



The role of internal audit in reducing financial technology risks and its impact on the quality of banking services

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Abstract

This study purposes to shed light on the vital role that internal audit plays in enhancing banks' aptitude to confront risks related with financial technology, by developing control mechanisms that keep pace with rapid technical growths. The use of tools such as artificial intelligence, block-chain technologies, and digital banking services has led to the appearance of a new type of risk, counting poor compliance and technical working errors. Internal audit contributes to early documentation and analysis of these risks Hence, providing real recommendations to ensure the application of governance systems and good controlling practices, as it plays an powerful role in improving the quality of banking services, by monitoring weaknesses in customer experience and improving working performance, which leads to enhancing purchaser satisfaction and confidence in the banking organization. The research tricky was to know the role of internal audit in reducing the risks of financial technology and its influence on the quality of banking services in (National Bank, Commercial Bank) the investigation sample, The research was based on a basic hypothesis that internal auditing plays a role in plummeting the risks of financial technology, which donates to the excellence of banking services. The research reached a number of deductions, the most important of which is that the attendance of a high-quality internal audit system donates to plummeting information technology risks such as security openings, technical malfunctions, and electronic fraud. Internal auditing allows banks to detect risks before they happen, which limits latent losses and enhances financial stability The research optional that internal auditors should be skilled in modern technologies and grow their skills in the fields of cybersecurity, data analysis, and false intelligence systems, and that internal auditing must be integrated into the digital transformation strategy to be an essential part of the design and application of new banking systems.

Keywords: financial technology, internal audit, banking services.

Introduction

In a world of rapidly evolving financial technology, banking institutions are seeing more risk and quality challenges, requiring more effective controls, and financial technology is one of the most significant changes facing the banking industry in recent years. As financial institutions are embracing technological solutions, new risks arise that need to be managed effectively, and here is where internal audit steps in as a strategic tool. The third line of defense in financial institutions is internal audit, which helps identify weaknesses in the use of financial technology including digital payment systems, artificial intelligence applications, and big data analysis, as well as enhances trust between the bank and its customers by ensuring the quality of services and minimizing the potential for security breaches or technical errors that could compromise customer experience, thus making internal audit not only an evaluation and oversight role but also a strategic partner in driving digital transformation in a safe and sustainable manner.



First: the methodology

1. Problem of the study

With the growing digitalization of banks and the evolution of financial technology, new risks arising from cybersecurity, privacy, compliance, and the integrity of financial services have emerged and banks are required to manage these risks, so that they meet regulatory and professional standards, but how much the internal audit units are responsible for managing these risks, and how much this is reflected in the quality of banking services provided to customers in terms of efficiency, security, and reliability has not been well studied. The purpose of this study is to answer the question: To what extent can the role of internal audit in reducing the risks of financial technology, as reflected in the quality of banking services?

What is the role of internal audit in reducing financial technology risks and their impact on the quality of banking services?

2- study hypotheses

This study is premised on a major hypothesis: (Internal audit mitigates risk in financial technology to improve banking services quality). The subsequent sub-hypotheses that emerged from the major hypothesis:

1. Internal auditing effectively reduces the risk of poor compliance and technical operating errors associated with the use of financial technology in banking institutions.
2. Internal audit efficiency improves the quality of banking services provided to customers.

3- study importance

This underscores the significance of the study because, in the context of the rapid development of financial technology, internal audit plays a key role in the governance and control of financial institutions, including evaluation of electronic protection systems and detection of weaknesses that might be exploited in data breaches that contribute to improving the quality of banking services by reducing the risks of financial technology, which in turn improves operational efficiency by reviewing digital processes, reduces waste, and improves the speed of banking service delivery. Internal auditing is not merely an accounting check but is critical to preventing breaches or financial fraud, identifying security vulnerabilities and non-policy-compliant operations. As financial technology continues to evolve, internal auditing has become an integral part of improving the quality of banking services and protecting financial institutions from digital risks.

4- study Objectives

Through this research, we seek to:

- 1-Highlighting financial technology
- 2-Highlighting the risks resulting from the use of financial technology in banks
- 3-Identify the role of internal audit in detecting and reducing these risks within the modern digital environment.
- 4-Explaining the relationship between the efficiency of internal audit and the quality of banking services provided to customers.
- 5-Analyzing the role of internal audit in addressing the challenges and risks arising from fintech applications in the banking sector.
- 6-Evaluating the extent to which internal audit affects improving the quality of banking services provided to customers.

