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The Impact of Cloud-Based Financial Operations on Digital Finance for Financial Decision Making

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Abstract

This study aims to identify the impact of cloud financial operations on digital finance operations in relation to financial decision-making. To achieve the objective of the study, the researcher presented the problem of the study. The study's problem was represented in answering the following question: What is the impact of applying cloud financial operations on digital finance for financial decision-making? The researcher also presented some previous studies related to each of cloud financial operations and digital finance in order to determine the relationship that links cloud financial operations to digital finance for financial decision-making.

Researcher also relied on: Designe survey list to test study hypothesis - Study community and sample of respondents identified in 3 groups of workers in: Companies provide innovative financial services - some banks in Iraq consisting of 150 individuals including: workers in the information systems sector, workers in the financial sector, workers in the finance and credit sector. The study hypothesis has been tested by using the statistical program SPSS.

Study concluded : Cloud financial operations are all types of financial transactions that take place at the individual and institutional levels. These were done using tangible and intangible technological means depending on communications technology, the Internet, and cloud storage and access to financial data. Integration takes place between cloud financial

operations and digital finance operations; hence, the more capable the use of cloud financial operations, the more the use of digital finance in making financial decisions will be possible..

Key words : Cloud Finance (CF) - Digital Finance (DF) - Cloud Computing(CC) – Blockchain (B) - Artificial Intelligence(AI(- Biometric Technologies(BT) - Augmented/Virtual Reality(AV).

1- Introduction:

Cloud financial operations refer to cloud accounting which implies using cloud technology for managing finances. Cloud financial operations mean storing and managing finances online rather than traditional systems which were previously used. Financial operations (FinOps) consist of managing expenses incurred while using cloud computing and entails inter-team cooperation for efficient cost management.

(CC) offers it resource access such as: Databases – Servers – Processors - Storage. There are 3 different kinds: Infrastructure as a Service (IaaS) - Platform as a Service (PaaS) Software as a Service (SaaS). They differ depending on how much control can be exerted over IT resources/infrastructure. Cloud computing offers technical infrastructure. Technical infrastructure supports numerous efinance applications and products, which allows firms and financial institutions to provide innovative and efficient services to their customers. The fast evolution of cloud computing and distributed systems has brought about a revolutionary change in corporate finance.

Financial technologies (Fintech) entail: Applications – Software - Others that help customers and enterprises handle their finances. (DF) refers to: Impact of innovative technologies on the financial service sector. (DF) comprises: Products – Applications – Processes - Business models that utilize digital technologies to support or facilitate either/ or both financial services and processes. Digital finance: It improves efficiency and accessibility of finances.

Today, more and more companies are using cloud-based financial technologies to enhance decision-making processes, simplify financial transactions, and manage risks more effectively. (CC) offers businesses: Scalable - Cost-efficient - Secured solutions for managing finances - Data-driven real-time decisions like never before.

In particular, real-time information technology applications can transform consumers' financial decision-making processes using robo-advisory systems (Real-time – Scalable - Mobile advice delivered from fintech applications). Second, robo-advisory systems can be regarded as an IT application within financial services; therefore, these systems contain transformative innovations within the field of financial decision-making processes (D'Acunto, F., & Rossi, A. G., 2023).

2- Previous studies:

2-1 Previous studies related to cloud financial operations:

Cloud computing can be applied in the financial sector with: Integration of artificial intelligence – Blockchain - Multi-cloud strategies - Transformative potential of cloud technology in financial sector - Need for effective strategies to address risks associated with use of cloud computing - Ensuring sustainable growth in an increasingly digital financial environment (Nutalapati, P., 2024).

Cloud migration has emerged as an important objective for high revenue-generating financial service firms with a focus on: Optimizing business processes - Improving scalability - Minimizing costs.Migration to cloud entails specific considerations and regulations associated with the financial industry.This entails: Aligning best practices with cloud planning - Managing risk - Improving performance - Migrating applications running on legacy systems to cloud infrastructure - Pinpointing critical phases associated with cloud migration.Cloud migration phases related to migration within the traditional financial system and the cloud-based financial system consist of: assessment phase, development phase, implementation phase, and improvement phase (Johnson, O. B.,et.al., 2024).

Managing cost-effectively on cloud computing still proves to be complex. By automating and applying machine learning: Successful control - Lowering cloud expenses - Making cloud computing an economical solution. The transformative power of Automation and Cost Optimization of Cloud using Machine Learning offers insights into how firms can benefit cloud technologies for cost savings using: Financial operations intelligence; Algorithm interpretation for reading tools to analyze historical trends; Predicting future requirements (Mageshkumar, N. V.,et al, 2024).

Cloud computing systems in financial services sector require study of: Drivers – Benefits - Challenges - Best practices associated with cloud computing integration through: analysis

of trends that exist now, analysis of regulatory factors, case studies of major firms (Kommera A., 2016).

