

Empowering Women through Digital Finance and Fintech: New opportunities and challenges

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Abstract:

Digital finance and fintech are transforming women's economic empowerment by providing access to financial services, education and resources. Through mobile banking, digital wallets, and online lending platforms, women can manage their finances, start businesses, and invest in their futures. These digital tools are bridging the gender gap in financial inclusion, enabling women to overcome traditional barriers and achieve financial independence. By leveraging fintech innovations, such as AI-powered financial tools and personalized financial planning, women can make informed decisions about their financial lives and contribute to economic growth. This article explores the opportunities, challenges, and impact of digital finance and fintech on women's economic empowerment, highlighting the potential for transformative change and sustainable economic development

Key Words: Digital Wallets, AI-Powered Financial tools, Women Economic Empowerment.

1. Introduction:

The rapid evolution of digital finance and financial technology (Fintech) has revolutionized the global financial ecosystem. From mobile banking and digital wallets to block chain-based lending and AI-powered investment platforms, these innovations are restructuring access to financial services. For women, particularly those in underserved or rural communities, Fintech represents a transformative opportunity to overcome traditional barriers to financial inclusion. Women have faced numerous challenges in accessing credit, banking, and investment services due to systemic discrimination, lack of collateral, and limited financial literacy. Digital finance breaks many of these barriers by offering low-cost, user-friendly platforms accessible via smartphones and the internet. This has opened new doors for women's economic empowerment, entrepreneurship, and financial independence. Women's participation in household financial decisions has risen from 84% in 2015 to 88.7% in 2020. It is well-known that women's financial independence is of crucial importance to building a more resilient and inclusive economy. Fintech makes financial services more accessible, faster, and often cheaper. Using technology, fintech apps can access more data, process payments faster, and improve security. The rise of AI and machine learning is likely to enhance the benefits of fintech even further.

2. Review of Literature:

Mohamed Abdirahman Abdulla and Dayah Abdi Kulmie et al (2025)¹ has study suggested that the Fintech research is essential for driving innovation, shaping the future of finance, and addressing emerging challenges. This study examines the awareness and knowledge of Fintech concepts among female university students in Somalia. Using a quantitative cross-sectional research design, 92 students from four universities were surveyed to assess their familiarity with key Fintech topics, including block chain, smart contracts, neo-banking, and cloud computing. The findings reveal significant gaps in Fintech literacy, with a majority of students showing limited awareness of emerging technologies. While 63% of students expressed the need for a dedicated Fintech course, only 32.6% felt adequately prepared for the Fintech industry. Regression analysis indicated that a student's major significantly influences their Fintech knowledge. The study concluded the need for curriculum reform and improved resources to enhance Fintech education in Somalia. **Balasubramaniyan Lavanya and Athisayam Dunstan Raj Kumar(2024)**² this article is predicated on the UTAUT (Unified Theory of Acceptance and Use of Technology) model proposed by Venkatesh in 2003 to identify the adoption of digital innovation in the banking industry among the rural public. This paradigm includes four concepts: performance expectancy, effort expectancy, facilitating condition, and social influence. In addition to the four structures, security measures were also included. Using a sample size of 525, digital users in rural areas, and the study used Structural Equation Modelling to gauge customer opinions. The result reveals that most of the customers are utilizing digital innovations to make their work easier and faster and also a positive relationship exists among the constructs. **Theerthamalai and Elumalai (2024)**³ has studied that FinTech companies will continue to play a significant role in India's financial landscape, offering consumers lower-cost services, greater accessibility, and personalized solutions. With projections showing a substantial increase in middle and high income households by 2030, alongside improving internet access in rural areas and supportive government initiatives, the FinTech sector is poised for bullish growth. This expansion is expected to drive financial inclusion, leading to reduced credit costs, expanded insurance coverage, and increased access to investment opportunities for underserved income groups. Moreover, this momentum will benefit customer segments such as small and medium enterprises, new-to-credit individuals, lower-income citizens, and students, facilitating their access to a wider range of financial services.

3. Objectives of the study:

1. To explore and highlight the new opportunities in digital finance and Fintech Sector.
2. To analyze the challenges in new opportunities in digital finance and Fintech sector.
3. To recommend actionable strategies and policy interventions aimed at increasing women's engagement and leadership in the digital financial ecosystem.

4. Statement of the Problem:

Despite the growth of Fintech, women remain simple as users, employees, and entrepreneurs in the digital finance space. Structural challenges such as limited digital literacy, lack of access to smartphones, socio-cultural restrictions, and gender bias in product design still hinder many women from fully benefiting from Fintech innovations. If not addressed, these gaps risk reinforcing existing inequalities and excluding women from the economic potential of digital finance.

5. Opportunities for Women through Digital Finance and Fintech:

Digital finance and Fintech offer significant opportunities to empower women by increasing their access to financial services, promoting financial inclusion, and fostering economic independence.

Advanced Financial Inclusion:

Fintech firms in India are enhancing financial inclusion by offering accessible, affordable, and user-friendly services, which are particularly beneficial to women and underserved groups. These firms utilize technology to provide educational resources on financial concepts and personalized financial counseling, significantly improving financial literacy among women. Additionally, the adoption of digital financial services globally has empowered millions of women, improving their resilience to economic shocks and increasing their participation in the formal economy.