5-Sample and Research Tools

The researchers used a questionnaire form (questionnaire) as a tool for this study, which was designed on the basis of the five-point Likert scale

("Totally agree", agree, neutral, disagree, completely disagree) and these phrases were given a weight "ranging from five (5) completely agree" to one (1) completely disagree" in order to give objective



results. This form was distributed at a rate of (75 forms), to the study sample (a group of auditors and auditors at the National Bank, Commercial Bank) to know the role of internal audit in reducing financial technology risks and its impact on the quality of banking services, and it was analyzed using the statistical program (SPSS.27).

Second : Literature review

1- taaminih Study 2024:

Financial technology in banking

The study aimed to clarify the concept of financial technology and know its importance in developing banking businesses. The descriptive approach was followed by relying on theoretical literature and previous studies, as well as by referring to reports and statistics issued by a group of financial institutions operating in Jordan, which show the importance of financial technology and its role in facilitating and improving financial operations. The study concluded that financial technology contributes to developing and diversifying the financial banking services provided by banks, which leads to supporting and stabilizing banks, improving their efficiency, and expanding their customer base.

2-Nour El-Din's study, 2022:

(A quantitative input to measure the expected added value when applying financial technology in accounting with the aim of hedging its risks in financial markets)

The research focuses on studying the most important risks facing financial technology techniques when they analyze financial statements and reports to predict trading prices for stocks and securities of companies listed on the financial exchange, and then determine the financial accounting data and information affecting those risks, which are the dimensions of the value-added measure for those predictions, as this measure determines

The extent to which financiers rely on the results of analyzing these technologies in making their financing decisions. Therefore, this measure can be expressed as (the reliability of expected financial technology estimates for stocks and securities when making financing decisions). The study concluded that the value-added measure of financial technology forecasts affected achieving the fairness and efficiency of financial information contained in financial statements and reports when forecasting stock and securities prices of companies using these technologies, which affects enhancing the ability to grant credit to these companies in a way that achieves stability in the financial markets

3-Gojil and Taiba Study, 2022 (Risks of financial technology and its management in the banking sector - a regulatory and precautionary study)

This study aimed to highlight the various risks arising from the use of multi-technology financial technology in the banking sector, through a set of regulatory and precautionary measures in the field such as the Malaysian Bank of Nicara, the World Bank, and the New York Department of Financial Services (NYDES). This diversity of bodies gives more precise and comprehensive concepts of the different types of these risks related to financial technology. Then, presenting the precautionary and regulatory solutions imposed or recommended by these bodies, which unanimously agreed that all regulatory guidelines and directives fall within the scope of developing strategies for monitoring and auditing various financial operations through technical technologies, and conducting performance tests related to these systems and other precautionary points, the study concluded that financial technology represents that combination of modern technological technologies and applications, financial and banking operations, To obtain new financial products and services characterized by modernity, innovation, quality, as well as ease of access and use from everywhere and at any time, the study recommended the necessity of including financial technology risks in the recommendations of international financial and banking committees and charters, similar to the recommendations of the Basel Committee and the Bankers' Governance and Compliance Charter.



What distinguishes the current study from previous studies.

This study is distinguished from previous studies in that it is one of the studies that research the role of internal audit in reducing the risks of financial technology and its impact on the quality of banking services. While previous studies addressed clarifying the concept of financial technology and knowing its importance in developing banking businesses, the descriptive approach was followed by relying on theoretical literature and previous studies. Also, by referring to the reports and statistics issued by a group of financial institutions operating in Jordan, which show the importance of financial technology and its role in facilitating and improving financial operations, other studies have addressed the study of the most important risks facing financial technology technologies when they analyze financial statements and reports to predict trading prices for stocks and securities of companies listed on the financial exchange. Then, identifying the financial accounting data and information affecting these risks, which are the dimensions of the value-added measure for these forecasts. Other studies have addressed highlighting the various risks arising from the use of financial technology with its multiple technologies in the banking sector, through a set of regulatory and precautionary measures in the field, such as the Malaysian Bank of Nicara, the World Bank, and the New York Department of Financial Services (NYDES).

