

ENHANCING FINANCIAL PERFORMANCE BY APPLYING KNOWLEDGE MANAGEMENT AND NEW FINANCIAL TECHNOLOGIES IN THE BANKING INDUSTRY

Melhorando o desempenho financeiro aplicado a gestão do conhecimento e novas tecnologias financeiras no setor bancário

Laleh Safaee¹, Reza Yadegari²

¹Department of Computer Engineering, Science and Research Branch, Islamic Azad University, Tehran, Iran;

²Department of Industrial Management, Tabriz Branch, Islamic Azad University, Tabriz, Iran

Email: laleh.safaee220@gmail.com, msanayere@yahoo.com

ABSTRACT

Considering the mediating role of the new financial technologies, this paper aims to study the relationship between the use of knowledge management (KM) and the enhancing financial performance of banks in the banking industry of Iran. In terms of purpose, the paper was applied and correlational one in terms of descriptive method. The statistical sample was made up of 180 senior and middle managers of active banks in Iran with at least 5 years of work experience (tenure) in KM and new financial technologies. Moreover, A questionnaire was applied to collect research data, and the validity and reliability were confirmed through CVR and Cronbach's alpha indices. Upon collecting the data to test the research hypotheses, the structural equation modeling method was applied in the *SmartPLS*. The results showed that KM holds a positive and significant effect on enhancing financial performance and 0.682 directly predicts the changes related to the financial performance of the studied banks. Furthermore, further analysis of the results showed that KM through modern financial technologies holds a positive and significant effect on the financial performance of active banks in the banking industry of Iran. Consequently, applying KM dimensions (use of knowledge, acquisition of knowledge, and integration of knowledge) along with modern financial technologies - such as cloud computing technology, smart contracts, and artificial intelligence – is likely to enhance the financial performance of banks and provide sustainable profitability.

Key-words: financial performance, knowledge management, new financial technologies, banking industry, Iran.

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MELHORANDO O DESEMPENHO FINANCEIRO APLICADO A GESTÃO DO CONHECIMENTO E NOVAS TECNOLOGIAS FINANCEIRAS NO SETOR BANCÁRIO

*Enhancing financial performance by applying knowledge management and new financial technologies in the
banking industry*

Laleh Safaee¹, Reza Yadegari²

¹Department of Computer Engineering, Science and Research Branch, Islamic Azad University, Tehran, Iran;

²Department of Industrial Management, Tabriz Branch, Islamic Azad University, Tabriz, Iran.

Email: laleh.safaee220@gmail.com, Email: msanayereyahoo.com.

RESUMO

Considerando o papel mediador das novas tecnologias financeiras, este artigo tem como objetivo estudar a relação entre o uso da gestão do conhecimento (GC) e a melhoria do desempenho financeiro dos bancos no setor bancário do Irã. Em termos de propósito, o artigo foi aplicado e correlacional em termos de método descritivo. A amostra estatística foi composta por 180 gerentes seniores e intermediários de bancos ativos no Irã com pelo menos 5 anos de experiência de trabalho (tenure) em GC e novas tecnologias financeiras. Além disso, um questionário foi aplicado para coletar os dados da pesquisa, e a validade e confiabilidade foram confirmadas por meio dos índices CVR e alfa de Cronbach. Ao coletar os dados para testar as hipóteses de pesquisa, foi aplicado o método de modelagem de equações estruturais no SmartPLS. Os resultados mostraram que a GC tem um efeito positivo e significativo na melhoria do desempenho financeiro e 0,682 prediz diretamente as mudanças relacionadas ao desempenho financeiro dos bancos estudados. Além disso, uma análise mais aprofundada dos resultados mostrou que a GC por meio de tecnologias financeiras modernas tem um efeito positivo e significativo no desempenho financeiro dos bancos ativos no setor bancário do Irã. Conseqüentemente, a aplicação de dimensões de GC (uso de conhecimento, aquisição de conhecimento e integração de conhecimento) juntamente com tecnologias financeiras modernas - como tecnologia de computação em nuvem, contratos inteligentes e inteligência artificial - provavelmente melhorará o desempenho financeiro dos bancos e fornecerá lucratividade.

