

Ye Yuan

Research on the Innovation Strategy of Economic Management Informatization in Financial Industry in the Context of Sustainable Strategy

Research on the Innovation Strategy of Economic Management Informatization in Financial Industry in the Context of Sustainable Strategy

Ye Yuan

Anyang Normal University, Anyang, China

E-mail:409648987@qq.com

Abstract: Information technology can promote the rapid development of the modern financial industry. With the increasing competition in the financial industry market, information construction of financial industry economic management has become an important measure to promote the stable development of the industry. Under the requirements of sustainable development strategy, various industries have carried out information innovation and reform. In order to promote the healthy development of the financial industry, this paper studies the financial industry economic management information innovation strategy under the background of sustainable strategy. After analyzing the problems existing in the economic management of the financial industry, the paper formulates the principles of information innovation in the economic management of the industry. According to the principle of information innovation, combined with the concept of sustainable development and the problems existing in economic management, this paper puts forward the strategy of information innovation, in order to provide a theoretical reference for the reform of financial industry information innovation in the future.

Keywords: sustainable strategy background; financial industry; economic management; management informatization; innovation strategy;

Tob Regul Sci. TM 2022;8(1): 3617-3627

DOI: doi.org/10.18001/TRS.8.1.274

Introduction

Under the background of economic crisis, the risk of the financial industry is increasing, which requires the financial industry to strengthen management innovation. This is because of the rapid development of modern information technology. The application of information technology in financial industry management can effectively improve the effect of financial

Research on the Innovation Strategy of Economic Management Informatization in Financial Industry in the Context of Sustainable Strategy

industry management. Economic management informatization of financial industry is based on modern communication technology, storage, host, network transmission and database technology, which collects data and information from various fields into database, and combines various behaviors related to people's life style, work habits, learning, decision-making process, etc. The application of information technology can improve the efficiency of various behaviors to a greater extent, and provide strong technical support for promoting social progress. In the actual work process of financial enterprises, information management can accurately control the actual operation status of the whole enterprise, which is convenient for relevant staff to take corresponding measures to solve some detailed problems in the operation. Once there is a potential problem, the relevant staff can find the root of the problem for the first time, which is convenient for the decision-makers to observe and respond to some emergencies [1]. Through informatization, we can realize the full communication and exchange between various regions, and managers and decision-makers can work together to do a good job in the allocation of resources. Moreover, the development of information work can improve the contradictions and disadvantages between enterprise management and operations caused by geographical and other objective factors, so that the management staff can fully grasp the operation status of the whole enterprise, and also find and solve some potential threats at the first time, so as to improve the comprehensive competitiveness of financial enterprises [2]. From this point of view, there are many factors determining the comprehensive competitiveness of the financial industry. Information management will create opportunities for the improvement of the comprehensive competitiveness of financial enterprises.

The current trend of increasing competition in the financial market has directly caused major enterprises to pay more and more attention to the innovation and construction of the internal information management system, especially the popularization of the application of information technology and the establishment of data-based management systems for the internal management system. According to the national sustainable strategic objectives and combined with the needs of the industry's own development, management information reform can maintain the advantages of information management in the longer term. Moreover, the goal of sustainable development is to satisfy human needs and fully develop individuals in various human activities. At the same time, we should protect resources and the ecological environment, which will not pose a threat to the survival and development of future generations. We also need to pay attention to the ecological rationality of various economic activities and encourage economic activities that are beneficial to resources and the environment [3]. The sustainable development strategy of enterprises refers to that in the process of pursuing self survival and sustainable development, enterprises should not only consider the realization of business objectives and improve their market position, but also maintain their sustainable profitability in the leading competitive field and future expansion business environment, so as to ensure the

sustainable development of enterprises for a long time [4]. Based on the above analysis, this paper will study the financial industry economic management information innovation strategy under the background of sustainable strategy, in order to provide some reference for the current financial industry innovation and reform.

1 Analysis of the problems of economic management in the financial industry

In recent years, the informatization construction of economic management in China's financial industry has achieved preliminary results, which has made fundamental contributions to the reform and innovation of the financial industry, as well as to improving the quality of financial services and preventing and resolving financial risks. However, in the process of economic management informatization of the financial industry, there are also some problems worthy of attention, which directly affect the success or failure of informatization and need to be paid enough attention to.

