The Role of Digital Transformation Technology in Raising Operational Efficiency within the Management Information System in Iraqi Insurance Companies

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Abstract

This study aims to identify the impact of digital transformation technology (Blockchain), the independent variable, on (operational efficiency and enhancing contractors' confidence), the dependent variable, due to the advantages it provides In Iraqi insurance companies (study population) on a sample of (62) individuals through the distribution of a questionnaire developed for this purpose. Descriptive statistics and regression analysis were used to test the study hypotheses. The study found a positive effect when applying Blockchain in increasing operational efficiency and increasing the confidence of contractors. The study recommended that Iraqi companies provide infrastructure, create blockchain platforms, and train workers on them.

Keywords: *digital transformation, Blockchain, operational efficiency transformation requirements,Insurance.*

Introduction

There is no doubt that we live in an era of technical revolution and the emergence of new concepts in this world, such as digital transformation, where digital transformation is considered an investment in thought and behavior change to bring about a radical transformation in the way of working, as the latter provides institutions and companies with opportunities to achieve their goals and reach strategic visions. The lowest costs and the least time. Digital transformation may also lead to a significant development in companies' ability to obtain information and data.

The management information system has been affected by the changes taking place in the global business environment, which is moving towards more use of modern technology in the various events it deals with. The old traditional methods and patterns are no longer able to keep pace with the developments of the times, and it has become necessary to follow modern scientific methods. From this standpoint, the use oF Modern information technologies are an urgent necessity, which positively achieves success in practicing the profession. Cloud computing has become a reliable technology for many organizations thanks to its dynamic scalability and the use of virtual resources as an online service, potentially having a significant impact on the business environment.

In the same context, technological developments have produced new intelligent concepts,

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driven by the invention of the Internet and full-sized telephones. Things internet, some of which are still unclear, and others have not been settled in their final form as a concept.

One of the most important technologies that has emerged under modern technology is Blockchain technology, which was initially viewed as a technical basis for virtual currency, then emerged as a technology in itself, and now as a pioneering advancement that can reduce costs in current transaction systems and enable new, unworkable models. Previously for social and commercial engagement.

First Topic: Study methodology: The study was presented as follows:

First: Study Problem

The massive technical or computer revolution that has occurred in the recent period has resulted in many computer applications or programs that can replace the human being, because they deal independently in accordance with the artificial intelligence they are fed with, so that they are capable of the circumstances surrounding them. Applications that have permeated various aspects of life, and today have become unavoidable or unrecognizable. This requires the management information system to be flexible and able to provide information with acceptable qualitative characteristics, which requires it to keep pace with digital changes and benefit from their advantages.

From the above, the following problem can be raised: What is the reality of management information systems in the digital transformation environment, and what are the challenge?

1. What is the availability of digital transformation requirements in Iraqi insurance companies?
2. Do the advantages of digital transformation increase the operational efficiency of the management information system in Iraqi insurance companies?
3. To what extent have the challenges facing digital transformation in Iraqi insurance companies changed from the application of Block Chain?

Second: Study Objectives

1. Identify the conceptual framework of digital transformation, highlighting its importance, advantages, risks, difficulties, and obstacles facing it.
2. Identify the extent of Iraqi insurance companies' awareness of the importance of adopting digital transformation and its technologies in light of traditional information systems.

Thired:Study Importance: The importance of the study stems from the importance of the following

1. The challenges facing the insurance sector in light of the trend to use digital technology and the necessity of searching for ways to eliminate obstacles to its application.
2. The importance of applying block chain technology in the insurance sector due to the many benefits it contributes to insurance companies.

Fourth: Study Hypotheses: The study seeks to test the following hypotheses:

The First Hypothesis: The application of digital transformation (Block chain) does not have a significant impact on the operational efficiency of Iraqi insurance companies.

The Second Hypothes: There is a significant relationship between digital transformation (Blockchain) and the dependent variable enhancing trust among contractors within the management information system in Iraqi insurance companies.

Fifth: Society and Study Sample: The society and sample of the study is represented by the

Iraq insurance companies by the National Insurance Company and the Iraqi Insurance Company, the research sample was chosen based on a simple random sample. a sample consisting of company employees was selected. (85) questionnaires were distributed randomly, and (62) questionnaires were retrieved, representing 73% of the total questionnaires distributed, which is a good percentage that allows us to conduct the study.