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Third: Theoretical side

The first section: The theoretical framework for internal audit

-The concept of internal audit

Internal audit is an independent evaluation function that is established within the organization to examine and evaluate its activities. It aims to help individuals perform their responsibilities effectively. The modern concept of internal audit includes it being an independent and evaluative activity within the organization and being an advisory function, in addition to its activity extending to all types of administrative control. Hence, we find that the function of internal audit is not limited to administrative control only, but includes accounting control and internal control. It is more of an advisory function than an executive one (Daghah and Anan, 2018). Internal audit is defined as a set of systems or aspects of independent activity within the administrative unit to carry out its service in achieving work and restrictions on an ongoing basis (Abdullah, 2000). According to the Institute of Internal Auditors, it is defined as the process of evaluating and confirming the effectiveness and efficiency of operations and one of the effective means of internal control, as it helps in ensuring that the established control methods are applied and sufficient to achieve the effectiveness of operations, ensure the accuracy of accounting data, protect the assets and funds of the establishment, and verify that the establishment's employees follow the administrative policies, plans, and procedures drawn up for them (Saleh, 2015).

3. Types of internal audit:

Auditing is the process of evaluating and analyzing information and data to ensure its accuracy and reliability. There are several types of auditing, including:

A- Financial audit

It is the process of examining and evaluating a company's financial statements to ensure their accuracy and compliance with local and international accounting standards. It focuses on examining financial records and accounting data and aims to ensure the accuracy of financial operations and their compliance with accounting policies and international standards.



B- Operational audit

It is the process of evaluating processes as well as operational procedures within the organization to ensure efficiency and effectiveness and helps improve performance and reduce waste of resources.

C- Compliance audit

Verifies the extent of the institution's compliance with internal and external laws and regulations in banking institutions that are subject to strict legislation. (AudreyGramling&Dana, Herman Son, 2006)

D- Information systems audit

Information systems auditing is the process of examining and evaluating an organization's information systems and technological infrastructure. It focuses on assessing the security and efficiency of digital systems and information technologies and includes reviewing technical infrastructure, data protection, and access controls.

E- Risk audit

It aims to identify and analyze risks that may affect the organization's objectives and focuses on high-risk areas to provide preventive recommendations.

F-Environmental and social audit

It reviews the extent to which the organization's commitment to environmental standards and social responsibility has become more important in light of the trend towards sustainability.

G- Investigative audit

It is conducted when defilements or fraud are suspected and aims to uncover the facts and provide accurate evidence (NasibahHaimah Ahmad.et al. 2012)

The Second Part: Financial Technology

1. The concept of financial technology

The application of digital technologies, software, and innovations to improve, automate, and simplify financial services and processes, including a wide range of applications such as mobile banking, digital payments, peer-to-peer lending, automated advisors, cryptocurrency trading, and blockchain technology to make financial services more accessible, efficient, cost-effective and user-friendly for consumers and businesses (Mansour, 2017) ; (Mahdi, 2010).

2. Development of financial technology

The world of financial services is seeing a continuous revolution driven by waves of rapid novelty. The growth of financial technology can be divided into three main stages, each of which was characterized by the emergence of new technologies that formed the way we grip our money. These phases are: (,2008 Abu-Musa A)

A- The stage of the foundations of financial technology

The first phase of financial technology growth between 1866 and 1987 marked a new beginning for financial systems, placing the foundation for a revolutionary contemporary infrastructure. This era was branded by the emergence of wire and telephone networks, which paved the way for the appearance of electronic money transfers, which signified a qualitative shift towards a more digital financial scenery. Before that era, financial dealings relied exclusively on bills, which greatly limited their physical scope. The ability to transmission financial data automatically has enabled the mechanization and efficiency we see today in the world of financial facilities.

B - The stage of the digital revolution (1987-2008)

A revolution in the financial services industry, fueled by the Internet and digital communications technologies, has led to the emergence and rapid growth of financial technology, which has brought about a radical transformation in the way people engage with their money through online banking



services, with accounts accessible 24 hours a day, 7 days a week. The Internet revolution did not stop with banking, but continued to spread to the investment world, as electronic trading platforms brought about a qualitative change in investment opportunities and made financial markets more accessible and democratic, which were previously the domain of institutional investors.

