of Ministers' decision on November 1, 2016, directed that the salaries of all civil servants in all Iraqi government institutions be settled in Council Resolution (313) (Al-Abedi, 2021: 141), Also, one of the reasons for implementing the project to localize salaries for workers in government institutions is to eliminate double employment, what is known as space appointment, which greatly affected the drain on the Iraqi budget before applying the localization system by interrupting the financial data and the unified job number granted to the employee electronically before the launch of the monthly salary.

Among the reasons that are no less important is the improvement of the economic situation of the Iraqi governmental banks in general and the private ones in particular by involving them in the settlement project and also the shift to electronic transactions as an alternative to traditional transactions (Al-Taie, 2022: 822).

2. 7. Benefits of salary localization (for the employee)

The salary localization system offers several advantages that bring many benefits to employees, and these advantages vary from one bank to another, the most important of which are: (Al-Abedi, 2021: 140)

1. Localization will reduce the risk of transferring the employee's money in cash.
2. Each employee whose salary is settled shall be given a special salary card, through which he can withdraw his salary from various points of sale, locally and globally.
3. The employee has full freedom to withdraw, deposit, and transfer money as he wishes and at any time.
4. The employee shall pay the cost of issuing the card only and shall not bear any fees for opening the account.
5. The employee may use the salary card for cash withdrawals or purchases.
6. The employee enjoys free and interest-free electronic banking services.
7. Providing a package of banking products and services, including facilities for loans and cash advances.

2. 8. Localization determinants

It is possible to reveal the obstacles facing the settlement of salaries that limit its spread, including: (Talib & Hassan, 2022: 85) (Al-Azraq & Anbis, 2021: 828):

1. Fees and costs: the higher the costs that are imposed on new services and the commission used for the payment method, and the non-compliance of the payment offices with the commission rate specified by the Central Bank, some of them may impose commissions higher than the specified. Therefore, the use of the electronic payment card has become heavier for the employee as a result of the high fees imposed on them.
2. The problem of privacy. This problem is one of the most important concerns related to electronic services represented in the service of domiciliation of salaries. It is based on a unified database with the government and specialized workers.



3. The employee's disapproval of a change There are many employees who prefer receiving their salaries using instruments because they believe that they are under their control, while others see the domiciliation of salaries as lacking in actual oversight and therefore, they have noticed their weak ability to act effectively.
4. Electronic risks, including those related to the use of electronic cards, electronic clearing, electronic networks, and the extent of security in the data transfer process and the execution of payment operations. These operations may be accompanied by errors in knowing the customer's account or in the cash transfer process or errors in the process of receiving money from the ATM.
5. Forcing employees to a small number of banks, and thus the employee will be limited by choice. Those banks may not meet his desire, or they may have more commission than the rest of the other banks, whether governmental or private.
6. The absence of ATMs, and therefore the salary commission will be high, given that the payment will be through the payment outlet offices, meaning that the employee pays a commission to the bank and the payment outlets.
7. Internet interruption while the employee withdraws his salary from the ATM, which causes a delay in the employee receiving his salary.
8. Weak culture of salary settlement among a large number of employees who stand in long lines to receive their salaries on the same day without fragmenting the process of withdrawing them as needed.

2.9 Requirements for electronic accounting in Light of MasterCard Transactions

The performance of electronic banking services requires a set of basic infrastructures that ensure its proper functioning and the safety of its activity. These structures are shown as follows: (Al-Nabi, 2019: 7) (Al-Hajj & Naima, 2010: 70-72)

First: the technical infrastructure

The technical infrastructure is at the forefront of the electronic service requirements, and the technical infrastructure for electronic banking services is represented in the means of communication and information technology. These structures represent the most important challenge facing the electronic banking business, and this structure is also the most important basic pillar for electronic banking dealings in the era of information technology.

Second: Modern technology for banking operations

The intervention of the role of banking technology in achieving the promotion and development of the means of providing banking service has been exacerbated, in line with the accelerating pace of the banking industry in the twenty-first century.

Third: human qualifications and performance efficiency consistent with the era of technology

Building a high, strong, and integrated information technology infrastructure requires building a trained and competent human base and technical expertise that is suitable and able to work on computers and deal with information technology, software, equipment, and communications as well as accounting expertise, in order to ensure that employees carry out their responsibilities in a consistent manner and high performance.