Table: (1): Characteristics of the Study Sample.

Sex	Frequency	ratios %
Male	28	45
Female	34	55
Career center		
Deputy General Manager	5	8
Director general	2	3
Director of the Department	23	38
Branch Manager	12	19
Other	20	32
Qualification		
Diploma	15	24
Bachelor's	39	64
Master's	5	8
Doctorate	3	5
Professional Experience		
5years and more	11	18
6-10 years	16	27
11-15 year	24	37
16 years and more	11	18
Total	62	100

Sixth: Testing the apparent validity: In order to verify the validity of the tool, the accuracy of the questionnaire paragraphs, its clarity, and its suitability to the research environment. It was presented to a group of different experts and their opinions were polled regarding the tool's ability to measure the variables of the study. Statistical testing: Adopted Cronbach's alpha test, which is the most widely used test, and which indicates the possibility of obtaining the same information if the questionnaire is used more than once. The following table shows the results of the Cronbach alpha coefficient value.

Table (2): Internal Consistency Reliability Coefficient (Cronbach's Alpha).

Variables	Coefficient value	Measurement level	Number of paragraphs
Requirements for implementing digital transformation	0.774	Good	7
Operational efficiency of insurance companies	0.896	Good	18
Enhancing contractors' confidence	0.845	Good	8
Total	0.828	Very good	33

From the table above, it can be said that the study tool, including what it contained from the axes of statements that are valid for measuring are intended for and can be relied upon to obtain significant results.

Second Topic: Theoretical Framework: This research addressed two requirements: **The**

first requirement concerned some concepts of digital transformation, requirements and advantages of digital transformation.

First: Definition of Digital Transformation: Digital transformation is defined as the process of companies moving to business models that rely on digital technologies to support the development and innovation of the products and services provided, and to provide new marketing capabilities and job opportunities that increase the value of a product, whether goods or services. (1)

Several definitions of digital transformation have also been provided by international consulting companies, including:

Accenture defined it: "Today's business success requires a customer-focused digital transformation, and it begins with prioritizing an excellent and relevant customer experience and mobilizing institutions, processes, and technologies to achieve this.". (2)

Also known by Capgemini: "Digital transformation has become the main challenge in change management because it affects not only industry structures and strategic positioning but all levels of the organization (every task, activity, process)5 and its own extended supply chain. .(3)

Second: Motives for Digital Transformation: In this regard, Deloitte conducted interviews with more than 1,200 different government bodies from the world and succeeded in identifying the fourth most important drivers for the digital transformation process in the public sector. These motives are three: 1. Costs and budget pressures: Oil prices have deteriorated since or at the end of 2014, and for this reason the majority of oil-rich countries are resorting to confronting the significant decline in the volume of revenues by reducing the volume of their spending on government assets and operations. Therefore, the measures taken to save costs and implement Efficient government operations are the most important drivers of digital transformation, (4)

2.Requirements of Customers and Citizens: Social media has achieved great popularity for people and provided them with a new channel for communication, and thus provided the opportunity for governments and citizens to cooperate together. Governments quickly resorted to taking advantage of it to find out the opinions of citizens, who in turn relied on this channel to demand the provision of a higher level of Government services. .(5)

3.Government Directives: Governments rely on a top-down planning approach to make decisions, and this is what helps them accelerate the pace of implementing digital transformation programs.

4.Making Quick Decisions: It enables government agencies to activate national transformation plans quickly and effectively. Accordingly, digital transformation has become a strategy for corporate leadership after it was synonymous with information technology, and this is due to the benefits it brings. The digital transformation of companies and institutions has become a list or priority, and an urgent necessity. Digital transformation helps companies, institutions and individuals to: (6)

A. Reduce and save effort and energy, and cost reduction.
B. Opening the field of creativity through ways and methods of providing services that are provided to customers, compared to other methods traditional service provision.
C. Facilitates the process of supervising officials' monitoring of work progress.

