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Research on the Mechanism of Digital Inclusive Finance in Promoting Social Integration of New Urban Residents-Evidence from Shenzhen's Policy, Technology, and Product Synergy

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Abstract

As a new financial model characterized by high convenience and broad coverage, digital inclusive finance can effectively mitigate the negative impacts of financial exclusion and accelerate the social integration of new urban residents. Taking Shenzhen as a case study, this paper systematically examines the operational mechanisms through which digital inclusive finance facilitates the social integration of new urban residents. Findings reveal that by synergizing policy, regulation, technology, infrastructure, and product innovation, digital inclusive finance effectively promotes integration across four dimensions: economic, institutional, psychological, and social. Consequently, Shenzhen's three-dimensional framework—characterized by "policy coordination, technology empowerment, and product innovation"—offers a replicable model for people-centered new urbanization development.

Keywords

new urban residents, digital inclusive finance, social integration, Shenzhen case study, new urbanization

1. Introduction

As China's urbanization accelerates, Shenzhen—as a pilot demonstration zone for socialism with Chinese characteristics—continues to attract large-scale influxes of new urban residents by leveraging its unique geographical advantages. Although this group has become a core driver of the special economic zone's high-quality development, challenges in social integration remain urgent, including inadequate access to financial services, insufficient connectivity to social resources, and weak identity formation. Internationally, financial services are rapidly evolving to become more digital, inclusive, and intelligent (Frączek and Urbanek, 2021). In China, financial services for new urban residents represent a crucial exploration in advancing inclusive finance. In 2022, the China Banking and Insurance Regulatory Commission issued the "Notice on Strengthening Financial Services for New Urban Residents" establishing a systematic framework for such services. Traditional financial services, constrained by reliance on collateral and offline credit assessments, struggle to penetrate the new urban population with limited credit histories. This leads to systemic financial exclusion, hindering their deeper economic integration and social recognition. Digital inclusive finance, leveraging breakthroughs in mobile internet and big data risk control, is extending its reach to grassroots communities. It is emerging as a pivotal solution to address the financial challenges faced by new urban residents and connect them to urban development resources. Leveraging its strengths in fintech industry clustering, policy innovation, and multiple breakthroughs in digital inclusive finance for new urban residents, Shenzhen has developed an effective solution to the social integration challenges faced by this group through its three-dimensional mechanism of "policy coordination, technology empowerment, and product innovation". Therefore, this paper uses Shenzhen as a case study to explore the operational mechanisms of digital inclusive finance in promoting the social integration of new urban residents, providing a reference model for similar cities nationwide.

2. Review

2.1 The Concept of Digital Inclusive Finance and Its Current Development Status in China

Digital Inclusive Finance represents an upgraded form of traditional Inclusive Finance driven by digital technology. Inclusive finance can be defined as a financial system that effectively and comprehensively serves all social strata and groups. Its original intent emphasizes enhancing the accessibility of financial services through continuous improvement of financial infrastructure, thereby providing relatively convenient financial services at lower costs to all segments of society—particularly those in underdeveloped regions and low-income groups (Guo et al., 2020). The advancement of digital technology has become a critical catalyst for economic transformation, reshaping financial accessibility and regional development dynamics (Wang et al., 2020, Dai et al., 2025). Digital inclusive finance is widely recognized as the expansion of financial services' coverage and depth through digital technologies, enabling the provision of appropriate and effective financial services at affordable costs to groups excluded or underserved by traditional financial systems. In China, China's digital inclusive finance development has demonstrated significant spatial spillover effects, substantially promoting entrepreneurship, consumption, and income growth (Ding et al., 2025). the "China Digital Inclusive Finance Index" (PKU-DFIIC) developed by Peking University's Digital Finance Research Center has become a key benchmark for measuring the development level of digital inclusive finance across Chinese regions. This index evaluates digital inclusive finance development across three dimensions: 1. Coverage breadth, emphasizing the geographic penetration and population reach of financial services; 2. Usage depth, reflecting the diversity of inclusive financial products and services alongside actual user engagement; 3. Digitalization level, indicating the extent to which financial institutions leverage cutting-edge digital technologies for innovation, operational efficiency improvements, and risk control optimization. While China's digital inclusive finance has progressed toward the goals of "broad coverage, low cost, and high efficiency" since the adoption of the G20 High-Level Principles on Digital Inclusive Finance at the 2016 Hangzhou Summit, persistent challenges remain. These include technological exclusion, algorithmic ethical dilemmas, and regulatory adaptation lag, all of which demand urgent breakthroughs.

