Research on Financing Strategies of Commercial Banks to Support Small and Micro Enterprises

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Abstract: As an important source of economic vitality, small and micro enterprises have made important contributions to the development of the market economy. However, COVID-19 has had a significant impact on economy worldwide, small and micro enterprises are more affected by the impact due to their weak anti-risk. As the main financing supporters, commercial banks should play their functions to support the financing and development of small and micro enterprises. From the viewpoint of systems theory, this paper adjusts the composition of elements and optimizes the connection relationship among the elements, thus realizing the overall improvement of the efficiency of the financing system, and makes prospects and suggestions for the future operation mode of commercial banks.

Keywords: Systems theory, commercial bank, Small and micro enterprises, financing.

1. Introduction

The difficult and expensive financing of small and micro enterprises is a worldwide, universal and long-term problem. There are the problems caused not only the natural characteristics of small and micro enterprises, but also the problems caused government institutions and the service ability of commercial banks. Its essence is the information asymmetry between banks and enterprises, the credit risk of small and micro enterprises is difficult to determine and the transaction cost of banks is too high. There have been many research results in these fields, such as game theory to solve information asymmetry, probability theory to solve credit risk control, Coase Theorem to solve transaction costs. Due to the superposition of COVID-19, the financing of small and micro enterprises are facing new problems such as social isolation, industrial chain disruption and long accounting period. Facing the serious imbalance of financing ecology of small and micro enterprises and the new trend of financing, how can commercial banks support the financing of small and micro enterprises around their own functions? Using system thinking theory to research, solve and formulate coping strategies, by adjusting the composition of elements and optimizing the connection relationship between elements, we can improve the overall efficiency of the system and achieve the optimal goal.

2. Literature review

2.1. Minimization of financing needs

Regarding small and micro enterprises, it is generally considered that small enterprises, micro enterprises, family workshop-type enterprises, individual industrial and commercial households, etc. Can be collectively referred to as small and micro enterprises, and in terms of total assets, industrial enterprises do not exceed 30 million, and other enterprises do not exceed 10 million. It can be seen from this that small and micro enterprises are also relatively limited in terms of capital demand, usually not exceeding 3 million, and most of the capital demand scale is concentrated in 3-5 million.

2.2. Financing guarantee credit

On the one hand, relevant policies establish a credit guarantee system to support the development of small and medium-sized enterprises, and promote the safety of financial assets and the development of small and medium-sized enterprises. Some places have successively established guarantee funds or guarantee companies that specialize in financing services for small and medium-sized enterprises. On the other hand, relevant institutions have continuously reformed and improved the credit fund
management system, effectively increased the investment in credit funds for small and medium-sized enterprises, further improved the existing internal credit evaluation system, gradually formed a loan credit evaluation system suitable for the characteristics of small and medium-sized enterprises, and provided necessary credit qualification support for loans to small and medium-sized enterprises.

2.3. Financing cost differentiation

Banks generally raise interest rates when providing loans to small and micro enterprises, while the composite interest rate for private financing is higher. In addition, there are hidden costs such as public relations cost, time cost, opportunity cost and notarization cost in the financing of small and micro enterprises, which indirectly increase the financing cost of enterprises. High financing costs make companies overwhelmed. According to research, from the perspective of loan interest rates, small and micro enterprises have the lowest annual interest rate for loans through large banks, roughly 5.1%-5.5%; city commercial banks’ annual loans the interest rate is slightly higher than that of the four state-owned banks, between 6.5% and 7%; the annual interest rate of loans of small loan companies and private lending institutions is as high as 20%, and there is even a phenomenon of usury.

2.4. High frequency of financing

Since most of the small and micro enterprises are concentrated in some areas of processing, manufacturing, and trade and circulation, the use of funds is often for the purchase of raw materials, short-term capital turnover, temporary project advances, and expansion of production lines. Therefore, small and micro enterprises have relatively short-term capital needs, short cycles, and high frequency. Especially in the purchase of raw materials, because the market fluctuates greatly, it is often "one price per day". If you miss the time to buy, you may need to bear higher capital costs. In addition, because small and micro enterprise loans are often used for a single purpose and their own business plan cycle is relatively short, the cycle of funding needs is relatively short. Finally, due to its small scale, when the funds cannot be withdrawn in time, they often need to advance funds to maintain production and operation, so the frequency of financing is relatively high.