Palavras-chave: desempenho financeiro, gestão do conhecimento, novas tecnologias financeiras, setor bancário, Irã.

INTRODUCTION

Nowadays, knowledge is considered the basis and most important factor of competition, and besides knowledge, innovation is also known as the most important factor for the survival of firms (Hau et al., 2013, Wu Wang, 2016). In the post-industrial society, however, survival and development are extrapolated around the axis of knowledge and realization, and intangible resources, that is, knowledge and information, have replaced physical assets as the main sources and factors of production, improvement of work processes, and increase in customer satisfaction. However, knowledge management (KM) is widely recognized as a competitive advantage (Orenga-Roglá & Chalmeta, 2019); and most organizations, whether for-profit or non-profit, have started designing and implementing KM strategies (Gordon & DiTomaso, 1992). Furthermore, KM helps the organization discover, select, organize and distribute important and beneficial information (Shujahat et al., 2019). To perform activities such as problem-solving, dynamic learning, and decision-making, KM seems necessary and it is likely to improve organizational performance and particularly, the financial performance of the organization by enabling the organization to perform more intelligently (Yolles, 2005). Meanwhile, new technologies are tools and solutions that organizations use to deal with these pressures and threats; which implies that new technologies do not only make business operations, tasks of work groups and cooperation, and effective business decisions, rather, they even change the methods of business competition (Rusty. et al. 2014). However, it is believed that high productivity and efficiency in organizations require investment in IT components such as the Internet, administrative automation, and new technologies (Coltman. et al, 2015). To survive and operate, numerous firms have started applying KM. To put it simply, KM is “managing the knowledge available to the firm's employees and stakeholders”. Along with modern financial and non-financial technologies, many firms can gain stable competitive advantages by using KM in addition to surviving in today's economic environment (Sultan, 2013). Today, because of applying advanced technology in all fields - including financial and information systems – providing appropriate and timely information considers particular importance in planning and making short-term and long-term decisions. Therefore, accompanied by the new transformations in short-term and long-term planning, applying the financial management system in a way that meets the management requirements becomes a necessity and is conceivable with new technologies (Zhou, 2008). In the last two decades, due to the increasing importance and widespread use of modern technology, the banking business has taken a new form and has become an integral part of banking. Banks, however, are increasing cooperation and interaction with innovative businesses and knowledge-based companies to innovate and revise their business model. Moreover, the banking system is changing and growing thanks to these new and creative actors, which is likely to be considered a threat to traditional banking and become an opportunity to enhance financial performance with the flexibility and appropriate performance (Romanova & Kudinska, 2017). However, banks are among the institutions and organizations that, by applying KM and modern financial technologies, can make the decision-making process easy and efficient for managers by collecting and refining data from daily financial transactions, analyzing and retrieving information; so that even by using these components, they may draw the future perspective by creating a correct understanding of the bank's situation and facilitate bank managers in providing a long-term and strategic perspective (Zhao et al, 2019).

The current situation of Iranian banks shows that due to the large volume of data resulting from the daily operation of operational systems, the experts of these financial institutions have faced problems such as how to collect, maintain, analyze and use it effectively. To solve the difficulty, it seems necessary to apply new financial technologies in the context of KM. Studies show that operationalizing new technologies and benefiting from KM generates many benefits, including enhancing financial performance and achieving a competitive advantage in banks. Therefore, considering the importance of applying KM and new financial technologies in banks and financial institutions, this paper seeks to answer the research question: Does apply KM along with operationalizing and using the applications of new financial technologies effective on the financial performance of Iranian banks? In other words, can the implementation of new technologies and KM applications enhance the financial performance of banks in this industry?