1.1 Data concentration brings new risks for banks

Domestic and foreign financial industry economic management informatization practice, most of them have experienced from business decentralization to business concentration, from data decentralization to data concentration stage, through business concentration and data concentration to achieve the standardization and centralization of business operations is a necessary stage in the development of the financial industry. With the centralization of business and data, the controllability of technical risks increases and the concentration of risks comes with it [5]. In addition to risks such as natural disasters, human damage, operational errors, and system hardware and software failures that data centers are generally subjected to, the realization of national data centralization faces some unique technical and system risks because it is a new feature of integrating the basic business and data of the financial industry into one, with a huge number of networked outlets, a wide geographical distribution of networked outlets, and a large number of networked transactions.

1.2 Infrastructure failure potential

There are huge differences in system structure, data structure, application platform, operation environment and business processing mode between the original scattered business systems of financial institutions and the new bank-wide unified business system, and it is difficult to achieve linear and smooth upgrade and data collection between the two. And all business data, including customer accounts, are concentrated in one center, which will bring national financial chaos in case of data confusion or loss. And the current lack of ready-made support for a large number of online transaction processing software and the lack of experience in the design and development of such software, self-developed business processing system may not be able to guarantee the actual needs of business processing capacity, these are now important hidden dangers [6].

The rapid changes in international financial markets have led to the risk of peak impact of transaction volumes within the financial industry. Due to the sudden, huge and unpredictable nature of quotation transactions such as the purchase and sale of funds and securities, the peak processing capacity of the data center cannot meet the requirements of timely processing of suddenly huge and increasing business transactions. In addition, the complexity of the structure and operation management of the national financial industry management data center, the level and quality of technical maintenance and management personnel cannot meet the operation and maintenance requirements of a data center to handle system failures and achieve continuous and smooth production operation in a timely manner [7]. In the process of market operation of the financial industry, due to the huge amount of money, it is easy to attract the attention of lawless elements. Because of the defects of information technology, the financial industry adopting information management has the risk of attack and intrusion. As a result, a data center may become the target and object of hostile country attack and hostile organization network intrusion attack, This kind of organized attacks and intrusions often have high attack intensity, long duration and many kinds of ways, so once it is unable to prevent such attacks, it will lead to the complete and partial paralysis of the operation of the data center..

1.3 Information construction and business process reengineering are not highly integrated

Information technology, especially network technology, is changing the external business environment of the financial industry with unprecedented speed and strength. Nowadays, the market structure of the global financial industry is changing from the seller's market to the buyer's market, and the strength of the customer market is constantly increasing. Many financial enterprises spend a lot of energy on increasing the investment in information technology, which makes the financial industry achieve technological progress, but at the same time, technical efficiency is declining to varying degrees. The fundamental reason is that the technological leap exceeds the transformation from technology to market Optimal output boundary determined by organization and process [8].

One of the main reasons why the construction of economic management information technology in China's financial industry has failed to fully achieve the expected results is that the process of information system construction has failed to touch the traditional management model, i.e., it has failed to apply modern management theories and methods to analyze and transform various traditional business processes. Inefficient allocation and optimization of enterprise resources lead to ineffective use of various functions of information systems [9].

According to the above analysis of the current problems in the work of economic management informatization in the financial industry, the innovation strategy of economic management informatization in the financial industry based on sustainable development strategy is proposed.

2 Sustainable strategy background of the financial industry economic management information technology innovation strategy research

Financial informatization refers to the construction of a comprehensive information network consisting of network transmission, computer technology, information sources and human resources with a unified standard of technology to transmit graphics, voice, data, images, video images through different types of rates. Computer technology-based information systems that make full use of network switching, storage technology and value-added services are associated together to create a system engineering of new models of banking business operations, financial services, management methods and services [10-11]. Financial informatization overturns the traditional working mode of the banking industry, realizes electronic business services, automation of processing, informationization of management and scientific decision-making, thus providing customers with faster and more convenient services.

2.1 Principles of innovation in economic management informatization in the financial industry

(1) the principle of security: security that is, the extent to which the financial industry assets from risk. Risks are generally divided into three categories, the first is credit risk, that is, the risk that the borrower can not repay the principal and interest on maturity. The second category is market risk, that is, the risk of falling prices of securities due to fluctuations in market interest rates. The third category is the risk caused by improper matching, i.e., the risk of putting short-term sources of funds into long-term use and the risk of improper currency matching in terms of exchange rates. Thus, the principle of safety must be adhered to first in the use of financial investment funds [12].

(2) The principle of profitability: the pursuit of profitability as an enterprise is an objective requirement, and enterprises in the financial industry should be able to operate at their own expense and risk, i.e., they must make a certain amount of profit to cover business expenses, improve working conditions and employee welfare, and have a certain amount of accumulation to expand their operations [13]. The main channel for financial institutions to obtain profit is the use of funds, so the principle of profitability should be fully considered in the use of funds.