C - The post-2008 era and the growth of financial technology

It describes the post-2008 period, or current phase of financial technology, which has experienced significant growth and disruption, as advanced technologies such as mobile technology, big data analytics, artificial intelligence, and blockchain have converged to create an environment where fintech startups and tech giants are challenging traditional financial institutions and providing innovative financial solutions (mobile payments, peer-to-peer lending, and automated advisors) that allow for greater access and inclusiveness in the financial system, reaching demographics that had been underserved by traditional institutions. Use internet and smartphones (James A. Hall, 2011)

3. Financial technology applications

A- Electronic payment and money transfers

Electronic payment is the process of paying for goods or services online or using smart devices, without the need to use cash or checks, such as credit and debit cards (such as Visa Mastercard), digital wallets (such as Apple Pay, Google Pay, STC Pay), mobile payment applications (such as PayPal, Venmo) and QR codes to pay in stores, Money transfers are the process of sending money from one person or entity to another using electronic means, whether within the same country or internationally and include electronic bank transfers (such as SWIFT, IBAN), transfers via mobile applications (such as Western Union, Remitly), transfers between digital wallets or via telecommunications companies.

b- Lending between individuals via platforms such as LendingClub.

Peer-to-peer lending (Peer-to-Peer) is a digital financial system that allows individuals to borrow money from individual investors via electronic platforms, such as LendingClub) and Prosper), without going through traditional banks, where the borrower creates a profile on the platform and determines the loan amount and purpose, and investors review applications and choose to finance them partially or completely, and the interest rate is determined based on credit score and risk. Installments are paid monthly through the platform, which manages the process. (Stiliani Siopi, 2007)

C - Automated investment management consultants.

Automated advisors are digital platforms that use artificial intelligence and algorithms to automatically manage investments based on financial goals, without the need for direct human intervention, and an automated advisor (Robo-Advisor) is a digital program that provides investment portfolio management services automatically, and relies on analyzing data and allocating investments according to Risk level, financial goals, and time period specified by the user. Among the most famous international platforms:

- Betterment
- Wealthfront
- Schwab Intelligent Portfolios
- SoFi Invest

D - Blockchain technology

Blockchain technology is a digital system for storing and exchanging data in a secure and transparent manner, where information is recorded in interconnected blocks that cannot be modified without the network's consent. It is widely used in digital currencies such as Bitcoin, but it extends to other fields such as smart contracts and supply chains. Blockchain (Blockchain) is a distributed database in which



information is stored in the form of blocks linked together in a time series, so that no block can be modified or deleted without the collective consent of the network participants. Each block contains data such as financial transactions, and a digital signature that links it to the previous block. When a new block is added, the network must agree on its validity through a mechanism called consensus, and once added, it becomes a permanent part of the chain and cannot be changed. (Taamna, Abdullah Hassan, 2020)

4. Benefits of financial technology

Financial technology provides smart solutions that improve the speed, efficiency and security of financial transactions, and facilitate access to banking and investment services for all. The most prominent benefits of financial technology that have brought about a major transformation in the world of finance and business are:

- a. Accelerating financial transactions, such as PayPal and Apple Pay, allows operations to be carried out in seconds without the need for cash or visiting banks, and bank transfers have become instant, even between countries, thanks to blockchain technologies and digital services.
- b. Enhancing security and slide, as financial technology relies on progressive encryption to protect users' data and ensure that financial annals are not tampered with, which upsurges confidence in dealings.
- c. Easy access to financial services, where anyone can open a bank account or invest via mobile applications without having to visit the financial inclusion branch, and it has become possible even in remote areas, thanks to digital services. (Bou Abdali and Soraya, 2015)
- d. Improving the customer experience through the use of chatbots (Chatbots) supported by artificial intelligence helps in responding immediately to customer inquiries, providing 24/7 support, and customizing services based on user behavior and analyzing their data.
- e. Supporting startups and savers, as financial technology provides influential analytical tools that help businesses make smart financial decisions, and crowdfunding stages (Crowdfunding) allow small projects to raise capital effortlessly.
- f. Reducing working costs Automation technologies decrease the need for human resources in monotonous tasks and decrease reliance on traditional branches decreases real estate and managerial costs.