Artificial intelligence and cloud computing: These technologies affect efficiency improvement, cost savings, and customer satisfaction within the banking industry. The integration of artificial intelligence and cloud computing ensures cost savings. Lizard computing technologies assist in increasing customer satisfaction using individualized investment recommendations (Bodemer, O., 2024).

The expert considers that previous studies on cloud accounting operations involved numerous research variables with dimensions that can be explained using dimensions summarized in this table:

Table No. (1:) Variables and dimensions of cloud financial operations.

Source: Prepared by the researcher based on an analysis of previous studies.

2-2 Previous studies on the dependent variable (digital finance):

Area of focus for digitization was changed from enhancing efficiency of conventional processes to introduce: New opportunities - Business models for financial service firms. (D F) covers broad areas of: New financial products - Financial businesses - Finance related software - New ways of communication and interaction with customers. “Digital Finance Cube” was introduced - Includes three primary areas of digital finance and fintech: Relevant business functions - Applied technologies - Technological concepts - Institutions involved (Gomber, P., et.al, 2017).

(DF) has important roles to attain objectives of financial inclusion. Positively influencing economic growth and welfare. Digital payment systems form an important aspect of digital finance. The role of digital payments increased with the evolution of e-commerce and fintech. Digital finance can negatively affect stability of the financial system owing to risks involved with its application. The role of risk factors associated with digital finance and stability of the financial system should be investigated. Market risks can reduce adverse effects associated with digital finance related to stability of the financial system; henceforth, systematic risks increase and reduce positive effects associated with digital finance on stability of the financial system (Risman, A., et al., 2021).

(DF) linked to financial inclusionFinancial inclusion covers access to financing products and services such as:Bank accounts - Insurance - Remittance - Payment services - Financial advice (Durai, T., & Stella, G., 2019).

(DF) growing rapidly. Recent studies of (DF) with focus on contemporary matters related to (DF). The future of digital finance resides in the creation of a digital environment that would make it possible to offer different kinds of financial products and services on a custom-made basis for every user’s specific need using only digital platforms without any need for human intervention or aid (Ozili, P.K., 2023).

According to Researcher’s opinion, studies related to digital finances involved numerous factors and dimensions that can be described using dimensions shown below:

Table No. (A): Variables and dimensions related to digital finance

Source: Prepared by the researcher based on an analysis of previous studies.

2-3 Previous studies combine independent variable (Cloud financial operations) and dependent variable (Digital finance):

There appears to be an increasing trend towards digital transformation of corporate finances with the strategic deployment of cloud-based financial management systems. The concept of cloud-based financial operations has numerous advantages, which include: Cost savings - Increased collaboration - Immediate access to data. Companies seem to benefit significantly from the use of cloud-based technology for: Enhancing financial operations - Automating financial processes - Improving decision-making. (Aro, O. E., 2023).

Incorporation of digital technologies into finances is strategic move which determines development trajectory for financial sector. Contemporary financial environment is based on innovative technologies in such areas: Cloud computing – Blockchain - Big data - Artificial intelligence. These technologies transform financial sector and offer huge development prospects. (Литвин, О., Кудін, В., Онищенко, А., Ніколаєв, М., & Чаплинська, Н., 2024).

Numerous central banks globally have adopted the idea of state or national digital currencies. “Central Bank Digital Currencies (CBDCs) refer to digital currencies that are issued, regulated, and managed by governments.” They can thus be concluded to be an improvement on state-regulated monetary and financial tools but with more innovative features brought about by digital evolution. It can thus be anticipated that these tools would soon become more commonly used as risk-free payment tools for immediate settlements of trades and transactions through compliant channels. Correspondingly, therefore, with more money circulated using digital platforms, there remains considerable need among state-owned tool players to set back dangerous acts (Burugulla, J. K. R., 2020).

Financial services industry experiencing significant shift with use of digital transformation tools such as: Cloud computing - Business process reengineering. The technologies used under cloud computing benefit with scalability and on-demand infrastructure service delivery. Cloud computing assists with offering cost-efficient services with needed scalability benefits. Business process reengineering (BPR) assists with providing best practice delivery for reengineering existing processes for optimal functioning with delivery of customer-centric services. The integration of (CC) and business process reengineering affects improvement of efficiency and compliance with regulations (Subramanyam, S.V., 2021).

3- Research problem:

There exist numerous problems when implementing cloud-based financial processes and digital finance related to financial decisions; these problems include:

- A company embracing technology incurs huge initial capital expenditure; this affects the company's immediate profits. The reason behind this cost incurred at the initial stage when implementing new technologies could be attributed to paying off loans incurred when obtaining said technologies. This affects the profits derived by shareholders and raises concerns about the viability of such an investment (Bett, F. C., & Bogonko, J. B., 2017).
- Risk management is an important component of corporate finances, and cloud computing has brought about new possibilities and risks. Cloud-based risk management tools are more efficient in detecting fraud using artificial intelligence and machine learning models. There is an issue related to risks posed by third-party cloud service providers to corporate cybersecurity.
- Privacy and security issues, regulatory requirements, sovereignty of data, monopolies with vendors, and integration complexity (Vadisetty, R., 2024).

