The role of using blockchain technology in improving the quality of digital financial reports		
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## Abstract:

This study aims mainly to identify the role of the use of blockchain technology in improving the quality of digital financial reports, answering questions and testing the hypothesis of the study, the researchers relied on the descriptive analytical approach, and to obtain the necessary data a questionnaire was distributed after evaluation to the study community.

The results of the study have shown that the use of blockchain technology helps to provide a high degree of reliability in digital financial reports published to banks over the Internet, ensure the speed of completion and completion, and maintain the privacy and confidentiality of the information contained in the digital financial reports of banks and see them anytime, anywhere.

The study recommended the need to move towards the use of blockchain technology because it is a secure cloud network, through which transactions and trades are recorded and executed, in addition to crypto currencies, where these trades are conducted quickly, safely and effectively, and characterized by the preparation of financial reports characterized by transparency and high reliability, due to informing all the parties of the network concerned with the details of each transaction and each trade.

Key words: Block Chain, Financial Reports, Transparency, Reliability, Disclosure.

## Introduction

There has begun a state of thinking outside the traditional patterns of managing the world's economies and focusing primarily on digital technologies in an unprecedented state of scramble and interest in this field until some claimed that it is the time of the digital universe and soon began to talk about issues related to the regulation of digital technologies and it became one of the main issues Which needs to be addressed at the level of many sectors, whether at the level of the health, education or sports sector, and the scene is at the top of the economic and financial level in the case of ensuring the achievement of an acceptable level of credibility, transparency and justice, and there were many initiatives that emerged from what is known as the block chain technology. Blockchain is a technology and requires a unified and multilateral approach to regulation. It also requires dealers around the world to be more than just tech-savvy. They need to understand how the regulations and code of that technology can be interpreted to require smart minds, diversity of thought, and inclusivity.

It is a distinctive technology and it can accomplish several things in various fields. It was also able to enter the business world with acceptable efficiency and effectiveness. This technology can provide a series of audit and audit procedures and is used to verify the integrity of data, and this in turn leads to harnessing that knowledge to ensure the preparation of financial statements and reports that honestly express The reality and reality of business companies and serve as a guide or guide to make more professional and accurate decision

# The study Problem:

Blockchain technology can be utilized and employed in the financial and business environment and to achieve effective benefit in raising and improving the quality of financial reports, especially that research and studies are still being conducted that deal with the adequacy and efficiency of blockchain technology as one of the contemporary technologies to narrow the gap of expectations and based on what is expected by users of financial reports. And what is included in these reports, and based on the foregoing, the study questions can be formulated as follows:

# The main question:

What is the role of using blockchain technology in improving the quality of digital financial reports? The following sub-questions are derived from the main question:

- 1. What is the role of using blockchain technology in enhancing the reliability of digital financial reports?
- 2. What is the role of the use of blockchain technology in increasing the level of quality of transparency and disclosure in digital financial reports?
- 3. What is the role of using blockchain technology in reducing the risks of digital financial reporting?

# **Objectives of the study:**

- 1. This study aimed to identify the role of the use of blockchain technology in improving the quality of digital financial reports.
- 2. Recognize the role of using blockchain technology in enhancing the reliability of digital financial reports.
- 3. Knowing the role of using blockchain technology in increasing the level of transparency and disclosure in digital financial reports.
- 4. Demonstrating the role of using blockchain technology in reducing the risks of preparing digital financial reports.

# The importance of studying

This study comes within the framework of shedding light on contemporary technologies, which are part of the global digital system that aims to develop the financial and business environment towards achieving globalization in its totality, and the extent to which these technologies contribute to achieving controls to ensuring more justice and transparency in

the preparation of financial reports.

# Study hypotheses:

Main premise: The use of blockchain technology has a role in improving the quality of digital financial reporting.

