THE IMPACT OF INTELLECTUAL CAPITAL ON IMPROVING FINANCIAL SERVICES IN ALGERIA

Djamila BEKHTI
Mustapha Stambouli University, Mascara, Algeria
djamila.bekhti@univ-mascara.dz

Mehdi BOUCHETARA
Higher National School of Management, Koléa, Algeria
m.bouchetara@ensmanagement.edu.dz

Abstract
The main objective of this paper is to discuss and examine the relationship between intellectual capital and financial services and to show if the financial sector is positively influenced by intellectual capital. We used the descriptive analytical approach assuming that there is a positive effect of the independent variable which is intellectual capital on the dependent variable which is financial services. The result of SPSS program (version 21) indicated that there is a weak direct correlation and a significant effect at a weak rate estimated at 9, 6% between intellectual capital and the improvement of financial service in Algerian banks.
Keywords: Service improvement, intellectual capital, financial sector, human capital
DOI: https://doi.org/10.24818/beman/2024.14.2-05

1. INTRODUCTION

The real capital that any institution possesses is intellectual capital, as its real market value is based on the intellectual capital it has, from which in turn branches what is called human capital, so the basis of this source is Human resource, and therefore intellectual capital represents the knowledge that a person possesses and benefits from in his daily life in general and in his work in particular.

Organizational innovation has become the main concern of all organizations if they want to maintain their survival and continuity. It is certain that knowledge constitutes the foundation of creativity and innovation, as everything is based on it. It has also become necessary at the present time for the manager to be distinguished by the extent of his ability to manage knowledge. We always affirmatively

Business Excellence and Management
Volume 14 Issue 2 / June 2024

support the process of innovation through intellectual and human capital, which is a major and effective element in excelling and being distinguished over others.

Therefore, human capital is considered the original resource and the main driver of any institution because it plays an important role in accomplishing the tasks assigned to it. If this institution invests in competent and creative employees, it will yield positive results that enable it to compete in the external market. Therefore, all institutions, especially financial ones, must provide him with the appropriate climate for thinking and creativity and provide him with material and moral incentives so that he can fully perform his functions and work more to pay attention to his internal environment.

In order for financial institutions to be able to maximize the exploitation of their knowledge assets and benefit from their experiences to the maximum extent, they must direct their knowledge and intellectual capital towards the established goals, and this is what has recently become known as knowledge management, which includes a set of tools and Methods and procedures that aim to provide an appropriate organizational climate and an environment that enables the use and dissemination of acquired knowledge and experiences, which enables the development of creative ability and reaching maximum exploitation in activities of an administrative nature.

Global financial and monetary developments have become one of the most important challenges facing Algerian financial institutions and making their progress difficult, especially after the emergence of intense competition for foreign banks, which forces them to find solutions and methods that guarantee their survival and continuity. Therefore, it has become necessary for banking institutions that aspire to keep pace with changes and Maintaining sustainable competitiveness, intense and increasing interest in its intellectual capital, which represents the distinguished and superior group of people with creative minds, competencies and experiences, as it is the only resource capable of making the necessary adjustments aimed at the development and advancement of these institutions and working to develop their products and improving its financial services.

Then we can pose the following question:

Is there a statistically significant effect of intellectual capital on improving Algerian banks' services?

Nguyet Thi Nguyrn (2023) also in his article titled: "The Impact of intellectual capital on service firm financial performance in emerging countries: The case of Vietnam", aimed to evaluate the effect of intellectual capital (IC) on firm financial performance in the service sector in an emerging country, Vietnam. The results indicate that human capital efficiency demonstrated the strongest positive impact, followed by capital employed efficiency as the second strongest influence. The impact of structural capital efficiency varied, depending on the knowledge intensity levels and types of service activities. Intellectual Capital is more efficient for knowledge-intensive sub-sectors compared to less knowledge-intensive ones (Nguyrn, 2023). Also, Thamer Ali Al-Nwairan (2022) studied in an article entitled: "The role of intellectual capital in achieving the quality of banking services: a case study of the Saudi Development Bank". He reached a number of results, the most important of which is the increase Al Inmaa Bank's level of interest in human capital through motivating individuals and retaining qualified human cadres. The study concluded that there is an impact of intellectual capital in its three dimensions on the quality of services in its six dimensions in the Saudi Development Bank. Another study in which innovation was explored in the context of the structure of intellectual capital is by Jelena Dementjeva & Rimanatas Stasys (2021) under the title: "Organizational creativity management based on intellectual capital" in which integrated experimental research allowed to identify the importance of the areas of organizational creativity management and their links, and their interactions and evaluating the level of creativity management in the organization. The study of Mahmood Ghorbani, Baratali Mofaredi and Somayeh Bashiriyan (2011) under the title "Study of the relationship between intellectual capital management and organizational innovation in the banks" aimed to explore the relationship between intellectual capital management and organizational innovation in Iranian Bank in the period from 2010 to 2011. The regression rate showed that the rate of relational capital is higher than the rate of human capital. It also turned out that there is no indirect effect of intellectual capital on organizational innovation and professional and personal factors.