Owing to numerous problems associated with cloud financial operations and digital finance, and with the objective of this study to identify how cloud financial operations affect digital finance related to financial decisions, it can well be assumed that research problem can be addressed with an answer to the following research question: What is the impact of applying cloud financial operations on digital finance related to financial decisions?

4- Research objective:

Relationship between cloud financial operations and digital finance for financial decision-making can be properly addressed if this requirement is met: There must be presentation of the theoretical foundations of cloud financial operations and digital finance and their corresponding relationship with financial decision-making.

5- Imposing search:

There exist statistically significant relations between application of cloud financial operations and digital finance for making financial decisions.

6- Importance research:

With every passing day and increasing global risks associated with people and property, there comes a need to minimize these risks broadly speaking, as well as minimize the risks associated with finances arising from cloud-based financial transaction systems. The concept of cloud-based financial transaction systems has become an unspoken necessity for people and countries worldwide, no matter how ephemeral this need happens to be. It underlines the importance of this research project.

7- Research Methodology:

For instance, to achieve the objectives of identifying the relationship between the application of cloud financial operations and digital finance for financial decisionmaking, the researcher applied both the inductive and deductive approaches.

8- Research plan:

8-1 Cloud financial operations :

Cloud financial operations represent all financial transactions conducted at the individual and institutional levels using tangible and intangible technological means (flexible components, hard components, networks, media) based on communications technology and the Internet. They are also linked to cloud storage of financial data and accessibility. Therefore, the supports for cloud financial operations are diverse, including:

- **Mobile Cloud Computing Architecture(MCCA):**

(MCCA) includes following components:

- (Regional Data Center (RDC)) : This architecture houses home computer systems and associated components such as storage and communications systems. RDC consists of: Various security devices - Power supplies - Environmental control systems . Cloud data centers distributed in various locations around the world.
- (Wireless Backbone): Primary function of the wireless backbone is to route phone calls over the Peripheral Data Transfer (PST) protocol.
- Base Stations: MCC architecture allows users to move operations to cloud. Examples include : GPS navigation - multiplayer gaming .
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- **Cloud Computing Characteristics:**

Cloud computing systems have several important characteristics that make them promising for future (IT) applications and services. National Institute of Standards and Technology (NIST) identified several key characteristics of cloud computing systems, including: On-demand self-service, cost-effectiveness, resource pooling, rapid elasticity, scalable service, resource pooling, widespread network access, metered services, multi-user presence, scalability, reliability, economies of scale, customization, and virtualization. Cloud computing enables users to access services anywhere, through any type of endpoint. The resources they need come from the cloud rather than from a physical entity. You can complete whatever you want through the network service using a laptop or mobile phone. Users can access or share them securely and easily, anytime, anywhere. Users can complete tasks that cannot be completed using a single computer. Cloud computing includes many applications, which can be explained as follows (Rashid, A., & Chaturvedi, A. ,2019) :

Table No. (3)

Different applications of cloud computing.

Application	Service Delivered
E-Learning	E-mail, simulation tools, files broadcasting, class recording, virtual classrooms, virtual labs, surveys, education forums etc.
E-governance	Complaint resolution system, employee management system, E-police, E-Tendering, E-court, payment and tax system, agriculture and food, industry and energy etc.
ERP Cloud	Supply chain and vendor, project and HR Management, customer Relationship management, finance and accounting etc.

Sourc: (Rashid, A., & Chaturvedi, A. , 2019: 4)

- **Cloud Computing and Financial Decision Making:**

Studies have shown that cloud computing improves financial decision-making by enhancing data accessibility and computational efficiency. Cloud computing technology enables companies to reduce IT infrastructure costs while improving data processing capabilities. Cloud-based financial modeling tools also enable companies to make real-time forecasts with greater accuracy (Antony, K. M., & Scholar, I. V. , 2025).

- **Ways to Use Cloud Computing in the Financial Sector:**

Important benefits of cloud computing allows users to access resources on pay-as-you-go basis . (CC) reduce costs and enable them to quickly scale applications(Rogers, O., & Cliff, D, 2012) .