2.5. Self-service financing

At present, commercial banks have strengthened the introduction of technology. When dialing a voice call, the intelligent robot will give a button to jump to the manual customer service, realizing one-click to jump to the manual customer service. The seamless connection between manual and intelligence provides small and micro enterprises with a channel for self-service business. In addition, for the review and approval of relevant loan data, these can also be uploaded through the self-service platform, and the loan can be issued after the smart review is passed.

3. Based on the system theory point of view, commercial banks support small and micro enterprise financing strategies

By adjusting the composition of the four elements, we will make the most adequate preparations for optimizing the connection relationship, and then optimizing the connection relationship between the elements to achieve the overall improvement of system efficiency.

3.1. Adjust the element structure

3.1.1. Optimize the product system

Mismatches in amount, maturity, and capital cost are several important factors that make financing difficult for small and micro enterprises. In addition, the operating characteristics of small and micro enterprises, the personal characteristics of business owners, the life cycle of the enterprise, and the industry sector in which they are located determine that temporary, revolving, and low-cost credit products are what they actually need. Finally, banks should continue to optimize the construction of their own product system, expand the types and scope of collaterals, increase corporate credit guarantee methods, and use the credit status of core enterprises to play the role of supply chain. The specific measures are as follows:
a) Expansion of micro-recycling products

Banks should fully innovate products for the small and high-frequency funding needs of small and micro enterprises, design small-value cyclic products according to their business model, sign a loan contract at one time, and recycle the credit line within the term of the loan contract. Combining small amounts and multiple loans, withdrawing in installments, returning in installments, creating flexible lending and repayment functions. Differentially set loan product lines for different industries and enterprises of different sizes. Vigorously develop financial products with a quota of 3 million to 5 million, relax the loan standard for pure credit loans below 5 million, and accelerate the development of inclusive finance below 10 million.

b) Optimize short-term and low-cost products

For the mismatch of maturity and capital cost, the bank should flexibly set the short and medium loan term and interest, ranging from one day as short as several years, and repaying principal and interest according to actual use. Combining the life cycle and operating characteristics of small and micro enterprises, quantifying risks, customizing costs, reducing the loan interest rate of small and micro enterprises through inclusive finance, and giving greater interest rate concessions to secondary and multiple loan applications. Design medium- and short-term products, flexibly determine the use period of funds from 1 day to 365 days, and inclusive finance LPR pressure point pricing to reduce the cost of capital use.

c) Overcome weak credit guarantee products

In order to promote the accurate connection of inclusive small and micro credit tools to entities, banks must reform and innovate the financing guarantee methods for small and micro enterprises. Enlarge the scope of mortgaged assets, and expand to cover all fixed assets such as factory buildings, instruments and equipment. Cooperate with relevant departments to formulate a sound credit system and risk prevention plans from property right evaluation to pledge procedures. Explore the docking of corporate credit registration systems, credit reporting systems, and taxation platforms to realize the sharing of credit information for small and micro enterprises and eliminate data barriers. Make the financial information and non-financial information of small and micro enterprises transparent through platformization, and establish a mechanism for information symmetry and risk assessment. Under the premise that the information of small and micro enterprises can be mastered, assess their risks and provide methods of pure credit, credit and guarantee superimposition.

d) Develop supply chain products

The essence of the supply chain finance model is to rely on the credit status of core enterprises to enhance the credit of small and micro enterprises, so as to obtain systematic financing arrangements. Banks can design systematic financing products based on the relationship between these companies and the ownership and cash flow of the goods on the chain. Through the guarantee of orders and goods in the industry chain, the use of financial technology to rebuild the channel connecting banks and enterprises allows small and micro enterprises to regain credit support with the help of the power of the ecosystem in which they are located. At the same time, based on the supply chain, the bank creates value from the integrated credit of information flow, capital flow and logistics between enterprises, breaks the triangular debt from the transmission of credit, and activates the precipitation resources as an intermediary.