A group of the following sub-hypotheses is branched from the main hypothesis:

- 1. The first sub-hypothesis: There is a role for the use of blockchain technology in enhancing the reliability of digital financial reports.
- 2. Second sub-hypothesis: There is a role for the use of blockchain technology in increasing the level of quality of transparency and disclosure in digital financial reports.
- 3. The third sub-hypothesis: There is a role for the use of blockchain technology in reducing the risks of digital financial reporting.

## **Review of Literature**

The study (Fulana, Ruiz, 2021) analyzes the advantages that blockchain technology brings to Accounting Information Systems (AIS), but we also highlight potential problems in its use. We study the use of blockchain technology against the background of the historical development of AIS and explain the operational suitability of this technology in AIS. Then we analyze the pros and cons of the highly potential use of blockchain technology in AIS. For this purpose, we review relevant contributions on this topic in the accounting academic literature to date and categorize them into

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four categories based on their focus: governance, transparency, and trust; Continuous auditing of smart contracts and the roles of accountants and auditors. We also analyze the early reactions of the accounting industry and regulators to this new technological environment, and the study (Al-Khalab, 2021) revealed the level of knowledge of accountants with the emerging blockchain technology, its characteristics and uses, as well as measuring their expectations of the repercussions of its application in accounting, in addition to measuring the relationship between the level of knowledge and the ability to anticipate repercussions, To achieve these goals, the researcher used the descriptive analytical method The main study tool was a questionnaire that was distributed to a sample of accountants. The appropriate statistical methods were used for the study data and to test its hypotheses. The results showed that accountants have high knowledge of blockchain technology, its characteristics and uses, as well as the presence of statistically significant differences in the level of accountants' knowledge according to gender variables, years of experience and educational qualification. The results also indicated that accountants' expectations of the implications of the application of the blockchain are positive on accounting, with statistical differences. of accountants' expectations according to the variables of gender, years of experience, geographic region, academic qualification and job title. The results confirmed the existence of a direct correlation between the variable of knowledge of technology and the variable of expectation of reflection. The study (Pimentel, Boulianne, 2020) also shed light on the future trends of blockchain technology and linked it to the science of accounting and auditing. accounts and determine how the accounting profession might change in response to the blockchain. This study came to discuss seven main areas: the future of blockchain technology, the impact on the accounting function, audit considerations, financial reporting of crypto assets, case studies, governance, and taxation. The results of the study showed that the blockchain technology requires more expansion of the audit process and more attention in the aspect of financial reporting as well as the taxation of crypto assets. The study recommended the need to expand the discussion of accounting and blockchain technology beyond its current focus in auditing and accounting information systems And further research on the impact of blockchain technology in other areas such as corporate governance or the intersection of accounting and society, while the study (Nakhal, 2020) determined the impact of the use of blockchain technology on the responsibility of the auditor, where the legal responsibility of the auditor was divided into responsibility towards The audit is a responsibility towards the original beneficiary and a responsibility towards the expected beneficiary. The sample method was relied upon in selecting the study sample, which consisted of 74 individuals. The results of the field study demonstrated that the use of blockchain technology will lead to an increase in the auditor's responsibility towards all parties under study. As for the study (Hassan, et al., 2020), it dealt with the effect of using the blockchain technology in strengthening the opinion of the external auditor in the fairness of the financial statements. Blockchain technology has profoundly changed the review process and given more time to investigate how the According to the information between the systems, instead of conducting the review process at regular intervals, it allows to conduct the continuous review

Which allows proactively addressing problems, and will contribute to improving the process of data collection during the audit process. The study recommended the need to seek to adopt blockchain technology in accounting information systems, while the study (Demirkan, et al, 2020) aimed to identify current and future uses. Blockchain technology in accounting and electronic security, and the study used the descriptive analytical approach of the literature in the field, and the study concluded that the application of blockchain technology in auditing and public accounting procedures is efficient and effective in aspects of electronic security and accounting, and the blockchain has a high level of security that allows it to be relevant. A significant potential impact on the company's electronic security system in business management and accounting, the study also showed that the blockchain affects the financial audit in different ways that will change the

