Research on Construction of Smart Scenario Finance in Commercial Banks

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Abstract. The application of big data, cloud computing, artificial intelligence, block-chain, and other technologies has enabled financial services to be closely integrated into daily production and life, and scenario finance has developed rapidly. Starting from the application scenarios of smart scenario finance, the research found that in the development of smart scenario finance, Internet finance companies rely on their accumulated resource advantages to establish the leading position, and commercial banks also adopt various forms such as self-built scenarios, shared scenarios, and integration scenarios to explore the construction of smart scenario finance, which improved the efficiency and quality of financial services of commercial banks, and promoted the business transformation of commercial banks. At the same time, there are also many problems and difficulties in the construction of smart scenario finance. Commercial banks should seize the opportunity and take advantage of financial technology to provide customers with financial services based on specific scenarios, and promote the construction of smart scenario finance.

Keywords: Fintech · Scenario Finance · Financial Services

1 Introduction

With the development of financial technology, financial services are no longer providing a single financial product, but a new financial solution that meets customer needs and provides interactive services in specific scenarios. Driven by technologies such as big data, cloud computing, and artificial intelligence, commercial banks have begun to explore the layout of scenario finance. Smart scenario finance combines technology, scenes, and financial services to enable commercial banks to integrate existing resources, explore different scenes. Find the integration point of financial services, life, and production through the application of various scenarios, integrate financial needs into daily life and production scenarios, and realize the deep integration of traditional finance and financial technology.

At present, there are few researches on commercial banks building smart scenario finance. Smart scenario finance is one of the future development directions of commercial banks. Commercial banks have huge development potential with their rich product systems and broad business platforms. Commercial banks should reshape their thinking

models, innovate their operating models, and consolidate technological capabilities in the construction of smart financial scenarios [5]. The path of smart scenario finance includes expanding network platforms, serving mobile data output ports, enriching traditional product content, and providing community outlet services [10]. The paper clarifies the concept of smart scenario finance, summarizes three application scenarios of commercial bank in smart scenario finance, analyzes the current situation and existing problems of commercial bank in the construction of smart scenario finance, and proposes the path for commercial bank, which enriches the theoretical connotation of scenario finance, and provides a certain reference for commercial banks in the development of smart scenario finance.

2 The Concept of Smart Scenario Finance

At present, domestic and foreign scholars have not yet unified the interpretation of the concept of "scenario finance". Zhou (2004) proposed the concept of "financial ecology", combining finance with ecology, and discussed how various participants in the financial field can jointly promote the development of the financial industry [13]. Huang and Zhu (2017) believed that the implantation of financial services in different scenarios can improve people's experience of enjoying financial services [4]. Brett King (2018) pointed out that the services of commercial banks will be everywhere in the future, that is, not in bank outlets [2]. Wen (2019) believes that scenario-based finance is to make complex financial needs more natural, simpler, and warmer, and directly embed them into people's daily life and production [8].

Scenario finance means that financial institutions integrate financial needs with application scenarios, make people flow, information flow, and business flow scenario-based and dynamic. Financial institutions rely on scenarios, demand-oriented, and provide financial services according to scenario needs, making financial services more intuitive, convenient, and efficient to meet customer needs. Scenario finance allows finance to be more intelligently and conveniently integrated into the daily lives of residents and the production and operation activities of enterprises, realizing the expansion of financial service channels.

With the development of financial technology, scenario finance has also made new developments. Ba, Qiao and Zheng (2018) pointed out that block-chain technology is penetrating into different financial scenarios, promoting the development of payment and settlement scenarios, and also helping to solve the problem of asymmetric information in the field of crowdfunding, the issue of confidentiality of customer information on P2P financing platforms, and the issue of data authenticity in supply chain financing [1]. Zhao et al. (2017) believe that scenario-based finance integrates new financial needs with various scenarios with the help of technologies such as payment, cloud computing, social networks, and search engines [12]. Xia (2019) believes that 5G technology provides opportunities for the development of new channel business scenarios [9].

Smart scenario finance is to make full use of block-chain, big data, cloud computing, artificial intelligence, and other technologies to embed financial services in various scenes of production and life, and promote the transformation from standardized financial services to comprehensive, and smart financial services that need to be customized.

In addition, the main goal of building smart scenario finance is to achieve a high degree of integration of finance, life and production, and to provide complete smart financial services around the scenario. Its main feature is to promote the transformation of one-way service processes into embedded service processes, and promote the transformation from standard financial services to on-demand customized financial services.

3 Application Scenarios of Smart Scenario Finance in Commercial Banks

3.1 C-end Scenario

The C-end is the consumption area of people's daily life. This scenario has the characteristics of diversification and complexity, and it is also the scenario field with the most intense competition among financial institutions. C-end scenario consumption finance provides consumers with financial products and financial services including payment, credit, asset allocation. C-end scenario finance is guided by the needs of the public, and through the joint construction of financial technology, financial services, and consumption scenarios, financial services are embedded in various consumption fields such as shopping, travel, tourism, and catering. This scenario provides personalized financial services that meet the different needs of customers, achieving scenario integration and service integration [7].

