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Analysis of Practical Application Scenarios of Digital RMB and Future Outlook

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Abstract

With the expansion of the digital economy, Digital RMB (e-CNY) has attracted increasing attention in China. China possesses a large consumer base and market; Digital RMB has already been applied in everyday consumption scenarios including catering, utility payments, shopping, transportation, and medical services, demonstrating a clear positive effect on consumer spending propensity. This paper reviews the literature and policy documents on central bank digital currency (CBDC), discusses the characteristics and applications of Digital RMB, and examines its use in retail, enterprise, and cross-border contexts. At the retail consumption level, it summarizes user experience and shortcomings in retail practices, and analyzes its impact on traditional platform coupons. From the enterprise perspective, it assesses its role in supporting small and medium-sized enterprises (SMEs). From the international perspective, it extends the analysis to the current state and implications of cross-border applications. This study provides an overview of the current applications and challenges of Digital RMB.

Keywords

digital RMB, user experience, small and medium-sized enterprises, mBridge project

1. Introduction

In recent years, the digital economy has expanded rapidly in China and has become an important part of economic development. In July 2024, China issued the Decision on Further Comprehensively Deepening Reform to Advance Chinese Modernization, which calls for accelerating the development of institutional mechanisms to promote the digital economy and improving policies related to digital industries and digital transformation, while steadily advancing payment digitalization. Global digitalization has accelerated the development of digital currencies, especially central bank digital currencies (CBDCs). As one of the world's most active countries in financial technology applications, China has taken the lead in launching and advancing the research, development, and pilot programs for Digital RMB (e-CNY), making it one of the major CBDC pilot programs globally [1].

Driven by the rapid development of the digital economy, digital currencies have attracted increasing academic attention. As of the end of July 2024, China had opened 180 million individual Digital RMB wallets,

with a cumulative transaction value of 7.3 trillion yuan (China Daily). In 2025, the Chinese government further expanded Digital RMB pilot programs called for steadily advancing Digital RMB research and application, establishing nationwide pilots covering 26 regions in 17 provinces (municipalities) and involving 10 operating institutions (China Daily) [2]. While research on CBDC is already relatively comprehensive, studies specifically examining Digital RMB's impact on and comparison with traditional consumption coupons remain limited. At the same time, China has over 120,000 cross-border e-commerce entities, more than 90% of which are SMEs, making them an important participant in cross-border trade. Actively embracing digital trade, using digital platforms to expand international markets, and leveraging Digital RMB to empower cross-border operations have become increasingly important for SMEs. However, few studies currently analyze how Digital RMB can affect SME operations and growth under these conditions.

The marginal contributions of this paper are: (1) summarizing the definition and characteristics of Digital RMB and discussing recent developments in Digital RMB adoption; (2) examining the advantages of Digital RMB red packets relative to traditional coupons and their contributions to influencing consumer spending; (3) using an enterprise perspective and empirical data within a regression framework to analyze how Digital RMB improves SME revenues and operational efficiency; and (4) from an international perspective, reviewing the current state of cross-border digital currency applications and, in light of China's national conditions, exploring the implications of Digital RMB issuance for RMB internationalization, and discussing its possible implications for RMB internationalization.

2. Definition, Characteristics, and Domestic Application of Digital RMB

2.1 Definition and Characteristics

Digital RMB is the digital form of legal tender issued by the People's Bank of China (PBC). It is the digitized version of the RMB, holds the same legal status and economic value as physical RMB, and is issued as a liability of the central bank. Digital RMB can be used with limited dependence on traditional bank accounts and supports a certain degree of transaction anonymity. It also supports offline payments in certain situations, such as limited network access or low battery conditions. It is primarily intended to replace cash in circulation rather than bank deposits. It is well-suited to the "high-frequency, small-value, rapid settlement" needs of retail scenarios and supports convenient payment methods such as NFC "tap-and-pay" and QR code scanning, offering high reliability and convenience. In terms of privacy, it adheres to the principle of "anonymity for small amounts and traceability for large amounts," while maintaining transaction traceability for regulatory purposes.