1. THEORETICAL FOUNDATIONS AND HYPOTHESES DEVELOPMENT

1.1. KM and financial performance

Today's effective organizations are those that create or acquire new knowledge and apply the generated knowledge to improve their activities. However, the organizations applied novel and creative ways to modify their structure and performance and as a result, they are likely to manage their knowledge appropriately and effectively (Ferraris et al, 2019). Related studies reveal that productivity, profitability, cost reduction, and optimal quality are not generated by those organizations that benefit from more capital, machines, and manpower, but the effective organizations are those that have more scientific manpower and utilize manpower to overcome the competitive and unpredictable environment (Abbas & Kumari, 2021). Furthermore, it is KM that, as a process of creating and acquiring, maintaining and sharing, and utilizing intellectual capital, benefits organizations on the way to improving and enhancing financial and non-financial performance (Battisti et al, 2022). KM is likely to improve a range of organizational performance characteristics to enable firms and organizations to perform keener and put organizations on the path to sustainable profitability.

Accordingly, the first research hypothesis is proposed as follows:

H1. KM holds a positive and significant effect on the financial performance of banks.

1.2. KM and new financial technologies

Today, the rapid development of new technologies and digital communication has increased the importance of KM as a vital resource for gaining a competitive advantage for organizations (Bazrkar, 2020). However, studies reveal that the interaction between the organization's technologies, techniques, and human resources may hold a direct effect on the distribution of knowledge (Hashemi et al, 2018). Moreover, managers of knowledge-based organizations apply information technology as a driving force and an effective factor in the development and success of KM and overcoming challenges (Haddadi Harandi et al, 2019). KM, which is the process of generating wealth and value by applying intellectual and knowledge-based assets, requires a system that is likely to support this procedure (Castaneda et al., 2018). Since KM benefits from a holistic viewpoint, however, it is the lack of producers that information management deals with. Consequently, KM deals with communicating, gaining experience from the surrounding world, and gathering knowledge, and it may affect the success of new technologies in various fields, including new financial technologies (Oliva & Kotab, 2019).

Accordingly, the second research hypothesis is proposed as follows:

H2. KM holds a positive and significant effect on the new financial technologies of banks.

1.3. Financial technologies and financial performance

Factors such as globalization, increasing competitors, and the rapid expansion of science and technology are transformed the business environment (Gai et al, 2018). However, organizations require to adapt to rapid changes in technology to continue their actions and maintain a competitive advantage (Micu & Micu, 2016). With the increasing progress of technology and the movement of countries towards industrialization, managers are attempting to increase new banking services to achieve higher financial performance (Dhar & Stein, 2017). One of the most important changes in the banking industry is due to the advances in novel financial technologies; these changes in financial technologies in turn cause changes in the way of transactions and financial reports and comprehensively change the financial system of banks (Buckley et al, 2019). Furthermore, taking advantage of new financial technologies is the beginning of a new era of technology-based financial services (Lee & Shin, 2018). Applying technology in banks and financial institutions shall change the banking ecosystem for the benefit of customers, and banks are likely to increase the quality of their services and improve financial performance.

Accordingly, the third hypothesis of the research is proposed as follows:

H3. New financial technologies show a positive and significant effect on the financial performance of banks.

