

Research on the Innovation of Community Bank Development Model Based on the Concept of “Internet + Neighborhood”

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Abstract. Community banks urgently need to innovate their development models by leveraging technological tools to deeply integrate into community life. This is essential to address the current challenges of unclear market positioning and severe homogenous competition, while also capitalizing on the opportunities arising from advancements in internet technologies. This study begins with an exploration of the intrinsic nature and comprehensive attributes of "neighborhoods," and combines the advantages of fintech to propose a novel marketing model for community banks—the "Neighborhood" dual-loop marketing model. The model aims to help community banks better position their market, deepen service penetration, and enhance customer loyalty by deeply integrating internet technologies with community life scenarios. This model consists of two key components: the "Basic necessities+" closed-loop system and the "Community Information Database." The former drives the integration of banking services into various aspects of community life by aligning with residents' daily needs. The latter helps banks capture dynamic customer profiles through the establishment and utilization of a community information database, enabling them to optimize products and services and achieve precise marketing outcomes. Through a combination of theoretical analysis and case studies, this paper explores the implementation pathways of this model, offering a new theoretical framework and practical guidance for the transformation and upgrading of community banks in the internet age.

Keywords: Community Bank, Financial Technology, Banking Marketing Model, Community Information Database, Customer Profiling.

1. Introduction

In recent years, with the rapid development of the socio-economic landscape and the continual accumulation of wealth among residents, community banks have emerged as crucial financial institutions serving both community residents and small to micro enterprises. They play an essential role in advancing inclusive finance and meeting the diverse financial needs of the public. However, community banks in China are currently facing significant challenges, including unclear market positioning, intense homogeneous competition, and limited service models. These challenges underscore the urgent need for innovation in development models to improve service quality and efficiency, while enhancing customer loyalty. At the same time, the rapid development and widespread application of internet technologies present both new opportunities and challenges for the transformation and upgrading of community banks. The critical question for community banks is how to leverage modern technological tools to integrate online and offline resources, deeply embed themselves in community life, and establish close connections with community residents[1].

Existing literature on community banking marketing models primarily focuses on traditional customer relationship management and the advantages of localized services. However, three major limitations persist: First, there is a lack of research on the collaborative mechanisms through which financial technology is deeply embedded in community contexts. The dichotomy between technological factors and human-centric attributes obscures the digital transformation pathways of marketing strategies. Second, most empirical studies remain confined to static assessments of service

effectiveness, failing to construct dynamic customer demand forecasting models capable of capturing real-time community data. Third, theoretical frameworks overly rely on general retail banking models, neglecting the unique value extraction of "hyper-localized" data assets and the social capital conversion mechanisms inherent to community banking. This oversight constrains theoretical advancements in personalized service innovation and the effectiveness of inclusive finance. This paper, based on the emerging concept of "Neighborhood" proposes a novel community bank marketing model. This model innovates and advances the marketing paradigm of community banking by establishing two closed-loop frameworks: the "Living Essentials+" closed-loop system and the "Community Information Database." Through these frameworks, financial technology is deeply integrated into community settings, enabling the construction of dynamic customer demand forecasting mechanisms.

2. Current Status and Innovation Direction of Community Banks

2.1. Concept of Community Banks

The concept of community banks originated in financially developed countries in the West. As financial institutions with relatively small asset scales, community banks focus on serving specific communities and small-to-medium-sized enterprises. Their core characteristics are community orientation and small-scale operations. Community orientation is the fundamental feature of community banks, transcending mere geographical location and emphasizing the deep integration between the bank and the community it serves. Small-scale operations, on the other hand, are a key criterion for defining community banks. Given the feasibility of data collection and cost-effectiveness, size has become a primary distinguishing factor between community banks and non-community banks.