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profession significantly, and the study (Al-Masrawy, 2019) talked about the role of the management accountant in the decision to adopt a chain technology Blockchain blocks, and the method of inductive study was relied on, and the study concluded that the management accountant should provide sufficient information about the benefits The economic, political, social, technical and supply chain risks that the company follows, as well as the level of competition in the market resulting from the decision to adopt the Blockchain and present it to senior management to make the appropriate decision, Vincent study. 2019)), she talked about encouraging the accounting profession to take a proactive approach and influence the development of the blockchain by engaging in areas related to blockchain technology. The study found that there is a possibility to harness accounting to have an impact on the development and adoption of the blockchain, and if researchers are willing to To expand the scope of the current research to the context of the blockchain, while the study (Schmitz, Leoni, 2019) came to identify the expected effects of the blockchain technology on the accounting and auditing profession, and aims at the applicability and timeliness for both researchers and practitioners in the field of accounting and auditing, and the study found He pointed out that the most discussed topics in scientific works and professional sources are issues of governance, transparency and trust in blockchain technology, and that blockchain technology has enabled continuous audits, smart contract applications, and a paradigm shift in the roles of accountants and auditors.

# Commenting on previous studies:

- 1. Previous studies agree on the importance of blockchain technology as one of the most important modern technologies and linking it to social sciences, especially accounting and auditing.
- 2. But most studies are satisfied with determining whether there is a relationship between accounting and auditing and between blockchain technology.
- 3. The studies also did not focus on how to take advantage of the blockchain technology in raising the efficiency of financial statements and reports.
- 4. From the researchers' point of view, this study is important, as it studies the extent of the impact of blockchain technology on the quality of financial reports

# Theoretical framework of the study

During the year 2008, which was known to you as the year of losing financial confidence as a result of the global financial crisis, which sent many innovators thinking outside the box, and this is what followed the Japanese inventor (Satoshi Nakamoto) from developing a digital process based on the idea of linking groups of transactions in a distributed way, which in turn called for the development of Blockchain technology as one of the contemporary technologies that works to ensure the safety and validity of transactions and transactions with high professionalism (Kawthar, 2019, 179)

# First: the concept and definition of blockchain

# There are a set of definitions that dealt with blockchain technology, the most important of which are the following:

It is "a decentralized database consisting of a set of interconnected, chained, and encrypted blocks containing data and information that are difficult to hack or modify, and are traded more easily, faster and cheaper by members of the block chain network" (Al-Masrawy, 2018, 109).

It is also a database that uses the encryption mechanism (Cryptography) to build decentralized electronic ledger record distributed interconnected from the data in historical hierarchical manner that is not adjustable or tampered and is characterized by transparency, speed and ease in conducting operations and also provides the possibility of the participation of the concerned parties in its construction and ensuring the Health and preservation in accordance with the regulations and self-operating instructions regulated

for use" (Ahmed, 2018, 6).

## Second: Blockchain characteristics

There is a set of characteristics that distinguish the blockchain, which are (Al-Khalab, 2021, 6):

- 1. **Decentralized Distributed Network:** The digital block chain is considered a distributed ledger, as it does not depend on a central authority to save, audit, process and transfer data, which leads to the distribution of risks due to the difficulty of data loss, penetration and modification.
- 2. **The open source network:** The digital block chain network is an open network for any user where anyone can use it in any application they wish.
- 3. **Records are not subject to change or deletion:** Records on the chain cannot be modified or deleted as they are saved once checked.
- 4. **Transparency:** The information on the chain is distinguished by the fact that it is available to all members of the chain, as there is no privacy for the information.
- 5. **Approaching the instant in settlement of transactions:** The digital block chain enables the settlement of transactions more quickly compared to the current systems, which often need manual auditing, especially for monetary assets.
- 6. Risk Management: Risk management reduces the risk of non-payment.
- 7. **Better security:** Although security is a key issue in most modern technologies, blockchain offers better security because it uses a public-use infrastructure that protects malicious measures to alter data.
- 8. **Cost Reduction:** The use of digital blockchain lowers the costs that companies can incur.
- 9. Arithmetic logic: which means that the digital nature of the ledger requires that the blockchain operations be linked to a programmed digital algorithm.