2 LITERATURE REVIEW

2.1 Intellectual capital

The foundational study by Nahapiet and Ghoshal (1998) defines intellectual capital as 'the knowledge and knowing capability of a social collectivity' (Rideg, Szerb, & Varga, 2023). According to Joia, intellectual capital is often divided into various components, including skills and competencies related to relationships with customers or other stakeholders (relationship capital), and components related to organizational culture, routines, practices, or intellectual property (organizational or structural capital) (Suseno et al 2019).

2.1.1 Components of intellectual capital

Despite the multiple classifications of components of intellectual capital, most researchers have agreed that it includes:

Human capital: It is defined as the combined knowledge, skill, innovation and ability of employees (Albertini & Berger-Remy, 2019). Bontis (1998) argued that human capital is fundamental for innovation and strategic renewal. By meeting the needs of employees and paying attention to them, firms are fostering an innovative culture. Employees serve as one of the most crucial channels for generating new ideas and implementing them (Alshamsi, Isaac, & Bhaumik, 2019)

Structural capital: or also known as organizational capital by literature refers to the mechanisms and structures of the organization that assist employees to achieve optimal intellectual performance and thus achieve better performance (Nicolas & Domingo, 2020)

Relational capital: It is also called customer capital or external capital or social capital. It is characterized by the degree to which exchange involves trust, social interaction and mutual norms or objectives (Gogan, Duran, & Draghici, 2014). The emergence of innovation is intricately tied to relationships, bonds, norms, values, attitudes, and beliefs. Relational norms define appropriate behavior, standards, and cooperation principles for both parties in a relationship. They indicate the conduct of the parties, the evolution of cooperation, the establishment of trust, the development of relationships, and consequently, the further development of relational capital (Lenart-Gansiniec, 2016).

2.2 Organizational innovation

Organizational innovation refers to the state of an enterprise after its internal structure has been adapted to offer innovative services, allowing employees to effectively implement new services (Zhao, Tsai, & Wang, 2019), such as the creation of new forms of cooperation with research or customers, or the emphasis on new methods of integration with suppliers, the outsourcing of activities of production, purchasing, distribution, employment and service companies help (OECD, 2005).

Joseph Schumpeter (1934) is credited as one of the first authors to distinguish between different types of innovation. He identified innovation in products, methods of production, markets, sources of supply, and ways of organizing any industry (Alves, Galina, & Dobelin, 2018).

-In the sixties and seventies, researchers (Evan, 1966; Evan & Black, 1967; Downs& Morh, 1976; Daft, 1978) coined the term administrative or organizational innovations, which are considered non-technological innovations. According to them, this nature is characterized by the appointment of employees, allocating resources, defining tasks and management style, and developing employees.

-In 1996, David divided the direction of administrative innovation into: knowledge innovation, relationship innovation, and mixed innovation.

-In 2004, Alcouffe proposed the following definition: “Management innovation is a new combination of existing or new methods, materials or concepts compared to management” (Khaldi & Chehida, 2014).

In line with these definitions, organizational or administrative innovation is more closely related to the coordination of human resources and includes: innovation in practices, in administrative processes, and in organizational structures (Dubouloz, 2015).