3.2 B-end Scenario

The B-end is the industrial end. It is a scenario financial model based on traditional supply chain finance. It is a scenario in which financial institutions are the leading role and core enterprises are the main nodes to meet the financial needs of core enterprises and upstream and downstream enterprises in the entire industrial chain. Scenes. The B-end smart financial scenario includes business scenarios such as payment, settlement, investment, and financing of various companies in the industry chain. With the development of financial technology, we can further accurately obtain industrial operation data through big data analysis, and effectively connect with related enterprises and e-commerce platforms through financial service platforms, so as to open up financing channels and form a new B-end scenario financial model.

3.3 G-end Scenario

G-end is the government affairs and people's livelihood field that is closely related to people. It focuses on the government and the people's livelihood. It covers medical, government affairs, social security, campus, finance, insurance, provident fund, and other fields. It is applied to education, medical care, social security, public services, and other scenarios. G-side scenario finance provides customized services for different types of customers, provides full-scenario, full-process financial service solutions, realizes in-depth integration of financial services, and government affairs, people's livelihood scenarios.

4   The Status and Problems of Commercial Banks in the Construction of Smart Scenario Finance

4.1   Development Status of Smart Scenario Finance

At present, commercial banks and other financial institutions are focusing on integrating financial services into scenarios such as consumption, people's livelihood, and industrial chain, realizing on-demand customization of financial services and precise marketing of customers, and rapidly expanding financial service channels and entrances, which have laid a good foundation for the development of scenario finance. In recent years, block-chain, big data, artificial intelligence, the internet of things, cloud computing, 5G, and other technologies have developed rapidly. Driven by financial technology, commercial banks actively promote the integration and innovation of financial technology and financial services [11]. Commercial banks make use of new technologies to create integration, Specialized business scenarios, and constantly embed financial services into specific production and life scenarios (Fig. 1).

Artificial intelligence technology is gradually applied in commercial banks. Commercial banks replace manual labor by deploying smart devices and robots, and build smart outlets to provide customers with services such as business consultation, information inquiry, and business processing. Commercial banks promote intelligent customer service, promote intelligent investment advisory, digital marketing, and promote the construction of intelligent risk control.

Commercial banks use block-chain technology to play a role in supply chain finance, digital currency, cross-border payment, asset management, and other multi-party cooperation scenarios, promote information sharing, credit transmission and automated collaboration, improve the ability to resolve financial risks, and expand financial service scope and application scenarios.

Big data technology develops rapidly in the application of commercial banks. By collecting data of customers' online behavior and external scene data obtained from open banks, accurate customer portrait can be carried out. At the same time, intelligent recommendation of "Thousand People and Thousand Faces" can be carried out based on big data application into various scenes.

Commercial banks apply Internet of Things technology to deeply connect customer life scenarios and financial services through smart phones, smart wearable devices, smart homes and other portals, serve agriculture, rural areas and farmers and promote supply chain financing, small and micro enterprise financing, and movable property pledge financing.
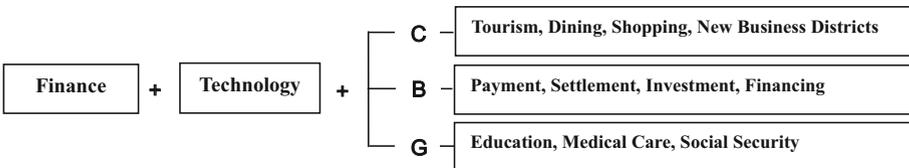

Fig. 1. Application of Smart Scenario Finance

For example, the Industrial and Commercial Bank of China built the smart banking ecosystem ECOS to support the transformation and development of the new era with cutting-edge financial technology. ECOS builds an open and integrated cross-border ecology, seamlessly embedding financial products such as payment, financing, wealth management, and investment into education, medical, travel, government and other consumer and enterprise production scenarios, making financial services as convenient and available as water and electricity. Bank of China has launched five financial scenarios, namely "smart government affairs", "smart transportation", "smart healthcare", "smart education", and "smart life". It actively promotes digital upgrade strategies and strives to create a digital bank with ultimate user experience, rich scenarios, online and offline collaboration. With the help of big data, cloud platform, artificial intelligence and other digital means, Bank of China builds a new ecology of smart finance to serve the construction of smart cities.

4.2   Problems in the Development of Smart Scenario Finance

However, due to the richness and diversification of financial technology itself, as well as the openness and sharing of the underlying technology, commercial banks do not have advantages compared with other Internet financial companies in terms of platform construction and information technology. There are still many problems in the construction of scenario finance at the current stage.