# Third: Blockchain technology components

# Blockchain technology consists of three basic elements (Al-Safari, 579: 2019):

- 1. A network of computers: each person who has a computer and a small group of known entities that agree to participate can include each computer in a particular network called a node, and each node contains a copy of the entire ledger, similar to a traditional database, and operates With other nodes to maintain the consistency or integrity of the ledger and this creates fault tolerance so if one node fails all is not lost, meaning there is no single point of failure.
- 2. **Network protocol:** The network protocol governs how those nodes communicate with each other.
- 3. **Consensus Mechanism:** It is a set of rules that use the network to verify each transaction and agree on the current state of the Blockchain technology. Network participants run algorithms to confirm the digital signature attached to the blocks and verify the integrity of each transaction in the network.
- 4. **Consensus Mechanism:** The mechanism is for well-known participants identified by a central entity, in which case the blockchain technology does not need to establish trust because it already exists.

# Fourth: Elements of Blockchain Technology

# It consists of four main components (Al-Safari, 2019, 578-580):

1. **The block:** represents the unit of the chain building, and it is a set of operations or tasks to be performed or implemented within the chain. Examples of blocks are transferring money, recording data, or following up on a case. Usually, the block accommodates a specific amount of operations and information that cannot be accepted more than it. Until the operations inside it are finally completed, and then a new block is created associated with

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it, the main goal is to prevent fake transactions within the block that cause the chain to freeze or prevent it from recording and terminating transactions

- 2. **Information:** It means the sub-process or the individual order that takes place within the same block, and it represents with other orders and information the same block.
- 3. **Hash:** or what is known as a digital signature, which is a code that is produced through an algorithm within the program

# Fifth: Blockchain mechanism of action

Blockchain technology is one of the database systems that is characterized by decentralization of data storage, where the storage is distributed in many points spread on the network called nodes, which are computers with high capacities in terms of storage and processing, whose main task is to perform the function of verifying the validity and authenticity The operations that take place in this network in order to be executed based on the rules of the implementation mechanism on the network in exchange for a reward determined by the system, and these points encrypt each operation and link it with the previous process through encryption technology, and prevents modification to it and encrypts and decrypts the transmission of data in a secure manner. It is the technology that most financial institutions around the world use today to save and secure their data. The network is dealt with according to the following steps:

**First:** users interact with the digital block chain through a pair of keys, a private key and a public key, where they use their private keys to sign their private transactions. As for the public key, it is used for transactions on the network, and all the information inside the digital block chain is available to all dealers so that if a user wants to perform a transaction with any other user on the chain, it appears to everyone and if the transaction is valid, the users on the chain authenticate the transaction And published on the chain, all transactions that were validated and validated in the previous step are compiled and arranged during the agreed time interval in a block bearing its own time stamp.

**Second:** The devices that represent the nodes verify the proposed block in the previous step in terms of its components and the validity of the transactions in it, and verify its hash number and the extent to which it is related to the hash of the previous block, and if this is correct, the new block is added to the chain (Nakhal, 2020, 8), the mechanism passes through a group of central points (Aql, Hamed, 2020:(

Distributed Ledger.Central database.Prospecting.