Cloud computing is used in the financial sector in several ways, including:

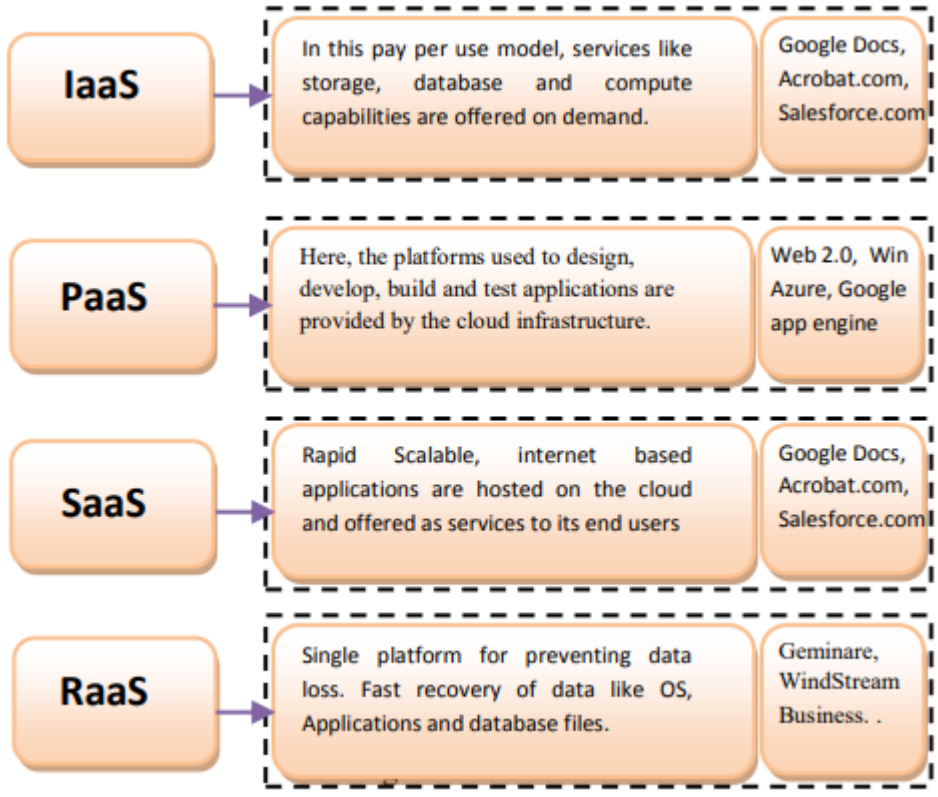

Figure 1: Cloud computing in the financial sector

Source: (Rashid, A., & Chaturvedi, A. , 2019: 3)

- **Risk Management in Cloud Financial Systems:**

Risk management is a critical aspect of corporate finance, and cloud computing has presented new opportunities and challenges. Cloud risk management systems also improve fraud detection through artificial intelligence and machine learning algorithms. Cybersecurity vulnerabilities associated with third-party cloud service providers are a problem(Antony, K. M., & Scholar, I. V. ,2025).

- **Financial Performance and Cloud Computing:**

Empirical studies shown positive relationship between (CC) adoption and financial performance. Brynjolfsson and McAfee (2014) indicated that cloud computing enhances operational efficiency and reduces financial overhead. More recently, Sharma et al. (2020) found that companies using cloud analytics achieve higher revenue growth and better asset utilization (Antony, K. M., & Scholar, I. V.,2025).

Rapid development of digital finance is driven by pioneering technologies such as: Blockchain - Cloud computing - Artificial intelligence (AI). Innovations radically transforming financial services by enhancing security, efficiency, and accessibility. Blockchain enables decentralized transactions, reducing fraud and improving transparency, while cloud computing provides scalable and cost-effective financial solutions. AI enhances decision-making, automates processes, and personalizes financial services through predictive analytics. The convergence of these technologies is revolutionizing financial sector- Paving way for a more connected - Intelligent digital economy. However, challenges such as cybersecurity risks, regulatory concerns, and ethical considerations must be addressed to unleash their full potential. This research paper explores the impact, applications, and prospects of blockchain, cloud computing, and AI in shaping the next generation of digital finance. Did you know? Global fintech market expected to exceed $300 billion by 2030, with AI-based financial services leading the way in automation and predictive analytics(Newton, E., Louis, J., & Parker, J. , 2025).

Despite potential benefits, regulatory and security concerns remain challenges. Many researchers emphasize the need for strict compliance frameworks to ensure integrity of financial data in (CC) environments (Vadisetty, R. .2024, November).

By adding the components of the digital finance process to the cloud computing system, the digital finance framework can be clarified using cloud financial operations as follows:

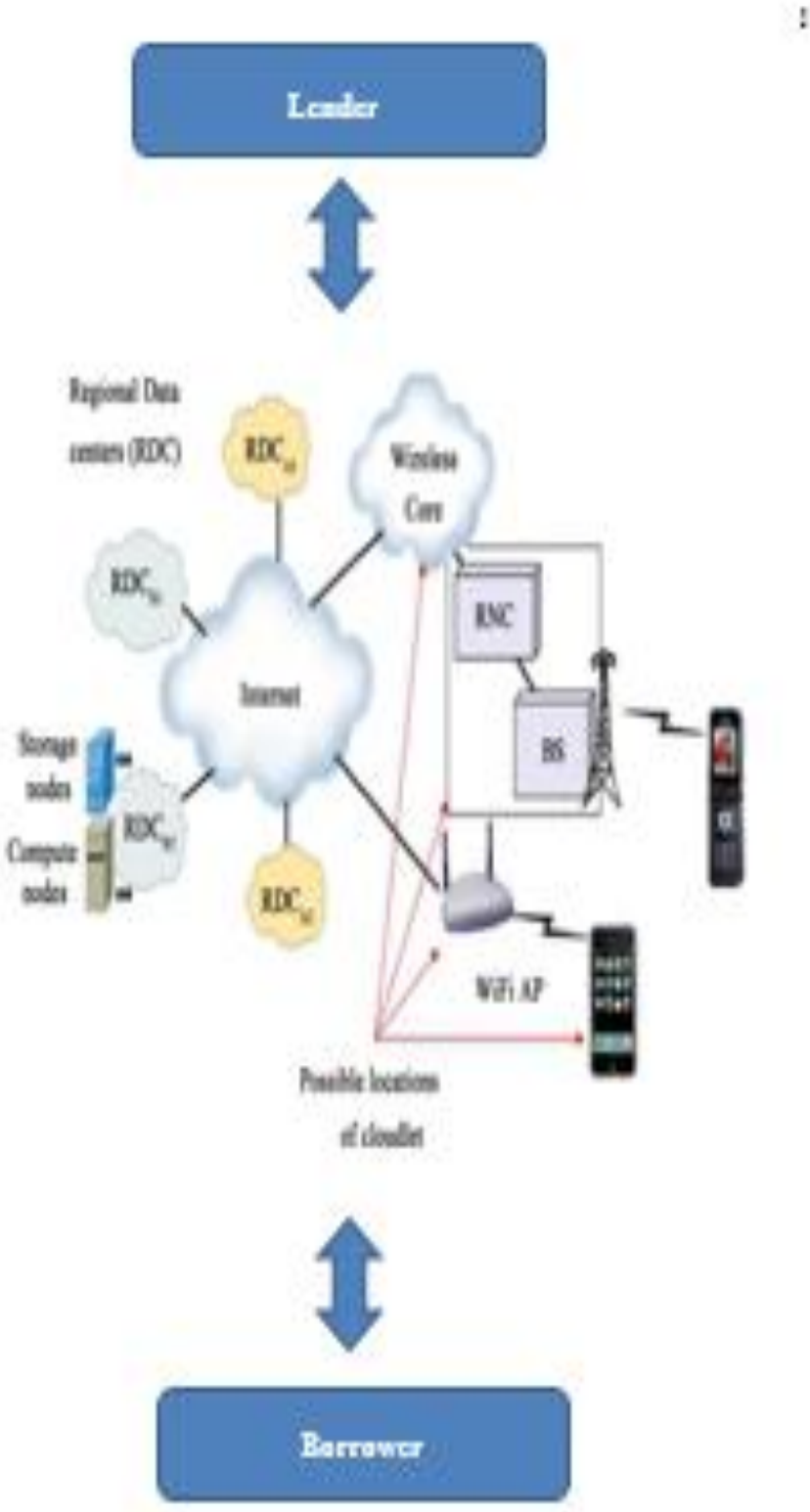

Figure (2) Digital financing based on cloud-based financial transactions.

Source: Prepared by researcher based on the study (Paranjothi, A., et.al, 2017: 3).

8-2 Digital finance :

- **importance of (DF) :**

Empowerment of (new banking technology - development new banking technologies) for customers known as (DF) . (DF) given new form to banking sector. (DF) is financial service provided via : Mobile phones - Personal computers – Internet - Cards linked to a trusted digital payment system. Digital finance has potential to: Provide affordable – Convenient - Secure banking services. (DF) offers customers greate control over their : Personal finances - Faster financial decision-making - Ability to make and receive payments. (Durai, T., & Stella, G. ,2019).

- **Main applications of (DF):**

(DF) become an important part of modern finance. (DF) applications include: Financial technology - Integrated finance - Open banking - Decentralized finance - Central bank digital currencies (Ozili, P. K. ,2023).

- **International determinants of (DF):**

International determinants of (DF) include: Efficiency in providing financial services - Need to achieve the United Nations Sustainable Development Goals using current digital technologies - Need to increase financial inclusion through digital financial inclusion - Need for efficient and final payments for settlement (Ozili, P. K. , 2023).

- **Digital Finance Risks:**

Regulators keep pace with emerging digital financial transformation while avoiding risks associated with: user information security and compliance; how to address bias resulting from misleading data; how to address algorithmic bias; and how to combine a culture of risk awareness and increased risk appetite in digital financial transformation(Ozili, P. K. , 2023).

8-3 impact of cloud financial operations on digital finance:

Application of digital technologies in field of financial services includes Litvin, O., Kudin, V., Onishenko, A., Nikolaev, M., & Chaplinska, N. (2024):

Blockchain Technology - Big Data - Internet of Things (IoT) - Cloud Computing - Artificial Intelligence - Biometric Technologies - Augmented/Virtual Reality.

