Article

The Role of Digital Financial Services As A Driving Force to Improve The Quality of Accounting Information System Outputs: An Applied Study

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Abstract: The aim of the research is to identify the role of Digital Services that enable employees in commercial banks to use (Electronic card and ATM, Mobile payment, and Online payment) as a driving force to improve the Quality of Accounting Information System Outputs (QAISO), which includes (Suitability, Reliability, and Comparability). The current objective addresses an important issue: (Is there a role for digital financial services (DFS) as a driving force to improve the QAISO in commercial banks?). To address this issue, the research adopted the descriptive-analytical method as a suitable approach for providing theoretical solutions and examining the availability level of the research variables in banks, using a questionnaire to collect data from the employees of the research sample. Out of (75) questionnaires distributed, (62) were returned, of which (57) were valid for analysis and (5) were damaged. This reflects the experience and professional maturity of the employees, contributing to improved data accuracy and optimal results. To analyse this data, the program (SPSS&AMOS.V.29) was used to extract the required results. Based on this, the study produced several recommendations, the most important being that commercial banks have significant knowledge regarding modern digitisation trends aimed at improving the QAISO, which contributed to maintaining their market share and ensuring continuous improvement of their DFS. This, in turn, supports economic growth, development, sustainability, and continuity in target markets. The study also recommended organising regular and continuous courses, seminars, and workshops aimed at developing and building bank employees, enabling them to achieve excellence in their work and adapt to modern developments while monitoring them continuously.

Keywords: DFS, QAISO, Commercial Banks.

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1. Introduction

The world has witnessed significant development in DFS over the past decade, driven by the new media and communication technologies revolution, the globalisation of financial and banking markets, and the recent crisis that struck the world, which led to complete lockdowns as a precautionary measure to limit the spread of the coronavirus pandemic [1]. Most industries suffered greatly as a result, including the banking industry, which gave rise to electronic activities that saw significant expansion, especially e-commerce. Many nations have worked to improve their electronic banking systems and incorporate digital technologies into a variety of activities to attain the greatest DFS in order to keep up with the increase in electronic transactions [2]. By offering a variety of communication channels and digital technologies to enable transaction access at any time and guarantee the QAISO, banks have worked with a strategy of bringing services closer to users [3].

Because DFS has brought about a qualitative shift in the way financial and banking services are provided, including electronic payments, online bank transfers, online personal financing, and smart banking applications that provide quick and easy access to account information and management, commercial banks were not immune to the advancements in the business environment [4]. These services enable consumers to use smartphone apps or the internet to swiftly and conveniently monitor their finances and carry out financial transactions. Furthermore, the adoption of digital financial services and the development of a culture of their use have been greatly aided by the growing awareness of these services [5].

On the other hand, digital accounting relies on integrating digital transformation technologies into accounting processes and activities in commercial banks [6], which in turn leads to the development of methods for collecting and processing financial data, improving the efficiency of the accounting information system and its outputs, resulting in objective, relevant and timely comparable accounting information [7], [8].

From this perspective, the role of DFS as a driving force to improve the QAISO among commercial bank employees has been studied, which prompted these banks to directly develop their internal systems as they represent an important cornerstone in reflecting the nature of their business and their competitive strength in the labour market, which necessitated commercial banks to make intensive efforts to develop their banking systems and establish various mechanisms and functional skills to position themselves at the forefront of the target market and attract customer interest through reflecting the quality of their digital services, which in turn acts as a driving force to improve the QAISO [9].

2. Materials and Methods

The world has witnessed significant economic development that has contributed to advancing the global economy towards progress and prosperity in digital business, leading to a climate of intense competition among countries, especially in the field of trade relations, which justifies the additional efforts made by some companies to maintain their market share and enhance their competitive capabilities. One of their top concerns in their plans is to guarantee the survival of institutions and the continuation of their activities [10]. As banks want to take advantage of DFS to conduct transactions and offer services electronically, they must also adjust to the evolving nature of services that clients expect, which necessitates integrating QAISO [11]. Considering the tremendous advancements foreign banks have made in offering DFS with ease, sometimes at the customer's convenience, and from any location using a variety of DFS distribution channels, including electronic card and ATM, mobile payment, online payment, and others [12], these services continuously attract customers. Moreover, the low cost of providing these financial services allows banks to allocate their funding towards the continuous improvement of existing services or the development of new services, which in turn enables them to increase their market share [13].