D. It helps commercial companies expand and gain a larger segment of customers and audiences.

E. Improves and organizes operational efficiency. From this it is clear that digital companies, in view of their advantages, have become the future of traditional companies because (digital) companies are characterized by the large number of their customers and audiences and low transaction costs, in addition to the mandatory global changes that the business sector is witnessing, and this is what forces traditional companies to accelerate In adopting electronic business and digital transformation. **(7)**

Third: Components and Requirements of Digital Transformation: The basic aspects include the following: **(8)**

1. Electronic business infrastructure (Internet and communications networks).
2. Digital innovations (semiconductors and processors).
3.Core technologies (computers and telecommunications devices).
4. Information technology and digital sectors that produce main products or services that rely on basic digital technologies (such as digital platforms, mobile applications, and digital payment services);
5. Digital sectors that include digital products and increasingly use services, such as e-commerce.

Fourth: Benefits of Digital Transformation: Digital transformation (DT) has many and varied benefits, not only for customers and the public, but also for institutions, companies and various stakeholders, the most important of which are: **(9)**

1. It improves and organizes operational efficiency, and significantly saves cost and effort.
2.It creates opportunities to provide innovative and creative services away from the traditional way of providing services.
3.It works to improve quality and simplify procedures for obtaining services provided to beneficiaries
4. It helps institutions and companies expand, spread, and reach a larger segment of customers and audiences.

The Second Requirement: Digital transformation takes many forms, and therefore the researcher in this requirement will address Block Chain technology as a new technology that can be applied in insurance companies.

Block chain technology appeared in 2008 when Satoshi Nakamoto (Nakamoto, 2008) published an article about the digital currency bitcoin, which is an electronic monetary system that relies on a network consisting of a group of nodes that operates in a peer-to-peer system. It revolutionized the financial sector and was One of the most important components of its success is its reliance on an encrypted technology called block chains. (10)

Many efforts have been made to separate block chain technology from Bitcoin applications in order to facilitate its use in various industries, as block chains were used for the first time in economic literature in the year 2014. (11)

The researcher will review researchers' opinions about the definition of chain technology is as follows:

It is a distributed database of records or a public ledger of all digital transactions or events that are executed and shared between the participating parties, where these events are included in the form of blocks added to the blockchain technology in a linear chronological order. (12)

described it as a distributed digital ledger to record transactions in an encrypted form in the form of blocks, after agreeing to record them by the participants, who are called contracts. Then each block is added to the last block present in the block chains, and all participants can view Transactions without the possibility of deleting or changing them. (13)

As defined by. (14) it is a technology that enables people to share all information on the basis of decentralization, security and intelligent execution, so that all participants can one after another through peer-to-peer networks who can access the transaction details and process any transaction details. Operational problems as soon as they occur collectively, and I have described them.

The researcher defined the block chain technology as a distributed ledger that relies on decentralization in recording transactions and events through a series of nodes linked to each other that are difficult to penetrate or manipulate, forming a network of interconnected blocks among a group of participating peer dealers. to each other without the presence of intermediaries and can be updated by participants.

Second: Mechanism for Applying Block Chains in Insurance Companies

The implementation of block chain technology depends on a set of basic concepts, which are as follows: (15)

1. The distributed ledger records all transactions on the network without the need for a central coordinator, as it is a system based on the consensus of all participants on the network. Therefore, it verifies the complete validity of each transaction, thus eliminating double compensation for the same customer.
2. An encrypted database that maintains insurance contracts and transaction results for all clients in the form of a value. The database is often encrypted through some encryption algorithm (key, used to authenticate users and to provide access control).
3. Block: Transactions are collected in the form of blocks, so that each block contains all the transactions that occur within a specific time frame and is then linked to the rest of the previously existing blocks, hence the name block chains
4. Nodes: disseminate block chain technology across computers (nodes), so that each node contains a copy of the entire block chain, along with a subset of peer nodes called Endorsers, which verify the terms of transactions with smart contracts
5. Consensus: can be updated and modified. It is characterized by the decentralized network, which consists of a group of nodes representing databases in every version, but on the condition that the majority agrees and approves this update