2.2 Current State of Domestic Application

Digital RMB was primarily designed for retail payments and everyday transactions. The PBC established a dedicated research group on legal digital currency in 2014 and began specialized studies on issuance frameworks and key technologies. In 2016, it built the first-generation system. From the end of 2019, it launched pilots in Shenzhen, Suzhou, Xiong'an New Area, Chengdu, and Beijing Winter Olympics venues. In October 2020, it added six more pilot areas: Shanghai, Hainan, Changsha, Xi'an, Qingdao, and Dalian. By 2022, the pilots covered 17 provincial-level administrative regions. Since research began, Digital RMB has progressed through phases of theoretical preparation, data collection, system development, and algorithm construction, followed by breakthroughs from closed testing to open pilots. Retail scenarios have consistently served as the main entry point for promotion, gradually expanding its application scenarios and user base. It may improve access to digital financial services and improve payment convenience. The information effect of Digital RMB also provides the central bank with accurate operational data from pilot enterprises, helping to alleviate information asymmetry between banks and firms. The broad rollout of pilots has further promoted inclusive finance and supporting future expansion of Digital RMB applications.

According to the latest data from the People's Bank of China, as of the end of November 2025, Digital RMB had processed a cumulative 3.48 billion transactions worth 16.7 trillion yuan. There were 230 million individual wallets opened via the Digital RMB App and 18.84 million corporate wallets [2]. These figures indicate that Digital RMB has been adopted on a relatively large scale in China, though its penetration rate and wallet activity remain modest relative to the country's large population. After a

decade of development, Digital RMB has extended into personal consumption, corporate operations, government services, and cross-border settlement. Nevertheless, its widespread adoption still faces significant challenges. Many department stores and supermarkets have dedicated Digital RMB POS terminals that remain unused for long periods; staff report that the last usage was often during the distribution of Digital RMB consumption coupons. Many small merchants still primarily display Alipay and WeChat QR codes (blue and green), or only connect to a single partner bank's Digital RMB channel, lacking full compatibility across wallets. Small and micro merchants, in particular, face cost-revenue imbalances. They often bear the costs of POS terminal upgrades and monthly data fees. Although some regions offer subsidies, coverage is limited and reimbursement cycles are long, resulting in a heavy actual burden and reduced willingness to adopt the system.

Consumer experience reflects similar difficulties. Many users who exchanged low-carbon travel points for Digital RMB still rely mainly on WeChat or Alipay for daily payments [3]. Awareness of relevant policies is also low among many people. Furthermore, as an M0 instrument, the 1.0 version of Digital RMB does not bear interest, leading users to lose the time value of money and preventing banks from earning spreads. This lack of incentives for both users and banks, combined with entrenched mobile payment habits, has made further promotion increasingly difficult.

Despite these challenges, continuous technological iteration of Digital RMB is quietly reshaping personal consumption, corporate operations, government services, and cross-border activities. These developments suggest that Digital RMB applications may continue to expand in the future.

On January 1, 2026, the PBC's Action Plan on Further Strengthening the Digital RMB Management and Service System and Related Financial Infrastructure (hereinafter the Action Plan) officially took effect. The plan outlines future plans for Digital RMB management and infrastructure development. PBC Deputy Governor Lu Lei noted that this marks Digital RMB's transition from a cash-type 1.0 version to a deposit money-type 2.0 version.

Following the Action Plan, the new-generation Digital RMB has expanded from a digital substitute for cash (M0) to coverage of M1 and M2 categories, marking an expansion from cash-based functions to broader deposit-related functions. This change may strengthen its role within the existing financial system: it increases banks' incentives to promote the system and may increase user adoption. With the addition of interest-bearing functions and deeper cross-border applications, Digital RMB is expanding its range of applications. The upgraded Digital RMB wallet now functions as a cash management tool that combines security (covered by deposit insurance up to 500,000 yuan) and returns (offering demand deposit interest). Funds in users' real-name Digital RMB wallets held at commercial banks have shifted from direct central bank liabilities to bank deposit liabilities. This change enables Digital RMB to fully perform the monetary functions of value measurement, circulation, and transaction without relying on physical RMB, which may make Digital RMB easier to use in daily transactions. The upgrade may benefit users, banks, and payment systems in different ways.: enterprises and individuals can earn interest and access more diverse financial products and services; commercial banks gain operational incentives from Digital RMB business, which may support longer-term adoption. In the future, the financial services available through Digital RMB will gradually approach those of regular deposits and will no longer be limited to cash-use scenarios. Its security will also be protected by the deposit insurance fund [4].