DFS are considered an important tool contributing to the provision of advanced methods and means to expand and improve banking services, yet this development requires proper investment and guidance to serve the interests of commercial banks in Iraq in order to provide good opportunities for advancing the Iraqi banking sector [14]. However, despite this development, Iraqi banks still face ongoing updates resulting from the digital revolution in order to appropriately categorise them to serve accounting information systems in banks, which has raised many questions regarding the determination of suitable mechanisms to invest in this development [15]. Hence, the research problem emerged, which can be formulated in a fundamental question: Is there a role for DFS as a driving force to improve the QAISO in commercial banks? From this question, several sub-questions arise:

1. What are the mechanisms and ways through which DFS can be properly employed in Iraqi commercial banks?.
2. Do electronic transactions affect the profitability of commercial banks?.
3. What is the countryside and type of relationship between DFS and the QAISO?

Second: The importance of the research

The importance of the research lies in the fact that DFS in commercial banks hold significant importance and status due to the crucial role they play in achieving Suitability, Reliability, and Comparability in financial information, which necessitates paying attention and care to the QAISO. The research also derives its importance from its part, as this subject is considered one that has not been sufficiently addressed in previous studies and research. Therefore, this study is considered one of the first to examine the relationship between DFS and the QAISO, making it a valuable addition to the Arab library concerned with parts related to Digital Services, in addition to contributing to encouraging researchers and academics to conduct more in-depth studies and research to reach more precise results related to the research part.

The importance of the research also lies in enhancing the QAISO for banks, making it more well-organized and effective in attaining speed and accuracy in task completion by identifying mechanisms that improve DFS, which in turn contribute to building and strengthening the QAISO.

Third: The objectives of the research

The aim of the research is to identify the role of Digital Services that enable employees in commercial banks to use (Electronic card and ATM, Mobile payment, and Online payment) as a driving force to improve the QAISO, represented by (Suitability, Reliability, Comparability). The research also aims to improve the quality of internal and external operations handled by commercial banks through the investment in digital technologies related to DFS and to overcome challenges for employees in order to enhance the QAISO. The research also aims to:

1. Identifying the mechanisms and methods through which DFS can be correctly employed in Iraqi commercial banks.
2. Determining the extent of the impact of electronic transactions on the profitability of commercial banks.
3. Measuring the nature and type of relationship between DFS and the QAISO.

Fourth: The hypothetical framework and hypothesis development

The hypothetical model aims to illustrate the nature and type of relationship between DFS and the QAISO, based on which the problem, objectives, and significance of the research were identified. As shown in Figure 1, the hypothetical model includes two variables:

The independent variable: represented by Digital Financial Services, measured through three dimensions: (Electronic card and ATM, Mobile payment, Online payment).

The dependent variable: comprising the Quality of Accounting Information System Outputs, measured through three dimensions: (Suitability, Reliability, Comparability).

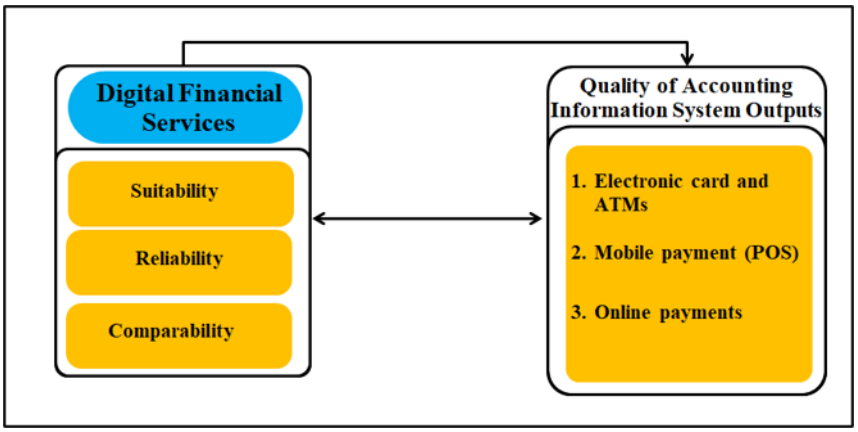

Figure 1. Hypothesis Research Diagram

Based on the hypothetical diagram, two hypotheses can be developed:

H1: There is a significant correlation between DFS and QAISO, which includes:

1. A significant correlation exists between Electronic Card and ATM and the combined QAISO

indicators.
2. A significant correlation exists between Mobile Payment and the combined QAISO indicators.
3. A significant correlation exists between Online Payment and the combined QAISO indicators.
H2: Existence of an impact of DFS on the QAISO:
1. Electronic Card and ATM have an impact on the combined QAISO indicators.
2. Mobile Payment has an impact on the combined QAISO indicators.
3. Online Payment has an impact on the combined QAISO indicators.
Fifth: Research Sample
The research public consists of several commercial banks in Baghdad Governorate, namely four banks (Ashur International Bank, Iraqi Trade Bank, National Bank of Iraq, and North Bank for Finance and Investment), while the research sample included employees in the commercial banks, with 75 questionnaires distributed and 62 returned, of which 57 were valid for analysis and 5 were invalid.
Part Two: Theoretical Aspect
First: Digital Financial Services
1. The Concept of Digital Financial Services
In addition to various other development incentives, such as opportunities and challenges associated with the tremendous advancements in communications and information, and the high expectations of customers, where the quality of service provided to customers serves as a fundamental criterion for evaluating banks, the development of banking services is influenced by the shifting global conditions, particularly the fierce competition among banks and the emergence of new concepts like accountability and corporate governance [16].
DFS are financial services provided through digital devices such as mobile phones, computers, or the internet, or through cards linked to reliable digital payment systems [17]. Electronic financial services are defined as services that involve informational and web-based services as well as the provision of services through electronic means and networks such as the internet [18]. DFS include any monetary or banking service connected to retreating, depositing, or transferring money, or even checking balances via the internet or advanced technological screens [19].
According to Leong et al. [20], DFS are services offered via computers, mobile phones, the Internet, and cards connected to a trustworthy digital payment system. They are a collection of financial services, such as mobile money transfer, payment, credit, savings, and insurance services, that may be evaluated and provided via digital channels [21]. Any intangible financial or banking service that is provided remotely using electronic media without direct communication between the service providers is referred to as DFS [22].
These services include web services, information services, and the delivery of services via electronic channels and networks like the internet [23]. According to Rana et al. [24], DFS is any financial or banking service that involves taking money out, making money, transferring money, or even checking balances using a computer screen or the internet. These services are offered via cards connected to a reliable digital payment system, computers, mobile phones, and the internet. They comprise a range of financial services, such as mobile money transfer, payment, credit, savings, and insurance services, that can be evaluated and provided via digital channels [25], [26]. Therefore, it can be said that DFS represent a set of intangible financial services carried out using electronic media without direct interaction between the service parties.
2. The Importance of Digital Financial Services
Financial services support economic development by providing the necessary funding for businesses to expand and innovate. Banks offer loans and credit facilities that enable entrepreneurs to start new ventures, while investment services help channel savings into productive projects. This movement of capital contributes to job creation and increases the overall economic output [27]. Malak [28] argued that DFS contribute to enhancing economic growth by providing easy access to a diversity of financial foodstuffs, services and facilities for individuals, small, average and large trades. This, in turn, improves public spending, thereby raising GDP levels. These services also help

promote economic stability and increase financial intermediation, both for consumers and for the economy in which they and their families live.

DFS are one of the most prominent developments in the financial sector, as they have contributed to fundamental changes in the way investment and financial facilities are delivered to both individuals and organizations [29]. The significance of DFS lies in facilitating access to financial services, enabling individuals to make transfers, payments, settle bills, and manage their accounts anytime and anywhere without the need to visit bank branches [30]. These services also donate to enhancing financial inclusion, allowing large sections of society, particularly in remote or underserved parts, to access banking services easily and at low cost [31].