3.1.2. Adjust the risk control mechanism

At present, family management still exists in many small and micro enterprises. Lack of scientific
organization and management system, and the lack of emphasis on financial management, and an incomplete organization mechanism can easily expand the business risks of the enterprise. Therefore, pre-lending investigations, mid-lending approvals, and post-lending management are vital tasks that banks have to do in terms of risk control.

a) Pre-lending investigations

Strengthening pre-lending investigations and controlling the quality of customer sources to shift the focus of risk control is the primary task of risk control. Due to the non-standard management model of small and micro enterprises, their financial statements lose credibility, but the water, electricity, and other data consumed in their production activities can truly reflect whether the production conditions of small and micro enterprises are normal, which can effectively solve the concealment of information by small and micro enterprises.

Carry out TAILONG Bank's "three grades and three tables" model, through the "three grades" including character, products and collateral, as well as the "three tables" including electricity meters, water meters and tax forms, in-depth mining of soft and hard information, repeated games to reduce Credit risk of small and micro enterprises. Using big data information mining to solve the problem of information asymmetry between banks and enterprises, through internal and external information exchange and cross-checking of multi-dimensional soft information, to reduce the "lying" behavior of small and micro enterprises. Identify and distinguish customers with scientific and technological means, determine whether or not to accept risky customers and how to accept risky customers, use big data models to improve the pre-lending early warning mechanism, and keep up with the times to continuously update early warning indicators to enhance the forward-looking and effectiveness of the early warning system.

b) Mid-lending approvals

Traditional credit decision-making and approval mainly rely on the empirical judgment of credit personnel, and subjectivity leads to greater risk loss in decision-making. Banks should increase the scope of application of intelligent automatic credit approval for credit, from data entry to result output, all completed by computer algorithms, which not only avoids human subjectivity, but also ensures the objectivity of evaluation results. At the same time, artificial intelligence can collect information at the front end of the loan business and automatically perform data analysis at the mid-end. On the one hand, it uses computer vision recognition to determine the customer’s credit rating, whether it is a fugitive criminal or whether its employees violate laws and regulations; on the other hand, it conducts deep learning to automatically collect, clean, and analyze data. Based on the complete life cycle model of loan application, loan approval, loan utilization and loan recovery, customer risks are quantified in an all-round way. Collect data from multiple angles, build a multi-dimensional indicator database, quantify the business risks of small and micro enterprises in real time, grasp their credit dynamics, and prevent large changes in credit from generating non-performing loans.

c) Post-lending management

Through intensive dynamic information collection, promote the transformation of post-loan management data for small and micro enterprises, and use massive data to realize the full-process directional tracking of fund use and utilization efficiency. The first is data integration, which compares the authenticity and accuracy of data provided by small and micro enterprises through external data information such as industry and commerce, taxation, and industrial chain information. Establish a professional post-loan management system for business information analysis, risk information prompts, and capital flow monitoring. The second is intelligent monitoring, which uses technologies such as the Internet of Things and satellite monitoring to achieve precise monitoring and point-to-point management of the location, form, and depreciation status of the company's movable property, real estate, and inventory to ensure that the company has sufficient debt solvency. The last is to establish a post-loan risk control model, update the different ranges of monitoring indicators and early warning values according to risk changes, and automatically make early warning notifications in a timely manner.

3.1.3. Integrate operating resources

Commercial banks should take the integration of internal resources as the starting point, use the Internet, data analysis and other technical means to protect and manage data, form a unified customer view, product view, information view, risk management view, etc., to provide customers with more accurate personalized financial services. Specifically, the following two aspects of element linkage can be adopted:
a) Horizontal professional linkage

Fully implement the comprehensive service capability improvement project for inclusive finance, and provide a one-stop package of personalized and integrated financial services. Enhance the competitiveness of basic business through inclusive finance, and connect basic business to customer flow, capital flow, information flow, etc., and increase customer stickiness and customer loyalty. Government departments collect very valuable data involving small and micro enterprises, including data from taxation, industry and commerce, social security and other departments. Government departments can establish special data institutions with relevant departments of the People’s Bank of China to collect information scattered in various functional departments. Integration and mining for commercial banks to develop products based on data and information.

b) Vertical cooperation

Integrate the resources of commercial banks, the head office is responsible for industry research and product research and development, and the branches are responsible for marketing and brand value enhancement. The head office should conduct product research and development based on the characteristics of the small and micro enterprise industry and transaction scenarios, and standardize the products. Branches should also go deep into the market, organize product launches, and timely report to the head office the market information learned during the marketing and promotion process, so that the head office can complete more targeted product development.