In addition, the 2.0 version will help maintain macro-financial stability, guard against financial disintermediation risks, and provide new tools against fraud and fund misappropriation. Greater compatibility with existing payment habits and mobile devices may further reduce adoption barriers. Future efforts should focus on expanding acceptance environments and user groups, improving supporting policies and institutions, and developing long-term, market-oriented incentive mechanisms so that Digital RMB can support the further development of China's digital payment system.

3. User Perspective: Optimization and Improvement of Daily Usage Experience of Digital RMB

3.1 Challenges in Retail Use of Digital RMB

Digital RMB has expanded into a wide range of payment scenarios and formed efficient, replicable application models covering online and offline transactions in wholesale and retail, utility payments, catering and cultural tourism, education and healthcare, public services, local public services and rural areas, and cross-border settlement. However, several challenges remain:

3.1.1 Growing User Numbers but Uneven Structure

Since the project's inception, both public awareness and user participation in Digital RMB have continued to rise. In 2024, the number of Digital RMB wallets in Shenzhen increased by over 8 million, while Guangzhou recorded more than 14 million individual wallets and supported Digital RMB payments at over 1.4 million merchant outlets (Guangzhou Local Financial Administration, July 2024). Several pilot cities, including Shenzhen, Suzhou, and Guangzhou, also issued special implementation plans, leading to substantial growth in transaction volumes.

Nevertheless, the user structure remains uneven. The core users are primarily young and middle-aged individuals aged 20–45, some of whom still have only vague understanding of its legal tender status and tend to confuse it with third-party payment tools. Seniors aged 65 and above have limited exposure, poor awareness of relevant policies, and often are reluctant to use it because of unfamiliar operating procedures and concerns over fund security, resulting in very low participation. Penetration in rural areas is substantially lower than in urban areas, with most townships continuing to rely on WeChat and Alipay. Adoption in non-pilot cities also lags far behind pilot regions.

Big data analysis further reveals strong "dependence on promotional campaigns": in cities such as Suzhou and Beijing, the issuance of consumption red packets has driven transaction peaks up by as much as four times, but usage frequency drops markedly once the campaigns end. Overall, Digital RMB's inclusiveness remains insufficient. While users are highly responsive to short-term incentives in the form of consumption red packets, this also highlights a notable dependence on subsidies [5]. Encouraging long-term user retention remains a major challenge.

3.1.2 Cumbersome Procedures Undermining Popularization Efficiency

The usage process of Digital RMB does not align well with most users' established payment habits. Users must download the official app, create a personal wallet, select an operating institution, activate the wallet, and top it up before use. Subsequent processes such as password recovery are also relatively inconvenient. In contrast, mainstream third-party payment apps (e.g., WeChat) allow can be used more conveniently in everyday payments. The dual-offline payment function also faces hardware limitations: it is only supported on certain phone models, leaving many low-end devices and Apple users unable to access the service. In remote areas, offline payment conditions are still limited, resulting in low success rates and unstable user experience.

Additional issues include insufficient scenario adaptation, high learning costs, and system stability issues. Future efforts should strengthen publicity and popularization, improve scenario compatibility, streamline operating procedures, and establish effective guidance and incentive mechanisms to improve the accessibility and usability of Digital RMB for different user groups.

3.2 Comparing Digital RMB Red Packets and Traditional Coupons

Digital RMB is a central bank digital currency issued by the People's Bank of China and has the same legal status as cash. It is backed by central bank liabilities and funded by governments or promotional programs. Traditional coupons, by contrast, are discount vouchers or promotional instruments typically funded by merchant concessions or fiscal subsidies. Their use often requires meeting "minimum spend" thresholds, must be combined with cash payment, and function mainly as promotional tools rather than direct cash equivalents. They are generally single-use.