DFS contribute to facilitating access to financial services, as Digital Services enable individuals and institutions to manage their accounts, make transfers, pay bills and make payments anytime and from anywhere without the need to visit bank branches [32]. DFS also help promote financial inclusion, as these services help expand the base of beneficiaries of banking services, especially in remote or underserved areas, allowing larger segments of the community to access financial services easily and at a low cost [33].

3. The Benefits of Digital Financial Services

DFS offer several benefits, including [34], [35], [36]:

a. DFS have the potential to provide affordable, convenient and secure banking services to low-income individuals in developing countries. Recent improvements in access to and ease of obtaining DFS globally can contribute to this.

b. By giving people and small, medium, and big businesses easy access to a range of financial goods, services, and credit facilities, DFS boosts the GDP of digital economies. This can therefore increase overall spending and raise GDP levels. Furthermore, DFS can result in more financial intermediation and economic stability for clients as well as the economy in which they and their family reside.

c. DFS have a significant long-term impact on bank profitability. These effects are more pronounced for small banks compared to large banks.

d. DFS benefit governments by providing a platform to facilitate increased overall spending, which then leads to higher tax revenues due to the greater volume of financial transactions.

e. DFS provide advantages to financial and monetary regulatory authorities, as the widespread adoption of digital finance can significantly reduce the circulation of counterfeit or defective currency.

4. Indicators for Measuring Digital Financial Services

DFS can be measured through several indicators [10]:

a. Electronic card and ATM: Electronic cards are magnetic cards that their holders can use to purchase most of their needs or pay for services without carrying large amounts of money that may be subject to theft, loss or damage, while the ATM represents a machine that serves customers without human intervention [37], operating within programmes designed specifically to meet various banking needs around the clock. This is done through an ATM card, a plastic card that provides access to a variety of services offered by the ATM, including cash withdrawal, deposit and balance inquiry. [38].

b.Mobile payment: Mobile phones are one of the latest technologies used to provide remote financial and banking services, as they add a new dimension and greater flexibility to handling them, overcoming the constraints of time and place [39]. This technology is used through direct connection to a call centre or voice server, in addition to using short text messages (SMS) to obtain information, and the possibility of connecting the phone to the internet to access various services. The client is provided with a password and instructions to access the service [40]. Malak and Talbi [3] argued that digital services via mobile phones represent banking services available through mobile phones. With the development of technology and the emergence of smartphones, mobile banking services have evolved, as banks manage call centres with dedicated phone numbers,

allowing customers to communicate with the bank around the clock, speak to a staff member, and perform the required banking services [41].

c. Online payment: The internet is considered one of the most important means to access financial services easily and quickly. These services are characterised by easy accessibility, allowing you to obtain them whenever and wherever you wish. Electronic financial services refer to the system that enables customers to access financial and banking services through websites [27].

Second: Quality of Accounting Information System Outputs

1. The Concept of Quality of Accounting Information System Outputs

The current era is witnessing a continuous increase in the importance and value of information, and it is now known as the information age, in line with the information revolution sweeping most countries of the world [42]. Information can be defined as data that has been processed to become more useful for the future and that holds value for current use or for making future decisions [43]. In the context of intense competition characterising the current business environment, accompanied by rapid changes in the goals and methods used by economic institutions, it has become essential for these institutions to ensure they obtain a sufficient supply of accounting information suitability [44]. This is aimed at helping it carry out its various tasks of planning, control and decision-making. Accounting information has become an important economic resource, whose value is determined by the level of quality it possesses , and the excellence of information depends on the degree to which it possesses the qualitative characteristics (primary&secondary) of accounting information, which make it useful for users of this information [45].

The Financial Accounting Standards Board has outlined, under the title 'Quality of Accounting Information Standards,' a set of qualitative characteristics considered fundamental in determining the most useful information for decision-making [46]. According to this statement, the primary characteristics of information are relevance and reliability, while the International Accounting Standards Board (IASB) also added two essential characteristics: understandability and comparability [47]. Thus, quality represents the total attributes of crops that meet customer needs and achieve their satisfaction, varying rendering to the type of crops and services and the approaches of their use. In this setting, higher quality leads to increased customer satisfaction and higher income and profits for productive institutions [16], and therefore, the quality of information produced by an accounting information system is directly proportional to the system's ability to add value to the organisation. Consequently, many academic and professional institutions have focused on developing a framework for the qualitative characteristics of accounting information, most notably the Financial Accounting Standards Board (FASB) and the International Accounting Standards Board (IASB) [48].