2.2 Theoretical Implications and Dimensions of New Urban Residents' Social Integration

Defining the concept of "new urban residents" serves as a crucial starting point for this study. The term "new urban residents" as used herein primarily follows the definition outlined in the "Notice on Strengthening Financial Services for New Urban Residents" (CBIRC Notice [2022] No. 4) jointly issued by the China Banking and Insurance Regulatory Commission and the People's Bank of China. It refers to individuals who have settled in urban areas for reasons such as personal entrepreneurship or employment, children's schooling, or joining family members, who have not obtained local household registration or have held it for less than three years. This includes, but is not limited to, migrant workers and newly employed college and vocational graduates. Compared to traditional terms like migrant workers or floating population, the concept of new citizens places greater emphasis on their aspiration to transition toward citizen status and their practical need for long-term integration into urban life. This reflects policy-level attention to this group's integration demands. "Social integration" refers to the process of mutual coordination and adaptation between individuals, different groups, or diverse cultures, with the goal of building a positive and harmonious society (Ren and Wu, 2006). In recent years, issues related to social integration have garnered increasing attention from domestic scholars. Zhang (2007) proposed an integrated research framework for urban migrant populations based on the "dual segmentation explanation and three-group test". Yue et al. (2012) proposed establishing a measurement index system for the social integration of "rural-urban migrants" based on three dimensions: socioeconomic, cultural, and psychological. Wang et al. (2011) drew upon Enzeger's four-dimensional model of immigrant integration to analyze the urban integration of the new generation of migrant workers from four dimensions: economic, social, institutional, and cultural-psychological integration.Existing research on social integration primarily examines the factors influencing integration from individual-level perspectives, such as social capital and human capital, as well as macro-level aspects like the housing market, labor market, household registration and social security policies, and education and healthcare policies (Chen and Li, 2025).These studies provide crucial theoretical frameworks for understanding the social integration of new urban residents. Table 1 summarizes the main assessment categories and indicators across these key dimensions.

Table 1 Dimensions of social integration of new citizens and their main evaluation categories and indicators.

Dimension	Primary Assessment Categories	Assessment Indicators
Economic Integration	Employment Opportunities	Unemployment Rate, Labor Force Participation Rate
	Income Level	Disposable Income, Income Growth Rate
	Housing Conditions	Comfort Level, Housing Type
Institutional Integration	Household Registration	Registration Rate
	Educational Resources	Access to Children's Education
	Healthcare Services	Accessibility, Reimbursement Rate
Psychological Integration	Identity Recognition	Sense of Belonging
	Social Attitudes	City Satisfaction
Social Integration	Community Participation	Public Affairs Participation Rate
	Social Networks	Diversity Level

