

The role of financial technology in investment decision-making an analytical study for some private banks in the Middle Euphrates

Latif Abdulridha Atiyah

Hind Dheyaa Abdulrasool

Zainab AbdulHussein Abdulredha 1

University of Al-Qadisiyah

Corresponding Author : Zainab AbdulHussein Abdulredha 1

Abstract : This research aims to explore the role of financial technology in the investment decision-making process among a sample of administrative leaders in private banks in the Middle Euphrates region. The research focuses on the elements of security, digital payment systems, social impact, innovation, and perceived benefit. Hence, the study problem revolved around an important question: Is there a role for financial technology in the investment decision-making process? Accordingly, the research relied on the descriptive analytical approach to measure these variables using a questionnaire to collect data, as 400 questionnaires were distributed to administrative leaders. the results revealed a statistically significant correlation between financial technology and investment decisions. This means that the development of financial technology in private banks plays a crucial role in enhancing the ability of administrative leaders to make effective investment decisions. It also showed that private banks' support for financial technology has a significant positive impact on the investment decisions made by these leaders.

Keywords: Financial technology, investment decision-making, local banks.

Introduction: In recent years, investment decision-making has witnessed significant transformation through the integration of financial technology and advanced dynamics. With the continued reshaping of traditional financial practices by fintech, and the increasing impact of investment decision-making on organizational success (Bawono, 2021), there is a growing need for a comprehensive understanding of the synergistic effect of these factors on investment decision-making. Consequently, financial technology has revolutionized the way various aspects of finance, including investment decisions, are handled. The emergence of advanced technologies (Jaber & Yasir, 2022:2), such as artificial intelligence, big data analytics, and blockchain, has greatly transformed the financial industry (Yousef & Ojah, 2022:68). A critical aspect of this transformation lies in the interaction between financial technology and investment decision-making, particularly within the context of investment decisions (Shukur & Kanona, 2022:218; Ali, 2022:30).

The advent of financial technology has also led to the development of many investment platforms, automated advisors, and algorithmic trading systems that provide automated and data-driven investment recommendations (Wexler & Oberlander, 2021:352), and these technologies take advantage of vast amounts of data, use complex algorithms, and use machine learning techniques to analyze market trends, assess risk, and create investment strategies. As a result, they provide investors with a more efficient and cost-effective approach to managing their portfolios, in other words, investors today face many challenges and complexities when making important investment decisions. Financial markets are volatile and complex, requiring accurate analysis and comprehensive information before making the right investment decisions, as financial technology can contribute to improving investment decision-making by providing innovative tools and technologies (Ismayilov & Kozarević, 2023:94).

RESEARCH METHODOLOGY

First: The idea and problem of the study

Understanding the interaction between financial technology in investment decision-making is of utmost importance in today's rapidly evolving financial landscape. This requires studying the strengths and limitations of both technology and human expertise, identifying areas where they complement each other, and exploring strategies to enhance their collaboration (Sumiati et al, 2022:111). By doing so, organizations can harness the potential of financial technology while ensuring that human intelligence remains an integral part of the investment process (Yousef & Ojah, 2022:67). Thus, integrating financial technology and investment decision-making is key to improvement in this field. Financial technology can enhance decision-making capabilities by providing advanced analytical tools and innovative recommendations. Additionally, effective utilization of financial technology can facilitate decision-making processes and increase investment efficiency (Ahmed & Noreen, 2021:1). Therefore, the problem can be framed by asking the following question:

(What is the role of financial technology in improving investment decision-making?) The following sub-questions emerge from it:

1. Does the studied sample have the necessary capabilities to apply financial technology?.
2. What mechanisms and components does the studied sample possess to support its investment decision-making?.
3. Is there a role for financial technology in improving investment decision-making?.

The topic of financial technology in investment decision-making is of great importance, especially in emerging markets like Iraq, where the country has immense economic potential, abundant natural resources, and a young population. However, it faces challenges such as political instability and limited financial infrastructure. Therefore, understanding the role of financial technology in improving investment decision-making is essential for enhancing strategic thinking, academic knowledge, and technological innovation. Additionally, this topic contributes to enhancing strategic thinking for investors and financial analysts by encouraging innovative and technical approaches in financial data analysis, thereby enhancing the ability to think creatively and find effective solutions to complex financial issues. The research on the role of financial technology enriches academic knowledge in the field of finance and investment. It expands the theoretical framework for researchers, directing technological and institutional development in the investment industry. Additionally, it promotes innovation in financial technology techniques, as continuous improvement in investment decision-making requires the use of the latest financial tools and technologies, leading to innovative and effective solutions.

The literature related to financial technology and investment decision-making in a broader context is often lacking in research specifically focused on the unique challenges in the Iraqi financial scene. Studies typically offer general insights, overlooking the unique social, economic, political, and cultural factors of Iraq. As a result, there is a gap in understanding how financial technology interacts with investment decision-making in Iraq. Most studies come from well-established financial infrastructures, highlighting the need to explore the integration of financial technology in emerging economies, especially in the Middle East and Iraq. This research aims to fill this gap by examining the synergy between financial technology and investment decision-making in Iraq, and providing insights for investment strategies and policies that align with the challenges of the Iraqi financial environment.

Second: The importance of the study

The topic of fintech in investment decision-making is of great importance because of its wide-ranging implications for the global financial landscape, specifically, for emerging markets such as Iraq. Understanding and harnessing the potential of fintech whilst leveraging human expertise is critical for several reasons – in the specific context of Iraq, the impact of fintech on investment decision-making is particularly important. Iraq is an emerging market with enormous economic potential, abundant natural resources and a young population. However, it faces challenges such as political instability, limited financial infrastructure, and ecosystem, so studying and understanding the role of fintech in improving investment decision-making is of great intellectual importance in promoting strategic thinking, developing academic knowledge, and promoting innovation and technology. The importance of the study can be determined as follows:

1. This topic contributes to enhancing the strategic thinking of investors and financial analysts. Studying the role of financial technology encourages the adoption of an innovative and technical approach in analyzing financial statements and the use of technological tools to achieve the best results. This philosophy of thought enhances an individual's ability to think creatively and seek new and effective solutions to complex financial issues.
2. This subject is engaged in the development of academic knowledge in the field of finance and investment. Through in-depth research and studies on the role of financial technology in investment decision-making, scientific knowledge is enriched and the framework of consideration for researchers and those interested in this field is expanded. The practical application of concepts and theories also contributes to guiding the technological and institutional development in the investment industry.
3. This theme drives the promotion of innovation and fintech technologies. Continuous improvement of investment decision-making requires the use of the latest technologies and financial tools. Studying the role of fintech in investment decision-making in this context promotes creative thinking and the continuous evolution of fintech, leading to the delivery of more effective solutions and the development of innovative financial instruments.