According to Ali [49], information systems play a vital role in supporting the accounting and financial activities of economic units. Accounting information systems, as information systems, contribute significantly to the management process of these units, providing effective accounting information to decision-makers both inside and outside them. Accounting information systems are an important resource for economic units, supplying management with the financial information necessary for decision-making and helping to provide the unit with a comprehensive view of its capabilities and available resources. Economic units place the utmost importance on the accuracy and relevance of accounting information systems, which contributes to achieving all their objectives. Qatawneh and Bader [50] defined accounting Information Systems (AIS) are defined as systems that encompass the collection and storage of financial and accounting data for the purpose of processing and presenting it to internal users, and preparing reports regarding investors, creditors and taxes. It is a method that tracks accounting activities through information technology resources with the aim of achieving the quality characteristics of accounting information. An accounting information system incorporates data about revenues and expenses, customer and employee information, and tax information that must have the necessary accounting information quality characteristics. It also combines the use of traditional accounting through generally accepted accounting principles within information technology resources. described the QAISO as a collection (integration) of tangible and

intangible subsystems/components that work together harmoniously to handle transaction data pertaining to financial matters and transform it into financial information [51].

Accounting information quality refers to the extent to which the information produced by the accounting system can meet the needs of its users and assist them in performing their various tasks, such as planning, control, and decision-making [52]. Nowadays, accounting information represents an important economic resource that organisations rely on to manage their activities and achieve their objectives [53]. The value of this information increases the higher its quality and reliability, as the usefulness of accounting information largely depends on the qualitative characteristics it possesses [54].

QAISO refers to the extent to which the information and reports produced by the system are able to meet the needs of their users and assist them in making accurate and effective managerial and financial decisions [55]. These outputs are considered a fundamental resource for organisations, as they provide data that can be relied upon for planning, control, performance evaluation, and enhancing the efficiency of administrative and financial operations [56].

For managers, executives, and those who make financial and accounting decisions, the QAISO is regarded as one of the most significant and useful instruments. In order to attain more competitive capacity and stay up to date with changes in diverse company contexts, this system, in all its forms, seeks to enhance financial and accounting outputs and concentrate on exceptional financial performance [57], [58]. Additionally, it is regarded as an information system that offers crucial assistance for a wide range of administrative tasks, including organization and control, strategy adoption, planning, and many more [50], [59].

The quality of an accounting information system involves various elements working together, such as hardware, software, applications, communication networks, and databases, to ensure user satisfaction. An accounting information system should also be characterised by flexibility, efficiency, accessibility, and speed for making accurate decisions [60]. According to Stair and Reynolds [61], an accounting information system is defined as a set of interconnected components that work together to collect, store, summarise and distribute data, thereby contributing to planning, control, direction, coordination, analysis, and decision-making. From the above, it can be stated that the quality of outputs of an accounting information system represents a set of tools, techniques, and mechanisms aimed at collecting and storing financial and accounting data to process it in a manner that serves the interests of the organisation or company and achieves its long-term objectives.

2. The Importance of Quality of Accounting Information System Outputs

The importance of the QAISO lies in the fact that they represent systems, methods, and procedures governed by a set of sound principles and rules followed to process data on financial transactions occurring within the organisation to produce financial information [62]. Moreover, the QAISO plays a pivotal and important role, as it provides information that helps the institution's management perform its tasks optimally. Furthermore, the success or failure of the organisation in achieving its objectives depends on the quality of accounting information systems. Developing these systems has a profound impact on the institution's performance and the effectiveness of its operations, as management requires information characterised by consistency and reliability in the decision-making process. Additionally, the success and effectiveness of decisions largely depend on how well accounting information systems deliver information to decision-makers in a timely manner [44].