Supporting the digital economy, as financial technology is a fundamental pillar in building an integrated digital economy, which enhances economic growth and increases job opportunities in the fields of technology and innovation) (Sahnoune mustapha and ben ayad mohamed, 2018)

5. Challenges of adopting financial technology

Fintech is not without challenges and risks that must be overcome to ensure the continued growth of the fintech sector. Here are some key things to consider:

A- Bridging the controlling gap in financial markets

The rapid pace of innovation in fintech, however, extends beyond the evolution of regulatory frameworks, which can leave both businesses and consumers in a state of uncertainty, and regulators with the difficult task of putting in place mechanisms of oversight that ensure financial and consumer stability without stifling the innovation that drives progress. The industry leaders and policymakers must work together to strengthen the regulatory environment and to establish regulatory testing environments where new technologies can be tested in a controlled environment with clear guidelines in areas like data privacy and anti-money laundering. (Sahnoune Mustapha, 2018)

B - Cybersecurity challenges

The use of digital infrastructure by fintech companies makes them vulnerable to cyberattacks and data breaches, which is why it is crucial for fintech companies to invest in cybersecurity measures, including advanced security solutions, data encryption, and employee training, as well as promoting



a culture of cybersecurity awareness among users to educate consumers about security best practices, such as creating strong passwords and being aware of phishing attempts, to increase the security of the fintech space (Abdul Rahim, 2018)

C - Fluctuations in financial technology tools

Other types of fintech instruments, particularly cryptocurrencies, are inherently highly volatile and can be risky for investors; the absence of comprehensive regulation in many areas exacerbates these fluctuations, and regulators have a responsibility to help educate investors and build strong risk management frameworks to reduce the risk of volatile participation in fintech markets (Hamdi and Oqasim, 2018)

The third Part: The role of internal auditing in reducing the risks of financial technology and its impact on the quality of banking services.

1. The role of internal auditing in reducing financial technology risks

The role of internal audit in reducing fintech risks includes:

- 1) Evaluating technical and financial controls: The internal auditor reviews the digital systems used to provide financial services, such as electronic payment platforms or lending applications, to ensure that effective controls are in place to prevent breaches or manipulation.
- 2) Detecting security vulnerabilities: Internal audit helps identify vulnerabilities in the digital infrastructure, such as weak passwords or lack of data encryption, which reduces the risk of hacks and electronic fraud.
- 3) Enhancing transparency and accountability: By making periodic reports for senior organization, internal audit helps make informed choices regarding technical savings and updating financial schemes.

Table (1) The role of internal audit in addressing risk

The role of internal audit in risk management	Type of risk
1-Review protection systems and recommend updating them	data breach
2-Analyze transaction records and detect suspicious activities	Financial fraud
3-Review and update policies and procedures in accordance with legislation	Non-compliance
4-Evaluate emergency plans and test systems readiness	Systems failure

2- The impact of financial technology risks on the quality of banking services

Fintech risks can negatively impact the quality of banking services by threatening cybersecurity, reducing trust, and complicating customer experience if not managed effectively. The most protuberant fintech risks that influence the excellence of banking services are:

A- Weak cybersecurity: The use of progressive technologies such as blockchain or artificial intellect may open the way for hacks and electric fraud if there is insufficient defense, which looms customers' privacy and affects their sureness in banking facilities.

B - The complexity of digital systems: Some customers, especially the elderly or those who are not digitally experienced, may face difficulty in using modern banking applications, which leads to decreased customer satisfaction and a decline in the quality of service.

C - Excessive reliance on intelligent systems. Complete dependence on automated systems may lead to the nonappearance of a human element in dealing with special or spare situations, which weakens the instant reply to customer glitches.

D - Incompatibility with local infrastructure In some developing countries, the technical infrastructure may not be ready to accommodate financial technology, which leads to repeated malfunctions or slow service .

)Harfoush, 2019 (Forth- Method and procedures.” - Analyzing the results of the study and testing the hypothesis

1-: Description of the respondents

This section presents the results of statistical analysis of study data, by detailing the characteristics of the study sample by extracting frequencies, percentages, and standard deviations, analyzing study data, and presenting a test of research hypotheses. So, this section is divided into:

1. Study sample characteristics: Frequencies and percentages were extracted to describe the characteristics of the study sample. The results are summarized as follows:

The demographic characteristics of the study sample, including gender, age, educational level, and years of experience, are reflected in the calculation of frequencies and percentages in Table 2, as follows:

Table (2) Study Sample Characteristics

Sex	F	%
Male	51	68.0
Female	24	32.0
Total	75	100
Old	F	%
30 – 40	27	36.0
41 – 50	30	40.0
51 and above	18	24.0
Total	75	100
academic qualification	F	%
Ph.D.	3	4.0
Master's degree	15	20.0
Bachelor's degree	57	76.0
Total	75	100
number of years of experience	F	%
less than a year	5	7.0
1-2	12	16.0
2-5	18	24.0
5-10	24	32.0
10-20	16	21.0
Total	75	100

Table (2) shows the following results:

1- Gender variable: Males established the majority of the sample (68.0%), while females established 32.0%. The investigators attribute the low fraction of females in the sample to their poor reply to the survey tool.

2- Age variable: The survey results showed that the main age group in the sample (40.0%) was the age group (41-50). We note that the largest fraction of the sample is middle-aged. This is owing to banks' focus on human resources, paying them, and secondary them with qualified and knowledgeable cadres. This category is also branded by extensive knowledge and high competence.

3- Educational level variable: With regard to educational level, the results of the table indicate that the majority of the sample (76.0%) hold a bachelor's degree. This indicates that most members of the study population have a university degree and are able to achieve a high level of productivity due to the nature of their work, given their experience.

4- Years of experience variable: (32.0%) of the sample have more than (5-10) years of practical experience, while (7.0%) have less than (2) years of practical experience, which is the least common category. Researchers believe that the higher level of experience of auditors and accountants in banks is essential for audit quality and that they are better able to work flexibly and creatively.

Second "- descriptive analysis

Table 2. Statistical description of the

The researchers used a five-point Likert scale to answer questionnaire questions, based on the following values (agree - strongly agree - neutral - disagree - strongly disagree). The arithmetic averages and standard deviations of the study axes were determined as follows:

Table (3): Summary statistics of study participants' responses regarding (Internal audit has an effective role in reducing the risks of poor compliance and technical operating errors associated with the use of financial technology within banking institutions).

standard deviation	Average	Paragraphs	sequence
1.261	3.85	Internal auditing enables banks to detect risks before they occur, limiting potential losses, enhancing financial stability, and contributing to uncovering security vulnerabilities in digital systems.	1
1.135	3.74	There is effective cooperation between internal audit and the IT department to reduce risks and detect poor compliance with regulations and laws.	2
1.123	3.81	Internal audit reduces the risk of electronic fraud by establishing joint committees to exchange information about technical threats.	3
1.247	3.71	Banks are enabled to adopt new fintech solutions without exposing them to unaccounted risks.	4
1.198	3.93	There is a high-quality internal audit system that contributes to reducing IT risks such as security breaches, technical malfunctions, and electronic fraud.	5
1.284	4.34	Internal audit contributes to reducing operational and financial risks by updating internal audit tools and methods to keep pace with technological developments.	6
1.170	3.45	Data analysis and machine learning software is used to detect abnormal patterns in banking transactions through the operation of technical risk frameworks.	7
1.353	3.66	Internal auditors are trained in modern technologies and develop their skills in the fields of cybersecurity, data analysis, and artificial intelligence systems, and are involved in periodic workshops on the latest digital threats and protection methods.	8

We note from Table No. (3) that paragraph No. (6) came in first place with an arithmetic average of (4.34)

Standard deviation (1.284), (Internal audit contributes to reducing operational and financial risks by updating internal audit tools and methods to keep pace with technological developments.), and in second place came paragraph No. (5) with an arithmetic mean (3.93) and a standard deviation (1.198), (There is a high-quality internal audit system that contributes to reducing information technology risks such as security breaches, technical malfunctions, and electronic fraud), In third place came paragraph No. (1) with an arithmetic mean (3.73) and a standard deviation (1.151) (Internal audit enables banks to detect risks before they occur, which limits potential losses, enhances financial stability, and contributes to uncovering security vulnerabilities in digital systems), while in fourth place came paragraph No. (3) with an arithmetic mean (3.64) and a standard deviation (1.384)(Internal audit reduces the risks of electronic fraud by establishing joint committees to exchange information about technical threats), and in fifth place came paragraph No. (2) with an arithmetic mean (3.57) and a standard deviation (1.119), (There is effective cooperation between internal audit and the Information Technology Department to reduce risks and detect weak compliance with regulations and laws), In sixth place came paragraph No. (4) with an arithmetic mean of (3.71) and a standard deviation of (1.247), (banks are enabled to adopt new financial technology solutions without exposing them to unaccounted risks), and in seventh place came paragraph No. (8) with an arithmetic mean of (3.66) and a standard deviation of (1.353), (internal auditors are trained in modern technologies and develop their skills in the fields of cybersecurity, Data analysis, artificial intelligence