2.3 Research on the Correlation Between Digital Inclusive Finance and the Social Integration of New Urban Residents

From the dual effects of financial agglomeration and financial development, the advancement of digital inclusive finance exhibits a high degree of coupling with the social integration of new urban residents (Zhang, 2024). Existing research has explored its impact mechanisms through various pathways. Collectively, these pathways can be summarized into four primary categories: First, the entrepreneurship and income generation pathway. Concurrently, digital inclusive finance stimulates entrepreneurial activity via mechanisms such as factor concentration and spatial spillovers (Xu et al., 2025). Research indicates that digital inclusive finance lowers barriers for new urban residents to establish micro and small enterprises by providing convenient, low-threshold startup capital (Zhao and Cheng, 2025), thereby enhancing their income-generating capacity and economic independence. Secondly, it stabilizes employment pathways. The employment promotion effect of the overall digital inclusive finance indicator indicates that liquidity management tools, payroll disbursement services, and flexible credit support provided by digital inclusive finance can help new urban residents overcome financial shocks caused by short-term income instability (Yin et al., 2025). This safeguards their basic livelihoods, prevents withdrawal from the labor market due to financial hardship, and thereby maintains employment stability. For the distinct group of university graduates among new urban residents, existing research indicates that digital inclusive finance significantly promotes their employment prospects (Yin et al., 2025). Third, enhancing financial health pathways. Digital inclusive financial services, such as mobile payments and online savings and wealth management channels, help new urban residents reduce transaction costs, facilitate fund management, accumulate small amounts of wealth, and strengthen their financial resilience. This improves their economic well-being, thereby promoting their integration in social interactions and access to public services. Fourth, empowering public service access pathways. Digital inclusive finance significantly promotes public service provision (Zhang and Hu, 2022). Digital inclusive financial service platforms often serve as vehicles for the online delivery of government public services. Their convenience helps new urban residents overcome information barriers and procedural complexities, enabling them to access and utilize local public services more efficiently.

However, despite existing research revealing the positive impact of digital inclusive finance on the social integration of new urban residents at the macro level, significant gaps remain, particularly in understanding the micro-level mechanisms at the city level. First, studies on regional heterogeneity mechanisms are relatively scarce. The development levels of digital inclusive finance, the demographic characteristics of new urban residents, and the integration barriers they face vary across cities of different tiers. Research on how specific cities can promote new residents' integration through digital inclusive finance policies remains scarce. Second, there is insufficient fine-grained examination of integration dimensions. Digital inclusive finance may exert different or even differentiated impact pathways and effects on various dimensions of social integration. Empirical testing of these inter-dimensional linkage mechanisms within specific urban contexts is limited. Third, depth in case study analysis remains limited. There is insufficient exploration of the underlying mechanisms and extraction of replicable value from successful urban-level practices that leverage digital inclusive finance to advance new citizens' integration.

Based on the above analysis, this study will focus on the urban level, using Shenzhen as a case study. It will examine the mechanism through which digital inclusive finance promotes the social integration of new urban residents, aiming to fill gaps in existing research and provide actionable insights for other cities seeking to leverage digital inclusive finance to facilitate the integration of new urban residents.

3. The Practical Context of Shenzhen's Digital Inclusive Financial Services for New Citizens

3.1 Analysis of Characteristics of Shenzhen's New Citizen Population

Shenzhen, as a quintessential representative of China's immigrant cities, has seen its new residents emerge as the driving force behind urban development. According to the Shenzhen 2024 Statistical Bulletin on National Economic and Social Development, the city's permanent resident population reached 17.9895 million by the end of 2024. Among them, 11.6794 million were non-local permanent residents, accounting for 64.9% of the total permanent population—a stark reflection of Shenzhen's defining characteristic as an immigrant city. Furthermore, Shenzhen's non-local permanent residents exhibit distinct characteristics: a youthful age structure, concentrated employment sectors, and diverse financial needs (Gao et al., 2024).

3.2 Policy Environment and Top-Level Design

Shenzhen places high importance on financial services for new urban residents, establishing a policy support system characterized by high specialization, strong coordination, and broad coverage. Through the implementation guidelines outlined in the "Detailed Rules for Strengthening Financial Services for New Urban Residents", the city government has integrated research on the financial needs of this demographic. Shenzhen has proposed a "Four Specializations and Four Modernizations" approach, explicitly requiring financial institutions to innovate products and services to enhance the equality and convenience of financial services for new urban residents. Simultaneously, coordination and cooperation among government departments have effectively facilitated policy implementation. Shenzhen established a coordination group for new citizen financial services led by the Financial Regulatory Bureau, with participation from multiple departments including the Finance Bureau and Housing and Construction Bureau. This group established information-sharing and policy-coordination mechanisms to advance new citizen financial services in a unified manner. Furthermore, the Shenzhen Local Credit Reporting Platform provides safeguards for resolving credit-related issues. By 2024, the platform had aggregated and shared 1.24 billion pieces of enterprise credit data from 37 government departments and public institutions, covering over 3.8 million business entities across the city. This provides robust data support for credit assessments of new urban residents.