Currently, there are three main development models for community banks: the all-encompassing model, the limited-function model, and the front-end service model. All-encompassing community banks offer a full range of financial services, from basic savings and loans to complex wealth management consultations, and may even include convenience stores or small specialized service windows to cater to various needs. However, their broad service scope leads to higher operational costs, making them more suitable for larger markets where a balance between economic efficiency and service diversity can be achieved. The limited-function community bank focuses on basic financial services, integrating deeply into community life and offering a cost-efficient service structure. While it may not attract clients needing complex financial services, it can effectively leverage fewer resources. Finally, the front-end service community bank emphasizes consultations and customer service, with a professional customer service team providing financial guidance. While maintaining a low cost structure, its service scope is limited. This model is an efficient and economical choice for clients who only require consultation and basic services.

2.2. The Necessity of Developing Community Bank Services

2.2.1 The Need for Deepening the Practice of Inclusive Finance

Inclusive finance aims to ensure that all social classes and groups can access appropriate and effective financial services at affordable costs, with the core goal of extending necessary financial services to vulnerable populations. However, the current state of inclusive finance reveals a significant imbalance in resource distribution, which can be explained by the "Pareto Principle" (the 80/20 rule): in China's financial institutions, approximately 20% of clients occupy 80% of financial resources, leading to a concentration of resources in large enterprises and high-net-worth individuals. This unequal distribution of resources poses a major obstacle to the development of small and micro enterprises (SMEs). As vital pillars of China's economic development, SMEs face severe financing challenges due to their small size, low credit ratings, and inadequate financial management. Most SMEs encounter difficulties when seeking funding from traditional financial institutions, with many

being rejected due to the inability to provide sufficient collateral, further restricting their growth and innovation capacity. Additionally, there is a substantial gap in the financial service needs of the general public, especially in rural and low-income areas. The accessibility of financial services in rural regions is relatively low, severely impacting residents' ability to access basic financial services and exacerbating the urban-rural divide in financial service provision[2].

To address the challenges of insufficient coverage in inclusive finance, community banks, as grassroots financial institutions, can effectively promote the expansion of financial resource allocation and the deepening of inclusive financial services. By gaining a deep understanding of residents' financial needs within communities, they offer personalized and comprehensive financial services. Community banks have launched customized products such as "Micro e-loans," "Tech e-loans," and "Agricultural e-loans" to meet the diverse needs of different client groups. Despite these efforts, community banks still face barriers in gaining trust and fully integrating into communities. Through exploring cross-industry collaborations and expanding business offerings, community banks not only improve service quality and customer satisfaction but also drive their own transformation, fostering customer loyalty and advancing the practice of inclusive finance.

2.2.2 The Need for Technological-Driven Innovation in Financial Services

Against the backdrop of technology-driven expansion of banking service boundaries, inclusive finance and fintech exhibit significant complementary effects, jointly driving financial equality and promoting financial development. Inclusive finance aims to provide fair, convenient, and reasonably priced financial services to expand financial service coverage and improve accessibility. However, when facing deeper challenges in the financial sector, traditional inclusive finance may encounter limitations, such as high costs and low service efficiency[3]. In this context, fintech serves as a complementary force, effectively solving problems that traditional inclusive finance cannot address, and optimizing the structure of financial services through advanced technologies such as big data, cloud computing, and blockchain.

In the digital age, financial technology is reshaping the landscape of the financial industry, providing community banks with a valuable opportunity for transformation. By leveraging big data, cloud computing, and blockchain, community banks can optimize service costs, enhance operational efficiency, strengthen risk control, and deliver targeted financial services to small businesses and low-income groups[4]. By using big data analytics to develop customized products, community banks can meet residents' diverse needs, promoting financial inclusiveness and accessibility. This technology-driven service innovation is a critical pathway to achieving high-quality financial development, contributing to the creation of a more equitable and efficient financial market system, and supporting sustainable local economic growth.