systems and their participation in periodic workshops on the latest digital threats and protection methods), and in eighth place came paragraph No. (7) with an arithmetic mean (3.45) and a standard deviation (1.170), (data analysis and machine learning programs are used to detect abnormal patterns in banking transactions through the work of technical risk frameworks).

Table (4) Summary statistics of the responses of the study sample members on (The efficiency of internal audit positively affects the quality of banking services provided to customers) Table 2. Statistical description of the

standard deviation	average	Paragraphs	sequence
1.235	3.76	Internal audit contributes to reducing operational errors, which improves the quality of banking service.	9
1.141	3.55	Internal audit contributes to improving training and qualification, which is reflected in the quality of service provided.	10
1.290	3.46	Customers and employees are trained to use digital tools effectively, which enhances customer confidence in the bank.	11
1.185	3.91	Internal audit provides accurate analytical reports that help management make corrective decisions to improve the quality of services.	12
1.322	4.62	Internal audit supports safe innovation in banking.	13
1.238	3.69	There is interaction and integration between internal audit and customer service departments.	14
1.120	3.85	Internal audit helps ensure compliance with policies that enhance the customer experience, which positively impacts the quality of banking service.	15
1.109	3.37	The bank follows a policy of integrating internal audit into the digital transformation strategy to be an essential part of the design and implementation of new banking systems, which reflects positively on the quality of digital services provided to customers.	16

We note from Table No. (4) that paragraph No. (13) came in first place with an arithmetic average of (4.62)

Standard deviation (1.322), (Internal audit supports safe innovation in banking services), and in second place came paragraph No. (12) with an arithmetic mean (3.91) and a standard deviation (1.185), (Internal audit provides accurate analytical reports that help management make corrective decisions to improve the quality of services) In third place came paragraph No. (15) with an arithmetic mean (3.85) and a standard deviation (1.120), (Internal audit helps ensure compliance with policies that enhance the customer experience, which positively reflects on the quality of banking service). In fourth place came paragraph No. (9) with an arithmetic mean (3.76) and a standard deviation (1.235). (Internal audit contributes to reducing operational errors, which improves the quality of banking service.) In fifth place came paragraph No. (14) with an arithmetic mean (3.69) and a standard deviation (1.238), (There is interaction and integration between internal audit and customer service departments) and in sixth place came paragraph No. (10) with an arithmetic mean (3.55) and a standard deviation (1.141), (Internal audit contributes to improving training and qualification, Which is reflected in the quality of the service provided) and in seventh place came paragraph No. (11) with an arithmetic mean (3.46) and a standard deviation (1.290), (customers and employees are trained to use digital tools effectively, which enhances customers' confidence in the bank) and in eighth place came paragraph No. (16) with an arithmetic mean (3.37) and a standard deviation (1.109), (The bank follows a policy of integrating internal audit into its digital transformation strategy to be an essential part of the design and implementation of new banking systems, which positively impacts the quality of digital services provided to customers).

Table (5) shows the relationship between the role of internal audit in reducing financial technology risks and the quality of banking services.

correlation) (r^2)	correlation coefficient) (r)	reference	value) (F)	reference	value) (T)	value (Beta)	Dimensions of the variable
0.167	0,375	0,000	8.812	005.	2.150	242.	The impact of internal audit in reducing the risks of poor compliance and technical operating errors
				358.	2.825	083.	Quality of banking services provided to customers

Table No. (5) shows the relationship between the role of internal audit in reducing financial technology risks and the quality of banking services in banking institutions. This is confirmed by the value of (Beta) for the role of internal audit (242., 083.), and as confirmed by the value of (T) ((2.150, 2.825, where the calculated value of Fisher's statistic reached (8.812), which is a value greater than the scheduled value, and the morale ratio (sig=0.00) (That is, the relationship is directly positive between the role of internal audit in reducing financial technology risks and the quality of banking services), while the explanatory power of the model reached (the coefficient of determination .167 = R^2), which means that 16.7%) of the changes in the quality of banking services are explained by changes in the role of internal audit in reducing financial technology risks It confirms the significance of this effect resulting from the correlation between them (correlation coefficient .375), which indicates the strength of the relationship between the two variables. Based on this, we prove the hypothesis that:

1- Internal audit has the effect of reducing the risks of poor compliance and technical operating errors associated with the use of financial technology within banking institutions.