Third: Steps to Apply Blockchains in Insurance Companies Through Smart Contracts

Block chains rely on smart contracts to record and implement traditional insurance operations, which are contracts via digital block chain technology between two parties that can be programmed electronically and executed automatically. They store data and transactions between the parties in a synchronous, central, and immutable manner and verify that all agreed upon conditions are followed: (15) Efanov & Roschin, 2018) (118):

The concept of smart contracts was proposed for the first time by (16) (Szabo, 1996:2), who pointed out that smart contracts record transactions without the presence of a third party, can be traced, and cannot be tampered with. By implementing the block chain as follows: (17) ,(18)

1. Registering customers on the network with the help of smart contracts, in the form of a structure that contains customer data such as name, age, etc., and then it is stored on a chain network. Blocks so that this data can be retrieved when needed

2-Creating insurance documents where smart contracts are concluded that include the terms of the agreement between the two parties in the form of programmed instructions in a way that allows the contract to self-execute at the appropriate time for implementation, which adds more automation to the process of executing insurance contracts and simplifies the performance of claims. Completely automatically at first startNotification of the loss, then the customer chooses the appropriate policy for him from the database and then pays the premiums.

3.Settlement of claims without the need for human interaction, based on the conditions included in the smart contract, where claims are automatically paid and this data is shared between insurance companies through the distributed ledger. Blockchain technology and knowing whether previous claims have been paid so that multiple claims are not allowed for the same insured event, which makes it easier to quickly identify suspicious behavior and thus reduce fraud.

4.Reviewing smart contracts is easier than traditional review, as the data is processed and settled by auditors who examine the details of the contract and then send confirmation of claims under the supervision of his decision.

Fourth: Advantages of Block Chain Contracts: Block Chain contracts have many advantages when compared to traditional contracts, perhaps the most important of which are:

1- The absence of intermediaries or third parties, whether they are brokers, third parties,Traditional contracts are mostly concluded by banks. Or official registration or certification bodies, as in the case of contracts for the sale of land, cars, ships, and airplanes, and the resulting lack of privacy for the terms of these contracts, in addition to paying more lengthy procedures, which may sometimes amount to fees, as well as what is incurred by these contracts. Parties to the degree of complexity, and the large time it takes to complete the contracting process.

2.Providing security in the transaction. Block chain contracts also enjoy security and the difficulty of penetrating their data compared to traditional contracts. The data is securely stored in the decentralized ledger using encryption. One party to these contracts stores a copy that is difficult to hack, and thus it is difficult to change or modify the contractual data and personal information stored on the block chainStored on the block chain (19)

3.Dealing with private names All transactions that take place via the block chain, including the conclusion of contracts, are pseudonymous, unless the user chooses to reveal his identity; Users of the Asmaa blockchain have the ability to hide behind a series of characters while conducting their transactions.

4.The ability to automatically implement its terms. Once the terms of the block chain contract are agreed upon and formulated in an encrypted digital form, they are executed automatically, and without the need for any human intervention after that. This is done through a famous rule, which is "If. then (then) If. Then, and such that if a certain assumption is fulfilled, its ruling is automatically implemented. For example, in sales contracts, as soon as the seller delivers the agreed-upon sold item, the agreed-upon cash price in the encrypted digital currency is transferred to the seller's account. The insured risk is verified. The contract is automatically executed by converting the insurance amount into currency Encrypted digital messages to the insured's account, all of this is done through specific algorithms that are entered in advance, that is, when agreeing on the terms of the contract and drafting: (20)

Fifth: Requirements for Applying Block Chains in Iraqi Insurance Companies

The application of block chain technology in Iraqi insurance companies faces many challenges that must be overcome as follows:

1. The application of block chain technology requires the need for the state to establish laws and legislation to regulate its work, in addition to the need to adopt digital currencies within Iraqi.
2. The necessity of insurance companies moving towards decentralization in management to suit the application of block chain technology.
3. The need to update the technological infrastructure to suit the requirements of implementing block chain technology.
4. The necessity of holding training courses for insurance company employees to keep pace with digital transformation and the ability to deal with block chain technology.
5. Holding introductory courses on block chain technology so that insurance company employees understand the idea of reducing their role as an intermediary party in completing the implementation of insurance contracts. (21)
6. Blockchain technology can be difficult to learn. his can make it difficult for companies to start using Blockchain technology and makes it difficult to understand how it works. In addition, companies may not have the right tools or resources at their disposal when starting to use Blockchain technology. (22)
7. Lack of organization. Since blockchain technology is still relatively new, there are no clear guidelines or regulations around its use. This could cause problems in the future if companies are not careful about how they use them. (23)
8. Another risk is the possibility of hacking and security breaches. Because blockchain technology is decentralized, it is often viewed as more secure than traditional centralized systems. However, this does not mean that it is completely immune to hacks and security breaches. (24)