1.4. The mediating role of new financial technologies

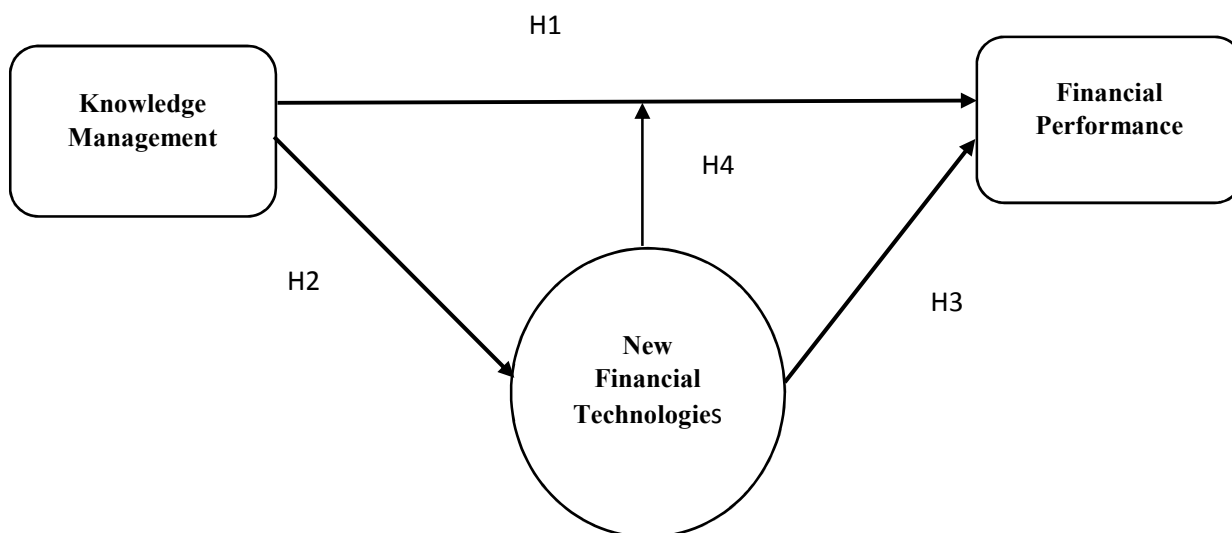
KM provides long-term advantages for organizations and societies and their utilization of human, intellectual and informational capital (Di Vaio et al, 2021). As new financial technologies become an integral part of banking and banks begin to compete beyond financial services in the face of increasing competition from non-banking institutions, traditional banks lost part of their market share as a result (Arias-Pérez & Cepeda-Cardona, 2022). Moreover, the main issue that banks are facing is encouraging and increasing the compliance of bank customers to apply financial technologies to facilitate and speed up banking activities and increase efficiency by increasing transparency and reducing the perceived risk of customers. (Suryono et al, 2020). For banks to manage knowledge in their organization and improve their performance through KM, however, it is necessary to create networks to transfer and distribute knowledge in the organization. Furthermore, studies show that modern financial technologies are likely to be an appropriate platform for knowledge transfer (Don-Serge, 2019).

Accordingly, the fourth hypothesis of the research is proposed as follows:

H4. Through new financial technologies, KM holds a positive and significant effect on the financial performance of banks.

1.5. Conceptual Model

Figure 1 - The conceptual model



Source: author's view

2. METHODOLOGY

In terms of purpose, the paper was applied and correlational one in terms of descriptive method. The statistical population consists of senior and middle managers of active banks in the banking industry of Iran, who have at least 5 years of work experience (tenure) in KM and modern financial technology. Since the size of the statistical population was estimated to be 336 individuals, the required sample size of the paper was calculated utilizing Cochran's formula at the 5% error level, which showed that the sample size of the research is 180 individuals. Moreover, the research data collection tool in this study was designed as a questionnaire. A Likert 5-point scale was used for the questionnaire in which responders specify their level of agreement with the statements, namely "very high", "high", "moderate", "low" and "very low". However, the questionnaire was compiled based on the research literature and the questionnaires used concerning KM, financial performance, and

new financial technologies: “Knowledge management” questionnaire with 10 topics adapted from Huang & Li (2009) and Obeidat et al. (2016) with a Cronbach's alpha of 0.90; “Financial performance” questionnaire with 4 items adapted from Zhou et al. (2018) with Cronbach's alpha of 0.84 and “New Financial Technologies” questionnaire with 6 items adapted from Elmorshidy (2018) Kör & Maden (2013) with Cronbach's alpha 0.92.

Before distribution, however, the questionnaire was robust for validity and reliability. Content validity and CVR index were used to robust the validity. Subsequently, the questionnaire was distributed among 30 professors and experts in human resources management and finally, 20 persons responded. The questionnaire was presented to the experts in two options, " practical" and "not practical", to ensure the appropriateness of each question related to each variable. Nonetheless, the Lawshe coefficient of each question was calculated; for 20 experts, the Lawshe coefficient is equal to 0.42, and the coefficients of all research subjects were higher than this value. To confirm face validity, 30 questionnaires were distributed in a possible sample and the opinions of the subjects were collected regarding each of the research topics and the quality of the instrument. Upon applying the necessary modifications, including adding examples to clarify some items, the final questionnaire was prepared for distribution.