(3) Liquidity principle: liquidity refers to the ability of financial institutions to cope with customers' withdrawal at any time. It is the concrete embodiment of financial institutions' solvency and an important condition to ensure the credibility of financial institutions, so that financial institutions can operate normally and remain invincible in the competition. In order to ensure liquidity, a certain amount of cash assets, i.e. reserve fund, is needed to repay customers. As for financial business, it is mainly personal oriented, so it must meet the needs of users and ensure that payment customers can use it at any time [14]. However, cash assets are not profitable, so the amount of reserves must be appropriate.

(4) Diversity principle: Diversity means that financial assets should be used in a variety of

ways and channels, which is a concrete expression of ensuring the safety of assets and reducing risks. Applying the assets in multiple ways through multiple channels can optimize the total asset efficiency [15].

According to the above proposed principles of innovation of economic management informatization in the financial industry, combined with the development goals of the financial industry in the context of sustainable strategy, the innovation strategy of economic management informatization in the financial industry is proposed to achieve theoretical support in the future reform of the financial industry.

2.2 Information Innovation Strategy

2.2.1 Focus on the coordinated development of information construction and risk management

The foreign financial industry attaches great importance to the coordinated development of information technology construction and risk management in strengthening information technology risk control, and the four aspects of information technology construction, system operation, management decision making and risk management are interrelated to form a mutually supportive and mutually constraining community, and the volume value of the tetrahedron can be viewed as a comprehensive index of information technology development. The ideal state is the coordinated development of the four aspects with a positive tetrahedron model, as shown in figure 1 below [16].

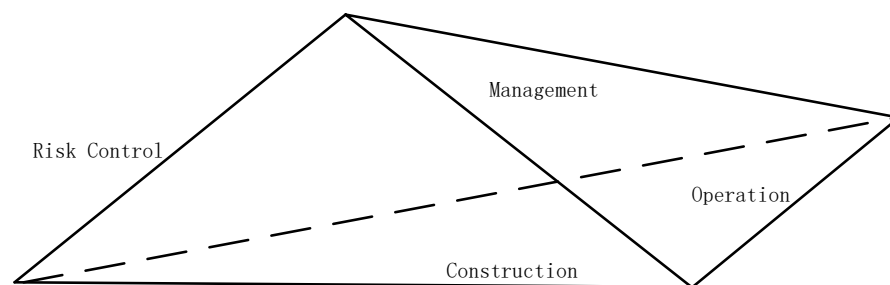


Figure 1 Information construction and information risk control

Information security standards are mainly for technical level, and specifications are for management operation, which are divided into information security management specifications and information security technical standards: information security management specifications mainly include: information security personnel management, information asset security management, third-party information security, information security policy and standard management, data document security management, application development and maintenance security management, system security management, network security management, physical security management, problem management, fault management, change management, operation management, etc. [17].

Information security guidelines and rules are the third layer of information security policy

and standard management system, which are implementation guidelines and rules formulated to ensure the effective implementation of information security standards and specifications. The normative theoretical system in terms of risk strategy, technical standards in terms of risk control, normative standards in terms of information security assessment and information technology outsourcing assessment standards are comprehensively adopted to make the process, behavior and way of information technology more standardized and effective [18].

Risk management is mainly accomplished by creating the information technology risk concept with the participation of all employees, strengthening management control and giving full play to the functions of the information security decision-making body. Through risk management of the informatization process of economic management in the financial industry, it can be controlled by the corresponding control points of the relevant management positions in practice to fundamentally avoid and reduce all kinds of risks and reduce the comprehensive loss rate caused by information security failures.

2.2.2 Integration of existing business and management processes

At present, the data centralization project has provided a comprehensive business system platform with customer information as the center. Therefore, it is necessary to establish a unified business application platform to realize the transformation of the business model from business centered to enterprise customer centered, and to completely reconstruct the existing business and management process, so as to build a customer service-oriented, enterprise oriented, enterprise-oriented and enterprise-oriented business platform Modern management system with product innovation as development and intensive and flat management mode [19].

Using data mining technology to establish financial enterprise economic management data warehouse, in order to facilitate statistics and analysis for financial enterprises, and allow all departments of enterprises to share data, to provide more accurate and complete information for enterprises to make business decisions faster and better. In addition, we should make use of information technology to strengthen the innovation of financial products and services. The development of information technology in the modern financial industry has greatly changed the operation mode of traditional financial enterprises. By collecting customer information and fully data mining, integrating and innovating service items, designing high value-added and distinctive financial products and extending financial service tentacles at the core of bank operation strategy. The essence of informatization is a series of important tools to ensure the core competitiveness of financial enterprises. However, in the combination of informatization tools, the current financial industry still lacks the means and tools to mine the knowledge hidden behind the data, and cannot effectively use the mining information.