2.2.1 Organizational innovation and strategic planning skills

Mosoti & Murabu (2014) provide a definition of strategic planning as an attempt to adjust the relative strength of the firm. Such planning is fundamental and is a standard (Rizan, Balfas, & Purewohedi, 2019). Strategic planning skills are related to basic objectives and not procedural matters, and among the most important creative skills that the strategic planning process needs are:

- The ability to adapt to change: Strategic planning requires the ability to adapt to the changing environment, as this ability is considered a necessary skill for innovation, which requires building administrative leadership that believes in change. Time management issues are a crucial component of the experience of change, and different types of change leadership are required for different types of change to run smoothly (Ketemaw & Amente, 2023)

-The skill of patience and endurance: This skill is represented by the ability to re-evaluate oneself and develop internal and external training programs with the aim of developing employees' skills, and finding and providing expertise and cadres with innovative and creative capabilities to activate the processes of development and permanent modernization (Sayed Tayal, 2014)

-The ability to focus

-Skills related to how to obtain agreement

The investment made by a company in a combination of skills will be strategically undertaken to expedite subsequent growth (Rahman & Akhter, 2021).

2.2.2 The contribution of organizational innovation to achieving outstanding performance

Outstanding performance refers to the successful operations resulting from the company's efficient functioning and having personnel who possess knowledge, skills, abilities, experience, and the potential to apply them appropriately and successfully in their operations. Innovation capability is also essential for organizational performance, representing a change in the management system aimed at developing and acquiring something new within the organization (Thatrak, 2021).

Studying organizational behavior works to improve performance, productivity, and administrative effectiveness, as organizations are often exposed to falling into the performance gap, which is the result of the difference between what has actually been achieved and what was planned to be achieved (Boumediene, 2006).

2.2.3 The importance of investing in human capital in financial sector (innovative leadership)

Bass defined innovation leadership as the process by which the interest of others is aroused and their energies are released and directed towards the desired direction. Innovation leadership is a technique

Business Excellence and Management
Volume 14 Issue 2 / June 2024

and philosophy that integrates many leadership styles to inspire and drive employees (AlRawahi et al 2022).

While human capital is acknowledged as a crucial factor in the banking sector, some argue that there is less direct involvement of employees due to the widespread use of online banking services, which are highly popular among customers. However, research has presented contradictory but interesting evidence on this matter. Carlos, Guinaliu, and Torres (2005) point out that online banking is considered less trustworthy compared to branch banking, where employees are directly involved in customer service (Perera, 2015).

2.2.4 Influence of intellectual capital in organizational innovation

In a knowledge-based economy, intellectual capital is utilized to generate value for organizations, and in today's world, the success of an organization depends on these assets. We are currently witnessing the growing significance of intellectual capital as a potent tool for heightened competition within organizations (Ghorbani, Mofaredi, & Bashiriyan, 2012).

From the perspective of the resource-based view, employees possessing distinctive and extraordinary human capital are positively correlated with an organization's innovation capabilities. This is because they contribute to the identification of novel market opportunities, and employees with such human capital are inclined towards experimentation and the implementation of diverse processes. Furthermore, these employees demonstrate adaptability in acquiring new skills, thereby enhancing the firm's innovativeness (Chiganze & Sagsan, 2022).

2.3 Financial services improvement

Improving or developing financial services means adding new features to those services or making modifications to the features, properties and components of existing services or changing their model, so that these features lead to an increase in demand for these services (Kacimi, 2015). It means also offering services currently offered in the market but new to the bank, such as introducing financial planning services, a revolving loan for small enterprises, or new financial services (Abd Ali Ghali, 2017).

2.3.1 Types of financial services improvement

Quality improvement approaches are classified into two approaches:

Discontinuous improvement: Even Schumpeter (1934) discussed periods of temporary advantage punctuated by periods of destruction. Following March's (1991) concepts, we believe companies need to maintain a balance between exploitation activities (continuous improvement, steady-state innovation) and exploration activities (searching for and reacting to, or creating, discontinuous innovation).

Therefore, Innovation becomes considerably more challenging when elements of discontinuity come into play. Such discontinuous challenges arise from shifts along technological, market, political, and other frontiers, requiring new, or at least significantly adapted, approaches for effective management. (Chapman & Beckett, 2008).

Continuous improvement: The significance of continuous improvement extends far beyond the quality movement. Ultimately, it involves organizational renewal and efforts to prevent organizational ossification.

Continuous improvement typically engages a large number of employees in organizational improvement, in contrast to large-scale innovation efforts that often involve only selected experts. The contribution of such broad mobilization of employees is potentially significant (Cole, 2001).