Third: The objectives of the study

The literature on fintech investment decision-making in the broader context of investment decision-making is growing steadily, but there is a noticeable dearth of research focused on the nuances and specific challenges found in the Iraqi financial landscape. Current studies often provide general insights, ignoring the unique social, economic, political, and cultural factors that characterise Iraq. As a result, there is a critical gap in understanding how fintech interacts and contributes to enhancing investment decision-making within the distinctive circumstances of Iraq. Moreover, most studies that examine the impact of fintech on investment decision-making tend to arise from contexts with well-

established financial infrastructures The dearth of literature on fintech integration in emerging economies, particularly in the Middle East, and more specifically in Iraq, underscores the need for dedicated exploration of challenges and opportunities in this region The potential role of investment decision-making in adapting and maximising the benefits of fintech in Iraq's investment landscape remains unexplored

Therefore, this research aims to bridge the current gap by conducting a detailed examination of synergies between fintech and investment decision-making in the specific context of Iraq Through this focus, the study seeks to contribute tailor-made insights that can enrich and guide investment strategies, policy formulation and decision-making processes in a manner aligned with the unique characteristics and challenges of Iraq's evolving financial environment

Fourth: The hypothetical plan of study

The theoretical framework provides a comprehensive framework for the research idea, clarifying the nature and type of relationships between its variables, as well as the directions of these variables and the measures of the research problem that assess the role of financial technology in improving investment decision-making As shown in Figure (1), the research variables can be identified as follows:

The independent variable: Financial technology, represented in five dimensions (security, digital payment systems, social impact, innovation, and perceived benefit)

The dependent variable: Investment decision-making

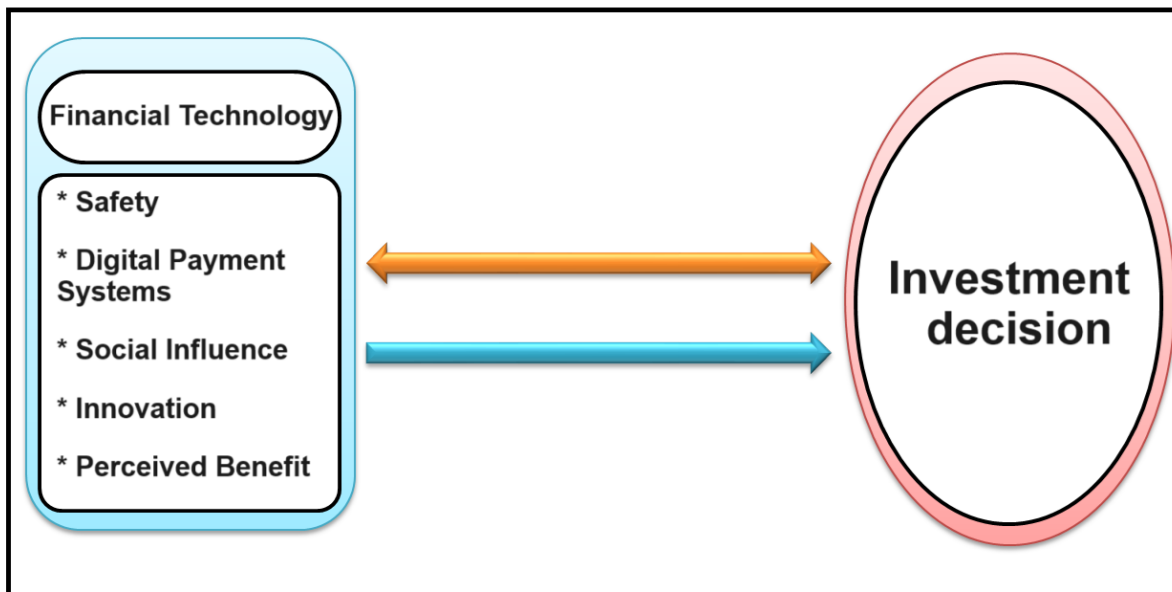


Figure (1) The hypothetical outline of the study

Fifth: Study hypotheses

The first main hypothesis: There exists a statistically significant relationship between financial technology and investment decision-making, from which the following branches emerge:

1. There is a statistically significant correlation between the dimension of investment decision-making safety and its dimensions (knowledge, experience, and skills).
2. There is a statistically significant correlation between the dimension of digital payment systems and investment decision-making with its dimensions (knowledge, experience, and skills).
3. There is a statistically significant correlation between the dimension of social influence on investment decision-making and its dimensions (knowledge, experience, and skills).
4. There is a statistically significant correlation between the dimension of innovation and investment decision-making with its dimensions (knowledge, experience, and skills).
5. There is a statistically significant correlation between the dimension of perceived interest in investment decision-making and its dimensions (knowledge, experience, and skills).

The second main hypothesis: The existence of a significant relationship of influence of financial technology on investment decision-making, and it branches from it:

1. There is a statistically significant effect of the safety dimension in investment decision-making.
2. There is a statistically significant effect of the digital payment systems dimension on investment decision-making.

3. There is a statistically significant effect of the social influence dimension on investment decision-making.
4. There is a statistically significant effect of the innovation dimension in investment decision-making.
5. There is a statistically significant effect of the dimension of perceived interest in investment decision-making.

Sixth: Study Sample

The research community was represented in the private banks in the governorates of the Middle Euphrates, while the research sample included a group of administrative leaders in these banks, y was distributed (400) questionnaire to the administrative leaders and retrieved from them (369) by (31) non-recovered, and (25) damaged, and the rest of the questionnaires valid for analysis by (344) questionnaire equivalent to (0.86) as a response percentage to the sample surveyed.