3.3 Overview of Market Entities and Innovation

Financial institutions in Shenzhen have actively responded to policy initiatives by leveraging technology to drive innovation, developing a range of products and services tailored for new urban residents. This exemplifies the nation's commitment to "finance for the people". Below are brief overviews of several initiatives:

WeBank, China's first digital bank, leverages big data and artificial intelligence to launch specialized "Startup Loans" services for new urban residents, building upon its existing "Micro Business Loans" foundation. These offerings are complemented by a suite of financial and non-financial services, These offerings encompass digital products such as loans, bill discounting, insurance, wealth management, account management, payment settlement, and resource linkage. By addressing common financing challenges faced by this demographic—including insufficient collateral assets and limited credit history—WeBank delivers convenient and preferential loan support to new urban residents.

Shenzhen Rural Commercial Bank leverages its unique “community + technology + ecosystem” approach to innovatively launch the Smart Nest project. This IoT-based smart leasing service has been deployed in urban villages, long-term rental apartments, industrial parks, and other areas, effectively addressing management and usage pain points in traditional leasing. It provides new urban residents with a better living experience.

Ping An Bank has partnered with the Organization Department of the Baoan District Committee of Shenzhen and the District Federation of Trade Unions to comprehensively integrate various resources. They have innovatively launched the multi-functional “Warm Bee Card” designed for non-local residents. This card offers ten key benefits, including Baoan District’s three-cancer screening program and educational assistance, alongside core services such as Ping An Bank accident insurance, fuel discounts, and online medical consultations. This initiative establishes a closed-loop ecosystem integrating government services, financial solutions, and daily living, offering a comprehensive solution to the fragmented financial service challenges faced by new urban residents.

Additionally, several fintech companies in Shenzhen offer innovative products or services tailored for new urban residents. “58 Digital Finance” leverages alternative data accumulated through its platform—such as recruitment and rental information—to conduct risk assessments for these individuals. Xiaoying Technology utilizes AI-driven risk control and intelligent approval technologies to provide online credit services with rapid disbursement, minimizing offline procedures. “360 Digital Finance” delivers targeted credit funding to concentrated groups of new urban residents, including individual business owners and farmers’ market vendors.

The aforementioned innovative practices provide valuable insights for subsequent in-depth analysis of the mechanisms through which digital inclusive finance promotes the social integration of new urban residents. They also offer replicable and scalable lessons for other regions.

4. Analysis of Core Mechanisms: Shenzhen’s Diverse Practices

This paper summarizes Shenzhen’s practical cases over the past five years and finds that its digital inclusive finance primarily drives the social integration of new urban residents through three core mechanisms: policy guidance and regulatory coordination, technology empowerment and infrastructure-driven development, and product innovation and ecosystem services. The following sections provide a detailed analysis.

4.1 Policy Guidance and Regulatory Coordination Mechanism

The institutional environment plays a crucial role in enhancing financial inclusion (Audi et al., 2025). The Shenzhen municipal government has innovatively introduced a “Four Specializations and Four Modernizations” framework for financial services, a 14th Five-Year Special Plan for housing security, inclusive support policies for employment and entrepreneurship, and a cross-departmental coordination mechanism. Through systematic policy guidance and multi-agency collaborative oversight, these measures have established a robust institutional environment for new citizens to achieve fair compensation for labor, livable housing, quality early childhood education, and accessible healthcare.