2.3.2 The relationship between innovation and the financial services improvement (innovative improvement)

The innovation and development of financial products, or what is called improvement innovation, aims to improve the performance of the financial institution and improve the quality of its products, as it includes the contribution of the new product to the rate of return on investment in the institution, its sales volume, its market share, Its profits, sales growth rates and the organization's total market share as a result of launching the new product, the rate of increase in the net present value of the organization and the rate of performance of the new product on the organization's stock prices in the financial market (Koumiha, 2018).

Tan et al (2016) examined service innovation strategies in the Malaysian banking industry aimed at achieving sustainable competitive advantage through environmental and social practices. They suggest strategic planning for banking institutions by optimizing resource allocation to ensure sustainable growth (Zhao, Tsai, & Wang, 2019). Also according to Martins and Ledimo (2015) and Chen, Tsou & Huang (2009), it should be noted that when products or services become more homogeneous, or the company's original competitive advantage cannot be sustained, fulfilled, or regained, then service innovation and product development become the only and effective way for the company to resume and accelerate its economic growth rate, as well as to increase its market share and profit (Kassema, 2019).

3. RESULTS AND DISCUSSION

In this research, we relied on the questionnaire as the main tool for the study, and the questionnaire was divided into three parts. The first part included general information related to the customer, while the second part included eight questions related to the contribution of organizational innovation to improving financial service, while the third part contains 13 questions in order to evaluate the level of service improvement in Algerian banks. We selected a random sample of bank customers and distributed 180 questionnaires to them, but we only returned 150 questionnaires. We have used a descriptive and analytical statistics method based on SPSS “version 21” because the study contains qualitative variables that require analysis with this type of software and statistical methods.

TABLE 1. CRONBACH'S ALPHA

Variable	Questions	Cronbach's alpha
Organizational innovation	**8**	0,83
Improving financial service	**13**	0,55

Source: developed by the author based on (SPSS, 21)

We note from Table 1 that the value of the reliability coefficient for organizational innovation is greater than 0.6, while the value of the Cronbach's alpha for improving financial service was 0.55, which is a percentage that can be accepted because it is close to the required value, and therefore the study tool is suitable for verification the validity of the hypotheses.

3.1 Hypothesis Tests

3.1.1 The correlation between the independent variable “organizational innovation” and “improving financial service”

H_{01}: There is a statistically significant correlation between organizational innovation and improving financial service

The interaction hypothesis between Pearson correlation and its results is explained in the following table:

TABLE 2. THE CORRELATION COEFFICIENT

Dependent variable / Independent variable	Improving financial services	
	Cronbach's alpha	Sig
Organizational innovation	0,601**	0,000

Source: developed by the author based on (SPSS, 21)

We observe from the table that the improvement of financial service is associated with organizational innovation by 60.1%, so we can accept the first hypothesis that assumes that: "There is a statistically significant relationship between organizational innovation and the improvement of banking service".

3.1.2 Test Impact of the independent variable "organizational innovation" on the dependent variable "improvement of banking service"

H_{02}: There is a statistically significant impact of organizational innovation on the improvement of financial service.

To test the impact of organizational innovation on the improvement of financial service, we use the simple regression method because there is only one main independent variable. The following table summarizes the results of this method:

TABLE 3. SIMPLE REGRESSION MODEL

Model	R	R-squared	Adjusted R-squared	Std. Error
1	.601	.361	.0357	.44194

Source: developed by the author based on (SPSS, 21)

The above table shows us the outputs of the simple linear regression method, and through these results, it appears that the coefficient of determination (adjusted R-squared) is equal to 0.357. This means that the independent variable individually explains 35.7% of the variance in the dependent variable (improving banking service).

The correlation coefficient (R), which equals 60.1%, indicates a moderately positive relationship between the independent variable (organizational innovation) and the improvement in banking service, above the average.

TABLE 4. ANOVA TEST

Model	Sum squares	df	Mean squares	F-Value	Signif
Regression	16.325	1	16.325	83.584	.000
Remnants	28.905	148	.195		
Total	45.203	149			

Source: developed by the author based on (SPSS, 21)

According to the above table, and considering that the calculated F value for the model is 83.584, which has statistical significance at a significance level (Sig ≤ 0.05), where the Sig value was equal to 0%, this confirms the high quality of the model. Therefore, it can be relied upon to interpret the variations that occur in the dependent variable. Additionally, we can construct the simple regression equation between the independent variable (organizational innovation) and the dependent variable (improving banking service).