Researcher believes that the impact of cloud financial operations on digital financing for financial decision-making can be clarified by presenting the following technologies:

Table No. (4) The Impact of Cloud Financial Operations on Digital Finance for Financial Decision-Making

Technology	Cloud Financial Operations and Digital Finance
Blockchain Technology	Blockchain technology used in all aspects of : Financial activities - Including payment services – Investments – lending – Insurance – Security - Operational activities - Communications. Blockchain technology is foundation of digital finance, providing a distributed and transparent digital ledger for financial transactions, enabling the creation and implementation of new, decentralized financial systems. Blockchain technology provides a transparent and secure infrastructure for digital finance. It enables the creation of immutable, decentralized records, enhancing trust and efficiency in financial transactions. Blockchain features are particularly beneficial for digital finance, as it improves payment systems, enables smart contracts, and facilitates the secure transfer of digital assets. It is used to securely store and manage financial data. Using blockchain, financial institutions can improve efficiency and reduce costs through process automation.
Big Data	Use of big data widespread across : Financial services - Particularly in payments – Investments – lending – Insurance – Security - Operational activities - Telecommunications. Big data technology is significantly impacting digital finance by enabling a better understanding of consumers. It enables companies to analyze specific customer information and behaviors, enhancing efficiency of risk-based pricing and management financial sector. Big data and cloud computing used to improve auditing processes

Technology	Cloud Financial Operations and Digital Finance
	in digital finance. This integration enables financial institutions to make better decisions by leveraging customer insights to improve their services.
Internet of Things	Application of IoT mainly seen in security and operational activities.
Cloud Computing	(CC) widely used in : Payment services – Insurance – Security- Operational activities - Communications. Internet of Things (IoT) technology enhancing and developing digital financial services, while digital finance provides the appropriate environment for IoT applications in the financial sector. Internet of things (IoT) technology plays a significant role in digital finance by enhancing efficiency and automating financial processes. The Internet of Things helps finance departments save time and money by collecting and transmitting data efficiently. This leads to a faster digital transformation, benefiting businesses and individuals alike. The Internet of Things is revolutionizing microfinance services with its tremendous potential.
(AI)	Application of AI evident in aspects of : Financial activities - Including payment services – Investments – lending – Insurance - Security. Artificial intelligence (AI) refers to technology that can perceive, learn, and solve problems in a manner similar to humans. AI in finance improve : Speed –Efficiency - Accuracy of human work in financial services sector. AI have significant impact on digital finance by leveraging advanced algorithms and machine learning techniques to: Analyze data - Automate tasks - Improve decision-making processes. AI enhances efficiency by automating repetitive processes, enabling finance teams to work faster. Furthermore, it uses big data analytics to improve financial forecasting, helping companies anticipate market trends and make

Technology	Cloud Financial Operations and Digital Finance
	informed decisions. This integration leads to improved risk management .
Biometric Technologies	Biometric technologies used in: Financial activities - Payment services – Investments – Insurance – Security - Operational activities. Biometric technologies are used to enhance security and reliability in digital financial services. These technologies include the use of fingerprints, facial recognition, voice recognition, and other unique characteristics of individuals to authenticate identity and access online financial accounts and services, reducing risk of fraud , enhancing user experience. Biometric technologies have become essential in digital finance, particularly in the banking sector. They enhance security by verifying identities using physical characteristics such as facial recognition. This contributes to securing financial transactions and preventing fraud. Biometric authentication provides a more secure identity verification process than traditional methods. The use of biometrics is rapidly expanding in modern identity systems, in part because it is the most accurate and efficient technology for removing duplicate data from large populations.
Augmented/Virtual Reality	Use of augmented/virtual reality seen in payments, investments, operational activities. Augmented reality (AR) and virtual reality (VR) are increasingly relevant to digital finance by providing new ways for customers to interact with financial services and offering new and innovative experiences. AR and VR can be used in the finance sector to enhance customer experiences, improve communication, increase sales, and explore new business opportunities. AR and VR are used in the financial sector for various applications, including data visualization and electronic payments. Although the information provided provides only limited details, it suggests a connection between them. AR and

Technology	Cloud Financial Operations and Digital Finance
	VR can enhance user experiences, improve data analysis, and provide innovative ways to interact with financial services. However, this information also highlights some potential drawbacks, such as reduced human interaction and eye strain. Determining the exact nature and extent of this relationship requires further research into specific applications and use cases within the digital financial landscape.

Source: Prepared by the researcher

9- Field research:

9-1 Field research objective:

Defining relationship between cloud financial operations and digital finance applications for financial decision-making.

9-2 Field study hypothesis:

There is a statistically significant relationship between application of cloud financial operations and application of digital finance for financial decision-making.

9-3 Research sample:

Study population and sample defined into three groups of employees working in companies that provide innovative financial services and some banks in Iraq. Sample consisted of (150) individuals, including:

- Employees in the information systems sector.
- Employees in the financial sector.
- Employees in the finance and credit sector.