Fourth: Community awareness and culture of electronic banking operations

Culture and knowledge of electronic services play an important role in its spread and development, especially among commercial establishments and productive sectors. The level and quality of education in any country is an important means of spreading culture and electronic use at the public level. Also, the absence of such a culture would lead to the emergence of the problem of mistrust in dealing through electronic means, and the high risks faced by the structure of banking technology and the risks of connecting to the Internet.

Fifth: Continuous Evaluation

Continuity in the performance of electronic banking requires an objective and continuous evaluation of the effectiveness of transactions and performance of electronic banking tools and the extent to which they achieve continuous success, through the use of specialized agencies and human competencies specialized in electronic banking work. In order to identify the validity and safety of electronic transactions and to know the difficulties they face in order to find appropriate solutions for making decisions in a timely manner.

Sixth: Development, continuity, and keeping pace with changes and technical strategies:

Electronic banking requires adapting to technological changes and developments. The bank must have a strategy to deal with modern changes, whether it is related to techniques, ideas, or theories in the banking field. Stagnation and waiting for others is not consistent with capturing opportunities for excellence. However, this does not mean rushing to plan to deal with the new, but it definitely requires speed in accomplishing that.

Based on the above, two hypotheses were formulated:



(H1). The first main hypothesis: The components of the MasterCard application are significantly related to the requirements of electronic accounting and all its dimensions.

(H2). The second main hypothesis: The application of the MasterCard significantly affects the requirements of electronic accounting and all its dimensions.

3. THE FIELD ASPECT OF THE RESEARCH

3/1. Data collection

The search field is represented by the banks listed in the Iraq Stock Exchange, which issued MasterCard cards, while the research community is represented by all accountants and administrators working in those banks who are in direct contact with the procedures of managing the MasterCard in the bank. An intentional random sample was adopted in distributing the questionnaires to the respondents through electronic communication channels and via the Internet. The number of retrieved forms valid for analysis was 63.

3.2. Variables Measurement and description of the research tool

The research included two variables, the first is independent and is represented by the elements of the application of MasterCard in banks and was represented according to 9 expressions. While the dependent variable is represented by the requirements of electronic accounting and has been measured according to three dimensions (first. human resources, second. material resources third. technical resources), Through 18 phrases, 6 phrases for each dimension. Table (1) shows the validity and reliability of the questionnaire for the three variables and at the level of the questionnaire as a whole, as the results confirmed the existence of the validity of the measurement according to the validity coefficient expressed by the square root of Cronbach's alpha value, as the values of the validity coefficients occurred between (0.822-0.921). These are statistically acceptable values. As for the stability, which was measured according to Cronbach's alpha coefficient, its values fell between (0.676-0.848), which is greater than 0.6, which confirms the presence of measurement stability in the questionnaire.

Table (1): Validity and reliability of the research tool

variables and dimensions	code	sentences	Cronbach's alpha coefficient	Validity coefficient
Firstly: Human resource	yy1	(1-6)	0.676	0.822
Secondly: Material resources	yy2	(12-7)	0.727	0.853
Third: Technical resources	yy3	(18-13)	0.719	0.848
Variable electronic accounting requirements	y	(18-1)	0.802	0.896
Variable components of the MasterCard application	x	(27-19)	0.772	0.879
Total		(27-1)	0.848	0.921

Source: The table was prepared by the researcher based on the outputs of the statistical program (SPSS).

3.3. Analysis and description of the study sample

Table (2) shows the demographic analysis of the sample of accountants, auditors, and administrators in banks in the field of study, as it is noted that the largest percentage of the sample are holders of a bachelor's degree, with a number of (37) individuals out of the total sample amounting to (N = 63), with a rate of (58.7%), which is the largest. While (7.9%) are individuals who hold lower than bachelor's degrees, while the rest of the sample hold higher academic degrees. This enhances the field of cognitive perception of the questionnaire items. While it is noted that most of the sample were from the category of accountants or assistant accountants with a rate of (71.4%), which is the largest percentage, which

reflects a higher possibility of understanding what are the electronic accounting requirements included in the questionnaire form, It is also noted that (61.9%) of the respondents have experience of 6 years or more, which enhances the aspect of professional and functional experience, which is reflected in understanding the concepts of the questionnaire form. It is also noted that all of the respondents participated in at least one course within the computer major. And that (44.4%) have participated in more than 4 courses, which is the largest percentage compared to the rest of the groups, and the accounting specialization, at a rate of (60.3%), constitutes the largest percentage within the sample, which contributes to enhancing the academic interpretation to absorb the vocabulary of the questionnaire.