Table No. (6) shows the results of a simple linear regression model to correlate the impact of internal audit in reducing the risks of poor compliance and technical operating errors associated with the use of financial technology within banking institutions and improving banking service..

correlation) (r^2)	correlation coefficient) (r)	reference	value) (F)	reference	value) (T)	value (Beta)	Dimensions of the variable
.154	.335	.000	25.514	.000	4.851	.335	Risks of poor compliance and technical operating errors

The results of the simple linear regression model presented in Table (6) indicated a significant effect of (internal audit) on (reducing compliance impairment risks and technical operating errors) as the correlation coefficient was low ($R = 0.335$), moreover, it showed a low level of variance ($R^2 = 1.5\%$), and the beta coefficient was (0.335) which indicates that with every increase of 1%) it increases by 33.5%. The combined results allow the hypothesis to be supported.

2-There is a positive impact between the efficiency of internal audit and the quality of banking services provided to customers.

Table No. (7) shows the results of a simple linear regression model to correlate the positive impact of internal audit efficiency on the quality of banking services provided to customers.

correlation) (r^2)	correlation coefficient) (r)	reference	value) (F)	reference	value) (T)	value (Beta)	Dimensions of the variable
.056	.227	.002	10.256	.002	3.301	.227	Quality of banking services provided to customers

The results of the simple linear regression model presented in Table (7) indicated a significant impact of (internal audit efficiency) on (quality of banking services provided to customers) as the correlation coefficient was low ($R = 0.227$) and, moreover, showed a low level of variance ($\% R^2 = 5.6$), and the beta coefficient reached (0.227), which indicates that with every increase of (1%) it increases by (22.7%). The combined results allow the hypothesis to be supported.

conclusions-

The researchers reached a number of results, the most important of which are:

- 1-The results showed that there is a high-quality internal audit system that contributes to reducing information technology risks such as security breaches, technical malfunctions, and electronic fraud.
- 2-The results showed that internal audit contributes to reducing operational and financial risks by updating internal audit tools and methods to keep pace with technological developments.
- 3-Internal audit enables banks to detect risks before they occur, which limits potential losses, enhances financial stability, and contributes to uncovering security vulnerabilities in digital systems.
- 4-Internal audit reduces the risks of electronic fraud by establishing joint committees to exchange information about technical threats.
- 5-Internal audit helps ensure compliance with policies that enhance the customer experience, which positively reflects on the quality of banking service.
- 6-Data analysis and machine learning programs are not used to detect abnormal patterns in banking transactions through the work of technical risk frameworks.
- 7-Employees are not involved in periodic workshops on the latest digital threats and protection methods.
- 8-The bank does not follow a policy of integrating internal audit into the digital transformation strategy to be an essential part of the design and implementation of new banking systems, which reflects positively on the quality of digital services provided to customers.

Recommendations-

Based on the results, the researchers reached some recommendations, including:

- 1-The necessity of using data analysis and machine learning programs to detect abnormal patterns in banking transactions through the work of technical risk frameworks.
- 2-Employees must be involved in periodic workshops on the latest digital threats and protection methods, and trained with customers to use digital tools effectively.
- 3-The bank should follow a policy of integrating internal audit into the digital transformation strategy to be an essential part of the design and implementation of new banking systems, which will positively reflect on the quality of digital services provided to customers.



- 4-The necessity of providing parallel human support for smart systems, especially in complex or emergency situations.
- 5-A safe and transparent banking environment must be provided by reducing cases of financial fraud and improving the experience Customers.
- 6-Banks should be enabled to adopt new financial technology solutions without exposing them to other risks Calculated.
- 7- Risk management and compliance systems (GRC Platforms) must be relied upon MetricStream for integrated governance, risk and compliance management.
- 8-The necessity of having cybersecurity tools (Cybersecurity Audit Tools Splunk Enterprise Security is a SIEM system for collecting and analyzing system logs and detecting attacks.

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