First, the technology is relatively weak and the innovation speed is slow. Commercial banks lack frontier talents in financial technology. The academic background of commercial bank employees is mainly concentrated in the field of economic management. The traditional information technology department of commercial banks is mainly responsible for the lead development and maintenance of internal systems. The research and development of new technologies such as artificial intelligence, big data, and cloud computing is in the initial stage. At present, commercial banks are in the initial stage of applying financial technology, and scenario finance focus on meeting customer needs, requires technical support that is responsive, flexible, efficient, and stable. Commercial banking products have a long update and iteration cycle, which is full of challenges to the customization, openness, and response speed of commercial banking technical systems. The competition foundation of smart scenario finance is big data processing, information services, artificial intelligence, and other technical means. If the technology cannot keep up with the pace of network development, it is easy to generate technical and operational risks.

Second, the content of smart scenarios is single and limited. At present, the construction of smart scenario financial is still in the stage of planning, design, exploration, and promotion, and homogeneous competition is serious. Some commercial banks mainly simply migrate offline services to online, lacking differentiated products and services that attract customers, make customers identify with them, and solve customer pain points. The financial scenarios established by commercial banks have insufficient visibility and market influence, and have not formed a smart scenario financial system with abundant products and a certain scale. From the perspective of the scale of the online payment market, Internet finance companies occupy most of the online payment market in China, while commercial banks have a small market share.

Third, there are difficulties in data integration. The construction of smart scenario finance needs to integrate internal and external data, reduce information asymmetry, and use algorithms and other technologies to deeply integrate fragmented data to achieve shared data. At present, the data in the field of commercial banks in our country is mainly controlled by commercial banks, financial regulatory agencies, third-party agencies, and government-related agencies. The supervision is strict, so the integration of data will become a problem that needs to be solved in the construction of smart scenario finance for banks.

5   Conclusion

The paper defines the related concepts of smart scenario finance. Three different application scenarios in commercial banks include C-end, B-end, G-end Scenarios, and the paper analyzes the current situation and existing problems of the construction of smart scenario finance in commercial banks.

Through the above analysis, smart scenario finance is the development trend of commercial banks. The construction path of commercial banks in smart scenario finance includes the following aspects.

Paving the path of smart scene financial construction from the three perspectives of financial technology, financial services, and financial scenarios can better serve the integrated development of commercial banking ecosystems and financial technology, and enhance the core competitiveness of commercial banks.

In the process of constructing smart scenario finance, we must enrich scene resources. Open up data flow, information flow, and capital flow, establish a fast scene access model, and introduce a large number of different types of scenes into the smart scene financial system. Specifically, it is necessary to build an existing stock market based on online banking and mobile banking, expand new markets through self-built scenario platforms, cooperate with external scenario agencies to embed the banking service market, and cooperate with external agencies to develop smart financial scenarios.

At the same time, it is necessary to accelerate the development of technologies such as block-chain, cloud computing, artificial intelligence, big data, 5G, and the Internet of Things, explore the application of related technologies in different financial scenarios, enrich and improve business scenarios, improve customer service experience, and actively develop new technologies [6]. It is necessary to actively carry out the incubation of new technologies and promote the development and innovation of new scenarios, new models, and new products.

Finally, we need to explore the construction of smart scenario finance for different application scenarios:

On the C side, commercial banks need to deeply explore the needs of customers at different stages, levels, and links, while focusing on business development opportunities brought by new consumption and exploring emerging areas. It is necessary to use financial technology such as big data and artificial intelligence to continuously improve smart product system such as smart consumer finance, smart investment advisory, smart product recommendation, and smart customer management [3]. While constructing the scene ecology, we will make full use of big data and other risk control measures to

prevent risks, and improve the institutional framework and supervisory system of smart scenario consumer finance.

On the B side, it is necessary to fully connect the core enterprises in the scenario circle with upstream and downstream enterprises, and provide them with convenient and effective industrial chain financial services, which not only involve credit, payment and settlement, account management, fund management, but also help companies improve production and operation efficiency, provide financial services based on online and offline application scenarios. At the same time, commercial banks can use 5G, the internet of things and other technologies to obtain data from multiple dimensions, and conduct credit risk assessments on companies to achieve control and tracking of financial services.

On the G side, commercial banks must connect with all levels of government platforms including mobile service terminals, fully participate in the construction of government affairs scenarios, and expand the scope of services in financial scenarios such as smart government affairs, smart medical care, smart finance, smart social insurance, and smart campuses. It is necessary to dig deeply into government affairs platform user data and obtain customers in batches, and connect with vertically managed unit systems, such as government service platforms of medical, education, public security, and taxation, to obtain high-quality information and data on government affairs and people's livelihood scenarios. At the same time, it is necessary to strengthen external cooperation with service providers such as cloud computing, big data, and 5G technology, actively explore the application of data in the financial industry, explore and solve government pain points, and provide corresponding financial services.

Commercial banks should start from the three application scenarios of consumption, government affairs, industry, and build scenarios with certain characteristics, good integration and good interaction, so as to realize the sound development of their own businesses, and at the same time help people realize their yearning for a better economic, financial life and social life. Later, I hope to use more statistical analysis methods to dig deeper into the construction path and effects of smart scenario finance.

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