Seventh: Limits of the study

The limits of the study were as follows:

- 1 Spatial boundaries: Spatial boundaries included private banks in the governorates of the Middle Euphrates by five governorates (Diwaniyah, Muthanna, Babylon, Najaf, and Holy Karbala)
- 2 Time limits: The study extended from September 2023 to July 2024
- 3 Human limits: Human limits included the administrative leaders of some private banks in the governorates of the Middle Euphrates
- 4 Cognitive limits: Cognitive boundaries were represented in a set of research related to the variables of the study (financial technology and investment decision-making)

THE THEORETICAL ASPECT OF RESEARCH

First: Financial technology

1. The concept of financial technology

Financial technology (FinTech) emerged as a result of the internet revolution and the development of smartphones, leading to a pressing need for innovative means to facilitate financial transactions (Zhao et al, 2019:1420) FinTech has now become widely prevalent across various sectors, used in dealings between companies and their clients, as well as among business professionals, in addition to banks and other financial institutions, We have observed a significant increase in the adoption of FinTech in recent years (Liu et al, 2020:277).

The world is currently witnessing a wave of transition from cash-based economies to non-cash economies, attributed to advanced financial technology The continuous evolution of the world must necessarily impact the banking and payment sectors Financial technology has changed traditional banking models and introduced new methods for non-cash transactions and payments This transformation will significantly affect the banking sector and conventional payment and cash transfer methods Therefore, financial institutions must keep up with this technological advancement and adopt innovative solutions in their services (Srouji, 2020:261) Financial technology utilizes technology and technical innovations in the field of financial services (Palmié et al, 2020:2) Its aim is to enhance and facilitate financial operations, transforming traditional methods into more efficient and flexible approaches using modern technology (Abad-Segura et al, 2020:951).

Financial technology includes a wide range of applications and tools that help improve financial processes This includes smart banking applications, electronic payments, advanced financial analytics, e-commerce, crowdfunding, digital currencies (cryptocurrencies), and other innovative financial technologies (Guo & Polak, 2021:170).

Financial technology contributes to improving customer experience and saving time and effort It enables customers to easily access their bank accounts and manage their financial transactions through smart banking applications and online banking services (Hoyer et al, 2020:58) It also provides electronic payment methods and secure and fast transfers, allowing individuals and companies to make payments easily and flexibly (Alam et al, 2021:1143).

In addition, advanced financial analyses and visual technology helps in comprehensively understanding and analyzing financial data, contributing to smarter and more accurate financial decision-making (Cheng et al, 2021:596) Financial technology also contributes to the development of new methods for financing and investment, such as crowdfunding and digital currencies, and enhances innovation and transparency in the financial services sector (Suryono et al, 2020:591).

2. The Importance of Financial Technology

Financial technology is of great importance in the financial services sector and its development It provides interactive and flexible financial technology means for customers to access financial services, manage their accounts, and conduct transactions easily and quickly Therefore, the importance of financial technology can be summarized as follows:

- Financial technology companies provide products and services based on collecting and storing customer data.
- Facilitating and making alternative financing sources available to small and medium enterprises
- Using and investing in opportunities in a way that enables the organization to compete in financial services (Firdaus & Aryanti, 2019:1).

- Providing new financial services or improving the provision of existing financial services so that the number of obstacles between requesting a financial service and receiving a financial service is reduced (Ozili, 2018:330).
- Application and use of modern innovations and channels from the financial sector (Manan, 2019:74).
- Improving multiple financial activities, such as using smartphones in banking services, or what is known as cellular banking.
- Making changes in the organization's style and structure in a way that contributes to improving financial services facilities (Mufidah et al., 2023:64).

3. Dimensions of Financial Technology

Financial technology can be measured through five dimensions:

- **Security:** Security is the knowledge, care, and skills demonstrated by leadership and administrative individuals, which inspire credibility and trust (Haji, 2017:56) According to (Dehghan et al, 2012:3), the knowledge of leadership and administrative individuals lies in their ability to instill trust in customers, thereby making the customer feel confident and secure It also refers to the availability of safety and security devices and related procedures to safeguard customer assets (Al-Neyadi et al, 2018:98).
- **Digital payment systems:** Representing the most active and flexible banking services, digital payment services are provided to users and customers by financial technology These services offer them a variety of different payment methods, using smartphones, external financial transfers, and managing payment flows for e-commerce and more (Pazarbasioglu et al, 2020:2).
- **Social influence:** It is an important factor in determining individuals' behavior towards using new technology. When a technology acceptance model is presented to a group of potential users, they will tend to use the technology aggressively due to social pressure and cultural influence. However, individuals' ability to understand and assimilate new technology varies based on factors such as age and gender. Younger people and females may find themselves better able to deal with new technologies than older people and males. These differences in the ability to absorb technology may affect the extent of its diffusion and adoption by different users (Byun et al., 2018:58).
- **Innovation:** With the rapid advancement of technology, it has been widely applied in the field of finance In this technologically advanced era (Machkour & Abriane, 2020:496), individuals are required to innovate and utilize technology in the field of finance One of the technological developments in finance is the emergence of information technology-based lending and borrowing service providers (Romdhane, 2021:61).
- Financial technology provides many solutions for improving company management We have found that some of these solutions are specific to banks, such as blockchain technology, which relies on financial technology to develop solutions for recording transactions, processing information, managing risks, and handling taxes, among other things (Scott et al, 2017:435).

Second: Investment decision making

1. The concept of investment decision-making

The modern financial management has received significant attention as an approach for decision-making, especially in contemporary financial thinking It aims to determine the foundation of financial decisions, including the strategic direction of management, particularly financial management within the organization Investment decisions, financing decisions, and profit distribution decisions have become part of the strategic work, through which financial management seeks to achieve its main goal: maximizing the organization's wealth (Battilana et al, 2022:237) Decision-making techniques rely on mathematical, statistical, and measurement methods developed by economic and institutional theory for use in organizational decision-making, contingent upon a methodology and decision-making steps adopted by the organization (Fonseca, 2012:91).