2.2.3 The Need for a Transformation in Bank Service Marketing Strategies

As the financial market gradually opens and competition intensifies, community banks face multiple challenges from the service expansion of large banks and the rapid development of fintech. To achieve a transformation in service marketing strategies, community banks must strengthen customer relationship management, enhance customer loyalty, and implement targeted marketing strategies. This requires a deep understanding of residents' daily financial needs and consumption behaviors. Based on detailed data analysis and market research, community banks can design financial products and services tailored to the living habits of target groups. By incorporating the concept of "personalized service" into bank operations, community banks can offer more targeted financial services and establish a warm and approachable brand image in the minds of customers, thereby effectively enhancing customer satisfaction and loyalty[5].

To realize the transformation of service marketing strategies, community banks should optimize service environments and customer experience details to create differentiated competitive advantages. By creating a welcoming in-branch environment and offering personalized facilities, they can deepen emotional connections with customers and improve service quality. This approach not only strengthens the role of community banks as local service platforms but also maximizes the

effectiveness of precise marketing, ensuring sustainable development in a highly competitive financial market and enhancing customer loyalty.

2.2.4 The Need to Build an Offline Service Ecosystem for the Senior Economy

In the evolving aging society, the senior economy is emerging as a new market force, gradually demonstrating its strategic significance. It reflects the macroeconomic effects of the transformation in the consumption structure of the aging population and unveils new opportunities and challenges for the financial services sector. Given the growing consumption potential and increasingly complex and diversified needs of the elderly population, financial institutions are required to innovate their service models to better cater to this specific group's behavioral characteristics and technological adaptability, while also exploring the dynamic needs of elderly customers. The aim is to build more customized and humanized financial solutions. Through precisely addressing the specific needs of elderly groups, the banking sector can not only enhance its social value but also guide the entire industry toward greater diversification and humanization, fostering a positive interaction and development between the senior economy and the financial services sector[6].

As financial service entities closely connected to people's daily lives, community banks play an indispensable role in responding to the specific needs of the elderly population. To bridge traditional services and fintech, community banks should strengthen the functionality of offline branches, optimize service processes, and enhance staff professionalism and communication skills. Additionally, by organizing public welfare activities such as free volunteer services and thematic seminars, community banks can increase elderly individuals' financial knowledge and skills. Strengthening cooperation with community organizations and carrying out targeted promotional activities can further enhance elderly individuals' trust and recognition of financial products, promoting the synergy between the silver economy and banking services, thus achieving a win-win situation.

2.3. Innovation Directions for Community Banks

The concept of "neighborhood" refers to a close-knit social network constructed by community members who live near one another and are familiar with each other. It is an indispensable foundational element of urban life. This network is not only formed based on geographical proximity, which reflects the physical closeness of residents, but, more fundamentally, it embodies the interactions, communication, and cooperation between individuals in their daily lives. The essence of neighborhood relationships lies in the natural interconnection and mutual dependence formed by individuals living close to each other. This relationship creates a community structure that provides a crucial platform for emotional exchange, mutual assistance, and social support. Such social bonds, grounded in trust and relationships, offer profound insights into innovative marketing models[7]. When applied to the marketing strategies of community banks, this concept can not only enhance customer loyalty and satisfaction but also promote the bank's social development and localized services, thereby providing long-term competitive advantages.

As community banks seek to deepen the practice of inclusive finance, drive innovation in technology-powered financial services, and transform their service marketing strategies, they face numerous challenges and opportunities[8]. Notably, in addressing the issue of product homogenization, community banks urgently need to enhance their ability to offer customized services, meet the diverse needs of customers, and build solid customer relationships. This study proposes a new model for community banks based on the "Internet + Neighborhood" concept. By integrating technologies such as artificial intelligence, big data, the internet, and blockchain into banking outlets, traditional banking branches can be transformed toward becoming more "intelligent in operations, life-oriented in customer relationships, comprehensive in customer information, and targeted in financial products." This transformation aims to establish a trustworthy and mutually understanding the "Neighborhood" dual-loop marketing model.