3.1.4. Improve personnel skills

Every aspect of the operation of commercial banks and the financing of small and micro enterprises is carried out by employees. Therefore, the optimization of personnel skills also plays an important role in supporting the financing of small and micro enterprises by commercial banks, including the following three parts:

a) Reduce the burden of personnel

First of all, in terms of hardware facilities, it is necessary to standardize the products, realize the electronic operation of the bank's application systems, and reduce the operating burden of the staff. Secondly, after the occurrence of credit risk of small and micro enterprises, if there is sufficient evidence to show that the credit department and staff are diligent in accordance with relevant laws and the internal management system of the bank, they shall be exempted from all or part of their responsibilities. Finally, guide relevant personnel to form policy expectations of due diligence, exemption and accountability.

b) Optimize marketing outlets

Accelerate the intelligent upgrade of offline physical outlets, optimize the location and operation mechanism of outlets, and shape a humanistic, open and digital outlet atmosphere. Through functional zoning, smart equipment upgrades, and personnel skills enhancement, outlets have been built as showcases for banks' high-quality services.

c) Improve staff quality

Improve the quality of personnel around "IQ, EQ, and Adverse Quotient". Develop personalized training programs based on employees, and combine training goals with the bank’s future development direction to maximize the effectiveness of training. Introduce professional training institutions to enhance the professionalism and interest of training; pay attention to cultivating employees' continuous learning ability and enhance their ability to cope with changes in the work scene.

3.2. Optimize connection method

3.2.1. Reshape customer acquisition channels

The customer acquisition concept of "Scenario is Finance" is to build various scene platforms through behavioral data, from passive customer acquisition to active customer acquisition. Sharing business information and credit information of small and micro enterprises through the "soft information" platform, and using massive amounts of data to establish new channels for accurate customer acquisition and batch acquisition are the more outstanding aspects that banks need to do in the future.

a) Integrate into scene construction

With the emergence of various emerging business models in the external environment, one of the key paths for commercial banks to break through the traditional financial model is to focus on the construction
of “scenarios ecology”. Based on the full application of new technologies such as big data, blockchain and artificial intelligence, banks can more accurately grasp the characteristics of financing needs of small and micro enterprises, actively build financial scenarios, and design products for various online scenarios and models. In addition, banks must conduct in-depth joint operations with various Internet platforms that master the scene. Utilizing various daily life demand scenarios, docking with industries such as transportation, medical care, and communications, embedding financial services into the existing Internet ecosystem, and then making up for the limitations of the bank's own physical branches.

b) Anchor core indicators

Attach importance to the establishment of a "soft information" system and determine the credit rating of small and micro enterprises in combination with quantifiable information indicators. Pay attention to the information of small and micro enterprises accumulated through multiple channels to make up for the lack of quantitative financial information. Take corporate stakeholders and the communities where the company is located as the entry point, and give full play to the advantages of grassroots banks and customer managers in using information from all parties to understand the business status and credit level of the company. Increase investment in intelligent tools and collect massive amounts of non-financial information related to small and micro enterprises from various departments, such as taxation and social security, to form a visual database. Combine the logistics, cash flow and transaction behavior of small and micro enterprises. Comprehensively construct the core indicators for credit review of small and micro enterprises, and form a unique customer screening model.

c) Acquire customers in batches

The bank establishes a batch cluster development model for small and micro enterprise customer clusters with common characteristics, and obtains customer information through multiple channels, which can overcome the problems of moral hazard and adverse selection to a certain extent. At present, the cluster development of small and micro enterprises mainly includes three models: industrial chain development, business circle development and platform development. Commercial banks should adopt corresponding batch marketing models according to the characteristics of different clusters.