It is defined as the selection of the best possible alternative after studying the expected outcomes of each alternative in line with the desired objectives Legal administrative scholars also define it as a means used by the administration to enable it to perform its functions, such as carrying out delegated activities (Hirshleifer, 2015:15) An administrative decision is the choice among several possible alternatives to achieve one or more goals, accompanied by specifying the implementation procedures (Brigham, 2018:2) Decision is defined as selecting the best alternative from a set of competing alternatives, and the decision is an action taken to bring about change to achieve added value, whether material or moral, attributed to the individual themselves (Okello Candiya, 2017:521).

The decision-making process indicates that there is a series of steps or sequential elements that can lead to a specific outcome or a certain goal The decision-making process is essentially a series of steps that, if followed, appear to facilitate decision-making, despite the existence of preliminary methods for decision-making (Jappelli, 2013:2779).

Financial decisions are those related to the financial aspect of the organization, such as choosing between reinvesting surplus liquidity and distributing profits, and choosing between self-financing and external financing (Sierra, 2020:251) The financial decision aims to maximize the value of the institution, whether it concerns investment, financing, or profit distribution In the success of the institution and its ability to continue in the market, the results of

financial decisions take relatively long to be recognized, which may make it difficult to rectify or address any issues, highlighting the need for special analytical skills and capabilities to make this type of decision (Marantika et al, 2020:1558).

2. The Importance of Investment Decision-Making

Investment decisions are important strategic decisions made by financial management. It is known that making mistakes in these decisions can result in significant costs for the organization, potentially leading to bankruptcy and liquidation. Long-term investment decisions are typically accepted when the expected return exceeds the cost of financing these investments, highlighting the importance of considering capital costs (Ramakrishnan et al, 2022:859). As for investment decision-making, it relates to obtaining short-term financing sources with a maturity not exceeding one year. The main sources of short-term funds include trade credit, which represents the deferred purchases obtained from suppliers by the institution (Demirgüç-Kunt, 2015:2). Short-term bank credit, on the other hand, consists of funds obtained from the banking system, which the institution is obligated to repay along with any accrued interest within less than a year (Albulescu, 2021:15).

Financial investment decisions represent one of the most important areas in financial research. These financial decisions have an impact on the financial performance of the organization. It is assumed that capital budgeting, capital structure, and dividend policy are three important financial decisions. Capital budgeting deals with long-term investment, capital structure determines the financing mix of the organization, while dividend policy determines the number of profits to be distributed to shareholders (Hunjra et al, 2018:92).

Contributors have high hopes for the financial decision-making process in order to increase their profitability and, consequently, enhance the wealth and maximize the value of the institution. The decision is a conscious choice among various available alternatives for the decision-maker, based on the lowest level of risk and the highest return (Park, 2021:438). Similarly, investment decisions that align with the budget play a crucial role in achieving balance (Rogge, 2021:242), and are built on elements and principles that make them a fundamental cornerstone. Financial analysis and financing plans provide important tools for making financial decisions. However, it is not just about calculating these values, but rather conducting a thorough analysis of each ratio or indicator. Therefore, efficient and experienced financial management in this field is essential. Analysis and decision-making (Isoso & Okee, 2022:253).

THE PRACTICAL SIDE OF RESEARCH

First: Coding The Research Variables

For the purpose of facilitating the statistical analysis, the variables included in the research were compensated with a set of symbols and abbreviations as indicated in Table (1).

Table (1) Coding of the axes of the measuring instrument

variables	Sub-dimensions	Number of paragraphs	code	Accredited Sources
Financial Technology	Safety	5	<i>FTSA₁- FTSA₅</i>	FITE Rahadjeng & Fiandari ,2022
	Digital payment systems	5	<i>FTDP₁- FTDP₅</i>	
	Social influence	5	<i>FTSI₁- FTSI₅</i>	
	Innovation	4	<i>FTIN₁- FTIN₄</i>	
	Perceived benefit	4	<i>FTPB₁- FTPB₄</i>	
Investment decision	20		<i>INDE₁- INDE₂₀</i>	Sharma et al.,2017

Second: Normal distribution analysis

2. Moderation test for the financial technology variable

The results of the normal distribution test in Table (2) indicate that the data extracted from the research sample regarding the financial technology variable follows a normal distribution. This means that the findings of the research can be generalized to the studied population. Therefore, it can be stated that the null hypothesis, which assumes the data extracted from the studied sample follows a normal distribution at a significance level greater than (0.05) and rejecting the alternative hypothesis that imposes that the data drawn from the studied sample does not follow a normal distribution at a significance level greater than (0.05)."

Table (2) Normal distribution of the financial technology variable

The dimension	Kol-Smi	Sig.	DF
Safety	0.197	0.200**	344
Digital payment systems	0.140		

Social influence	0.152		
Innovation	0.184		
Perceived benefit	0.188		
Financial technology	0.164		

3. Moderation test for the investment decision-making variable

The results of the normal distribution test in Table (3) indicate that the data extracted from the research sample regarding the investment decision-making variable follows a normal distribution. This means that the findings of the research can be generalized to the studied population. Therefore, it can be stated that the null hypothesis, which assumes the data extracted from the studied sample follows a normal distribution at a significance level greater than (0.05), is accepted, while the alternative hypothesis, which assumes the data extracted from the studied sample does not follow a normal distribution at a significance level greater than (0.05).