2.4. The determination of the number of network layers

BP neural network is back propagating, mainly composed of three parts: input layer, middle layer and output layer. The number of nodes in the input and output layers is relatively easy to determine, but the determination of the number of nodes in the hidden layer is a very important and complex problem.

3. Innovative Operation Model of Community Banks

3.1. The 'Neighborhood' Dual-Loop System marketing model of Community Banks

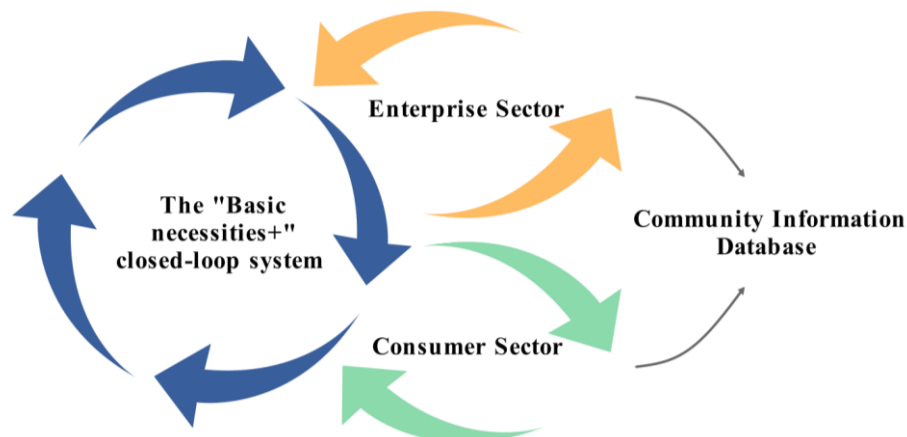


Figure 1 Logic diagram of The 'Neighborhood' Dual-Loop System marketing model

Based on the concept of "neighborhood," the "Neighborhood" dual-loop system marketing model consists of two core components: the "Basic necessities+" closed-loop system and the Community Information Database. These two systems complement each other and collectively form a marketing network that spans the full range of residents' daily life scenarios. The "Basic necessities+" closed-loop system not only comprehensively covers essential daily needs such as clothing, food, housing, and transportation, but also continuously integrates more diversified life services, including education, entertainment, and health management. This results in a dynamically adjusted and continuously optimized life service system[9]. This closed-loop system not only enhances the convenience and comfort of residents' lives but also spontaneously creates a self-updating Community Information Database for the bank, which drives the precise targeting and frequent engagement of banking products and services, thus completing the second loop, as illustrated in Figure 1.

