

Digital Financial Services as a Driver for Enhancing Financial Inclusion in Nepal

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Abstract

Financial inclusion is increasingly recognized as a cornerstone of inclusive economic growth and poverty alleviation, especially in developing economies. In Nepal, the expansion of digital financial services (DFS)—including mobile banking, digital wallets, and interoperable payment systems—has transformed access to financial products, particularly for rural and marginalized populations. This paper examines how DFS has driven financial inclusion in Nepal between 2020 and 2025 by synthesizing secondary data from national policy frameworks, financial inclusion indices, and empirical research. Results indicate that the proliferation of mobile and internet penetration, coupled with strong regulatory initiatives such as the National Payment System Development Strategy and Retail Payment Strategy, has elevated account ownership and usage among adults from 58% in 2017 to 83% in 2023. DFS has also narrowed gender and geographic divides, facilitated remittance digitization, and enhanced resilience among low-income households. Despite these advances, challenges persist in digital literacy, affordability, cybersecurity, and gendered social barriers. The study concludes that inclusive DFS growth in Nepal depends on continued investment in digital infrastructure, regulatory innovation, and targeted literacy programs to ensure equitable access and sustainable impact.

Keywords: digital financial services, financial inclusion, digital literacy, mobile banking, remittance

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Introduction

Financial inclusion—the ability of individuals and businesses to access affordable and appropriate financial services—plays a crucial role in reducing poverty and promoting inclusive growth (Demirguc-Kunt et al., 2023). For countries like Nepal, characterized by rugged terrain, dispersed rural populations, and a largely informal economy, extending traditional banking infrastructure has long posed challenges. The

emergence of digital financial services (DFS) offers new opportunities to overcome these limitations by leveraging mobile technologies, digital wallets, and electronic payment systems to extend financial access to underserved communities.

Over the past decade, Nepal has witnessed rapid digitalization across sectors, driven by increasing smartphone penetration, improving connectivity, and a supportive policy environment. Initiatives led by Nepal Rastra Bank (NRB)—the country’s central bank—have provided a strong regulatory foundation for the growth of digital payment systems, agent banking, and fintech innovation. However, questions remain about the depth of this inclusion, particularly regarding women, rural households, and low-income segments.

This study investigates how DFS contributes to financial inclusion in Nepal from 2020 to 2025, focusing on the interaction of regulatory initiatives, technological enablers, and socioeconomic factors. It also identifies barriers and offers recommendations to enhance inclusive, secure, and sustainable DFS adoption.

Methodology

This research employed a desk-based, qualitative synthesis of secondary data from 2020 to 2025. Sources included government reports, regulatory publications, national surveys, and peer-reviewed literature addressing digital finance and inclusion in Nepal. Key documents analyzed were the NRB Financial Inclusion Index (2025), Financial Literacy Baseline Survey (NRB, 2024), Global Findex Database (2023), and policy frameworks from the Ministry of Finance (2023) and International Finance Corporation (2025).

Empirical data from journal articles and working papers such as those by Koirala et al. (2022) and Shrestha (2020) were triangulated with institutional datasets, including those from the Nepal Bankers Association (2024) and Nepal Telecommunications Authority (2023). The analysis emphasized trends in account ownership, digital transaction volumes, gender inclusion, remittance digitization, and literacy outcomes.

By integrating cross-sectional evidence and longitudinal data, this approach enabled a holistic understanding of DFS as a structural driver of financial inclusion and economic participation in Nepal.

Results and Discussion

Financial Inclusion Trends and Digital Transformation

Nepal’s financial landscape has undergone significant transformation since 2020, largely due to the expansion of DFS infrastructure and policy reform. The NRB

Financial Inclusion Index (2025) shows that formal financial account ownership reached 81.4% of adults by FY 2023/24, showing an increase of more than 20 percentage points since 2017 (Demirguc-Kunt et al., 2023). Mobile and internet penetration exceeded 85% and 70%, respectively, facilitating widespread adoption of mobile banking and digital payment platforms (Nepal Telecommunications Authority, 2023).

The COVID-19 pandemic accelerated digital adoption, as lockdowns pushed both consumers and businesses toward contactless and online transactions. Between FY 2020/21 and FY 2023/24, digital payment transactions grew by 147%, underscoring the systemic shift toward cashless commerce (Nepal Rastra Bank, 2025). Mobile wallet users expanded from under 6 million in 2019 to nearly 19 million in 2024, while QR-based payments became ubiquitous across retail and microenterprise sectors (IFC, 2025). These trends collectively demonstrate DFS's role in bridging Nepal's geographic and socioeconomic gaps in financial access.

Policy and Regulatory Initiatives

Nepal Rastra Bank has played a pivotal role in institutionalizing DFS. Licensing frameworks for payment service providers (PSPs) and payment system operators (PSOs) ensure operational transparency and consumer protection. The National Payment System Development Strategy (2022) and Retail Payment Strategy (2023) established a foundation for interoperability among banks, fintech firms, and mobile payment providers.