In this paper, however, statistical methods with two descriptive and analytical approaches were utilized to analyze and review the collected data, which was performed by *SPSS 22* and *Smart PLS.3*. Furthermore, partial least squares structural equation modeling (PLS-SEM) to analyze the data, fitness of the conceptual model and testing hypothesis. It is worth noting that in situations where the purpose of the paper is the cause-and-effect relationships and prediction analysis, the PLS path modeling is preferred to variance-based techniques, e.g. Lisrel (Hayer et al., 2014).

3. FINDINGS

3.1 Descriptive statistics results

3.1.1 Descriptive statistics of demographic characteristics

The demographic characteristics of the statistical sample were analyzed which included gender, education level, and work experience (tenure) of the respondents. However, as the statistical sample size was determined to be 180 individuals, questionnaires were distributed and 180 completed questionnaires were collected. Moreover, the data were analyzed in the descriptive and inferential statistics section based on completed questionnaires. The results are presented in Table 1.

Table1- Sample characteristics

	Classification	Frequency (people)	Composition ratio (%)
Gender	Male	138	0.77
	Female	42	0.23
Level of Education	Bachelor	39	0.22
	Masters	94	0.52
	Ph.D.	47	0.26
Work experience	5 to 10 years	26	0.14
	10 to 15 years	50	0.28
	15 to 20 years	77	0.43
	Over 20 years	27	0.15
Total number of respondents		180	100%

Source: own processing

3.1.2 Descriptive statistics of the variables

In the descriptive statistics section, the components of each of the research constructs were analyzed by the mean, standard deviation (sd), skewness, and kurtosis indices and based on the Likert 5-point scale. The results are shown in Table 2.

Table 2 .The statistical description of the variables

Variables	Mean	Sd	skewness	kurtosis
KM	3.75	0.665	-1.218	0.367
Financial performance	4.30	0.439	-1.338	0.462
New financial technologies	4.61	0.554	-1.210	0.398

Source: own processing

As the values of the skewness and kurtosis indices are from -2 to +2, however, it shows that the collected data follow a normal distribution.

3.2 Inferential statistics results

3.2.1 Kaiser-Meyer-Olkin (KMO) Test

Before applying the PLS-SEM in SmartPLS, KMO and Bartlett's tests were used to ensure the adequacy of the sample size. Initially, it should be ensured that is it possible to apply the data for analysis? This test is used for this purpose. If the value for the KMO index is higher than 0.7 and close to one, the data (sample size) is appropriate for factor analysis; otherwise (the values less than 0.7), the results are not appropriate. Furthermore, if the significance level of Bartlett's test is less than 5%, it indicates that the factor analysis is appropriate for identifying the factor model. The results of the test are presented in Table 3, which shows that the sample size and the relationship between the variables are optimal.

Table 3 - Results of KMO and Bartlett's test

KMO index	0.887
Bartlett's test	7531.1148
Degrees of freedom	179
The significance level	0.000

Source: own processing

3.2.2 Structural equation modeling (SEM) results

Fitness of the model results

Initially, as to the PLS-SEM algorithm, the measurement models were evaluated. Table 4 presents the results of the reliability criteria (Cronbach's alpha and composite reliability), convergent validity, and the results of measuring the factor loadings of the variables; it shows that the values for factor loadings are higher than 0.5, Cronbach's alpha is higher than 0.7, and composite reliability is higher than the determined criterion, i.e., 0.7. Additionally, the result from the convergent validity criterion shows that the convergent validity values of all constructs are higher than the criterion value of 0.5. Heterotrait-Monotrait Ratio (HTMT) Index was applied to measure the validity of the constructs which was introduced by Hensler et al. (2016). The HTMT index replaces the previous Fornell-Larker method. The permissible limit of the HTMT standard is 0.85 to 0.9; if the value is less than 0.9, however, the divergent validity is acceptable. Table 5 presents the test results of the index.