3.2. The "Basic necessities+" closed-loop system

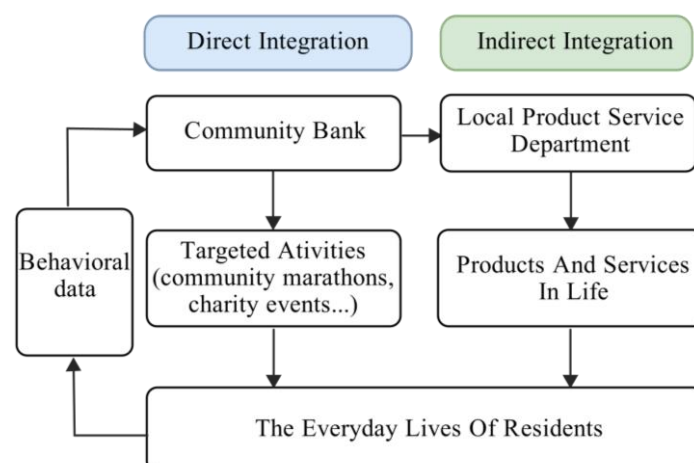


Figure 2 Logical Diagram of the "Basic necessities+" closed-loop system

Basic human needs—such as food, clothing, shelter, and transportation—form the foundational pillars of societal well-being. As depicted in Figure 2, the "The "Basic necessities+" closed-loop system aims to integrate community banks into the everyday lives of residents through both indirect and direct engagement strategies. Indirect Integration: Community banks can collaborate extensively with service providers within the "Basic necessities+" closed-loop system framework. By leveraging banking incentives—such as "discounted social cards," "shared card purchases," or "community bank vouchers"—banks can embed their products into local services. This approach fosters a basic "customer relationship" with community members, setting the stage for further development. Direct Integration: Following a period of indirect engagement, banks can use accumulated data to conduct statistical analyses, employing big data and financial technologies to begin segmenting their customer base. Through these insights, the "Basic necessities+" closed-loop system can be continuously upgraded. Targeted activities such as "community book clubs," "community marathons," "community e-sports tournaments," "community talent shows," and "charity events" can be organized, incorporating rewards linked to banking services. In doing so, the relationship evolves from a mere "customer relationship" to a more robust and engaging "client relationship," deeply embedding the bank's presence into the lives of community residents and fostering a sense of "neighborhood."

The primary advantage of the "Basic necessities+" closed-loop system lies in its bidirectional nature: it links community service departments and individual residents, facilitating the exchange of both supply and consumption data. Moreover, as time progresses, transactional data and customer labels evolve, creating a dynamic feedback loop. This self-updating system continuously adapts and improves, ensuring its long-term efficacy and relevance.

3.3. Community Information Database

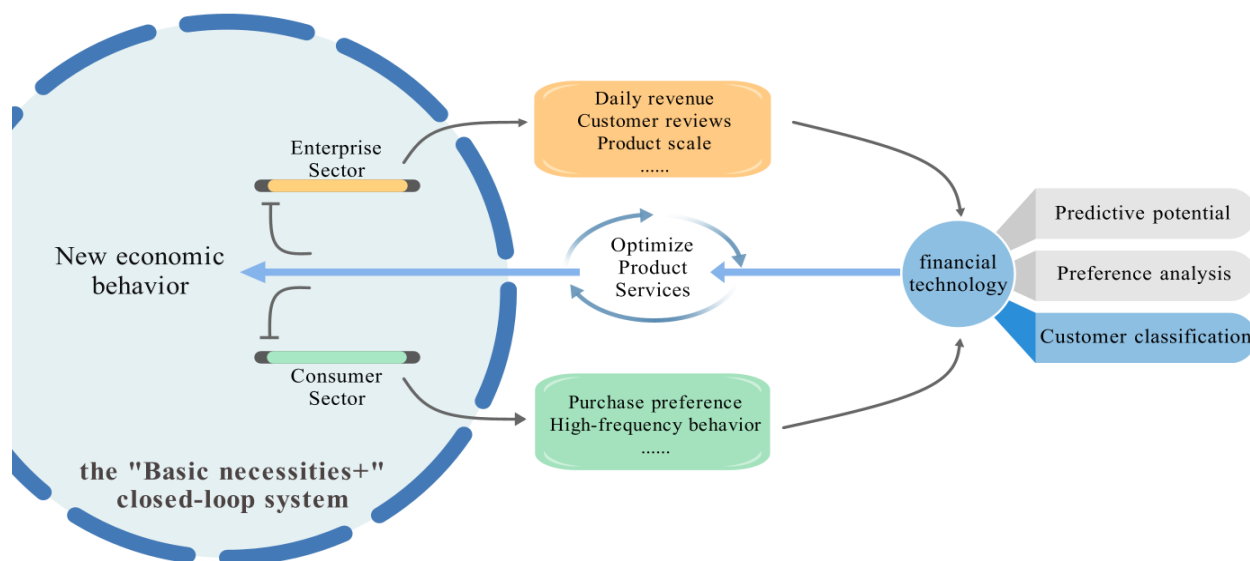


Figure 3 Logical Diagram of Community Information Database

Within the "Basic necessities+" closed-loop system, the continuous integration of customer information will form a vast, dynamically updating community database (as illustrated in Figure 3). This information repository will be built by targeting two key groups: "suppliers," primarily composed of small and medium-sized enterprises (SMEs) and service departments, and "consumers," primarily community residents. Utilizing financial technologies such as big data, remote sensing, and the internet, the database will perform "tagging" and "creditworthiness analysis," enabling the development of tailored financial products and addressing the issues of "reluctance to lend" and "slow processing."