4.1.1 Top-level Design

In 2022, the Shenzhen Banking and Insurance Regulatory Bureau issued the “Implementation Rules for Strengthening Financial Services for New Citizens”, establishing a systematic and targeted top-level framework for financial services. The plan focuses on seven key areas including entrepreneurship, employment, housing, education, healthcare, and elderly care, requiring banking and insurance institutions to develop specialized plans, implement incentive mechanisms, and create dedicated consumer rights protection positions for new citizens. Taking the housing sector as an example, Shenzhen proposed a “multi-supplier approach with equal emphasis on renting and purchasing” strategy, addressing housing needs through quantified targets and multi-channel funding. The city conceptualized a “Four-Track” development strategy for affordable housing: following industrial parks, large institutions, rail transit networks, and revitalized resources. By expanding housing supply through urban renewal and converting idle land, Shenzhen ensures adequate housing provision for new citizens.

4.1.2 Cross-department Collaboration

Through cross-departmental collaboration and data sharing, Shenzhen has achieved innovative operational mechanisms and resource integration, significantly enhancing service efficiency. The city established a “special task force” comprising over ten departments including the Human Resources and Social Security Bureau and the Housing and Urban-Rural Development Bureau, creating data-sharing and policy coordination mechanisms to address challenges like information silos and risk concentration. Meanwhile, joint efforts by municipal departments have integrated municipal resources, unlocking latent potential and establishing a transparent, efficient green channel for new citizens. Taking the “Shen i Qi” platform's government-finance-enterprise collaboration model as an example, this platform integrates cross-departmental data from industry and commerce, taxation, and social security. Authorized financial institutions can use API interfaces to access alternative data such as social security contributions and employment stability for credit decision-making. In March 2025, the integrated public service platform merged with “Shen i Qi” to launch the “Enterprise-Social Affairs Express Service”. Current results show: 89% real-time response rate for consultation requests with average processing time of 4 minutes; complaint resolution time reduced from 7.05 days to 2.41 days (66% reduction), with satisfaction rate reaching 100%. Emergency work orders are dispatched to “last-resort” departments within 30 minutes. Through efficient multi-department collaboration, Shenzhen has achieved comprehensive optimization and specialized extension of public services, building a convenient "government network" for new citizens' social integration.

4.1.3 Innovative Regulation

Shenzhen pioneered the “regulatory sandbox” mechanism, allowing financial institutions to test innovative products under controlled risks while providing new citizens entering the city with fertile ground for entrepreneurship and flexible regulatory frameworks. This system emphasizes three core principles: risk containment, dynamic adjustments, and adaptive enforcement. By defining testing boundaries (such as specific zones, technologies, or data parameters), it achieves risk isolation and full-process monitoring. Regulatory authorities continuously refine rules based on test results, creating a closed-loop system of “testing-learning-optimizing”. Current achievements demonstrate that this mechanism has helped Shenzhen establish leadership in emerging industries, particularly in low-altitude economy and intelligent connected vehicle sectors. Driven by industrial clustering effects, Shenzhen has attracted over 1,700 drone companies and more than 2,700 intelligent connected vehicle enterprises as of March 2025. Through institutional innovation balancing risk and efficiency, Shenzhen's regulatory sandbox mechanism serves as a national model for “controlled innovation, progressive inclusiveness, technology empowerment, and social co-governance”.

4.2 Technology Empowerment and Infrastructure Driving Mechanism

Utilizing internet technology to overcome traditional inclusive finance constraints, digital financial inclusion enhances the accessibility and value of financial services and products (Zeng and Zhou, 2025). Scientific and technological innovation is the core driving force of Shenzhen model, and its role mechanism is mainly reflected in big data risk control, credit infrastructure, distributed technology and blockchain technology.