First of all, the industrial chain development model with large and super large enterprises as the core has formed small and micro enterprise clusters that provide core enterprises with production, logistics and supporting services. Commercial banks should analyze and master the contract information and transaction information between core large enterprises and upstream and downstream small enterprises, estimate their business dealings with upstream and downstream small and micro enterprises, and provide integrated financial services based on the industrial chain. Focus on strengthening credit support for small and micro enterprises with real transactions, expand high-quality enterprises in the industry chain in batches, and enhance customer expansion capabilities and credit risk management capabilities.

Secondly, the business district development model of clustering small and micro enterprises. Commercial banks should cooperate with the management in the business circle and the management committee in the park to make prospect planning and credit evaluation of the business circle. Implement differentiated management of small and micro enterprises clustered in the business district in a hierarchical and classified manner. And through differentiated market strategies, credit granting and approval work, to create a "1+N" business development model with characteristics of the business district.

Finally, in the face of the clustered platform development model of small and micro enterprises, commercial banks must actively strengthen communication with the government, industry associations and other departments. Promote the construction of an information sharing platform: high-quality customer recommendation and pre-loan screening, credit enhancement support for customers lacking high-quality collateral, and multi-party cooperation to establish a special risk compensation fund to provide all-round financing support for small and micro enterprises.

3.2.2. Improve service methods

a) Respond quickly in real time

Accelerate the construction of mobile marketing platforms, and expand potential customers by actively entering business circles, communities, and enterprises. Account managers carry small mobile office equipment with them to provide customers with convenient financial services anytime and anywhere, effectively extending the service radius, increasing the coverage of small and micro services, solving the problem of service time and space constraints, and allowing customers to experience efficient services.
b) Online self-service operation

The change in financing concepts, habits, and the acceleration of the digitalization of banks have given birth to the trend of online self-financing for small and micro enterprises, such as application, withdrawal, and repayment through mobile banking, as well as online guarantee contract and mortgage registration, and online Due diligence review, etc. In addition, in the context of the digital transformation of banks and the epidemic, the remote banking model has emerged. The bank has accelerated the transformation of the customer service call center of the operating sector to a remote bank, empowered remote banks through digital technology, and shaped the value concept of full-time, omni-channel services.

c) Financial Assistant Service

Small and micro enterprises have many unique characteristics of their own, so banks should adopt financial services suitable for these enterprises, such as the credit factory model. It clearly divides the modules of credit approval, marketing, and business operations. When small and micro enterprises carry out credit, it can open up green channels for them in all aspects, shorten the loan time and simplify the credit process. With this model, the bank's resources can be integrated and optimized, a professional credit service mechanism can be established, and it can be rapidly developed to form a scale, realizing a full-process, full-online, one-stop integrated financial assistant service.

3.2.3. Innovative methods of cooperation

a) Cooperation with the government

G-side, B-side, and C-side respectively refer to government affairs, industry, and consumption. Participate in the construction of digital government through open banking and scene finance, deploy financial services on the G-side, and realize G-C connection, G-B connection, and G-B-C connection. It is an important port and channel for commercial banks to connect to the future digital world. Banks actively connect with the government, actively build an ecosystem with the government, and put services that reflect their strategic intentions into government scenarios and various ecosystems. Among the various scenarios, the government affairs scenario is a source, hub-type scenario, and the development of the G-side scenario can cut into the B-side and C-side customers. Government data is the highest quality data among all kinds of data and has extremely high mining value. However, according to the current industry rules, only those who participate in the construction of the system platform can use the desensitized data. Therefore, government affairs scenarios and government affairs data are the battlefields of commercial banks' digitalization.

b) Cooperation with core companies

The development of supply chain financing services relies on core enterprises. The actual transaction business of upstream and downstream customers formed in the stages of procurement, production, and sales must be based on the future cash flow corresponding to the accounts receivable or goods in the transaction process. Calculate the company's capital requirements, comprehensively use domestic trade financing products, and make a reasonable combination of various products. Form a comprehensive trade financing service plan to promote the common business development of core customers and upstream and downstream customers.

c) Cooperation with third-party platforms

With the normalization of the epidemic and the rapid development of the Internet environment, the investment channels for customers continue to increase, and people's lifestyles are becoming more and more dependent on the Internet. Commercial banks should adapt to changes, continue to improve electronic payment services, and innovate financial products. At the same time, learn the advantages of third-party payment platform operations, reduce offline counter services, and improve customer online payment services. Using the large amount of basic customer information and the advantages of having a large number of customers, we can realize differentiated services from third-party payment institutions, increase customer stickiness, and establish a stable customer credit system.