Table 4 - Fitness of the model results

Structure	item	Factor loads	Cronbach's alpha	Composite reliability	Convergent validity
Knowledge Management	The bank uses effective and different knowledge resources effectively	0.698	0.914	0.922	0.745
	The bank uses existing knowledge to improve performance.	0.767			
	The bank uses the best practices in collecting knowledge.	0.733			
	The bank continuously collects financial and non-financial information.	0.686			
	We evaluate our knowledge capital continuously.	0.617			
	Our bank's development activities rely on accumulated knowledge.	0.726			
	In the bank, employees try to exchange knowledge among themselves.	0.814			
	Knowledge integration between our bank and other Iranian banks is done continuously.	0.864			
	Knowledge sharing between our bank and other Iranian banks is done continuously.	0.839			
	Bank managers encourage knowledge sharing among employees.	0.777			
Financial Performance	The bank is trying to achieve sustainable profitability by benefiting from new financial technologies.	0.641	0.749	0.843	0.778
	Bank managers support the acquisition of up-to-date knowledge to increase market share.	0.802			
	Bank managers support the use of new technologies to increase sales volume.	0.894			
	The bank is trying to increase its sales growth by benefiting from KM based on technology.	0.677			
New Financial Technologies	The senior managers of the bank support the implementation of new technologies.	0.697	0.858	0.881	0.755
	The bank regularly monitors the implementation of new financial technologies.	0.813			
	The bank uses new financial technologies to increase profitability.	0.812			
	The bank uses new financial technologies to increase customer satisfaction.	0.828			
	The bank has invested appropriately in the implementation of new financial technologies.	0.680			
	The bank is trying to combine old and new financial technologies.	0.709			

After obtaining the results of factor loadings and Cronbach's alpha coefficients, composite reliability and peer validity, and analysis of the software outputs, and since the values of each of the mentioned criteria for each of the variables above the quorum and threshold are defined, therefore, the appropriateness of the reliability and convergent validity of the research model is confirmed.

Table 5 - Divergent validity test results

	KM	Financial performance	New financial technologies
KM			
Financial performance	0.881		
New financial technologies	0.896	0.849	

3.2.3 Fitness of the model

Upon fitting the measurement models, we shall fit the structural model (conceptual model) and subsequently test the research hypotheses. However, P-value, t-value, R², and Q² indices were utilized to fit the research conceptual model.

- R²

The index is an essential criterion for checking the fit of the research conceptual model. Three values are introduced as the acceptable value, namely 0.19, 0.33, and 0.67, which show the weak, medium, and strong criteria of the R² criterion, respectively. The results from the testing of the index showed that R² values for “financial performance” and “new financial technologies” structures were 0.660 and 0.540, respectively. Considering that the value is higher than the values of 0.19, 0.33, and 0.67, accordingly the structural model of the research holds an acceptable fitness.

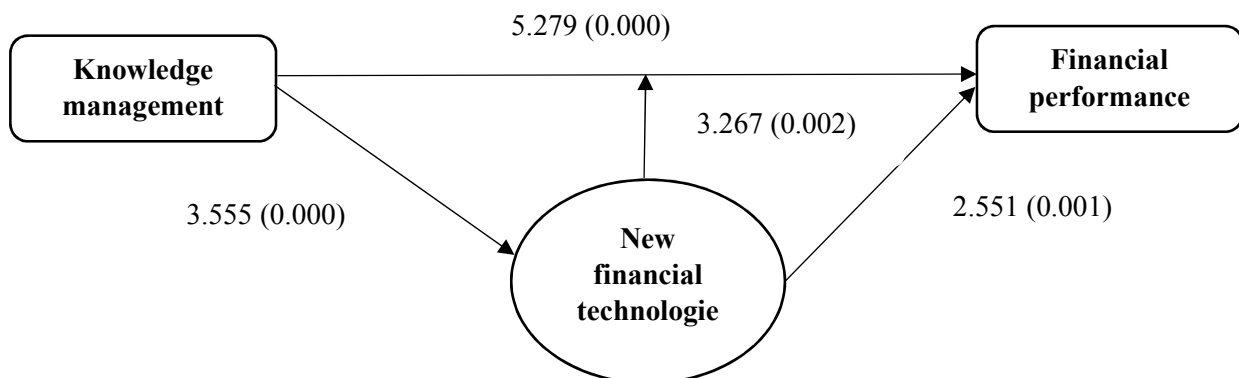
- T-value

In the partial least squares method, various indices are applied to evaluate the structural model, one of the most important indices is the T-value index. If the value of the t statistic is greater than 1.96, at the 5% error level, it indicates the correctness of the relationship between the studied structures. The results are presented in Figure 2.