Digital RMB red packets (hereinafter referred to as e-CNY red packets) issued via the Digital RMB App represent a distinct category within Digital RMB. They offer clear advantages over traditional coupons in payment convenience, policy superiority, and fund security.

3.2.1 Direct Deduction Without Minimum-Spend Requirements

Traditional coupons often involve complicated rules and restrictions on combining discounts, increased decision-making costs, and cross-platform incompatibility, which restrict consumer choice and reduce consumers' willingness to spend. Excessive conditions raise cognitive load and violate the "simplify choice" principle in Nudge Theory (proposed by Richard Thaler and Cass Sunstein in 2008), a key behavioral economics framework that reduces cognitive burden and information overload to help individuals select options aligned with their long-term interests. With e-CNY red packets, users simply select the desired goods and apply eligible red packets at checkout. The process is straightforward, involves no complicated calculations or order-padding, and features instant crediting and immediate usability via scanning. This making payments more convenient for users. The non-physical nature also lowers the perceived inconvenience of payment, lowers usage barriers, decreases behavioral friction, and enhances consumption willingness and activity.

3.2.2 Reducing Sunk Costs and Protecting Consumer Welfare

Platform coupons frequently advertise offers such as "¥5 off for orders over ¥20" or "¥10 off for orders over ¥30." To obtain the discount, users often purchase unnecessary items to meet the threshold. The psychological pressure of "losing out if not using the coupon" leads to wasteful spending on items outside the original budget.

From a microeconomic perspective, this can be understood as a form of price discrimination. Platforms set spending thresholds that enable self-selection: consumers with lower time costs and higher price sensitivity are more likely to add extra purchases. Suppose a user's true willingness to pay for a takeout order is M yuan. In scenario A (no tricks), the price is M yuan and consumer surplus is zero. In scenario B (minimum-spend trick), the user orders N yuan worth of items (N > X) to qualify for a Y-yuan discount, pays N–Y yuan, but incurs extra unwanted consumption of N–M yuan (assuming zero value for the additional items). Real consumer surplus becomes M – (N + Y), which may even turn negative.

Time costs associated with grabbing coupons, order-padding, and optimizing combinations also create additional time and effort costs for consumers. Some merchants also raise base prices before issuing coupons, reducing the actual value of discounts so that actual discounts are lower than advertised. In the long run, this can lead to abandoned items and net consumer welfare losses. Rational consumers should therefore focus on the final actual payment price rather than nominal discount rates. In contrast, e-CNY red packets enable direct payment and settlement, with real-time crediting to merchants and no platform commission. Automated verification through smart contracts significantly reduces merchants' financial and labor costs while which may improve payment efficiency. As shown in Figure 1, traditional coupons involve complex procedures and high friction costs that weaken multiplier effects. Figure 2 illustrates that the cost chain for Digital RMB red packets is markedly shorter and more efficient.

Figure 1: Cost Chain and Transmission Losses of Traditional Coupons

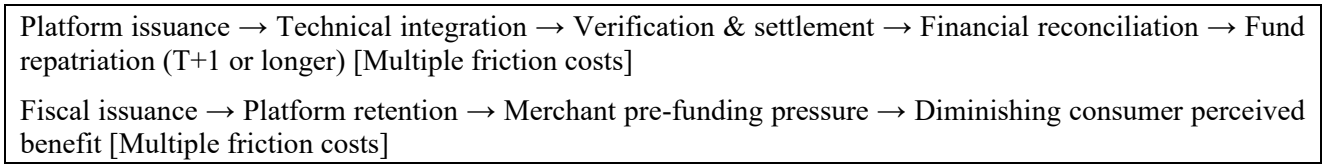
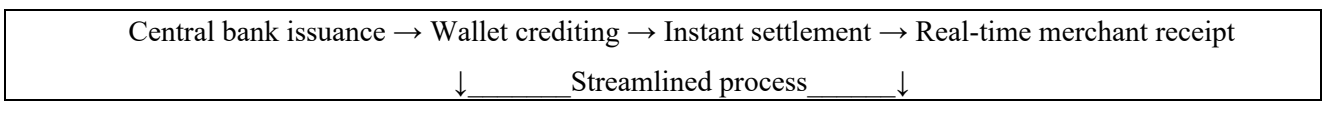