Sixth: Block Components: It consists of a distributed database known as a ledger, which includes a chain of blocks. each block consists of two parts: **(25)**

The First: Is the block headeader It includes the block number, the HasH, the previous block code, the version (of the design platform), the consensus algorithm, the timing of the block creation, and a summary of transactions.

As for the Second Part: The block body, it includes the following:

Transactions that arriveth, numbering thousands, and the transaction consists of a set of data, symbols, numbers, letters, pictures, and video,others, and the content of the transaction is determined according to the function it performs (transferring money, transferring ownership, notarizing contracts, document data, and others).

The Digital Fingerprint or Hash Code is the transaction's data content converted into a set of numbers and letters through complex algorithmic operations, the most famous of which is currently the cryptographic function (SHA256)

Which gives a fingerprint consisting of a fixed number of(64) letters and numbers, and the goal of encryption is to secure the data and ensure that the content has not been modified and the fingerprint is changed automatically, and the fingerprint is changed automatically, and the encryption process goes in one direction so that the content cannot be known through its code, and the encryption process is unique, so there is no two transactions in the same fingerprint.

Example:Code:A7FCFC6B5269BDCCE571798D618EA219A68B96CB87A0E21080C2E 758D23E4CE9

Digital Signature: The network gives all its participants - both the parties to the transaction and those who verify it and those who approve it - two keys

Public: It consists of a set of letters, numbers and symbols from which the identity of its owner cannot be inferred. This key is available for everyone to view. Rather, transactions are carried out through it, and there are no duplicate keys in the same network.

Private: No one knows it, only it is an electronic signature, which he uses to decrypt his transaction data, and authenticate transactions and operations according to the permissions allowed.

The Working Mechanism of the Block Chain: (26) It is characterized by being a decentralized database whose content is encrypted and editable, copied and distributed to all participating devices. There is no controlling authority in implementing operations and making decisions. The participating nodes are responsible for verifying the validity of transactions, ensuring that they comply with conditions, performing encryption operations, and adding blocks. New to the network, This is done through software that is downloaded onto the participating devices (nodes) so that you can carry out the previous operations automatically. The following explains the working mechanism, starting with the request to create the transaction and ending with saving it within the block, then creating the block and adding it to the block chains and distributing it to the nodes. The working mechanism is as follows:

The Nodes Receive Requests to Create New Transactions from Network Users

1. The nodes begin to verify the validity of the transaction data and not repeat the request to create it, and verify the validity of electronic signatures and not their owners. The nodes also ensure that the transaction conforms to the established conditions, and that it follows the established procedures and rules.
2. After verifying the validity of the transaction, a (Hash) is produced including its content and timing. The transaction is added inside the open block inside the open block, and is linked to the transaction chain by adding the previous transaction code to it.
3. When the permissible limit of transactions is completed, the block is closed, and its data is recorded at the head of the block. The block ready to be added is encrypted, and everyone competes to solve complex mathematical equations to produce a code consisting of 64 letters and numbers. The first one to reach it is notified to everyone to keep his prize, according to the rules. The consensus algorithm followed by the network, then the rest of the nodes participate in verifying the validity of the block. After verifying the validity of the block, it is added to the block chain in the network by adding the code of the previous block to the header of the new block. The database has been updated for all participating

The Third Topic: Test and analysis hypotheses of the study

This study deals with the results of the statistical analysis of a study field, which was obtained by analyzing the data which included in the questionnaire (the study society). The sample of the study consists of (62) individual.