# Sixth: Blockchain technology problems

# There are a number of problems associated with blockchain technology:

- 1. Illegal activities: It is a fertile environment for money laundering and tax evasion.
- 2. **System penetration:** the inability to provide sufficient cyber security to stand against cyber attacks
- 3. Lack of complete understanding of the technology of block chains: This is due to the lack of cultural acceptance of change by some or ignorance of technology, its characteristics and potential, which delays the stage of adoption and application.
- 4. **The high costs of initial integration and implementation:** the costs resulting from replacing the current systems with future systems are considered high in terms of the loss of current systems and the high prices of future systems
- 5. **Unemployment:** It is linked to the reduction of many jobs, which means less dependence on the human element (Hassan, 2020, 95.(
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- 6. **Huge computing power:** Blockchain technology needs huge computing power in the process of block token mining.
- 7. **High storage space:** Each node within the network needs huge computing power to be able to store a full copy of the blockchain (Al-Rahili, Al-Dahwi, 2020, 8.(

# The study (Al-Rahili and Al-Dahwi, 2020, 8) also indicated that the problems and defects of blockchain technology in general are represented in two issues:

First: the security issue: There are a lot of attacks that affect the blockchain, and they vary according to

**Second: Privacy:** Every node in the network stores a copy of the blockchain that can access the content and thus may violate privacy.

As stated in the study (Ghallab, 2021, 7) according to the divisions (Lu, Huang, Azimi and Guo, 2019) the risks facing Blockchain technology are divided into three main risks as follows:

**-Operational risks:** These are the obstacles that face the daily work in the Blockchain systems, such as the high operating cost and lack of experience that leads to imperfect management, a new culture for users, complexity of applications, and limited security.

**-Cryptographic risks:** represented by fraud resulting from hackers penetration and acquisition of assets and property.

-Legal risks: represented by illegal use, such as tax evasion and trade operations

# Seventh: Blockchain and its impact on accounting science

No one can deny that digital currency technology has cast a shadow over many social sciences, foremost of which is economics, management and accounting, and that corporate departments will work hard to take advantage of all the new technologies that will serve as a competitive force, especially blockchain technology, and this will, in turn, be reflected in the need to link This revolution in accounting systems and audit procedures, and we will review some facts through which we give a picture of the extent to which this knowledge is dealt with by the bodies and organizations regulating the science of accounting:

- 1. The Center for Audit Quality (CAQ): where the organization has updated the accounting and auditing guidelines for blockchain digital assets with the aim of helping auditors understand this technology and how it affects the auditing profession. In the tools that we use as auditors to perform audits, what are some of the tools that We can use it to take big data, compile that data, and perform high-quality audits (AICPA), and the guidelines directly specify client acceptance and continuity in companies, as well as what skills are required to perform audit tasks with the highest efficiency https://www.acc4arab.com
- 2. Arab Monetary Fund (AMF): The Fund has prepared a study on "Uses of Blockchain Technology in Financial Services". The study focused on shedding light on the development of blockchain technology during the last ten years, the expected economic gains from the use of these technologies in the provision of financial services, the supervisory and regulatory developments in this regard, and the recent trends of central banks and Arab monetary institutions to study the possibilities of benefiting from this technology in inclusion. providing financial services. and increasing levels of financial https://www.amf.org.ae/ar
- 3. **The International Monetary Fund (IMF):** It is one of the international organizations that praised technology and urged its members to invest in it and benefit from it, especially in the field of cash issuance, and stressed that blockchain technology improves confidence, security, privacy and efficiency and provides better services to customers.
- 4. World Trade Organization (WTO): The World Trade Organization, in cooperation with a number of international institutions such as the International Trade Council and developers

of blockchain technology, has been keen to hold scientific seminars calling for the adoption of blockchain technology in developing and stimulating trade exchange.

5. International Organization for Governance: The organization is currently working on issuing instructions for technology governance and standardization (Ahmed, 2018).