4.2.1 Big Data Risk Control

DFI cultivates a novel risk mitigation framework through algorithm-based credit assessment models (Huang et al., 2025). Big data risk control enables quantitative assessment and early warning of potential risks in financial activities. Taking Weilidai (Microcredit Loan) by WeBank as a prime example, the platform integrates traditional financial data with extensive IoT behavioral data to build a multi-dimensional evaluation model, significantly enhancing approval efficiency and risk management. Theoretically, while traditional banks primarily rely on approximately 200 strong financial indicators, Weilidai incorporates over 1,200 behavioral and network data points. This comprehensive approach allows credit assessment to demonstrate the effectiveness of big data risk control more holistically and accurately. In practical applications, the system not only enables credit approval within ultra-short timeframes but, more crucially, maintains non-performing loan rates at an exceptionally low level of mere a few per thousand—far below industry averages. Moreover, the model demonstrates significant inclusive value, serving approximately 18% of its clients as first-time borrowers (first-time loan recipients), effectively addressing gaps in traditional financial services.

4.2.2 Credit Infrastructure

Credit reference infrastructure is the "cornerstone" for the stable operation of the financial system. The local credit reference platform built by Shenzhen Credit Reference Service Co., Ltd. is a typical example. This platform is constructed and operated under a "government + market" model, and has accessed data from 37 government departments and public institutions. By the end of 2024, the platform had launched over 50 credit reference products, facilitated small and micro-enterprises (SMEs) in securing a total financing of more than 503.3 billion yuan, and served 230,000 enterprises. Among these enterprises, 98% are micro-enterprises, and 39% are first-time loan recipients. Through accurate "data profiling", the platform has effectively addressed the information asymmetry between banks and enterprises, fundamentally reducing the credit identification costs for financial institutions when serving new citizens. New citizens who lack collateral and traditional credit records can establish their credit identities using alternative data such as their business operations, social security contributions, and tax payments. This not only helps new citizen entrepreneurs obtain crucial start-up funds, but also deepens their economic participation and social belonging in the city by enhancing their credit capital, significantly improving the availability and fairness of financial services.

4.2.3 Distributed Technology

Distributed banking systems powered by distributed technology architectures enable large-scale inclusive financial services. Take WeBank as an example: By leveraging distributed architecture to handle massive high-frequency transactions, it reduces IT operation costs to 10% of domestic and international peers' levels—just 2 yuan per account annually—making large-scale and sustainable microcredit operations feasible. This case demonstrates that distributed architecture can significantly enhance the efficiency, coverage, and accessibility of financial services.

4.2.4 Blockchain Technology

Blockchain technology has effectively addressed financing challenges for new urban residents in supply chain finance. Tencent Cloud's "Blockchain + Supply Chain Finance" solution, for instance, enables core enterprises to extend their credit to multiple tiers of suppliers. This empowers new urban resident startups in the supply chain's upstream sector to secure financing through digital instruments like accounts receivable, achieving T+0 disbursement. Similarly, WeBank's FISCO BCOS open-source consortium blockchain platform supports flagship applications including the "Pearl River Delta Credit Chain", while enhancing data circulation and industrial digitalization. These implementations demonstrate that blockchain-driven financial innovation has made large-scale, sustainable inclusive finance services a tangible reality.

4.3 Product Innovation and Ecological Service Mechanism

Product innovation and ecosystem development serve as the ultimate manifestation of institutional implementation. Shenzhen's practices demonstrate three defining characteristics: scenario-based approaches, ecological integration, and digital transformation. This study examines innovative inclusive finance product development in Shenzhen through case studies of credit products and insurance protection products. Furthermore, it analyzes the construction of ecosystem services from a micro perspective to enhance financial inclusion.