Table (3) Normal distribution of the investment decision-making variable

The variables	Kol-Smi	Sig.	DF
Investment decision	0.154	**0.200	344

Third: Testing the stability of the measurement tool

a. The results show that the paragraphs of the measuring tool are characterized by stability and high credibility as they obtained a strong correlation coefficient between their two parts of (0.898) and an individual relative fragmentation equal to (0.971) and even fragmentation of (0.939) to settle at the Spearman-Brown correlation coefficient of (0.47), for his part, the Cotman fractionation coefficient supports the half fragmentation with a force of harmony (0.947), and this shows the consistency and harmony of the paragraphs of the measuring tool.

b. The results show that the financial technology variable represented in five dimensions and by (23) paragraphs, that the paragraphs of the measurement tool are characterized by relative stability with the Cronbach alpha coefficient reached (0.976), and this shows the interest of the banks surveyed in the dimension of digital payment systems by a stability coefficient of (0.903) and this is due to the harmony and compatibility of the dimension paragraphs with the opinions of the research sample, which is an acceptable value according to the indicators (Nunnally, 1970), and the coefficient of validity of this variable by (0.988) and this shows the existence of internal validity of these dimensions.

c. The results resulted in the existence of relative stability of the paragraphs of the investment decision variable, which is a one-dimensional variable by (20) paragraphs, which means that the paragraphs of the measurement tool are characterized by relative stability with a coefficient of alpha Cronbach amounted to (0.890), and this shows the interest of administrative leaders in improving this variable. The coefficient of validity of this variable was (0.943), and this shows the existence of internal validity of this variable.

Table 4: Cronbach alpha coefficients for the research variables

variable	The dimension	Paragraphs	Cronbach's alpha coefficient for dimensions	Honesty coefficient
Financial technology	Safety	5	0.879	0.938
	Digital payment systems	5	0.903	0.950
	Social influence	5	0.890	0.943
	Innovation	4	0.879	0.938
	Perceived benefit	4	0.882	0.939
Cronbach's alpha coefficient for the financial technology variable			0.976	0.988
Cronbach's alpha coefficient for the investment decision variable		20	0.890	0.943
Correlation coefficient between the two parts of the questionnaire			0.898	strong
Half split coefficient	31	individual	0.971	Check the stability condition
	30	husband	0.939	Check the stability condition
Spearman-Brown coefficient			0.947	strong
Cotman split-half coefficient			0.947	strong

Fourth: Statistical description

Independent variable: financial technology

The results of Table (5) indicate that the overall average for the financial technology variable was (3.54), with a standard deviation of (1.00), and a relative importance equal to (71%). Perhaps the dimension that enriched this variable was the dimension of security, with an arithmetic average of (3.68), with a trend and a standard deviation. Its value is (1.14), a response towards agreement, indicating agreement (74%) of the leaders studied, and this is what

placed it in first place. This indicates that administrative leaders focus more on the role of technology in facilitating banking services operations for customers, while they have doubts about the extent of the use of technology. Finance in managing customer databases, while the social impact dimension came in last place with an arithmetic mean rate of (3.45) and a high response trend, indicating agreement (69%) of the administrative leaders' answers and a standard deviation of (0.99), which means that the administrative leaders in the banks Nationals in the Middle Euphrates region pay great attention to the financial and planning aspects of the bank, while they do not give the same importance to the promotional and marketing aspects. This may indicate that banks are moving towards focusing on financial stability and sustainability of performance in the long term.

Table (5): Statistical description of the financial technology variable

The dimension	mean	standard deviation	Relative importance	Order of importance
Safety	3.68	1.14	%74	1
Digital payment systems	3.61	1.13	%72	2
Social influence	3.45	0.99	%69	5
Innovation	3.49	1.14	%70	4
Perceived benefit	3.49	0.99	%70	3
General Average	3.54	1.00	%71	

Dependent variable: investment decision making

The results of Table (6) resulted in the agreement ratio for the investment decision variable reached (70%) with an arithmetic mean of (3.49) and a standard deviation equal to (0.93) and a high answer level, and this indicates the interest and agreement of the answers of administrative leaders in the first paragraph, which states that "secure databases used by the bank help to rationalize the investment decisions of its financial assets" obtained the highest ranking, with an arithmetic mean of 3.77 and a standard deviation of 1.08, and a relative importance of 75%. This indicates that administrative leaders in private banks in the Middle Euphrates region consider secure databases to be of great importance in rationalizing investment decisions.

On the other hand, the third paragraph, which states, "The software adopted in the bank facilitates the exchange of information with high quality, which is reflected in the investment decision-making environment," received the lowest ranking, with an arithmetic mean of 3.36, a standard deviation of 1.35, and a relative importance of 67%. This indicates that administrative leaders do not believe that the software adopted in the bank has the same importance in facilitating the exchange of information and improving the environment for making investment decisions.

From the above, it can be said that these results confirm that administrative leaders in private banks in the Middle Euphrates region place secure databases as a higher priority than the software adopted in the bank with regard to rationalizing investment decisions. This indicates that security and protection of financial data is a major concern for management leaders.

Table (6): Statistical description of the investment decision-making variable

NO.	mean	standard deviation	Relative importance	Direction of the answer	Order of importance
INDE1	3.77	1.08	%75	high	1
INDE2	3.79	1.09	%76	high	12
INDE3	3.74	1.11	%75	high	14
INDE4	3.80	0.92	%76	high	15
INDE5	3.84	0.99	%77	high	16
INDE6	3.71	0.96	%74	high	17
INDE7	3.76	1.06	%75	high	18
INDE8	3.37	1.34	%67	mild	19
INDE9	3.36	1.35	%67	mild	20
INDE10	3.32	1.35	%66	mild	2

INDE11	3.33	1.34	%67	mild	3
INDE12	3.33	1.35	%67	mild	4
INDE13	3.27	1.34	%65	mild	5
INDE14	3.43	1.37	%69	high	6
INDE15	3.32	1.35	%66	mild	7
INDE16	3.33	1.34	%67	mild	8
INDE17	3.30	1.35	%67	mild	9
INDE18	3.27	1.34	%65	mild	10
INDE19	3.43	1.37	%69	high	11
INDE20	3.35	1.28	%67	mild	13
Total investment decision variable	3.49	0.93	%70	high	

Fifth: Hypothesis Testing

The first main hypothesis: the existence of a statistically significant correlation between financial technology and investment decision-making.

The results of Table (7) show a strong statistically significant correlation between financial technology and investment decision strongly (0.537), which is a very strong relationship according to the evaluation of (Agunbiade et al., 2013), and the strength of the correlation for the dimensions of financial technology and investment decision ranged between (0.446) between the dimension of social impact and investment decision to (0.601) between the dimension of perceived interest and investment decision, to show that financial technology has a strong impact on the investment decision-making process in banks, and that some dimensions of financial technology More important than others in this regard.