To provide information for decision-makers, the accounting information system gathers, logs, stores, and processes data [63]. This covers people, protocols, guidelines, information, software, IT infrastructure, internal controls, and security protocols [64]. However, an accounting information system is a collection of tools intended to convert financial and other data into information, according to Mancini et al. (2017). After that, different decision-makers receive this information. The accounting information system is a tool designed to assist organizations in managing and keeping an eye on pertinent business operations that are connected to information technology [55].

According to Tran [47], the quality of an accounting information system is defined as a system that can make use of existing resources to deliver dependable, adaptable, integrated, and easily accessible financial and non-financial information in a timely manner to achieve effective and efficient company performance and assist managers in making optimal decisions, thereby aiding in the achievement of business objectives. Prasetianingrum and Sonjaya [66] state that an essential indicator of an information system's success is its quality. This allows for the following identification of its significance:

a. Improving the effectiveness of the accounting information system by enhancing organisational performance

b. Improving the process of sound managerial decision-making [60].

c. Using systems and their rapid development in a way that contributes to continuous and rapid changes in their outputs.

d. Improving the process of investing time, speed, objectivity, comprehensiveness, and relevance.

e. Possessing high-quality and reliable information [55].

f. Processing financial and non-financial transactions that directly affect the processing of financial transactions [67]

3. Indicators for Measuring Quality of Accounting Information System Outputs

QAISO can be measured through several indicators [7]:

a. Suitability: The suitability of accounting information is considered one of its most important characteristics, meaning the degree to which it encounters the needs of its users. It also refers to its ability to influence managerial decisions and help them make more accurate forecasts regarding future events [68].

b. Reliability: The reliability of information published in financial reports, its freedom from errors and bias in presentation, and its provision of a true picture of events and economic transactions is crucial for individuals who lack the time and expertise to evaluate the contents of financial reports and select useful information for themselves [69]. According to Al-Ashibi [70], reliability represents the ability to depend on and trust the information. For this characteristic to be achieved, the property of faithful representation must be present, which means representing the information truthfully regarding the financial events being reported, in essence rather than form. There is also the property of verifiability, which represents the ability to confirm its accuracy through easy examination and review according to accepted and established rules. Additionally, the property of neutrality (objectivity) means that the information is prepared and presented without bias that favours the interest of a particular user over another.

c. Comparability: the ability to compare a company's financial statements over time to identify trends in its financial position and performance, and to compare the financial statements of different companies to make a relative assessment of their financial position [7]. According to Abdulqader [71], comparability represents the ability to compare a company's financial statements over time to identify trends in its financial position and performance, and to compare the financial statements of different companies to make a relative assessment of their financial position.

3. Results and Discussion

Measurement Reliability

In order to better the reality of the Iraqi commercial banks under study, this part aims to guide the readers, introduce them to the practical aspects of the research, and get the best statistical findings. The coding of the study variables and the testing of their stability are shown in Table 1. With a stability value ranging from 0.817 to 0.955, the findings of Table 1 demonstrate that the variables and dimensions of the research acquired a reasonably high stability, which is a good value, making the measuring instrument compatible with the answers of the study sample.

Table 1. Coding and Reliability of Study Variables

Variables	Dimensions	NO.	Code		Cronbach's Alpha		Measurement
Digital Financial Services	Electronic card and ATM	7	ATM	**DFS**	0.924	0.955	[10]
	Mobile payment	5	POS		0.817		
	Online payment	7	ONP		0.922		
Quality of Accounting Information System Outputs	Suitability	7	QSU		0.913		
	Reliability	7	QRE	**QAISO**	0.898	0.918	[7]
	Comparability	6	QCO		0.898		

Descriptive Results

The cross-sectional results shown in Table 2 indicate that the highest mean (3.91) is for the Online Payment (ONP) dimension within the DFS variable, with a S.D of (0.65), which means that the surveyed commercial banks prioritise improving Online Payment through investment in DFS, while the Electronic Card and ATM (ATM) dimension ranked last with an mean of (3.84) and a S.D of (0.72). Overall, the DFS variable obtained an mean of (3.88) and a S.D of (0.63), indicating that commercial banks have significant interest in enhancing online payment services through investing in digital transformation mechanisms related to the banking sector. On the other hand, commercial banks need to reconsider their investment strategies to ensure balanced coverage of all aspects of DFS.