# Eighth: Modern accounting trends of blockchain technology

Despite the significant progress in the field of financial services over the past decades, the functions associated with executing and concluding transactions and maintaining financial transactions still require long and complex procedures in a number of financial activities. Accordingly, some believe that blockchain technology can contribute to increasing the levels of efficiency and effectiveness of financial services, and will enable individuals and companies to obtain better financial services without the presence of financial intermediaries:

- In the banking sector, blockchain can contribute to a broad reduction in the costs of providing banking services, including the costs of operations, compliance and disclosure. Blockchain technology also contributes to increasing the efficiency of payment and settlement processes by reducing the time required to complete transactions from days to minutes and significantly reducing the cost associated with such operations. The use of blockchain-based solutions can also meet the needs of the gross settlement system, which also helps to enhance flexibility and reliability.
- 2. Global stock exchanges have benefited from blockchain technology in executing and maintaining trades in stock markets to reduce costs, simplify procedures, and increase the speed of safe trading and settlement processes. In this regard, the Nasdaq Stock Exchange, the largest stock exchange in the world, adopted blockchain technology in 2015 to enhance the performance of the Nasdaq Exchange platform for trading private companies' shares before the "Nasdaq Private Market" IPOs launched in 2014 aiming to speed up and simplify many trading processes.
- 3. Remittances are also considered one of the most prominent financial services that have already begun to benefit from the Blockchain technology on a large scale, as it has become possible to instantly transfer funds across borders at a relatively low cost and in no more than minutes. This technology can contribute to increasing the volume of global remittances, estimated at about \$500 billion annually, using traditional remittance channels.
- 4. Blockchain technology is also used to facilitate trade finance services. While traditional trade finance operations require multiple and strict paperwork, the use of this technology will enable banks and trade finance institutions to automatically store, secure and exchange contract details and financial terms and coordinate trade logistics and payments within a real-time and integrated network of transactions that will help support trade finance operations and fill part From the trade finance gap, especially in developing countries, and savings estimated at \$30-40 billion annually.

# Ninth: Blockchain and its impact on financial statements and reports

A set of studies will be reviewed, the results of which led to the existence of a relationship between the application of blockchain technology and financial statements and reports, namely:

1. In Al-Nakhal Study 2020, the study confirmed that the blockchain technology has multiple advantages as it contributes professionally to maintaining data records of transactions from tampering, as it is a safe exchange of money, shares or rights, as it acts as an electronic record for dealing with transactions and recording them, allowing all parties to track information Through a secure network that does not require third-party verification, and this technology will allow the auditors to review and test the collection of transactions during the review period. In other words, there is no longer a need to use the sampling method in reviewing the transactions that are reported, as well as the transactions that are made through the Blockchain It is transparent and verifiable.

- 2. **Al-Masrawy Study 2019,** The study emphasized the importance of blockchain as one of the technologies that imposed itself on the financial and economic circles, and that it provides a unique model in ensuring the proof of financial transactions with a high degree of accuracy, and this in turn will be reflected in transparency.
- 3. **The blind study 2020,** The study indicated that the blockchain can reduce errors when entering and verifying data, and that this data is immutable as fraud attempts are easily detected, which creates a kind of trust between users and develops relationships with suppliers, and also works To track any error or problem that occurred within the chain, blockchain technology improves productivity by replacing the traditional standard contract with smart contracts.
- 4. Al-Jakhlab Study 2021, The study indicated that blockchain technology contributes to improving access to company information by many stakeholders and users of financial statements (suppliers, customers, investors, auditors) and they will have an identical copy at all times and this enhances the symmetry feature, which It may be in its minimum limits in traditional systems once operations are approved. Records do not accept modification or change and this increases the confidence of information and data and this leads to a high level of security and thus increases reliance on data more than the current systems, as the results of the study stated that blockchain technology It will prevent cases of manipulation and forgery in financial data and information. Accountants have positive expectations towards the application of blockchain technology and its implications for accounting. This technology will improve, facilitate, and make many accounting procedures done automatically since the start of the financial process and its documents, through processing, to the financial reports that accountants expect to be more accurate. Reliability and at the same time instant.

# Field study

This part of the study includes a description of the field study method, the sample used, the community, the tool, its variables and its procedures, and the following is an exposition of that:

# Study Methodology

Based on the nature of the study and the objectives it seeks, this study is based on the descriptiveanalytical approach, through which it attempts to describe the phenomenon under study because it is the appropriate approach that achieves the objectives of the study.