Table (7) Correlation Matrix between Financial Technology and Investment Decision Making

	1	2	3	4	5	6	7
Safety (1)	1						
Digital Payment Systems (2)	**952.	1					
Social Impact (3)	**835.	**890.	1				
Innovation (4)	**774.	**791.	**899.	1			
Perceived benefit (5)	**721.	**753.	**754.	**833.	1		
Fintech (6)	**929.	**950.	**945.	**928.	**873.	1	
Investment decision (7)	**477.	**522.	**446.	**448.	**601.	**537.	1

The second main hypothesis: the existence of a significant influence relationship of financial technology in investment decision-making.

It is noted from the results of Table (8) that the interest of administrative leaders in private banks surveyed in financial technology contributes to enhancing the capabilities of administrative leaders for participation and investment decision-making, which means that the support of private banks for the capabilities of administrative leaders on financial technology by one unit enhances their capabilities in investment decision-making by (0.501) and reduces the error rate by (0.043), which means that the calculated F value of (138.583) is higher than the tabular value. This explains that the critical value of (11.651) is higher than 1.96, and this leads to the assumption of a positive relationship between the impact of financial technology in the investment decision, which means that the interest of private banks in developing their financial technology plays a pivotal role in enhancing the ability of administrative leaders to participate in effective investment decision-making.

It is also clear that financial technology contributes to the interpretation of (0.288) of the variation in the impact on the investment decision of administrative leaders, while the remaining value of (0.712) represents issues outside the scope of the current research.

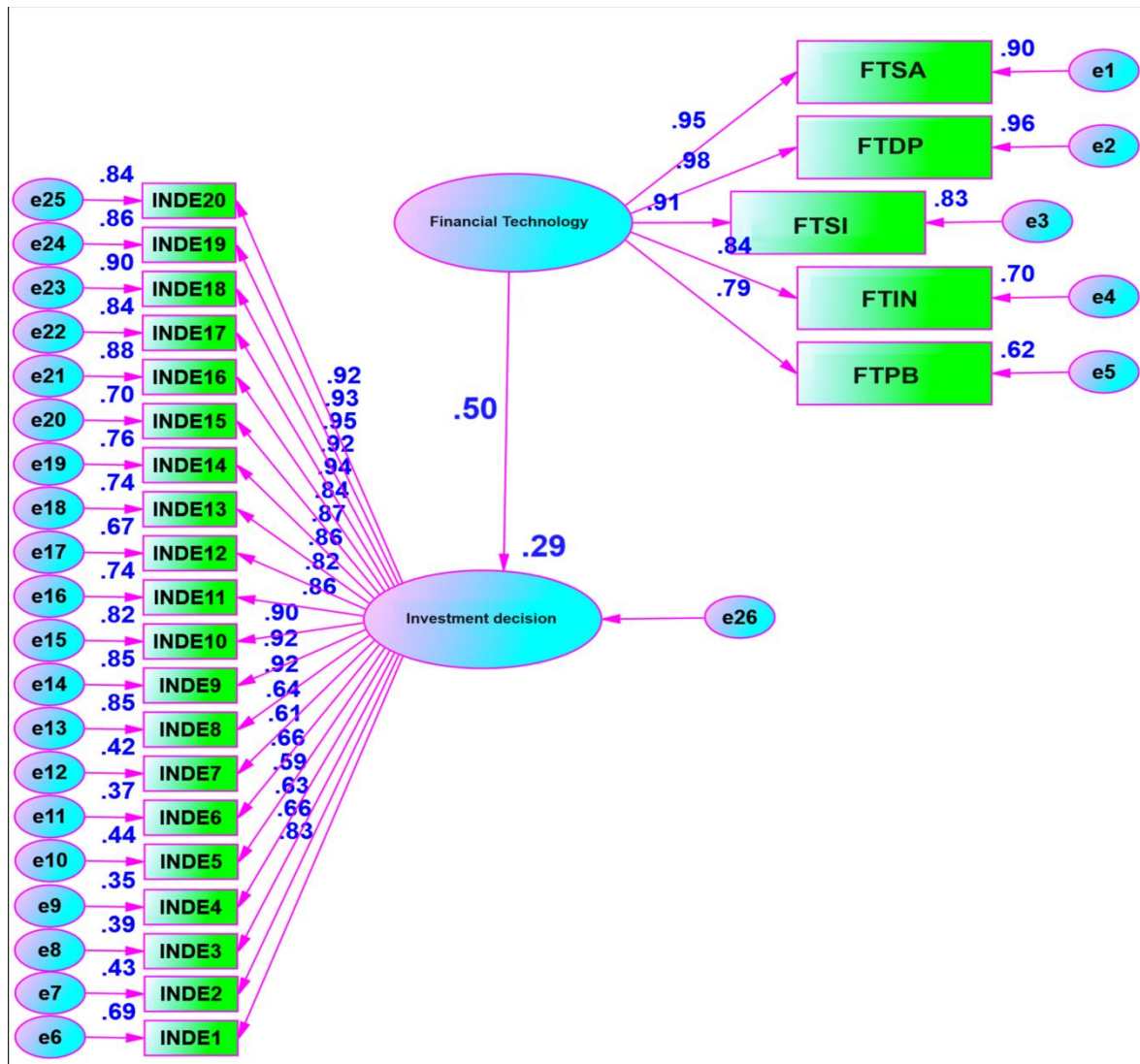


Figure (2) Standard model of the impact of financial technology on investment decisions

Table (8) Outputs Standard Modeling of financial technology in Investment Decision

path			Regression Parameter	Standard Error	F	Critical value	R ²	Sig.	significance level is at 0.05
Financial technology	-	Investment decision	0.501	0.043	138.583	11.651	0.288	0.000	spiritual

CONCLUSIONS AND RECOMMENDATIONS

• Conclusions

The study found that there is a statistically significant correlation between financial technology and investment decision-making. This means that the interest of private banks in developing financial technology plays a pivotal role in enhancing the ability of administrative leaders to effectively participate in investment decision-making and Private banks are moving to develop their investment decision-making to enhance the capabilities of administrative leaders to make effective decisions. Although there is a focus on the role of technology in facilitating banking operations, there are doubts about the extent of the use of financial technology in managing customer databases. There is also a consensus on the use of modern technologies in financial transactions to keep pace with technological developments in electronic payment systems, which indicates the efforts of banks to develop and modernize these systems.