Questionnaires distributed among three groups, with (50) individuals per group. The study sample was randomly selected from each group.

Response rate and validity of questionnaires returned for statistical analysis determined after determining initial sample for each study category. Questionnaires distributed via email. Returned questionnaires sorted, and response rate and validity were determined as follows:.

Response rate for questionnaires can be determined as follows::

Table No. 5: statistical analysis of the response rate for the questionnaires

Research sample	Distributed questionnaire lists	Retrieved lists		Invalid lists		Valid lists		
		Number of lists	List ratio	Number of lists	List ratio	Number of lists	List ratio	ratio
Information systems workers	50	50	100%	2	4%	48	96%	34.78%
Financial sector workers	50	48	96%	4	8.33%	44	91.67%	31.88%
Finance and credit sector workers	50	46	92%	0	0.00%	46	100%	33.33%
Total	150	144	96%	6	4.17%	138	95.83%	100%

previous table shows that response rate of study sample to survey lists was 96%. It is a very good rate.

Percentage of lists suitable for statistical analysis acceptable and exceeded 90% for each study category.

Total percentage of returned survey lists suitable for statistical analysis was 95.83%, which is a good rate.

9-4 Data collection method

A questionnaire containing questions used to test the validity of the research hypothesis. Questionnaire was prepared in a simple and sequential manner to facilitate the researcher's understanding and answering of the questions.

9-5 Structural design of study tool:

Questionnaire list includes two sections: (Personal data about the respondent - Questions of the questionnaire list) . Five-point Likert scale consisting of five answers used. The questionnaire list also includes (some questions and inquiries that test the extent of the existence or non-existence . Relationship between variables of study hypothesis - Questions and inquiries xpress independent variable of study hypothesis . Cloud-based financial operations application.

Table No. 6: five-point Likert scale

Trend of approval of questionnaire lists according to five-point Likert scale		
Approval	(Weight of approval)	(approval direction)
Very disagree	1	Average from 1 to 1.79: Very disagreeable
not agree	2	Average from 1.80 to 2.59: disagree
Neutral	3	Average from 2.60 to 3.39: neutral
OK	4	Average from 3.40 to 4.19: Agree
Very ok	5	Average of 4.20 to 5: Very OK

9-6 Statistical analysis of questionnaire data .

Table (7) : Describing opinions on statements that define Cloud-based financial operations application variable

Elements (phrases) that define Cloud-based financial operations applicationvariable	Descriptive statistics measures			
	Arithmetic mean	standard deviation	relative weight %	approval order
1- The use of blockchain technology as a financial transaction technology helps support digital finance operations for financial decision-making, such as services such as payments, collections, investments, and lending. Blockchain provides a distributed and transparent digital ledger for financial transactions, enabling the creation and implementation of decentralized financial systems and providing a transparent and secure infrastructure for digital finance.	4.2**	0.759	84%	1
2- Use of big data technology as financial transaction technology helps support digital finance operations for financial decision-making by enabling a better understanding of consumers. It enables companies to: analyze specific customer information and behaviors - enhancing efficiency of risk-based pricing and management in financial sector - improving auditing processes in digital finance.	4.13**	0.764	82.6%	4

3- Use of Internet of Things (IoT) technology as a financial transaction technology helps support digital finance operations for financial decision-making, especially with regard to security and operational activities and the automation of financial processes. This saves time and money through efficient data collection and transmission.	4.03**	0.766	80.6%	9
4- The use of artificial intelligence technology as a financial transaction technology helps support digital finance operations for financial decision-making. It helps improve the speed, efficiency, and accuracy of human work in the financial services sector. It enables the finance team to work faster, improve financial forecasting, anticipate market trends, improve risk management, detect fraud, and provide personalized financial services..	4.13**	0.821	82.6%	6
5- The use of biometric technology as a computerized financial process supports digital finance processes for financial decision-making. These technologies include the use of fingerprints, facial recognition, voice recognition, and other unique individual characteristics to authenticate identity and access	4.13**	0.726	82.6%	3

online financial accounts and services, reducing risk of fraud , enhancing user experience. It also enhances security through identity verification. Biometric authentication provides a more secure identity verification process compared to traditional methods.				
6- Augmented/virtual reality, as a cloud financial process technology, helps support digital finance for financial decision-making using payment services, investments, and operational activities. It provides new ways for customers to interact with financial services and deliver new and innovative experiences. Improving the user experience, enhancing data analysis, and providing innovative ways to interact with financial services.	4.04**	0.794	80.8%	8
7- Cloud financial operations generally help reduce the costs of financial transactions and digital financing, provide quick and easy access to an unlimited customer base that can be leveraged in the digital financing process, and facilitate customer decision-making.	4.12**	0.796	82.4%	7
8- There are unlimited risks associated with cloud financial operations. Risks require real-time oversight and vigilance to minimize	4.13**	0.765	82.6%	5

risks.				
9- Using digital technologies as one of the cloud financial operations in the digital financing process helps in making financial decisions.	4.17**	0.839	83.4%	2