Figure 2: Cost Chain of Digital RMB Red Packets



3.2.3 Eliminating Digital Monopoly and Safeguarding Privacy and Security

E-CNY red packets are issued by the central bank under strict regulation and consistently follow the principle of "anonymity for small amounts and traceability for large amounts." Unlike platform coupons, which require extensive personal data authorization, they may offer stronger privacy protection. Their high inclusiveness ensures fairness: red packets are typically distributed equally to all citizens without relying on platform membership tiers or consumption history, without relying heavily on user profiling or membership systems. The system also allows transaction records to be monitored under regulatory requirements, helping reduce misuse of funds while ensuring security. In an era of rapid technological advancement, this strong privacy protection is particularly valuable to consumers.

Thus, Digital RMB red packets are not only a payment tool but also a new policy instrument; they reflect broader changes in digital payment systems and public policy implementation. As critical infrastructure for macroeconomic regulation, they enhance monetary policy independence, counter platform monopolies, ensure the inclusiveness of economic policies, and support the further development of China's digital payment system.

4. Enterprise Perspective: The Role of Digital RMB in SME Development

Small and medium-sized enterprises (SMEs) continue to face multiple challenges in digital trade. On the payment and settlement side, traditional electronic payment channels involve high fees and long approval times. Cross-border payments are characterized by multiple steps, long cycles, and high costs. Traditional payment systems may also increase transaction costs for SMEs. In financing, the lack of sufficient collateral and complete credit records leads to persistent problems of "financing constraints." Banks maintain high entry barriers and complex approval processes, making it difficult to respond quickly to market demand. In terms of market competition, most SMEs occupy downstream positions in industrial chains with weak bargaining power and compressed margins. They are more vulnerable to economic fluctuations and external shocks such as international trade frictions and pandemics. Additionally, issues such as exchange rate volatility and compliance reviews in cross-border payments deter many SMEs [6].

As a central bank-issued legal digital currency, Digital RMB (e-CNY) is providing financial and operational support to SMEs through technological innovation, policy backing, and application promotion. It may help address several operational challenges faced by SMEs, improve business activity, foster a favorable business environment, and contribute to high-quality development. Table 1 illustrates the operational improvements and enhancements that Digital RMB brings to enterprises at different levels and stages.

Table 1: Operational Optimization and Enhancement Provided by Digital RMB across Enterprise Levels

Fund Management	Enterprises open corporate wallets for daily receipts and payments, and inventory management
Salary Disbursement	"Penetrating" wage payments via Digital RMB, simplifying intermediate links
Supply Chain Finance	Smart contracts enable automatic split payments and progress-based disbursements
Loan Financing	Banks issue Digital RMB loans with full-process monitoring of fund usage

4.1 Reduction of Intermediary Costs and Simplification of Payment Processes

Built on blockchain technology, Digital RMB enables direct peer-to-peer fund transfers in real time without third-party payment intermediaries, thereby eliminating intermediary fees. Its "payment equals settlement" feature may improve cash flow efficiency for enterprises, remove clearing fees and settlement costs associated with traditional payments, and shorten payment cycles and fund arrival times. Unlike traditional tools with T+1 or longer settlement cycles, it accelerates capital circulation and eases liquidity pressure. Simplified processes also make fund sources and destinations more transparent, helping reduce transaction costs for enterprises.