- P-value

The index is for measuring the appropriateness of the model to evaluate whether the test results are random or not. However, the value merely determines a cut-off point based on which we claim that the findings are statistically significant. Regarding the acceptable level of this index, many researchers state that the threshold should be less than 0.05. The results of the index are presented in Figure 2.

Figure 2 - T-value and P-value



- Q²

The index was first introduced by Stone–Geisser (1974) and determines the predictive power of the model. However, Hensler et al. (2016) introduced three values of 0.02, 0.15, and 0.35, which indicate the weak, medium, and strong predictive power of the structure, respectively. Since the value of (1-SSE/SSO), the dependent and mediating structures of the model, i.e. financial performance and new financial technologies, are 0.215 and 0.161, respectively, therefore, the result shows the acceptable predictive power of the research conceptual model.

3.2.4 Testing research hypotheses

Based on the research data analysis algorithm using the partial least squares method, the research hypotheses are tested according to the results obtained from the t-value, P-value, and path coefficients. If the value of the significant coefficient in the t-value index for each of the paths was more than 1.96 and for the P-value was less than 0.05, therefore, the corresponding path is confirmed at the 95% confidence level and the related hypothesis is confirmed. Table 6 reports the results.

Table 6 - The hypotheses test results

Hypotheses	Path coefficient	T-Value	P-value	Result	
KM → FP	0.682	5.279	0.000	support	4
KM → NFT	0.858	3.555	0.000	support	
NFT → FP	0.570	2.551	0.001	support	5
KM → NFT → FP	0.512	3.267	0.002	support	

DISCUSSION AND CONCLUSION

In many studies on management, the role of KM is emphasized as the basis for improving organizational performance as well as a competitive advantage. However, the survey reveals that this resource is still not used well in many organizations. The form of knowledge, however, is an important asset in modern organizations, especially in the financial services industry. To achieve and maintain competitive advantage, lifelong customer relationships, and long-term profitability, financial services organizations need to manage their knowledge resources, which is referred to as knowledge management (KM). A service-based organization, such as a bank in this case, when holds the appropriate knowledge, is likely to apply the knowledge to reduce its final costs and take steps toward improving financial performance. Additionally, the previous studies show that along with benefiting from KM, banks need important and influential factors in the path of developing and increasing their capabilities; such as transparency, ease of use, perceived profitability, and low perceived risk that they get by benefiting from new financial technologies. However, as the use of Internet banking services expands, customers shall inevitably receive a great deal of information on their financial interactions through databases such as websites; therefore, applying the principles of KM and benefiting from the tools of modern financial technologies is likely to help the bank to improve and enhance the financial performance and increasing profitability. Considering the rapid changes in financial technologies and the necessity to align with the changes to survive and compete in today's tough competitive conditions, as well as the customer expectations from banking services, highlights the necessity of the research and addressing the issue. However, one of the sectors where change and transformation show a direct impact on the country's economic growth is the banking system. Furthermore, deficiencies in this field not only affect the customers of the banking system but also affect the country's economy. For this purpose, the present research aims to investigate the role of KM and the use of new financial technologies on the financial performance of banks active in the banking industry of Iran. Accordingly, to fulfill the purpose of the research and answer the main question of the study, four hypotheses were defined and tested.

The role of KM on the financial performance of the banks is studied in H1. The results showed that KM holds a positive and significant effect on the financial performance of the banks and explains 0.682% of the changes related to financial performance. Accordingly, one would state that the components of using knowledge, acquiring knowledge, and integrating knowledge have a positive effect on the financial performance of banks; which means the better the status of KM in the organization, the better would be the financial performance. The findings show the results from H1 are consistent with those of Qadero et al (2022), Battisti et al (2022), and Rendi & Games (2019).