A five-caliber scale was used in the distribution of grades as follows:

Classification	Strongly agree	Agree	To some Extent	Disagree	Strongly disagree
Grade	5	4	3	2	1

The closer the result of the grade (5-3.5) the greater the intensity of the approval of the expression, represents an average level (3.49 -2.5), while the intensity of the opposition increases as (2.49-1) represents a low level.

1. Results of statistical analysis of the variable availability of digital transformation in Iraqi insurance companies

Table (3): Shows the Results of the Statistical Analysis of the Sample Members' Level of Appreciation for the Digital Transformation Requirements Variable in Iraqi Insurance Companies.

Iteam	Parapgph	Mean	DF	Importance index	Ranking
1.	The existence of a database that includes data on the names of clients of all insurance companies	..4.322	1.171	0.864	Fifth
2.	The existence of a system that enables the company to verify the validity of the data provided by the customer and ensure its accuracy through official, reliable sources.	4.516	0.903	0.671	Secound
3.	The presence of an information system that can update data with current developments	4.193	0.882	0.838	Sixth
4.	The existence of a management information system that enables the company to verify the validity of the data provided by the client and ensure its accuracy through reliable official sources.	4.064	0.421	0.812	Seventh
5.	The presence of encrypted programs that do not allow tampering and modifying data without the consent of network participants	4,483	0.896	0.825	Third
6.	The existence of a system that allows the client to settle claims and obtain the compensation he is entitled to in the shortest time without the need for complex administrative procedures	4.451	0.890	0.669	Fourth
7.	In your organization, there is a trend towards developing a strategy Digital and careful to be reflected in daily business	4.774	0.954	0.826	First
	Total digital transformation requirements	4.400	0.651	0.880	very high

2. Results of statistical analysis of the variable availability of relates to learn about the importance of applying block chain technology to raise the level of operational efficiency, according to the opinions of the study sample, the number of Iraqi insurance companies is

Table (4): As Shown in the Following Table.

Iteam	Parapgph	Mean	Df	Importance index	Ranking
1.	There is a need to use an electronic system that allows customers to record transactions digitally by the parties to the transaction without the need for insurance company employees	4.136	0.917	0.827	Very High
2.	There is a necessity for an electronic system that is decentralized in registration and works to increase the number of customers and sales channels.	4.164	0.997	0.832	Very High
3.	There is a need to use an electronic system that reduces the presence of intermediaries and thus enables insurance companies to benefit from these parties more efficiently.	4.362	0.767	0.872	Very High
4.	There is a need to use an electronic system that allows for a combination of recording in the ledger and encryption, which enables data to be protected from loss or forgery.	4.740	0.961	0.948	Very High
5.	There is a need to use an electronic system that facilitates the exchange of data between the insurance company and interested parties.	4.217	0.781	0.843	Very High
6.	There is a need to use an electronic system that Reducing the costs of insurance operations, including contracts and settlement	4.152	0.944	0.830	Very High
7.	There is a need to use an electronic system that provides quick access to information by stakeholders such as customers, insurance companies, auditors, and others.	0.838 0.967 4.193	0.967	0.838	Very High
8	There is a need to use an electronic system that does not allow the user's identity to be revealed, which provides more privacy for customers. Very high 0.838 0.967 4.193 8 e	4.548	0.965	0.909	Very High
9.	There is a need to use an electronic system that records transactions and stamps them with a time stamp, which facilitates tracking of transactions and thus facilitates their auditing and review.	4.143	0.772	0.828	Very High
10	There is a need to use an electronic system that reduces the presence of intermediaries and thus enables insurance companies to benefit from these parties more efficiently.	3.838	0.901	0.767	High
11.	The absence of intermediaries increases the transparency of transactions, as all data is available to all parties related to insurance transactions. 11 e	4.419	0.746	0.883	Very High
12.	The electronic system will support the competitive advantage of the insurance company due to its speed of performance.	4.483	0.930	0.896	Very High
13.	There is a need to use an electronic system that reduces administrative efforts and procedures for record keeping.	4.580	0.626	0.916	Very High
14.	There is a need to use an electronic system that provides more privacy to customers due to the use of encryption in recording transactions	4.677	0.823	0.935	Very High
15.	There is a need to use an electronic system that provides data stability and the inability of unauthorized parties to change it, which achieves more confidence and security for customers.	4.258	0.930	0.851	Very High
16.	There is a need to use an electronic system that works to resolve and reduce customer complaints related to dispute claims, because smart contracts are characterized by clarity and transparency.	4.516	0.951	0.903	Very High
17.	There is a need to use an electronic system that allows the blind The ability to digitally modify contract data, which saves the client's time and effort and thus increases customer attraction	4.128	1.031	0.825	Very High
18.	There is a need to use an electronic system that provides all the required information about customers without the need for a know your customer (KYC) system	4.642	0.799	0.928	Very High
	Total Operational efficiency of insurance companies	4.344	0.681	0.868	Very High