TABLE 5. SIMPLE REGRESSION COEFFICIENTS

Model	**B Vaue**	**Std. Error**	**Béta Value**	**T-Value**	**Signif**
(Constant) 1	**1.530**	.236		6.495	**.000**
OI (organizational innovation)	**.624**	.068	.601	9.142	**.000**

Source: developed by the author based on (SPSS, 21)

With the assistance of the value B indicated in Table 5, and since the t-value for organizational creativity is statistically significant at 0%, we can extract the following simple regression equation:

IFS= 1,530 + 0,624 OI Where: OI is organizational innovation

This means that the value of improving banking service without organizational innovation is 1.530, and organizational innovation influences the improvement in banking service by 62.4%, which is considered a high impact percentage.

Business Excellence and Management
Volume 14 Issue 2 / June 2024

Since the model is statistically significant at a significance level of 0%, which is lower than the level adopted in the study (5%), we accept the hypothesis that states:

"There is a statistically significant impact of organizational innovation on improving Algerian banking services" at a significance level of 5%.

4. CONCLUSION

Organizational innovation is the practical application of a new organizational approach encompassing practices in workplace organization or external relations of the organization. This enables the organization to develop its work environment into a climate that encourages and attracts innovative ideas, contributing to the development of more productive and beneficial work methods.

Therefore, this type of creativity in banking institutions has become one of the most important topics requiring further study and analysis. This is due to its direct association with the continuity and evolution of banks, proving their existence as a banking system on one hand. On the other hand, the banking industry urgently needs to renew and improve its financial products to diversify its revenue sources, keeping pace with technological advancements and diversifying financial instruments. Additionally, it aims to meet the growing demand for financial services globally, necessitating banking institutions to design a model for financial engineering.

Consequently, banking institutions aspiring to keep up with changes and maintain sustainable competitiveness must pay considerable and increasing attention to their intellectual capital in general and human capital in particular. This represents the distinguished and superior category of individuals with creative minds, competencies, and experiences. They are the sole resource capable of making necessary adjustments aiming at the development and advancement of these institutions.

From the theoretical perspective, we extracted the significant importance of intellectual capital and knowledge management processes as real representatives of an organization's ability to compete, excel, and sustain through innovation and creativity in the new economy, known as the knowledge economy.

The practical aspect aimed to understand the reality of applying organizational innovation through intellectual capital and its impact on improving financial services in Algerian banking institutions. We analyzed the data and studied the impact of the independent variable on the dependent variable using statistical methods through the SPSS 21 program, with a sample of customers from Algerian banks, whether in the public or private sector. We projected this study onto them to understand their perception of the role of human and intellectual capital in upgrading organizational innovation within the banking sector from the customers' perspective. The study yielded several results that validated the hypotheses, including:

- There is an application of organizational creativity in the studied Algerian banking institutions.
- There is an application of improving financial services in the studied Algerian banking institutions.
- There is a moderately positive correlation between organizational creativity and the improvement of Algerian banking services, with a correlation percentage of 60.1%.
- There is a statistically significant impact between organizational creativity through intellectual capital and the improvement of financial services in the studied Algerian banking institutions, with a high impact percentage of 62.4%.

Economic analysis of the study results

The economic importance of organizational innovation lies in the effective role played by the human factor, which is the primary driver of managing, operating, and organizing the institution. Innovation, in general, demonstrates its role in coordination with various types (organizational, marketing, technological, and financial) through financial instruments characterized by diversification in financing formats. This helps in avoiding financial risks, increasing financial inclusion, developing the financial sector, and enhancing the economic efficiency of banks.

This is achieved by improving their performance and functions, distinguishing themselves in renewing financial products, and quickly responding to customer needs. Furthermore, it contributes to increasing employment opportunities and investments, leading to an increase in national income and raising the level of economic growth.

REFERENCES

Abd Ali Ghali, B. (2017). The role of developing banking services and their marketing characteristics in commercial banks - an exploratory study in a sample of Iraqi commercial banks. Review Elmouthnna for administrative and Economic sciences.

Albertini, E., & Berger-Remy, F. (2019). Intellectual capital and financal performance: a meta-anaysis and research agenda. Management.