It can be observed from Table 2 that the highest mean (3.90) is for the Reliability QRE dimension within the QAISO variable, with a S.D of (0.78), which indicates that the surveyed commercial banks focus on Reliability in order to achieve the best decisions that can improve bank performance. Meanwhile, the Comparability QCO dimension came last with a mean of (3.73) and a S.D of (0.82). Overall, the QAISO variable obtained a mean of (3.84) and a S.D of (0.73), which means that commercial banks have a direct focus on improving the reliability of accounting information, reflecting their interest in enhancing the quality of data-driven decisions, which in turn rationalises banks' decisions to develop more comprehensive information systems that meet all required aspects of quality.

Table 2. Means and S.Ds of Study Items and Variables

No.	Mean	S.D	No.	Mean	S.D	No.	Mean	S.D
ATM1	3.86	1.12	ONP3	4.03	0.88	QRE2	3.92	0.97
ATM2	3.94	0.86	ONP4	3.83	1.02	QRE3	3.97	1.15
ATM3	3.76	1.10	ONP5	3.95	1.01	QRE4	3.97	1.02
ATM4	3.81	1.16	ONP6	3.87	0.91	QRE5	3.81	1.05
ATM5	3.75	1.09	ONP7	3.70	1.19	QRE6	3.78	1.07
ATM6	3.95	0.81	**ONP**	**3.91**	**0.65**	QRE7	3.95	1.02
ATM7	3.84	0.90	**DFS**	**3.88**	**0.63**	**QRE**	**3.90**	**0.78**
ATM	**3.84**	**0.72**	QSU1	3.76	1.12	QCO1	3.76	1.09
POS1	3.60	1.06	QSU2	3.97	0.98	QCO2	3.75	1.09
POS2	3.98	0.91	QSU3	3.97	0.92	QCO3	3.87	1.11
POS3	4.02	0.77	QSU4	3.89	1.12	QCO4	3.67	1.18
POS4	3.89	1.00	QSU5	3.94	1.09	QCO5	3.65	1.12
POS5	3.97	0.90	QSU6	3.76	0.98	QCO6	3.70	1.12
POS	**3.89**	**0.65**	QSU7	3.89	0.88	**QCO**	**3.73**	**0.82**
ONP1	4.10	0.73	**QSU**	**3.88**	**0.73**	**QAISO**	**3.84**	**0.73**
ONP2	3.89	0.86	QRE1	3.94	0.91	**standard deviation (S.D)**		

Hypothesis Testing and Discussion

H1: There is a significant correlation between DFS and QAISO.

The results of Table 3 indicate a significant correlation between DFS and QAISO, with a value of (0.933), showing the interest of the surveyed commercial banks in enhancing the relationship between DFS and QAISO. The results also showed a correlation between DFS and the dimensions of QAISO, ranging from (0.711) for the Mobile payment and Reliability dimension to (0.868) for the Electronic card and ATM and Suitability dimension, indicating that commercial banks need to employ integrated strategies related to these services and various quality dimensions to improve overall performance and increase banking process efficiency. This requires enhancing mobile payment technologies as part of improving DFS to ensure a high level of Reliability and Suitability.

Table 3. Correlation Matrix

	ATM	POS	ONP	DFS	QSU	QRE	QCO	QAISO
ATM	1							
POS	.742**	1						
ONP	.876**	.786**	1					
DFS	.941**	.901**	.952**	1				
QSU	.868**	.761**	.851**	.889**	1			
QRE	.862**	.711**	.854**	.870**	.847**	1		
QCO	.852**	.759**	.836**	.877**	.829**	.813**	1	
QAISO	.914**	.790**	.899**	.933**	.944**	.942**	.939**	1

H2: Existence of an impact of DFS on the QAISO.

The results of Table 4 show that increased attention by the surveyed commercial banks to DFS contributes to an improvement in its value (0.860) in QAISO, which achieved a reduction in error rates by (0.054), indicating that DFS contributed to explaining (0.870) of the variance in QAISO, as shown in Figure 2.