3.Results of statistical analysis of the variable of digital transformation within the management information system in enhancing contractor confidence in Iraqi insurance companies

Table (5): Shows the Results of The Statistical Analysis of the Sample Members' Level of Appreciation for the Availability of Digital Transformation in Enhancing Contractor Confidence in Iraqi Insurance Companies.

Iteam	Parapgph	Mean	DF	Importance index	Ranking
1.	There is a need to use an electronic system that makes it impossible to change or modify registered insurance transactions after approval by all parties.	3.772	1.220	0.754	High
2,	There is a need to use an electronic system that allows recording transaction data after verifying its authenticity by all relevant parties	4.548	0.618	0.909	Very high
3.	Adding more credibility to the information provided within the company	4.290	0.930	0.858	Very high
4.	There is a need to use an electronic system that allows verifying the validity of customer data through the possibility of accessing that data from different sources and parties, which increases the level of accuracy and honesty of the data.	4.290	0.714	0.858	Very high
5.	There is a need to use an electronic system that enables identifying all customers' insurance documents issued by different insurance companies.	4.258	0.990	0.851	Very high
6.	There is a need to use an electronic system that allows the possibility of reviewing insurance documents immediately upon their issuance.	4.548	0.502	0.909	Very high
7.	There is a need to use an electronic system that achieves transparency of information for all parties	4.451	0.563	0.890	Very high
8.	There is a need to use an electronic system that uses smart contracts instead of intermediaries, which ensures that transaction and contract data cannot be tampered with, which increases the security element for all parties.	4.129	0.983	0.825	Very high
	Total enhancing contractors' confidence	4.285	0.914	0.857	Very high

4.Testing the Independence of Study Variables

To test the independence of the study variables and not to interfere with each other, the statistical values of the Variance Inflation Rate (VIF) and the Tolerance tests were determined

to be greater than and to ensure the independence of the study variables, the Tolerance values must be (10) and the following table (6)

Iteam	Variables	VIF	Tolerance
1.	Digital transformation requirements	1.601	0.625
2.	Operational efficiency of insurance companies	2.009	0.511
3.	Enhancing contractor confidence	2.125	0.471

After ensuring the data is moderate and independent, this confirms its readiness and suitability for analysis.

Hypothesis Testing: which aims to find out whether there is a relationship. We will test the study's hypotheses statistically between the independent variables and the dependent variable, using a simple linear regression model

The First Hypothesis: The application of digital transformation (Block chain) does not have a significant the impact on operational efficiency of Iraqi insurance companies

Table (7): Results of Simple Regression Analysis of the Impact of the Application of Digital Transformation (Block Chain) on Operational Efficiency of Iraqi Insurance Companies.

Independent variable	R	R 2	Adj R2	Beta	B	Value T	Sig	ValueF	Sig
application of digital transformation (Block chain)	0.745	0.694	0.692	0.745	0.781	22.458	**0.000t	36.504	**0.000f

It is clear from the results of the previous table (7) that the value of the correlation coefficient (R) indicates that there is a significant correlation between the application of block chain technology and the operational efficiency of Iraqi insurance companies, with a value of (0.745). This result indicates that any change occurs in one of the two variables. It must be followed by a change in the other variable.

The value of the adjusted coefficient of determination indicates that it contributes to explaining (69.2%) of the variance and change that occurs in the dependent variable, the operational efficiency of insurance companies.