In the "Enterprise Sector", traditional credit evaluation methods often face challenges such as "poor financial reports," "incomplete documentation," and "lack of collateral," which are common obstacles for early-stage SMEs, leading to difficulties in securing loans at affordable rates. In contrast, the "Community Information Database" will comprehensively adopt financial technologies like big

data, remote sensing, and the internet to assess the creditworthiness of enterprises. For instance, big data analytics can analyze key metrics such as an enterprise's ability to attract customers, operational conditions, and scale, thereby providing evidence of its credit potential. This approach, empowered by technology, directly or indirectly demonstrates an enterprise's creditworthiness, overcoming the dilemma of "small businesses being unable to obtain loans," and promoting mutual growth between suppliers and consumers [10].

In the "Consumer Sector", the "Community Information Database" will analyze the behavioral patterns of community residents within the "Basic necessities+" system. This analysis will allow for the classification of consumer behavior without violating customer privacy or access to sensitive asset information, enabling the development of targeted financial products. Moreover, consumer tags will inform the creation of integrated, interest-based financial products. For example, in the "Basic necessities+" closed-loop system, if user A participates in a variety of sports competitions such as "swimming races" or "community marathons," and frequently purchases sports equipment or visits sports centers, big data technologies can assign specific tags to this individual. This data could lead to the development of specialized financial products, such as "Sporting Points Gold Cards," "Exclusive Sports Equipment Cards," or "Sports Loans," as well as collaboration with other financial institutions to offer products like "Sports Insurance" or "National Fitness Investment Plans." Similarly, for residents who frequently participate in "Community Charity Days," products such as the "Heartfelt Card" (where every cent deposited goes toward funding mountainous regions), "Fundraising Joy," and "Exclusive Low-Loan-Rate Cards for Charitable Residents" can be offered. These products integrate customer tags with financial offerings, creating customized, niche financial products.

Once these targeted financial products and services are offered, SMEs and consumers will engage in new activities within the "Basic necessities+" closed-loop system. By tracking changes in economic behavior before and after the purchase of financial products or services, new data characteristics can be obtained, enriching the "Community Information Database." This will facilitate continuous improvement of the database and offer new insights for the development of future products, thereby completing the second closed loop.

4. Conclusions

This paper, through an in-depth study of community bank development models, proposes a new community bank marketing model under the "Internet + Neighborhood" concept. It further clarifies the core components of this model—the "Clothing, Food, Shelter, and Transportation +" closed-loop system and the "Community Information Database." Through the interaction of these two modules, community banks can better integrate into their communities, enhance market positioning, and design more personalized and differentiated financial products and services through dynamic customer databases and precise customer profiling. The introduction of this model not only provides a theoretical basis for the transformation and upgrading of community banks but also offers concrete insights for innovative banking marketing strategies in practice.

However, the study also has certain limitations. First, although the proposed marketing model is grounded in solid theoretical foundations, its practical applicability and adaptability need further verification across community banks in different regions and of varying scales. Second, due to the rapid development of financial technologies, this paper does not delve deeply into how artificial intelligence, big data, and other advanced technologies can be effectively integrated to achieve more accurate customer profiling and service personalization. Future research should focus on expanding the community bank model's applicability while advancing fintech integration in intelligent services, data mining, and demand prediction to optimize marketing strategies. This paper provides a research framework and approach applicable to the field of financial marketing, especially in the innovative study of community bank marketing models. Through this model, it is possible to effectively analyze how financial services can be deeply integrated with community life, and by combining big data and

financial technologies, enhance the personalization and intelligence of banking services. This will provide both theoretical guidance and practical support for future innovations in banking marketing strategies and business models.

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