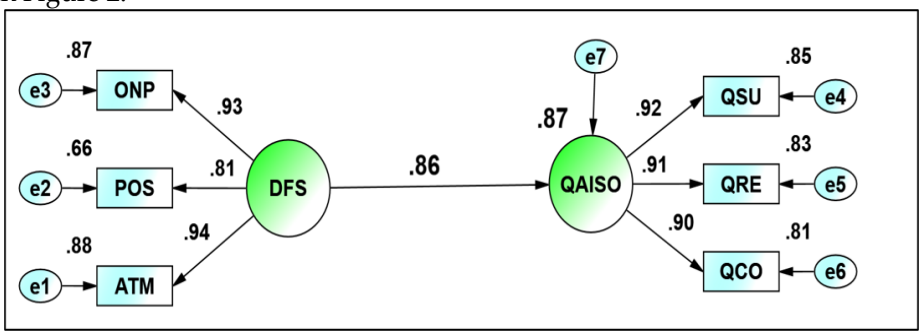

Figure 2. Standard Model of the impact of DFS on the QAISO.

Table 4. Standardized Results of the impact of DFS on the QAISO.

path			Estimate	S.E	C.R	R2	P
DFS	--->	**QAISO**	0.860	0.054	15.926	0.870	0.001

The reliability coefficients, ranging from 0.817 to 0.955, indicate strong internal consistency across the study dimensions. The descriptive results further show that online payment received the highest mean among DFS dimensions (M = 3.91, SD = 0.65), whereas electronic cards and ATMs obtained the lowest mean (M = 3.84, SD = 0.72). This pattern suggests that the surveyed banks have progressed furthest in internet-enabled payment channels, although balanced investment across digital channels remains necessary. The finding is consistent with evidence that digital transformation changes banking service delivery and customer access [4], [5].

For QAISO, reliability recorded the highest mean (M = 3.90, SD = 0.78), while comparability recorded the lowest (M = 3.73, SD = 0.82). This indicates that respondents primarily associate digital services with dependable accounting outputs, while cross-period and cross-entity comparability still

require attention. Prior research similarly emphasizes that digital accounting transformation improves the collection, processing, and usefulness of accounting information [6], and that accounting information system quality supports organizational performance through higher-quality information [56].

The correlation between DFS and QAISO was very strong and statistically significant ($r = 0.933$). Correlations between individual DFS and QAISO dimensions ranged from 0.711 to 0.868, demonstrating that the relationship is broad rather than confined to one delivery channel or one information-quality characteristic. The structural model also showed a substantial standardized effect of DFS on QAISO ($\beta = 0.860$), with the model explaining 87.0% of the variance in QAISO. These results support both hypotheses and align with research identifying digital financial services as an important mechanism for improving bank processes [12] and effective accounting information systems as a foundation for better business performance [11].

Nevertheless, the cross-sectional design, the modest sample of 57 employees, and the concentration on four commercial banks in Baghdad limit causal interpretation and generalizability. The high explained variance may also reflect common-method effects because predictor and outcome data were collected through the same questionnaire. Future studies should therefore use larger multi-region samples, combine employee responses with objective system-performance indicators, and consider longitudinal or mixed-method designs.

4. Conclusion

This study concludes that digital financial services are strongly associated with the quality of accounting information system outputs in the surveyed Iraqi commercial banks. Online payment was the most highly rated digital-service dimension, reliability was the strongest accounting-information-quality dimension, and the hypotheses were supported by a very strong DFS–QAISO correlation ($r = 0.933$) and a substantial standardized effect ($\beta = 0.860$), with 87.0% of QAISO variance explained by the model. These findings indicate that electronic cards and ATMs, mobile payments, and online payments can collectively support more relevant, reliable, and comparable accounting information when they are integrated with effective accounting systems and internal controls. Accordingly, commercial banks should pursue balanced investment across all DFS channels, strengthen mobile-payment reliability and accounting-information comparability, employ qualified accounting and information-system personnel, and provide continuous courses, seminars, and workshops so employees can use evolving digital tools effectively. Banks should also maintain clear accounting policies, encourage responsible use of electronic channels, monitor data quality and security, and periodically review digital-service investment strategies. Future research should test the model with larger and more diverse samples, objective performance measures, and longitudinal designs to strengthen causal inference and generalizability.

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