2.2.3 Establish a standardized economic management information system

The standardized management of the financial industry is very important for the country's economic development, so by establishing a standardized economic management information

Research on the Innovation Strategy of Economic Management Informatization in Financial Industry in the Context of Sustainable Strategy

system, we can provide institutional protection for information technology innovation.

First of all, we must continue to improve the risk control laws and regulations of financial information technology environment. In recent years, various state departments have continuously introduced a variety of regulatory requirements for the field of information technology risk control has put forward clear requirements. By establishing professional and institutionalized management standards, it provides a basis for financial enterprises to carry out IT risk control.

Secondly, an industry information security assurance specification system is established. Drawing fully on the best practices of information security in the financial industry, relevant industry standards at home and abroad, technical standards and the requirements of sustainable development, the industry information security assurance system is formulated with the concept of risk management and risk control, combined with the information technology development plan and the current situation of information security in China's financial industry. The overall architecture of information security assurance system mainly includes four parts: information security strategy system, information security management system, information security operation system and the design structure of information security technology system. The overall architecture of information security assurance system in the financial industry is shown in Figure 2 below [20].

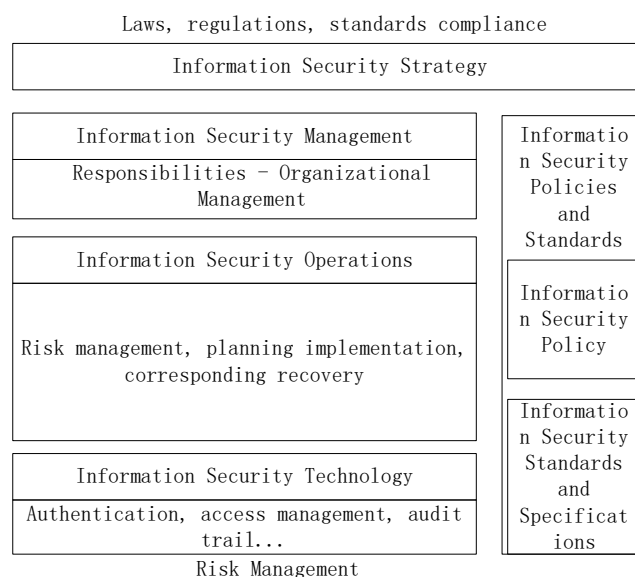


Figure 2 The overall architecture of information security protection system in the financial industry

In addition, the risk of information technology should be considered as an important regulatory content for the supervisory department. Not only should there be unified supervision of economic management informatization in the financial industry at the macro management level, but also in-depth management at the micro level to improve the level of business continuity

The above is the research on the current financial industry economic management information problems, put forward the sustainable information innovation strategy. In a word, the economic management informatization of the financial industry is the historical continuation of the long-term interaction, mutual adaptation and spiral movement between the social economy and the financial industry in the application of information technology, which deeply reflects the characteristics of keeping pace with the times. The essence of economic management informatization in financial industry is financial modernization. China's financial industry has made remarkable achievements in a short period of time, but the coming financial globalization also brings opportunities and challenges for the development of China's banking industry. Therefore, China's financial industry must support its development and innovation with information technology in the good information environment of the country's financial industry and financial enterprises, continuously enhance its competitiveness, and develop stably and efficiently on the premise of sustainable development.

3 Conclusion

The financial industry is an important part of the modern service industry. It becomes the core of the modern economy by communicating the economic activities of the whole society. As a knowledge intensive industry, modern financial industry can only reflect the characteristics of knowledge and information-based in the aspects of organizational structure, business process, business development and customer service. To realize the informatization of financial and economic management, we can effectively use modern network communication equipment, and also make the mining and statistics of all kinds of information more simple and convenient. At the same time, we can realize the complete summary of data, and the data obtained can help to carry out the follow-up financial management work. Moreover, compared with the traditional working methods, the information-based financial management mode can better adapt to the characteristics of the current development of the times, create more economic benefits for enterprises, reduce the labor intensity of staff and improve the quality of work. At the same time, sustainable development should not only consider the needs of current development, but also consider the needs of future development. Therefore, this paper analyzes the problems existing in the current financial industry economic management informatization, combined with the development goal under the background of sustainable development strategy, puts forward the financial industry economic management informatization innovation strategy, through analysis and research, in order to provide some feasible reference for the future financial industry information management reform.