Table (2): Description of the study sample

Category		Recurrences	Percentage %
Academic achievement	Pre-Bachelor	5	7.9
	Bachelor's	37	58.7
	Master's	17	27.0
	other	4	6.3
Career Title	Accountant assistant	14	22.2
	accountant	31	49.2
	Head of the Department	11	17.5
	Executive Director	7	11.1
experience	From 1- 5 years	24	38.1
	From 6-10 years	18	28.6
	From 11-15 years	7	11.1
	From 16 years and over	14	22.2
The number of courses within the computer specialization	one course	20	31.7
	From 2-3 courses	15	23.8
	4 courses or more	28	44.4
Scientific specialization	accounting	38	60.3
	business management	3	4.8
	Financial sciences	6	9.5
	other	16	25.4

Source: The table was prepared by the researcher based on the outputs of the statistical program (SPSS).

3.5. Descriptive analysis

It is noted from Table (3), which showed the results of the arithmetic mean and standard deviation, that there is a great agreement among the sample members about the requirements of electronic accounting in its three dimensions (First. Human resources Second. Material resources Third. Technical resources), and the variable of the elements of the application of MasterCard in banks, as the sample was more compatible with the dimension of technical resources, followed by the elements of the application of MasterCard, In terms of the values of the arithmetic mean and the relative importance and it was not noticed that there was dispersion and discrepancy between the opinions of the sample in terms of the low value of the coefficient of difference, which recorded values less than 50%. This is supported by the low standard deviation values, and the electronic accounting requirements variable solved the highest level of consistency in the sample's perception in terms of the lowest coefficient of difference between the dimensions and the variables under study.

Table (3): Results of the descriptive analysis of the opinions of the respondents

variables and dimensions	Arithmetic mean	standard deviation	lowest value	highest value	coefficient of variation	relative importance
Firstly: Human resource	4.066	0.362	3.170	4.830	8.9%	81.3%
Secondly: Material resources	4.061	0.462	1.830	4.830	11.4%	81.2%
Third: Technical resources	4.135	0.451	2.330	5.000	10.9%	82.7%
Variable electronic accounting requirements	4.087	0.335	2.670	4.670	8.2%	81.7%
Variable components of the MasterCard application	4.122	0.452	2.890	4.890	11.0%	82.4%

Source: The table was prepared by the researcher based on the outputs of the statistical program (SPSS).

3.6. Hypothesis testing

The research included two main hypotheses, as previously stated in the research methodology, and the following is a test of these hypotheses.

The first main hypothesis: The components of the MasterCard application are significantly related to the requirements of electronic accounting and all its dimensions.



The Pearson correlation coefficient was adopted for the purpose of verifying the hypothesis of the relationship between the variables and dimensions of the study, as shown in Table (4). Which shows the values of the correlation coefficients between the

elements of the MasterCard application, morally, with the requirements of electronic accounting and all its three dimensions (First: Human resources, Second: Material resources, Third: Technical resources).

Table (4): The Values of the correlation coefficients between research variables and dimensions

variables		Dimensions			Variable
		First: Human resources	Electronic accounting requirements	Third: Technical resources	Electronic accounting requirements
Elements of the MasterCard application	(Pearson)	0.315*	0.353**	0.455**	0.480**
	(Sig)	0.012	0.005	0.000	0.000

Source: The table was prepared by the researcher based on the outputs of the statistical program (SPSS).

** indicates that the correlation is statistically significant at (1%), * indicates that the correlation is statistically significant at (5%)

Through the results of the relationship test shown in Table (4), it is noted that the significant positive correlation is stable between the components of the MasterCard application as an independent variable with the requirements of electronic accounting as a dependent variable and for all its dimensions. It is noted that the highest level of correlation was recorded between the components of the MasterCard application and the requirements of electronic accounting, followed by the technical resources dimension, then its relationship with the physical resources dimension, and finally its relationship with the human resources dimension. These results are inferred that the application of the MasterCard and the expansion of adoption in local banks will be accompanied by an expansion in the requirements of electronic accounting and to a greater extent with regard to the requirements of technical resources,

then material and finally human resources, and based on the above, the first main hypothesis is accepted.

The second main hypothesis: Morale of the MasterCard application affects the requirements of electronic accounting and all its dimensions.