AlRawahi, N., AlGhabshi, A., AlHasani, K., Alwahaibi, N., & Ravikumar, A. (2022). Impact of innovative and creative leadership on employee morale: A study in Bank Muscat. International Journal of Recent Research in Commerce Economics and Management (IJRRCEM).

Alshamsi, S., Isaac, O., & Bhaumik, A. (2019). The effects of intellectual capital on organizational innovation within Abu Dhabi Police in UAE. International Journal on Emerging Technologies 10(1a): 50-58.

Alves, M. F., Galina, S. V., & Dobelin, S. (2018). Literature on organizational innovation: past and future. Innovation and Management Review.

Boumediene, Y. (2006). Studying the impact of comprehensive quality on the current performance of economic institutions. Algeria: university of algiers 3.

Chapman, R., & Beckett, R. (2008). A learning laboratory approach for business improvement : the case of discontinuous innovation. Deakin University CRICOS Provider.

Chiganze, T. & Sagsan, M. (2022). Relationship between human capital, innovation capability and employee job performance in academic libraries in Namibia, South Africa, and Zimbabwe. De Gruyter.

Cole, R. (2001). From continuous improvement to continuous innovation. Quality Management Journal.

Dubouloz, S. (2015). L'adoption d'une innovation organisationnelle et managériale: un processus revisité. XXIV conference internationale de management stratégique, Association Internationale de Management Stratégique.

Ghorbani, M., Mofaredi, B. & Bashiriyan, S. (2012). Study of the relationship between intellectual capital management and organizational innovation in the banks. African Journal of Business Management.

Gogan, M.L., Duran, D. & Draghici, A. (2014). The impact of relational capital on competitiveness of the organization. Network Intelligence Studies.

Kacimi, A. (2015). The impact of financial globalization on the development of banking services and improving the competitiveness of Algerian banks. Algeria.

Kassema, J.J. (2019). Products and services improvement through innovation and creativity: Case of IT business sector.

Ketemaw, A. & Amente, C. (2023). Effect of strategic change and adaptation on organizational performance. A comprehensive literature review. Research Square.

Khaldi, A. & Chehida, A. (2014). L’innovation managériale vs l’innovation technologique. cahier du poidex.

Koumiha, F. (2018). The impact of innovation and development of new products in increasing the institution’s market share - a case study of the Al-Hudna Foundation for the production of milk and its derivatives in M’sila. Review of Strategy and Development.

Lenart-Gansiniec, R. (2016). Relational capital and open innovation – in search of interdependencies. Social and Behavioral Sciences.

Nguyrn, N.T. (2023). The impact of intellectual capital on service firm financial performance in emerging countries: The case of Vietnam. Sustainability.

Nicolas, S.B. & Domingo, G. (2020). The structural capital, the innovation and the performance of the industrial SMES. Journal of Intellectual Capital, 913-945.

OECD (2005). La mesure des activités scientifique et technologiques: principes directeurs pour le recueil et l’interprétation des données sur l’innovation. France: Manuel d'Oslo.

Perera, A.S. (2015). A thesis submitted in partial fulfilment of the requirements for the Degree of Doctor of Philosophy in Accounting. Human capital in the banking sector: An exploratory study of Sri Lanka and New Zealand. Lincoln University.

Rahman, M. & Akhter, B. (2021). The impact of investment in human capital on bank performance: evidence from Bangladesh. Future Business Journal.

Rideg, A., Szerb, L. & Varga, A.R. (2023). The role of intellectual capital on innovation: Evidence from Hungarian SMEs. TEC Empresarial.

Rizan, M., Balfas, F. & Purewohedi, U. (2019). The influence of strategic orientation, organizational innovation capabilities and strategic planning on the performance of technology-based firms. Business, Engineering Academy of Strategic Management Journal.

Sayed Tayal, M.K. (2014). The banking industry and economic globalization. University House.

Suseno, N.S., Hermina, T., Ramdhani, A. & Utari, L. (2019). The impact of intellectual capital on financial performance. International Journal of Recent Technology and Engineering (IJRTE).

Thatrak, D. (2021). Human capital orientation, employee creativity development, organizational innovation capabilities, and outstanding performance of SMEs businesses in Thailand. International Journal of Economics and Business Administration.

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.