4.3.1 Credit Product

In credit product development, Bank of Communications Shenzhen Branch has established a multi-tiered system tailored to new urban residents' diverse needs. First, the bank offers small-amount consumer loans. To address the small amounts, frequent use, and emergency needs of new residents, it launched the "People's Benefit Loan" online service, featuring automated approval for applications under 200,000 yuan to streamline processes. Second, scenario-based installment plans are available. For education, the branch collaborates with local early education institutions to provide tuition installment services for parents. In home renovation, the "Home Renovation Loan" from Postal Savings Bank Shenzhen offers mortgage-free financing with a maximum limit of 300,000 yuan, up to 8 years of repayment, and an annual interest rate as low as 3.7%, effectively reducing living costs. Third, entrepreneurship support loans are prioritized. The development of digital finance significantly increases the probability of household engaging in entrepreneurial activities (Chen et al., 2025). Capitalizing on Shenzhen's vibrant innovation ecosystem and concentration of private SMEs, the bank strengthens credit support for startups and enterprises employing new residents. A notable example is the "Sci-Tech Pioneer Loan" from Bank of Communications Shenzhen, providing up to 50 million yuan in loans for 3-year terms to tech enterprises owned by new residents, supported by flexible collateral options.

4.3.2 Insurance Coverage

In the realm of insurance innovation, Shenzhen has introduced multiple products addressing citizens' frequent risk needs. A prime example is "Shenzhen Huijia Bao", which features a "1+2" customizable model. The basic coverage includes fire, typhoon, and heavy rain risks, while additional protections like pipe ruptures and falling objects from heights can be added at will. The policy also supports online subscription and fast claims processing, effectively enhancing new residents' families' ability to cope with property loss risks.

4.3.3 Ecological Service Construction

Regarding the development of ecological services, the "Opinions on Promoting the Development of Social Finance in Shenzhen" issued by the Shenzhen Municipal Financial Regulatory Bureau provides policy guidance for advancing the integrated development of "finance + government services + daily life" in the city. The "Shen i Qi" one-stop platform for cultivating market entities serves as a crucial vehicle for building online services, integrating eight major functions including policies, government services, finance, and public requests, achieving one-stop policy access, one-click request submission, and one-window service handling. To date, the platform has registered 3.4755 million business entities, demonstrating extensive coverage. The "Shen i Qi" mini-program, mobile app, and PC version work in tandem to provide more enterprises and citizens with convenient one-stop services. In offline service integration, its early implementation of an integrated "finance + government services" platform exemplifies this approach. Futian District has swiftly connected with most local banks, integrating government service matters into bank branches. Citizens can now handle 100 government services across education, civil affairs, human resources, housing and urban-rural development, and healthcare at designated bank outlets. This leverages the advantage of numerous bank branches to fulfill the "nearby and multi-point service" requirements. Through the Shenzhen Resident Financial Literacy Enhancement Project, a comprehensive multi-level financial education system has been established, having trained over 20,000 financial volunteers and reached an audience exceeding 65 million people. We will implement targeted special initiatives, particularly focusing on elderly and youth groups. By continuously innovating communication methods, we aim to establish sustainable mechanisms. We actively assist new urban residents and young people in developing proper perspectives and adapting to city life, while helping senior citizens overcome challenges in accessing modern financial services. This multi-tiered, comprehensive service ecosystem extends the reach of digital inclusive finance beyond traditional credit support to cover employment, housing, healthcare, and other areas, effectively fostering economic and social integration among new urban residents.

5. Results, Challenges and Lessons Learned

5.1 Summary of Practical Results

Through a digital inclusive finance model integrating policy, technology, and product innovation, Shenzhen has significantly enhanced social integration for new urban residents. In terms of financial inclusion coverage, as of January 2025, the city's inclusive micro-loan balance reached nearly 2 trillion yuan, ranking first among Chinese cities and accounting for 43.6% of total loans. For entrepreneurship support, the digital credit system has demonstrated remarkable effectiveness: the weighted average interest rate on newly issued inclusive micro-loans remains historically low, with over 20% of loans obtained online. In recent years, internet-based loans to small businesses have grown at an average annual rate exceeding 30%. Regarding public service integration, Shenzhen's digital yuan pilot program has steadily advanced, with relevant departments allocating 620 million yuan in special funds to over 2,400 small businesses. Applications in housing fund payments and tax settlements have expanded, effectively improving public service accessibility for newcomers. In financing efficiency, the local credit platform aggregates enterprise credit data from 37 government agencies and public institutions, covering all active business entities. It offers 51 credit products that facilitated over 500 billion yuan in corporate financing, effectively addressing information asymmetry between banks and enterprises while reducing financing costs for new urban residents.