Four sub-hypotheses emerge from this main hypothesis:

The first sub-hypothesis: the impact of applying MasterCard on human resources as one of the requirements of electronic accounting.

A simple linear regression equation was formulated to test this hypothesis by determining the impact of the MasterCard application on the human resources dimension as one of the requirements for electronic accounting. Through this equation, the human resources dimension is estimated in terms of the MasterCard application, as shown in Table (5) which shows the test coefficients.

Table (5): Results of the impact of the MasterCard application on human resources as one of the electronic accounting requirements

variables and dimensions	(R ²)	(Adjusted R ²)	(F)	(Sig.)
Human resource	0.099	0.084	6.714	0.012
	beta value (β)	(T)	(Sig.)	significance level
	0.315	2.591	0.012	Statistically function

Source: The table was prepared by the researcher based on the outputs of the statistical program (SPSS).

Table (5) includes the outputs of the results of the regression equation test, which documents the validity of the regression model of that equation, in estimating the human resources dimension as one of the electronic accounting requirements in terms of the

MasterCard application. Because the value of (F) amounting to (6.714) recorded a significant level of less than (5%), which explains the validity of the approved model. While the (T) value of (2.591) at a level of statistical significance (5%) indicates the



significant impact resulting from the impact of the MasterCard application in the human resources dimension as one of the electronic accounting requirements. The positive value of the beta regression coefficient (β) indicates that the impact is positive, meaning that the greater the trend towards the application of MasterCard in Iraqi banks with an estimated value of (1), it is true that this will be accompanied by a rise in the scope of electronic accounting requirements regarding the human resource by (0.315), As for the value of the determination coefficient (R^2), it indicates that the MasterCard application explains (9.9%) of the changes that occur in the human resources dimension as one of

the electronic accounting requirements. These results confirm the acceptance of the first sub-hypothesis. The second sub-hypothesis: The impact of applying MasterCard on physical resources as one of the requirements of electronic accounting. A simple linear regression equation was formulated to test this hypothesis by determining the impact of the MasterCard application on the material resources dimension as one of the electronic accounting requirements. Through this equation, the material resources dimension is estimated in terms of the MasterCard application, as shown in Table (6) which shows the test coefficients.

Table (6): The results of the impact of the MasterCard application on physical resources as one of the electronic accounting requirements

variables and dimensions	(R^2)	(Adjusted R^2)	(F)	(Sig.)
Material resources	0.125	0.110	8.686	0.005
	beta value (β)	(T)	(Sig.)	significance level
	0.353	2.947	0.005	Statistically function

Source: The table was prepared by the researcher based on the outputs of the statistical program (SPSS).

Table (6) includes the outputs of the results of the regression equation test, which documents the validity of the regression model of that equation, in estimating the dimension of material resources as one of the electronic accounting requirements in terms of the MasterCard application. Because the (F) value of (8.686) recorded a significant level of less than (5%), which explains the validity of the approved model, while the (T) value of (2.947) indicates a statistically significant level of (5%) on the significant impact resulting from the impact of The application of the MasterCard in the material resources dimension as one of the electronic accounting requirements. The positive value of the regression coefficient, beta (β), indicates that the impact is positive, meaning that the greater the trend towards the application of MasterCard in Iraqi banks with an estimated value of (1), it is true that it will be accompanied by a rise in the scope of electronic accounting requirements regarding the

physical resource by (0.353), As for the value of the determination coefficient (R^2), it indicates that the MasterCard application interprets (12.5%) of the changes that occur in the physical resources dimension as one of the electronic accounting requirements. These results confirm the acceptance of the second sub-hypothesis. The third sub-hypothesis: The impact of the application of MasterCard on technical resources as one of the requirements of electronic accounting. A simple linear regression equation was formulated to test this hypothesis by determining the impact of the MasterCard application on the dimension of technical resources as one of the requirements of electronic accounting. Through this equation, the dimension of technical resources is estimated in terms of the application of MasterCard, as shown in Table (7) which shows the test coefficients.

Table (7): Results of the impact of the MasterCard application on technical resources as one of the electronic accounting requirements

variables and dimensions	(R^2)	(Adjusted R^2)	(F)	(Sig.)
Technical resources	0.207	0.194	15.898	0.000
	beta value (β)	(T)	(Sig.)	significance level
	0.455	3.987	0.000	Statistically function

Source: The table was prepared by the researcher based on the outputs of the statistical program (SPSS).