4.2 Stronger Fund Security and Supervision, and Improved Supply Chain Transparency

The programmability and traceability of Digital RMB offer additional tools for transaction monitoring and security. By locking repayment paths, it ensures the authenticity of accounts receivable and reduces financing difficulties. With user authorization, it provides banks with genuine, transparent transaction data from SMEs,

helping resolve information asymmetry between banks and enterprises and improving access to credit loans. Its intelligent supervision model also allows tax, audit, and financial regulatory authorities to monitor fund flows in real time, improving regulatory efficiency while lowering regulatory costs. This may discourage irregular payment behavior that encourages more compliant payment behavior. Once a transaction is confirmed, payment instructions execute automatically, preventing human intervention or default, and ensuring transaction data more difficult to alter after confirmation.

4.3 Precise Policy Coordination and Improved Credit Assessment Systems

Digital RMB wallets maintain loose coupling with enterprise accounts while monitoring transactions throughout the process, supporting existing credit assessment systems. With customer authorization, the central bank can integrate multi-source data to generate systematic credit scores for SMEs and enable more targeted lending decisions. In July 2025, the National Financing Guarantee Fund held a seminar on "Scenario Finance + Digital Currency" to explore the use of Digital RMB smart contracts in promoting SME development, strengthening coordination between financial and fiscal policies.

4.4 Optimization of Internal Management and Enabling of Ecosystem Collaboration

Digital RMB's digitalized financial management improve enterprise financial automation. Through API integration with financial systems, it enables automatic reconciliation and split accounting, reducing manual errors. Its traceability strengthens internal controls, prevents misappropriation and fraud, and ensures fund flow transparency. Enterprises can also use smart contracts to explore new cooperation models (such as shared economy revenue sharing, real-time copyright royalties, and prepaid supervision), lowering trust costs in SME collaborations and supporting new forms of business cooperation.

Overall, Digital RMB's empowerment of SMEs constitutes a broader digital payment ecosystem, requiring coordinated hardware and software support. It functions across multiple scenarios in SME digital trade—including payment settlement, financial regulation, data services, and industrial upgrading—by leveraging 5G, artificial intelligence, big data analytics, and high-performance computing. It delivers backend digital services to SMEs while building closer integration between payments, credit assessment, and trade operations. It also shortens accounts payable cycles and improves payment behavior of core enterprises. These effects provide empirical evidence for expanding Digital RMB pilots and deepening scenario applications, while offering new policy tools to alleviate "involution-style" competition and supply chain credit distortions among enterprises [7]. The effects are more pronounced in firms with stronger digital capabilities, greater supply chain bargaining power, and fiercer market competition. The governance effects of Digital RMB primarily operate through internal empowerment mechanisms—easing financing constraints and improving operational efficiency—rather than external supervision. In the future, actively building the Digital RMB ecosystem can create a positive feedback loop with SMEs. Enterprises can achieve cost reduction, efficiency gains, and stronger financing capacity through Digital RMB, thereby enhancing their competitiveness and survival in product markets. The resulting business data can in turn support central bank analysis and regulation, further increasing the commercial value and development pathways of Digital RMB. This forms a positive feedback mechanism of "application generates data, and data optimizes application," promoting the sustainable development of the entire business system.

5. International Perspective: Current Status and Analysis of Cross-border Applications of Digital RMB

According to the latest data, cross-border applications of Digital RMB have moved from technical testing toward broader commercial application. The core vehicle is the multilateral central bank digital currency bridge (mBridge) project. Launched in 2021 by the Digital Currency Institute of the People's Bank of China, the Hong Kong Monetary Authority, the Bank of Thailand, and the Central Bank of the United Arab Emirates—with support from the BIS Hong Kong Innovation Centre—mBridge is the world's first multilateral CBDC cross-border payment platform. It aims to build an efficient, low-cost, and highly secure cross-border payment infrastructure using distributed ledger technology (DLT) to address the high costs, slow speed, and low transparency of traditional cross-border payments, achieving real-time "payment equals settlement" [8].

Based on the self-developed mBridge Ledger blockchain platform and the "Daheng Consensus Algorithm" (jointly designed by the PBC Digital Currency Institute and Tsinghua University), the project removes single-point centralization by deploying nodes across multiple parties, enabling efficient cross-border clearing and intelligent integration of digital currencies. It adopts a "bridge-on, bridge-off" architecture: CBDCs operate on the bridge, while traditional payment systems connect below it. The system supports payment-versus-payment (PvP) settlement and customized services that meet differing regulatory requirements across jurisdictions.