5.2 Challenges and Limitations

The Shenzhen model continues to face multiple challenges. The digital divide hinders equitable access to services, particularly impacting elderly new citizens. Three critical barriers to social integration persist: limited exposure to digital devices, inadequate digital literacy, and insufficient skills in using smart technologies. Meanwhile, data security and privacy risks remain significant. Although Shenzhen has implemented the "Shenzhen Financial Technology Special Development Plan (2023-2025)" to promote "usable but invisible, controllable and measurable" data circulation through privacy computing and blockchain technologies, authorization mechanisms for cross-platform data sharing still require refinement. Additionally, underserved groups like gig workers face persistent challenges in accessing credit, with income volatility exacerbating difficulties in obtaining financial services.

5.3 Implications and Suggestions for the Whole Country

Based on Shenzhen's practical experience, the following insights can be distilled for other regions across the country: First, strengthen top-level design and policy coordination. Local governments should establish cross-departmental coordination mechanisms for financial services to new urban residents, prioritize public data sharing, and create unified local credit reporting platforms to provide reliable alternative data sources for financial institutions. Simultaneously, improve risk-sharing mechanisms by incentivizing financial institutions to serve new urban residents through loan interest subsidies and risk compensation measures. Second, promote technological empowerment and infrastructure development. Local authorities should support financial institutions in utilizing big data and artificial intelligence to develop risk control models tailored for new urban residents. Enhance digital infrastructure construction by expanding 5G network coverage, upgrading data centers, and reducing digital service costs. Concurrently, implement digital financial literacy education, particularly digital skills training for elderly new urban residents, to bridge the digital divide. Third, encourage product innovation and ecosystem development. Guide financial institutions to create differentiated products catering to new urban residents' needs at different life stages, such as credit support during entrepreneurship, insurance protection in stable periods, and wealth management in development phases. Promote the construction of a "finance + government services + daily life" service ecosystem by integrating financial services into employment, housing, and healthcare scenarios to improve accessibility and convenience. Fourth, refine regulatory frameworks and consumer protection. Leverage Shenzhen's "regulatory sandbox" experience to encourage innovation under controllable risks. Strengthen financial consumer rights protection through establishing robust data security management systems, standardizing alternative data usage, and ensuring a balance between innovation and security.

Shenzhen's experience shows that digital financial inclusion can effectively promote the social integration of new citizens through coordinated innovation in policy, technology and products. These experiences provide replicable and scalable solutions for other regions across the country, which is of great significance to the promotion of a new type of urbanization centered on people.

6. Conclusions

This study systematically analyzes the three-dimensional linkage mechanism of digital inclusive finance in promoting social integration among new urban residents, based on Shenzhen's diverse practical cases. The research reveals that Shenzhen has effectively addressed barriers faced by new urban residents in financial accessibility, public service access, and social recognition through a three-dimensional framework of "policy coordination, technology empowerment, and product innovation". Specifically: The policy guidance and regulatory coordination mechanism establishes an institutionalized safeguard system for new urban residents through top-level design, cross-departmental collaboration, and regulatory sandbox innovations; The technology empowerment and infrastructure-driven mechanism significantly enhances service efficiency and risk control through fintech tools like big data risk assessment, credit information infrastructure, and blockchain; The product innovation and ecosystem service mechanism achieves precise matching of new urban residents' full life-cycle needs through scenario-based credit services, customized insurance products, and an integrated "finance-government-services-living" ecosystem.

Shenzhen's practice shows that digital inclusive finance is not only a technical tool for financial services to reach the bottom, but also an important bridge for new citizens to achieve economic integration, institutional integration, psychological integration and social integration. Its experience provides a reference path for similar cities across the country to promote a new type of urbanization centered on people.

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Conflicts of Interest

The authors declare no conflict of interest.

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