Table (8) : Describing opinions on statements reflecting applying digital financing operations to make financial decisions

Elements determine dimensions of applying digital financing operations to make financial decisions	Descriptive statistics measures			
	Arithmetic mean	standard deviation	relative weight %	approval order
1- Application of digital finance in cloud financial transactions requires efficient financial service delivery..	4.55**	0.582	91%	1
2- One of challenges facing digital finance is need to achieve United Nations Sustainable Development Goals using current digital technologies.	4.48**	0.655	89.6%	4
3- One of the challenges facing digital finance is the need to increase financial inclusion through digital financial inclusion.	4.42**	0.673	88.4%	5
4- One of the challenges facing digital finance is the need for efficient and final payments for settlement.	4.48**	0.633	89.6%	3
5- One of the challenges facing digital finance is the need to reduce user information security and	4.32**	0.757	86.4%	6

compliance risks.				
6- One of the challenges facing digital finance is the need to reduce the risk of bias resulting from incorrect data and algorithmic bias..	4.48**	0.609	89.6%	2

Arithmetic mean values indicate that :

- scores of respondents responses on all items (greater than 3) indicate opinions tend toward agreement regarding implementation of applying digital finance processes to make financial decisions..
- Relative weights for all items exceed 60% (neutral).
- Arithmetic means for all statements are statistically significant at a significance level of (0.05).
- Value (3) represents a neutral choice.

Researcher finds study sample agreed on importance of Applying digital financing operations to make financial decisions . Study supports validity of hypothesis.

Table (9): Analysis of variance opinions of sample groups

Elements (dimensions) associated with study hypothesis	sample category	Views	Rank average	arrangement	Morale test Kruskal-Wallis
Elements that determine indicators of Cloud financial operations application	Information systems workers	48	34.98	2	0.509
	Financial sector workers	44	38.55	1	
	Finance and credit sector workers	46	31.63	3	
	Total	138			

Elements that determine the variable of applying digital financing operations to make financial decisions	Information systems workers	48	35.06	2	0.99
	Financial sector workers	44	35.07	1	
	Finance and credit sector workers	46	34.87	3	
	Total	138			

***** Statistically significant at a significance level of 0.05

Following table illustrates the correlation between Cloud computing and digital finance applications for financial decision-making, as follows:

Table (10): clarifying results of correlation

dependent variable and independent variable	Correlation analysis data	(Y): Applying digital financing operations to make financial decisions
(X): Cloud financial operations application variable measurement indicators	Correlation coefficient (R)	0.621
	Moral level	0.000**

A positive correlation coefficient sign indicates:

- Direct correlation.
- Sign and value of correlation coefficient (0.621) indicate a direct relationship between Cloud computing and digital finance applications for financial decision-making.

This means that The more commitment is placed on implementing cloud-based financial operations, the greater the ability to use digital finance operations to make financial decisions.

Table (11) : simple regression analysis

Statement	Regression coefficient (B)	t-test values	Moral level	Statistical significance
constant amount (BO)	2.458	7.890	0.000	Statistically significant
(X) Cloud financial operations application variable measurement indicators.	0.484	6.485	0.000	Statistically significant
value of the coefficient of determination 〖R〗^2 = 0.386				
ANOVA significance level = 0.000				
F test value = 42.052				

- Positive regression coefficient indicates a direct effect of implement cloud financial operations and use digital finance operations to make financial decisions.

Results of statistical analysis of study variables using the SPSS statistical program demonstrate a relationship between Implementing cloud-based financial operations and using digital finance to make financial decisions supporting the validity of the study hypothesis.

10- Search results:

- Cloud financial operations represent all financial transactions conducted at the individual and institutional levels using tangible and intangible technological means (soft parts, hard parts, networks, media) based on communications technology and the internet. They are also linked to cloud storage and access to financial data.

- There is integration between the use of cloud financial operations and use of digital finance operations. The greater the ability to use cloud financial operations, the greater the opportunities for using digital finance to make financial decisions.
- The risks of using cloud financial operations are directly reflected in the financial risks of digital finance operations.

11- Research recommendations:

- Financial institutions must address cloud financial operations and digital finance risks by: Managing risks associated with multiple cloud computing environments to fully reap benefits of (CC) .
- Advanced (CC) models such as (Hybrid cloud strategies - Multi-cloud strategies) must be explored.
- Cloud financial operations must be implemented in the financial sector by: Integrating artificial intelligence – Blockchain - Multi-cloud strategies. Transformative potential of cloud technology in financial sector- Need for effective strategies to address risks associated with use of (CC) - Ensuring sustainable growth in an increasingly digital financial environment .
- Financial institutions should promote and support financial literacy for the use of cloud financial operations through seminars and the introduction of digital finance tools.

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