• Recommendations

The research recommends focusing on developing financial technology in private banks as a pivotal element in enhancing the ability of administrative leaders to effectively participate in investment decision-making. A mechanism must be followed to develop investment decision-making through advanced training and development programs to enable administrative leaders to exploit financial technology efficiently. Great importance should be given to the participation of administrative leaders in the investment decision-making process, to enhance their capabilities and push them towards greater innovation and creativity. This requires encouraging a culture of continuous learning and development within private banks to ensure that they keep pace with technological changes and benefit from them. The study also recommends allocating the necessary resources to develop the technological infrastructure in private banks and investing in the latest financial solutions and technologies. The capabilities, knowledge, and skills of administrative leaders must be enhanced through specialized training programs and continuous development opportunities to improve the quality of investment decisions. Finally, a culture of innovation and continuous development in the field of financial technology and human resources should be adopted to enhance the ability of banks to achieve their investment goals. This requires developing clear strategies to develop investment decision-making, with a focus on identifying gaps in the skills and knowledge of administrative leaders.

LIMITED RESEARCH AND FUTURE STUDIES

This study faces some limitations, including relying on data derived from questionnaires distributed to a specific sample of administrative leadership in private banks in the Middle Euphrates, which may limit the wider dissemination of the results. The focus was on private banks only, not on government banks or other financial institutions.

For future studies, it is recommended to expand the research to include different types of financial institutions and diverse geographic locations. Comparative studies between emerging and developed markets can also be conducted to understand the impact of fintech on investment decision-making more deeply. In addition, specific impacts of fintech on certain aspects of banking operations, such as risk management and regulatory compliance, can be explored to provide more detailed and targeted insights for practitioners in the field.

REFERENCES

- 1) Abad-Segura, E., González-Zamar, M. D., López-Meneses, E., & Vázquez-Cano, E. (2020). Financial technology: review of trends, approaches and management. *Mathematics*, 8(6), 951.
- 2) Ahmed, Z., & Noreen, U. (2021). Role of Behavioral Determinants for Investment Decision Making. *Asia-Pacific Social Science Review*, 21(2), 1-48.
- 3) Alam, M. M., Awawdeh, A. E., & Muhamad, A. I. B. (2021). Using e-wallet for business process development: challenges and prospects in Malaysia. *Business Process Management Journal*, 27(4), 1142-1162.
- 4) Albulescu, C. T. (2021). COVID-19 and the United States financial markets' volatility. *Finance research letters*, 38, 101699.
- 5) Al-Neyadi, H. S., Abdallah, S., & Malik, M. (2018). Measuring patient's satisfaction of healthcare services in the UAE hospitals: Using SERVQUAL. *International Journal of Healthcare Management*, 11(2), 96-105.
- 6) Battilana, J., Obloj, T., Pache, A. C., & Sengul, M. (2022). Beyond shareholder value maximization: Accounting for financial/social trade-offs in dual-purpose companies. *Academy of Management Review*, 47(2), 237-258.
- 7) Bawono, S. (2021). Human capital, technology, and economic growth: A case study of Indonesia. *Journal of Asian Finance, Economics and Business*.
- 8) Brigham, E. F. (1995). *Fundamentals of Financial Management* (éd. 07). Orlando, USA.
- 9) Byun, h., chiu, w., & bae, j. S. (2018). Exploring the adoption of sports brand apps: an application of the modified technology acceptance model. *International journal of asian business and information management (ijabim)*, 9(1), 52-65.
- 10) Chen, Y., Kumara, E. K., & Sivakumar, V. (2021). Investigation of finance industry on risk awareness model and digital economic growth. *Annals of Operations Research*, 1-22.
- 11) Dehghan, A., Zenouzi, B., & Albadvi, A. (2012). An investigation on the relationship between service quality and customer satisfaction: In the case of CCG CO. *International Business Research*, 5(1), 3.
- 12) Demirgüç-Kunt, A., Klapper, L. F., Singer, D., & Van Oudheusden, P. (2015). The global finindex database 2014: Measuring financial inclusion around the world. *World Bank Policy Research Working Paper*, (7255).