References

- [1] Felipe Muñoz-La Rivera , Pamela Hermosilla, Jean Delgadillo, et al. The Sustainable Development Goals (SDGs) as a Basis for Innovation Skills for Engineers in the Industry 4.0 Context[J]. Sustainability, 2020, 12(16):1-14.
- [2] Lara Agostini, Anna Nosella, Riikka Sarala, et al. Tracing the evolution of the literature on knowledge management in inter-organizational contexts: a bibliometric analysis[J]. Journal of Knowledge Management, 2020, 24(2) : 463-490.
- [3] Frédéric Dufays. Exploring the drivers of tensions in social innovation management in the context of social entrepreneurial teams[J]. Management Decision, 2019, 57(6) : 1344-1361.
- [4] Yong Jae Shin , Yongrok Choi. Feasibility of the Fintech Industry as an Innovation Platform for Sustainable Economic Growth in Korea[J]. Sustainability, 2019, 11(19):5351.
- [5] Dainelis Cabeza-Pullés , Virginia Fernández-Pérez , María Isabel Roldán-Bravo. Internal networking and innovation ambidexterity: The mediating role of knowledge management processes in university research[J]. European Management Journal, 2020, 38(3) : 450-461.
- [6] Simone Belli , Carlos Gonzalo-Penela. Science, research, and innovation infospheres in Google results of the Ibero-American countries[J]. Scientometrics, 2020, 123(4) : 1-19.
- [7] Francisco Javier Forcadell , Elisa Aracil , Fernando Úbeda. The Influence of Innovation on Corporate Sustainability in the International Banking Industry[J]. Sustainability, 2019, 11(11):1-15.
- [8] Christofer F. Daiberl, Sascha Julian Oks, Angela Roth, et al. Design principles for establishing a multi-sided open innovation platform: lessons learned from an action research study in the medical technology industry[J]. Electronic Markets: The International Journal on Networked Business, 2019, 29(1) : 711-728.
- [9] Zahra Hashemi Oskouei. Linking social and economic responsibilities and financial performance: The assisting role of innovation for an oil engineering and development company[J]. International Journal of Finance & Economics, 2019, 24(3) : 1345-1354.
- [10] Suvittawat A . Hospitality industry economic innovation out of tradition small-medium :
ize enterprises in North-eastern Thailand[J]. Australian Economic Papers, 2020, 59(4):319-335.
- [12] Appio F P , Mercat B , Romeni G , et al. Enhancing Eco-Innovation Performance: Evidence from a Water Footprint Assessment in the Manufacturing Industry[J]. IEEE Transactions on Engineering Management, 2019, 67(3):724-739.
- [13] Hu Haiqing, Chen Di, Sui Bo, et al. Price volatility spillovers between supply chain and innovation of financial pledges in China[J]. Economic Modelling, 2020, 89 : 397-413.
- [14] Manuel Octavio Del Campo Villares , Vanessa Miguéns-Refojo , Francisco Jesús Ferreiro-Seoane. Business Survival and the Influence of Innovation on Entrepreneurs in Business

[15] Erno Salmela , Janne Huiskonen. Co-innovation toolbox for demand-supply chain synchronisation[J]. International Journal of Operations & Production Management, 2019, 39(4) : 573-593.

[16] Mario Daniele Amore. Innovation disclosure in times of uncertainty[J]. Journal of Economics & Management Strategy, 2020, 29(4) : 792-815.

[17] Ute Stephan , Petra Andries , Alain Daou. Goal Multiplicity and Innovation: How Social and Economic Goals Affect Open Innovation and Innovation Performance†[J]. Journal of Product Innovation Management, 2019, 36(6) : 721-743.

[18] Samwel Macharia Chege, Daoping Wang. Information technology innovation and its impact on job creation by SMEs in developing countries: an analysis of the literature review[J]. Technology Analysis & Strategic Management, 2020, 32(3) : 256-271.

[19] Petros Chamakiotis, Achilleas Boukis, Niki Panteli, et al. The role of temporal coordination for the fuzzy front-end of innovation in virtual teams[J]. International Journal of Information Management, 2020, 50 : 182-190.

[20] Yun Chen ,Lian Duan , Weiyong Zhang. Effect of User Involvement in Supply Chain Cloud Innovation: A Game Theoretical Model and Analysis[J]. Journal of Global Information Management (JGIM), 2020, 28(1) : 23-38.