China has made substantial progress in the mBridge project. On June 5, 2024, the project entered the Minimum Viable Product (MVP) stage and began processing real commercial transactions. In November 2024, the BIS announced the project's "graduation," transferring full operational responsibility to the participating central banks. In 2025, the Saudi Central Bank joined, expanding observers to 31 entities covering multiple central banks and international organizations. By the end of 2025, the platform had processed 4,868 cross-border transactions totaling the equivalent of 477.8 billion yuan, with Digital RMB accounting for approximately 96% of transaction volume across currencies. These achievements demonstrate that the mBridge platform is not only technically feasible but also gradually developing clearer governance and legal structures. Its outcomes provide practical experience and reference value for future reforms of cross-border digital currency payment systems and may influence future reforms in cross-border payment systems.

The deployment of mBridge represents a major leap in global cross-border payment systems: (1) Leveraging a dual-layer operating model of "central bank–commercial institutions" and blockchain technology, Digital RMB achieves peer-to-peer real-time settlement, compressing cross-border clearing times to seconds and reducing fees to a fraction of traditional models by eliminating multi-layer agency costs. It directly addresses the long-standing pain points of being "slow, expensive, and complex." The system supports 7×24-hour real-time settlement, solving time-zone issues and ensuring continuity and stability. (2) Digital RMB can more conveniently and efficiently "go global" by enabling direct exchange and settlement with currencies such as the Thai baht and UAE dirham, bypassing the dollar system. It provides convenient settlement options for countries along the Belt and Road Initiative, reduces dependence on the US dollar, and strengthens China's voice in global monetary governance. As Professor Lu Liping of Renmin University of China noted, "In the future, Digital RMB will further facilitate cross-border payments, accelerate the digital transformation of financial infrastructure, and provide a Chinese paradigm for global CBDC development."

In summary, the mBridge project is not only a technological innovation but also a potentially transformative change in the global payment system. It is advancing from the MVP stage toward full production and gaining recognition from more monetary authorities. As the first large-scale multilateral practice of CBDCs in cross-border payments, it has significantly improved the efficiency, security, and convenience of China's cross-border payments and offers a replicable "Chinese solution" for building a fairer and more efficient international monetary system. [9] Looking ahead, with continuous technological upgrades, institutional improvements, and scenario expansion, Digital RMB's cross-border applications will become richer and more diverse, its scale will steadily grow, and it will further unleash the vitality and potential of China's digital financial innovation.

6. Conclusion

This paper systematically reviews the definition and characteristics of Digital RMB and examines its application status and future potential from user, enterprise, and international perspectives. The main conclusions are as follows:

First, Digital RMB is a liability of the central bank, backed by sovereign credit, and constitutes a digital form of currency with unlimited legal tender status.

Second, Digital RMB red packets may offer advantages over traditional coupons in legal tender status and security, flexibility of use, privacy protection, inclusiveness and fairness, policy guidance, cost, and efficiency. Although current penetration remains relatively low, their application will become more widespread under the joint regulation of the central and local banks, improving user convenience.

Third, Digital RMB may improve operational efficiency of SMEs by simplifying transaction processes, safeguarding fund security, improving credit assessment systems, and optimizing internal management.

Fourth, the multilateral central bank digital currency bridge (mBridge) project, with its high processing speed and inclusive design, is rapidly incorporating more participants. It promotes cross-border applications of digital currencies, expands the reach of Digital RMB, and supports cross-border trade cooperation under the Belt and Road Initiative.

As Digital RMB continues to develop, expanding its application scenarios will require coordination among the central bank, local governments, financial institutions, and market participants. Future efforts should focus on improving user experience, simplifying payment procedures, and increasing compatibility across different consumption scenarios. In addition, broader public awareness and more practical use cases may help encourage long-term adoption. With continued policy support and technological improvement, Digital RMB is likely to play a larger role in China's digital payment system in the future.

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Conflicts of Interest

The authors declare no conflict of interest.

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