The positive signs of the value of the model parameters (Beta) confirm the existence of a positive, statistically significant impact relationship between the application of block chain technology and operational efficiency. The value of (B) in the model increase arrow indicates that whenever the value of the application of block chain technology increases by one unit, efficiency increases. Operational operations of Iraqi insurance companies amounted to (0.781) units.

The results of the T-test indicate the significance of the model parameters, and the model significance factor (Sig.f) indicates the significance of these results at a significance level (0.01), which confirms the validity of the model to predict the dependent variable operational efficiency.

Decision: In light of this: rejecting the hypothesis that there is no influence relationship between digital transformation (Blockchain) and the operational efficiency of Iraqi insurance companies. Meaning that insurance companies adopting the Blockchain application contributes to increasing their operational efficiency

The Secound Hypothes: Results of statistical analysis to measure the impact of digital transformation (Blockchain) in enhancing contractors' confidence in Iraqi insurance companies.

Table (8): Shows Results of Simple Regression Analysis of the Impact of Digital Transformation (Blockchain) in Enhancing Contractors' Confidence in Iraqi Insurance Companies.

Independent variable	R	R 2	Adj R2	Beta	B	Value T	Sig	Value F	Sig F
application of digital transformation (Block chain)	0.613	0.375	0.365	0.613	0.690	6.005	**0.000t	36.064	**0.000

It is clear from the results of the previous table (8) that indicates that there is a significant correlation between the application of block chain technology and the value of the correlation coefficient (R) on enhancing contractors' confidence of Iraqi insurance companies is (0.613), and this result indicates that any change occurs in one variable it must be followed by a change in the other variable.

The independent variable, application of block chain technology - indicates that the value of the adjusted coefficient of determination (contributes to explaining (36.5%) of the variance and change that occurs in the dependent variable enhancing contractors' confidence of Iraqi insurance companies

The positive signs of the value of the model parameters (Beta) confirm the existence of a positive, statistically significant impact relationship between the application of block chain technology and enhancing contractors' confidence of Iraqi insurance companies .the value of (B) in the model also indicates that the greater the value of the application of block chain technology, the more it contributes to increasing enhancing contractors' confidence of Iraqi insurance companies by one unit (0.690)

The results of the T-test indicate the significance of the model parameters, and the model significance factor (Sig.f) indicates the significance of these results at a significance level (0.01), which confirms the validity of the model.

The Decision is based on the above to accept the hypothesis: digital transformation (Blockchain) affect on enhancing contractors' confidence of the management information system in Iraqi insurance companies.

Fourth Topic: The study addressed digital transformation within the management information system in Iraqi insurance companies (study population) in a sample of (62) individuals. The study began to identify Blockchain technology, its requirements, advantages and the challenges it faces, its working mechanisms, and reached the following:

1. The results of the statistical analysis of the sample members' level of appreciation for the digital transformation requirements variable in Iraqi insurance companies showed that the general average of the variable is (4.400), and the low standard deviation of (0.651) from the value of the mean indicates the presence of consistency between the answers of the sample members. Table (3)
2. The results of the statistical analysis of the sample members' level of appreciation for applying block chain technology to raise the level of operational efficiency variable in Iraqi insurance companies showed that the general average of the variable is (4.344), and the low standard deviation of (0.681) from the value of the mean indicates the presence of consistency between the answers of the sample members. Table (4)

3. The results of the statistical analysis of the sample members' level of appreciation of digital transformation in enhancing contractor confidence in Iraqi insurance companies.showed that the general average of the variable is (4.285) , and the standard deviation of (0.914) from the value of the mean indicates the presence of consistency between the answers of the sample members. Table (5)

4. There is astatistically significant impact of the application of digital transformation (Block chain) on operational efficiency in insurance companiesin Iraq, This proves the validity of the first hypothesis.

5, There is a statistically significant impact of the application of digital transformation (Block chain) in enhancing contractors' confidence in Iraqi insurance companies, This proves the validity of the second hypothesis.

Recommendations

The study concludes with the following:

1. Insurance companies must provide infrastructure and create blockchain platforms
2. Holding training courses for insurance company employees to introduce them to blockchain technology and its role in improving the performance of insurance companies.
3. Adopting a digital transformation policy gradually and setting guidelines and directives for customers to adopt.

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