# Sources of data collection

In order to achieve the main objective of the study, which is to identify the role of the use of blockchain technology in improving the quality of digital financial reports, the researchers used two main sources to gather information:

- 1. **Primary sources:** To address the analytical aspects of the subject of the study, the researchers resorted to collecting primary data through a questionnaire as a main tool for the study, designed specifically for this purpose.
- 2. **Secondary sources:** To address the theoretical framework of the study, the researchers turned to secondary data sources, which are related Arab and foreign books and references, periodicals, articles and reports, studies and scientific journals, and study and reading on various Internet sites that dealt with the subject of the study.

# The study population and sample

Based on the study problem and its objectives, the target community is represented by employees from general, financial and administrative managers, branch managers, and heads of administrative and financial departments in the banks listed on the Palestine Stock Exchange, totaling (120) male and female employees. The sample was chosen as a percentage of this community using appropriate

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statistical methods. To be representative of the study population, where the sample amounted to (89) male and female employees, where a questionnaire was prepared and distributed to the selected sample, and the questionnaire was distributed to all members of the study community (89), and (83) questionnaires were retrieved, representing (93.2%) as a percentage This number is considered scientifically and methodologically acceptable, appropriate for conducting statistical analysis and verifying hypotheses, and sufficient for such studies.

# The study tool

A questionnaire was prepared on "The Role of Using Block Chain Technology in Improving the Quality of Digital Financial Reports". **The study's questionnaire consists of three main sections:** 

**The first section:** It is the personal data of the respondents (educational qualification, job title, years of experience).

The second section: It consists of three axes, namely:

**The first field:** There is a role for the use of blockchain technology in enhancing the reliability of digital financial reports, and it consists of (10) paragraphs.

**The second field**: There is a role for the use of blockchain technology in increasing the level of quality of transparency and disclosure in digital financial reports, and it consists of (10) paragraphs.

**The third field**: There is a role for the use of blockchain technology in reducing the risks of preparing digital financial reports, and it consists of (10) paragraphs.

The five-point Likert scale was used to measure the respondents' responses to the questionnaire items (Fully Agree, Agree, Average, Disagree, Totally Disagree)

# The results of testing the hypotheses of the study

The study questions were answered and these hypotheses were validated using the arithmetic mean, standard deviation, relative weight, and T-test to see whether the average response score reached the mean approval degree of (3) or not, and the results were as in the following table:

Thus, we accept the alternative hypothesis and reject the null hypothesis: There is a role for the use of blockchain technology in enhancing the reliability of digital financial reports, and the results of the current study agree with previous studies (Hassan, et al., 2020), (Al-Masrawy, 2019), and indicated that the application of Blockchain Blockchain technology will lead to positive repercussions in the event of starting the financial process and its documents through processing to enhance the reliability of digital financial reports for financial reports, while the study differed with (Nakhal, 2020), (Al-Khalab, 2021), (Fullana, Ruiz, 2021). ), (Pimentel, Boulianne, 2020), (Demirkan, et al, 2020), Vincent. 2019)) (Schmitz, Leoni, 2019).

Thus, we accept the alternative hypothesis and reject the null hypothesis: there is a role for the use of blockchain technology in increasing the level of quality transparency and disclosure in digital financial reports, and the results of the current study agree with previous studies (Hassan, et al., 2020), (Al-Masrawy, 2019), She pointed out that the application of blockchain technology has positive repercussions on reducing costs and raising the level of quality of financial reports, while the study differed with (Nakhal, 2020), (Al-Jahlab, 2021), (Fullana, Ruiz, 2021) (Pimentel, (Boulianne), 2020 (Demirkan, et al, 2020), (Vincent. 2019), (Schmitz, Leoni, 2019).