In H2, we examined the effect of KM on the new financial technologies of the banks. The results showed that KM holds a positive and significant effect on the effectiveness of new financial technologies of the studied banks and explains 0.858% of the changes related to new financial technologies. Accordingly, one would state that knowledge acquisition and knowledge integration have a positive effect on the effectiveness and efficiency of these technologies in the banks. The findings show the results from H2 are consistent with those of Al-Dmour et al (2021) and Raudeliuniene et al (2021).

H3 deals with the effect of using new financial technologies on the financial performance of the banks. The results showed that modern financial technologies explain 0.570% of changes related to financial performance. Accordingly one would state that providing support from the bank's senior managers in applying these technologies, as well as appropriate investment to use new financial technologies, is likely to have a positive effect on the growth in sales volume of banking services, increasing the market share, and sustainable profitability as well. The findings show the results from H3 are consistent with those of Cho & Chen (2021) and Hornuf & Haddad (2021).

H4 studies the mediating role of new financial technologies in the relationship between KM and the financial performance of the banks. The results showed that through modern financial technologies, KM indirectly explains 0.512 of the changes related to the financial performance of the banks. Accordingly one would state that applying new technologies in the approach of developing KM principles is likely to have positive effects on improving the financial performance of the banks.

However, considering that the new financial technologies are a combination of the two concepts of finance and technology, their benefits are implemented in the conditions of KM culture in banks. By spending fewer costs, furthermore, banks shall be on the path to achieving continuous improvement in financial performance. The findings show the results from H4 are consistent with those of Fraihat & Al-Afeef(2022).

Managerial Implications

From a strategic point of view, however, if KM is designed and implemented with intelligence and planning, it can improve the organization's ability to fulfill its mission, efficiency, and effectiveness, as well as achieve continuous improvement. On the other hand, the implementation of KM in the context of new technologies, including new financial technologies, is likely to benefit the organizations and financial institutions such as banks to take steps in the path of development and profitable growth. As the results reveal, it is suggested that managers and decision-makers of banks active in the banking industry of Iran, officials should be appointed for strategies and knowledge activities and create specific positions to manage measures related to KM in the official structure of banks. Furthermore, it is suggested to increase the efficiency of the organization's financial performance and improve the services provided by banks. The implementation of KM should be prioritized according to the two components, namely "rapidity in service innovation" and "service innovation quality". To effectively apply the knowledge of the organization by the employees and in the way of improving financial performance, it is also suggested that bank managers should provide the necessary infrastructure for the technologies in the organization, such as cloud computing technology, service and process outsourcing, robotic process automation (RPA), advanced analytics, digital transformation, blockchain, smart contracts, artificial intelligence, and the Internet of Things (IoT); in this manner, they are likely to achieve sustainable profitability by saving money and time to provide services to customers. Considering that financial technology affects a wide range of activities, operations, and functions in the capital market, however, banks may provide customers with the possibility of online, mobile, algorithmic, robotic transactions and real-time access and analysis of financial markets. Moreover, by connecting to various payment gateways, banks may create great integration in the

transfer of liquidity in financial markets and move towards realizing one of their most important goals, which is to improve financial performance.

Limitations and Future Research

Since the paper was an exploratory-based study, the findings are limited to the size of the statistical population studied, i.e. banks in the banking industry of Iran, and the results may change if the size and location of the statistical population change. Moreover, the presence of different opinions regarding the questionnaire items among the members of the statistical sample may affect the results to some extent. The community studied in the paper were banks in the active banking industry of Iran, therefore the results are specific to these banks and cannot be generalized to all organizations and companies. Accordingly, it is suggested that future researches examine the issue in other firms and service organizations. Furthermore, the paper studied the effect of implementing KM and new financial technologies on financial performance. However, future research should examine the effect of other effective components and variables on financial performance, such as leadership styles, types of innovation strategies, and organizational culture.

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