4. Prospects and suggestions

4.1. Future small and micro financial business model

Today's world economic development is facing great uncertainty. With the impact of the COVID-19,
the development prospects of the world economy are showing a downturn again. For commercial banks, to maintain stable business conditions and high-quality development, they must have a long-term strategic goal and direction. In order to support the financing needs of small and micro enterprises in the future, the business model of small and micro finance will develop in a more inclusive, intelligent and ecological direction.

4.1.1. Inclusiveness

Small and micro enterprises play a main role in my country's economic development, employment rate and social order stability. Let these enterprises enjoy the dividends of inclusive finance is the direction of the continuous efforts of commercial banks. Commercial banks will continue to improve their customers' sense of financing and their risk acceptance for small and micro enterprises, continue to innovate financial products based on the actual demand for funds, implement inclusive finance, and truly benefit enterprises.

4.1.2. Intelligent

Mankind reconstructs the relationship between elements through systemic thinking and accelerates the formation of intelligent services. Social isolation has promoted the digital network as the main place for bank operations, and traditional business models will gradually be replaced. With online automation as the core, the business process is continuously optimized. Pay attention to multi-dimensional cross-information combination verification. Use data mining methods to quantify the dynamic risks in the process and issue real-time warnings. Through the moderate intervention of people, the breakpoints in technical services can be overcome. This allows customers to obtain the financial services they need without any time and space constraints. In the future, the entire process of small and micro financial services will develop in a more intelligent direction.

4.1.3. Ecological

Construct an ecological model that includes the participation of governments, enterprises, financial institutions and other stakeholders. Through the ecological system, all parties participating in the cooperation can benefit from it, realizing a win-win situation and sharing. Through continuous adjustment of elements and optimizing relationships, the system's effectiveness can be strengthened.

4.2. Related suggestions

In the ecology of small and micro enterprise financing, the government is the soil and sunlight that nurture seeds, currency is water, air, and nutrients, small and micro enterprises are seeds, and banks are the intermediary for conversion. Banks can allow water to circulate and act on seeds under the action of sunlight, thereby realizing a virtuous cycle of the entire ecosystem. Based on this, the following suggestions are made.

4.2.1. Optimize the growth environment of small and micro enterprises

The government should continue to optimize the business environment for small and micro enterprises. Promote the establishment of a strong credit system and form a benign interaction with banks. Optimize the approval procedures and promote tax reduction and fee reduction. Temporary relief measures for small and micro enterprises will be introduced during the epidemic. Combine with long-term support policies to achieve long-term special support for small and micro enterprises. Encourage small and micro enterprises to strengthen internal construction. Continuously improve its own credit system and governance structure. Investigate and deal with financial institutions' illegal lending, small and micro enterprises' fraudulent loans and subsidies. Improve the punishment system and measures for dishonesty, and optimize the development environment.

4.2.2. Multi-party efforts to improve the construction of the information platform

The local government takes the lead in building a multi-dimensional informatization data platform. Cooperate and share information with taxation, industry and commerce, electric power and other departments. Use multi-perspective information to promote the transparency of information disclosure of small and micro enterprises. Form a docking with the bank information platform to solve the problem of information asymmetry between some banks and enterprises.

4.2.3. Commercial banks inject vitality into the financial ecology

Combine the characteristics of small and micro enterprises' operating scale and growth cycle. Continuously improve the product design and risk management of financing for small and micro enterprises.
enterprises. At the same time, in the context of the digital economy, the training of financial technology compound talents will be accelerated. Accelerate technological breakthroughs in 5G, artificial intelligence, cloud computing, blockchain and other new infrastructure and financial technology. Improve the financial technology standard system, and standardize and guide the innovation of financial technology products in terms of product services, operation management and information technology.

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