Thus, we accept the alternative hypothesis and reject the null hypothesis: there is a role for the use of blockchain technology in reducing the risks of digital financial reporting, and the results of the current study are consistent with previous studies (Al-Jakhlab, 2021) which indicated that the application of blockchain technology has positive repercussions on the preparation of digital financial reports. Digital financial reports, while the study differed with (Nakhal, 2020), (Hassan et al., 2020), (Al-Masrawy, 2019), (Fullana, Ruiz, 2021) (Pimentel, (Boulianne, 2020) (Demirkan, et al, 2020), (Vincent. 2019), (Schmitz, Leoni, 2019).

# Conclusion :

Through the results of the field and theoretical study, the researchers reached the following conclusions:

- 1. The use of block chain technology helps to provide a high degree of reliability in the digital financial reports published for banks over the Internet, and to ensure their speedy completion and completion.
- 2. The use of blockchain technology maintains the privacy and confidentiality of the information contained in the digital financial reports of banks and access to them anytime and anywhere.
- **3.** The use of blockchain technology enhances the necessary analyzes of digital financial reports in order to help rationalize decision-making within banks.
- 4. The use of blockchain technology helps raise and improve the quality of digital financial reports for banks.
- 5. The use of blockchain technology increases the quality of disclosure in banks' digital financial reports.
- 6. The use of block chain technology helps to support the comparison of digital financial reporting information for banks with high efficiency.
- 7. The use of blockchain technology achieves a high degree of confidence, security and transparency in digital financial reports, by providing users with comprehensive information and the ability to track the history of all information and its changes.
- 8. The use of blockchain technology plays a crucial role in making the information contained in the digital financial reports of banks streamlined and orderly, and preventing the publication of any incorrect financial information.
- **9.** The use of blockchain technology helps in strengthening the freedom of access to digital financial reports and the financial information they contain in an easy-to-use format.
- 10. The use of block chain technology helps reduce the time required to prepare digital financial reports for banks by performing digital processing and settlements in real time.
- 11. The use of blockchain technology helps to examine and evaluate every information comprehensively and continuously, which leads to increasing the effectiveness and efficiency of the information contained in the digital financial reports of banks, preventing errors in them, and eliminating fraud and distortions.
- 12. The use of block chain technology leads to encryption to protect the information of digital financial reports, preventing the methods of penetration, tampering or forgery, and does not prevent access to it.

# **Recommendations :**

The researchers recommend a set of recommendations made to banks in general and banks listed on the Palestine Exchange in particular, which came as follows:

1 .The importance of the banks listed on the Palestine Stock Exchange to apply blockchain technology and the extent of the effectiveness of this technology in improving the quality of

financial reports, making them more accurate and reliable, and providing them in the immediate time.

2 .The need to move towards the use of blockchain technology because it is a secure cloud network, through which transactions and trades are recorded and executed, in addition to digital currencies, as these trades take place quickly, safely and effectively, and are characterized by the preparation of financial reports characterized by high transparency, given the knowledge of all concerned parties of the network Details of each transaction and each trade.

3 .Working on the application of Blockchain technology in the banks listed on the Palestine Stock Exchange because it contributes to increasing the levels of efficiency and effectiveness of the financial services provided by these banks, as it enables customers to obtain better financial services without the presence of financial intermediaries.

4 .The necessity of paying attention to the application of Blockchain technology in the banks listed on the Palestine Stock Exchange for its significant contribution to increasing the efficiency of payment and settlement operations by reducing the time required to complete transactions immediately, and tangibly reducing the cost associated with such operations, and managing risks, as it has a positive impact on The financial stability of these banks due to increased competition.

5 .The Palestinian Monetary Authority has enacted legislation and instructions for banks listed on the Palestine Exchange using the "Blockchain" technology to help these banks explore the effectiveness of this technology in increasing the quality of digital financial reports.

6 .Holding training courses for employees of the financial departments of the banks listed on the Palestine Stock Exchange for training on in-depth knowledge of the block chain technology, how to deal with this technology, urging its application and what it will provide for keeping long-term financial records, and preventing cases of manipulation and fraud in financial data and information .

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