Table (7) includes the outputs of the results of the regression equation test, which documents the validity of the regression model of that equation. In estimating the dimension of technical resources as one of the electronic accounting requirements in terms of the MasterCard application, given the recording of the value of (F) amounting to (15.898) a significant level of less than (5%), which explains the validity of the approved model, While the (T) value of (3.987) at a level of statistical significance (5%) indicates the significant impact resulting from the impact of the MasterCard application in the dimension of technical resources as one of the requirements of electronic accounting, as well as the positive value of the regression coefficient, indicates beta (β), However, the impact is positive, in the sense that the greater the trend towards the application of MasterCard in Iraqi banks with an estimated value of (1), it is true that this will be accompanied by a rise in the scope of Table (8): Results of the impact of the MasterCard application on electronic accounting requirements in general

electronic accounting requirements regarding the technical resource by (0.455), As for the value of the determination coefficient (R^2), it indicates that the MasterCard application interprets (20.7%) of the changes that occur in the technical resources dimension as one of the electronic accounting requirements. These results confirm the acceptance of the third sub-hypothesis. The fourth sub-hypothesis: The sentiment of the MasterCard application affects the requirements of electronic accounting in general. A simple linear regression equation was formulated to test this hypothesis by determining the impact of the MasterCard application on the electronic accounting requirements in general. Through this equation, the electronic accounting requirements are estimated in terms of the MasterCard application, as shown in Table (8) which shows the test coefficients.

variables and dimensions	(R^2)	(Adjusted R^2)	(F)	(Sig.)
Technical resources	0.231	0.218	18.278	0.000
	beta value (β)	(T)	(Sig.)	significance level
	0.480	4.275	0.000	Statistically function

Source: The table was prepared by the researcher based on the outputs of the statistical program (SPSS).

Table (8) includes the outputs of the results of the regression equation test, which documents the validity of the regression model of that equation, in estimating the requirements of electronic accounting in general, in terms of the MasterCard application, given that the value of (F) amounting to (18.278) is a significant level of less than (5%). This explains the validity of the approved model, while the value of (T) of (4.275) at a level of statistical significance (5%) indicates the significant impact resulting from the impact of the MasterCard application on electronic accounting requirements in general, as well as the positive value of the regression coefficient indicates beta (β), However, the impact is positive, in the sense that the greater the trend towards the application of MasterCard in Iraqi banks with an estimated value of (1), it is true that it will be accompanied by a rise in the scope of electronic accounting requirements by (0.480), As for the value of the determination coefficient (R^2), it indicates that the MasterCard application explains (23.1%) of the changes that occur in the electronic accounting requirements as a whole. These results confirm the acceptance of the fourth sub-hypothesis, and due to the acceptance of the sub-

hypotheses, it can be said that the second main hypothesis is accepted

4. CONCLUSIONS

The execution of MasterCard for salary payments to government employees in Iraq has resulted in the revitalization of banks' performance and the expansion of their services by adopting electronic payment via MasterCard. This has had a significant impact on the electronic accounting requirements of these banks. The utilization of MasterCard for salary payments, also known as salary domiciliation, is a crucial and contemporary concept, and its enforcement was mandatory by the state to streamline government payments. This technological transition has also led to an improvement in the economic situation of Iraqi governmental banks in general and private ones in particular, by involving them in the localization project, as well as the shift to electronic transactions instead of traditional transactions. In addition, the application of the MasterCard and its wide adoption in local banks will be accompanied by an expansion in the requirements of electronic accounting, and to a greater extent with regard to the requirements of



technical, material, and finally human resources. The results of the research confirmed that the application of the MasterCard significantly affects the requirements of electronic accounting and all its dimensions represented in human, material, and moral resources. Based on the conclusions of the research, therefore, there is a need to urge the banking sector to bring the latest technologies in the field of electronic banking technology, and the need to urge Iraqi banks participating in the localization of salaries to intensify their training courses in the field of banking technology in order to educate their employees, especially those working in the field of

accounts in this field. In addition, the need for banks to provide their employees with the latest computer equipment and to provide an Internet connection without interruption in the service provided. And based on the research determinants and limitations, which were represented by the small sample, as well as the adoption of the questionnaire tool in measuring its variables, future researchers can test these variables on a larger sample, and adopt various quantitative measures to represent its variables, which contributes to proving the current research results or coming up with new results that can be generalized.

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