- 13) Firdaus, D. W., & Aryanti, R. K. (2019, November). The Influence of Financial Technology in Financial Transactions. In IOP Conference Series: Materials Science and Engineering (Vol. 662, No. 2, p. 022012). IOP Publishing.
- 14) Fonseca, R., Mullen, K. J., Zamarro, G., & Zissimopoulos, J. (2012). What explains the gender gap in financial literacy? The role of household decision making. *Journal of Consumer Affairs*, 46(1), 90-106.
- 15) Guo, H., & Polak, P. (2021). Artificial intelligence and financial technology FinTech: How AI is being used under the pandemic in 2020. *The Fourth Industrial Revolution: Implementation of Artificial Intelligence for Growing Business Success*, 169-186.
- 16) Haji, M. H. (2017). SERVQUAL DIMENSION ANALYSIS AT HBKU STUDENTS HOUSING FACILITIES.56
- 17) Hirshleifer, D. (2015). Behavioral finance. *Annual Review of Financial Economics*, 7, 133-159.
- 18) Hoyer, W. D., Kroschke, M., Schmitt, B., Kraume, K., & Shankar, V. (2020). Transforming the customer experience through new technologies. *Journal of interactive marketing*, 51(1), 57-71.
- 19) Hunjra, A. I., Bakari, H., & Batool, I. (2018). Application of Financial Decisions, their Determinants, and Financial Performance: A Tabular Summary of Systematic Literature Review. *Empirical Economic Review*, 1(2), 91-142.
- 20) Ismayilov, N., & Kozarević, E. (2023). Changing financial system architecture under the influence of the fintech market: a literature review. *Management: Journal of Contemporary Management Issues*, 28(2), 93-102.
- 21) Isoso, M. C., & Okee, C. F. (2022). Creative accounting practices and shareholders wealth: Evidence from deposit money banks in Nigeria. *Journal of Accounting and Financial Management*, 8(7), 252-270.
- 22) Jaber, F. H., & Yasir, M. H. (2022). The Reflection of Accounting and Financial Slack on Investment Decision with Fintech as Mediator/Applied Study in Iraqi Fintech Companies. *Academy of Accounting and Financial Studies Journal*, 26, 1-14.
- 23) Jappelli, T., & Padula, M. (2013). Investment in financial literacy and saving decisions. *Journal of Banking & Finance*, 37(8), 2779-2792.
- 24) Liu, Y., Lee, J. M., & Lee, C. (2020). The challenges and opportunities of a global health crisis: the management and business implications of COVID-19 from an Asian perspective. *Asian Business & Management*, 19, 277-297.
- 25) Machkour, B., & Abriane, A. (2020). Industry 4.0 and its Implications for the Financial Sector. *Procedia Computer Science*, 177, 496-502.
- 26) Manan, Y. (2019). Sistem Integrasi Proteksi & Manajemen Resiko Platform Fintech peer to peer (P2P) Lending dan Payment Gateway untuk Meningkatkan Akslerasi Pertumbuhan UMKM 3.0. *Ihtifaz*, 2(1), 73.
- 27) Marantika, A., Rathod, H. S., Chauhan, R., Putri, L. T., & Maseleno, A. (2020). Ethics in Finance, Financial Globalization and Stakeholder Responsibility: New Concept of Corporate Finance. *International Journal of Psychosocial Rehabilitation*, 24(1), 1556-1563.
- 28) Mufidah, A., Supeni, N., & Khsbullah, W. (2023, July). Strategies to Choose Financial Technology for Households. In 3rd International Conference on Business and Engineering Management (ICONBEM 2022) (pp. 64-77). Atlantis Press.
- 29) Okello Candiya Bongomin, G., Mpeera Ntayi, J., Munene, J. C., & Akol Malinga, C. (2017). The relationship between access to finance and growth of SMEs in developing economies: Financial literacy as a moderator. *Review of International Business and strategy*, 27(4), 520-538.
- 30) Ozili, P. K. (2018). Impact of digital finance on financial inclusion and stability. *Borsa Istanbul Review*, 18(4), 329-340.
- 31) Palmié, M., Wincent, J., Parida, V., & Caglar, U. (2020). The evolution of the financial technology ecosystem: An introduction and agenda for future research on disruptive innovations in ecosystems. *Technological forecasting and social change*, 151, 119779.
- 32) Park, J. J. (2021). From Managers to Markets: Valuation and Shareholder Wealth Maximization. *J. Corp. L.*, 47, 435.
- 33) Pazarbasioglu, C., Mora, A. G., Uttamchandani, M., Natarajan, H., Feyen, E., & Saal, M. (2020). Digital financial services. *World Bank*, 54, 1-54.
- 34) Rahadjeng, E. R., & Fiandari, Y. R. (2022). The Effect of Financial Technology on the Financial Satisfaction of MSMEs in Malang. *Manajemen Bisnis*, 12(01), 01-07.
- 35) Ramakrishnan, H., Jain, R., Mitra, A., Sami, L., Kumar, P., & Krishna, S. H. (2022). PERCEPTION OF INVESTMENT DECISION MAKING AMONG ASPIRING TRADING INVESTORS. *Journal of Hunan University (Natural Science Edition)*, 49(06).

- 36) Rogge, M. (2021). Bringing corporate governance down to earth: From culmination outcomes to comprehensive outcomes in shareholder and stakeholder capitalism. *Notre Dame JL Ethics & Pub. Pol'y*, 35, 241.
- 37) Romdhane, S. B. (2021). Impact of Information Technology and Digitalization on Banking Strategy pre-COVID-19, challenges in the COVID era and post-COVID stakes. *International Journal of Accounting & Finance Review*, 6(2), 60-73.
- 38) Scott, B., Loonam, J., & Kumar, V. (2017). Exploring the rise of blockchain technology: Towards distributed collaborative organizations. *Strategic change*, 26(5), 423-428.
- 39) Sharma, G., Singh, T., & Awasthi, S. (2017). Determinants of investment decision making: An empirical study. *International Journal of Financial Management*, 7(4), 23-33.
- 40) Shukur, B. S., & Kanona, R. M. (2021, June). A Proposed Multi-Criteria System to Elect Employees for Overtime Working Hours Private Banking Sector in Iraq as a Case study. In 2021 2nd International Conference on Smart Computing and Electronic Enterprise (ICSCEE), Cameron Highlands, Malaysia, ,218-223.
- 41) Sierra, J. (2020). How financial systems and firm strategy impact the choice of innovation funding. *European Journal of Innovation Management*, 23(2), 251-272.
- 42) Srouji, J. (2020). Digital payments, the cashless economy, and financial inclusion in the United Arab Emirates: Why is everyone still transacting in cash?. *Journal of Risk and Financial Management*, 13(11), 260.
- 43) Sumiati, S., Wijayanti, R., Yuana, P., & Nikmah, C. (2022). Improving company value: the role of human capital, structural capital, capital employed, investment decisions, and manager's attitude to risk. *BISMA (Bisnis Dan Manajemen)*, 14(2), 110–123.
- 44) Suryono, R. R., Budi, I., & Purwandari, B. (2020). Challenges and trends of financial technology (Fintech): a systematic literature review. *Information*, 11(12), 590.
- 45) Wexler, M. N., & Oberlander, J. (2021). Robo-advisors (RAs): the programmed self-service market for professional advice. *Journal of Service Theory and Practice*, 31(3), 351-365.
- 46) Yousef, H. H., & Ojah, H. K. (2022). The Extent of the Efficiency of Investment Decisions in Iraqi Companies Listed on the Iraqi Stock Exchange. *International Academic Journal of Accounting and Financial Management*, 9 (2), 67-78.
- 47) Zhao, Q., Tsai, P. H., & Wang, J. L. (2019). Improving financial service innovation strategies for enhancing china's banking industry competitive advantage during the fintech revolution: A Hybrid MCDM model. *Sustainability*, 11(5), 1419.