Cybersecurity guidelines and digital transaction regulations introduced post-2020 enhanced trust and resilience in digital ecosystems (Nepal Rastra Bank, 2024). Moreover, NRB's collaboration with India's National Payments Corporation of India (NPCI) enabled cross-border payment interoperability, significantly reducing remittance costs—a crucial advancement for a country where remittances contribute nearly 25% of GDP (IFC, 2025).

In addition, the Financial Inclusion Roadmap 2030 and Financial Literacy Framework 2020 align national strategies to promote equitable access, digital skills, and responsible financial behavior. The introduction of Central Bank Digital Currency (CBDC) pilot programs and exploration of digital-only banking licenses signal Nepal's readiness to advance into a new era of financial innovation.

Inclusion Outcomes for Gender, Youth, and Rural Populations

The inclusive potential of DFS is evident across gender and demographic lines. According to the Global Findex Database (2023), the gender gap in financial account

ownership in Nepal decreased from 18% in 2017 to under 10% in 2023, driven by targeted literacy initiatives and mobile wallet access for women. NRB's Financial Literacy Baseline Survey (2024) found a 15% increase in women's account ownership following tailored community-based training programs.

Among youth aged 18–30, mobile banking adoption surged, reflecting generational confidence in digital solutions (Ministry of Finance, 2023). Furthermore, DFS has enabled small and microenterprises, especially those in rural areas, to access credit and savings products. Digital lending to micro, small, and medium enterprises (MSMEs) increased by 40% between FY 2021/22 and FY 2023/24, while agent banking outlets expanded 60%, improving rural outreach (Nepal Bankers Association, 2024).

Remittance digitization has also contributed significantly. Digital channels processed 70% more remittance transactions in 2023 than in 2020, enhancing convenience, reducing transaction fees, and improving the safety of financial flows (IFC, 2025). Evidence suggests that households engaged in DFS exhibited 25% greater resilience to income shocks (Koirala et al., 2022), confirming DFS's role as a stabilizing factor in household economies.

Persistent Barriers and Structural Challenges

Despite remarkable progress, Nepal continues to face barriers that constrain equitable DFS adoption. Digital literacy deficits remain widespread, particularly among women, elderly individuals, and marginalized caste and ethnic groups (NRB, 2024). Low-income households still struggle with affordable smartphone ownership and reliable internet connectivity, especially in mountainous and remote areas where digital infrastructure is limited.

Cybersecurity and data privacy risks have increased alongside the growth of digital transactions, highlighting the need for robust consumer protection frameworks (Shrestha, 2020). Social norms continue to inhibit women's financial decision-making, reducing their ability to leverage DFS effectively. Moreover, the dominance of the informal economy complicates formalization and documentation processes, limiting access to credit products and digital savings tools for many small enterprises.

The sustainability of DFS adoption therefore depends not only on infrastructure expansion but also on the institutional capacity to ensure trust, literacy, and equitable access.

Recommendations for Sustaining Inclusive DFS Growth

To consolidate gains and overcome persistent gaps, several strategic priorities are recommended:

1. Enhance digital and financial literacy through localized, community-driven programs targeting women, youth, and marginalized groups.
2. Invest in broadband and mobile infrastructure to ensure reliable connectivity in remote and mountainous regions.
3. Strengthen cybersecurity and consumer protection, including clear data privacy regulations and digital grievance redress mechanisms.
4. Encourage fintech innovation via regulatory sandboxes and incentives for startups that design inclusive financial products.
5. Expand DFS product diversity including microinsurance, savings, and flexible credit as to meet MSME and informal sector needs.
6. Promote gender-responsive financial services, integrating women's digital skills development with entrepreneurship training.
7. Deepen regional interoperability to reduce remittance costs and expand cross-border financial inclusion.
8. Institutionalize data collection systems to monitor progress by gender, income, and geography for evidence-based policy adjustments.

Conclusion

Digital financial services have become a transformative driver of financial inclusion in Nepal, enabling millions of people—especially in rural and marginalized communities—to access and use formal financial services. From mobile wallets to interoperable payment systems, DFS has bridged longstanding geographic and social divides, increased financial resilience, and fostered entrepreneurship. The alignment of technological progress, regulatory innovation, and literacy initiatives has significantly advanced Nepal's journey toward being cashless, functional digital economy.

However, the sustainability of these achievements hinges on addressing persistent digital literacy gaps, improving cybersecurity, and expanding infrastructure in underserved areas. As Nepal's DFS ecosystem matures, continued collaboration between policymakers, regulators, financial institutions, and development partners will

be essential to ensure that digital finance remains a pathway to inclusive and equitable growth.

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