Entrepreneurial Innovation:

Women in Fintech are driving technological innovations that cater to underserved populations, including rural women and those without traditional banking access. By leveraging technologies like mobile banking and block chain, these innovations offer tailored financial products that meet the specific needs of these groups. Furthermore, female-led fintech startups are receiving more investments, highlighting a shift towards recognizing and supporting women's contributions to the industry.

Leadership and Role Models:

The presence of women in leadership roles within fintech companies is linked to higher revenue and funding, underscoring the value of gender diversity in executive positions. Women leaders in fintech serve as role models, inspiring future generations to engage in STEM fields and pursue careers in technology and finance. This leadership is crucial for fostering an inclusive financial ecosystem that addresses diverse financial needs and promotes global financial inclusion.

Challenges Faced by Women through Digital Finance and Fintech:

Despite significant strides in the industry, women in Fintech continue to face substantial challenges that hinder their progress.

Gender Disparity in Funding:

Women-led startups receive a starkly lower percentage of venture capital funding, with female-founded companies in Europe securing less than 2% of total investments in 2023. This funding gap is exacerbated by a venture capital industry dominated by men, who tend to fund enterprises led by individuals similar to themselves.

Work-Life Balance

It also presents a significant hurdle. The high-speed, demanding nature of the Fintech sector often clashes with personal life, especially for women who might also shoulder more domestic responsibilities. This imbalance is rarely addressed effectively within the corporate culture, despite the critical need for supportive work environments that acknowledge different life stages and responsibilities.

Lack of Representation in Leadership Roles:

Women account for only a small fraction of leadership positions within Fintech companies. This underrepresentation in senior roles is not only a symptom of the broader gender biases prevalent in tech and finance but also a result of recruitment practices and corporate cultures that favor masculinity. This environment often discourages women from aspiring to or attaining high-level positions, perpetuating the cycle of inequality.

Community Support and Networking

To bolster the presence and success of women in Fintech, community support and robust networking platforms are vital. These networks provide women with access to mentors, role models, and peers who are navigating similar challenges in the Fintech space. By sharing experiences and resources, these communities empower women to overcome obstacles and seize opportunities within the industry.

Regulatory Measures and Policy Changes

Effective regulatory measures and policy changes are crucial for creating an equitable environment in Fintech. Policies aimed at reducing gender bias and promoting inclusivity can significantly impact the representation of women in both entry-level and leadership positions within the sector. These changes not only support women's advancement but also enrich the financial technology market with diverse perspectives.

Digital Literacy and Education Programs

Enhancing digital literacy among women is a key initiative for empowering their participation in Fintech. Education programs tailored to the needs of women can equip them with the necessary skills to thrive in this rapidly evolving field. These programs often focus on practical, hands-on training in emerging technologies, which is essential for staying competitive and innovative in the financial technology landscape.

Fastest Growing Fintech Categories in 2024:

Fintech categories stood out for their exceptional growth in 2024, with AI-powered solutions, data analytics, and finance automation leading the pack. These categories are expected to grow in the coming years, driven by increasing demand for advanced technologies and industry-specific solutions. There are the top-performing categories in 2024:

Digital Banking and Neobanks:

The neobank market, currently valued at \$386.30 million, is projected to grow at a 13.7%. Compound annual growth rate (CAGR) between 2021 and 2028. Key players in this market include PayPal, Square, and Alipay.

Artificial Intelligence and Machine Learning:

The AI segment in fintech is valued at approximately \$17 billion in 2024 and is expected to grow to 70.1 billion by 2033. Compound annual growth rate between (CAGR) 17% from 2024 to 2033 and key players includes JPMorgan Chase, Goldman Sachs, and Neo bank.

Block chain Technology:

The global fintech block chain market is projected to reach \$31.84 billion by 2029, with a compound annual growth rate (CAGR) of 46.92% between 2024 and 2029. Key players in this market include Coinbase, Ripple, Finance, Kraken, and Gemini. This growth is driven by increasing adoption of block chain technology in the financial sector for enhanced security, efficiency, and transparency in transactions.

Regulatory Technology:

The global regulatory technology market was valued at USD 15.80 billion in 2024. The market is projected to grow from \$ 19.60 billion in 2025 and reach \$ 82.77 billion by 2032, exhibiting a compound annual growth rate (CAGR) of 22.8% during the forecast period. The key players include Comply Advantage, Trunomi, Clause Match, Elliptic, and Behavox.

Embedded Finance:

The global embedded finance market is projected to expand from \$63.2 billion in 2023 to approximately \$291.3 billion by 2033. 15.8% compound annual growth rate (CAGR) between 2023 to 2033. The key players include Amazon, Shopify, Apple, Stripe and Plaid

Open Banking:

The global open banking market is predicted to reach \$135.17 billion by 2030, with a projected compound annual growth rate (CAGR) of 27.2% from 2023 to 2030. Key players in this market include Plaid, Revolt, HSBC, Barclays, and BBVA.

Insurance Technology

The global Insurance Technology market is predicted to significantly expand, with a projected value of \$306.5 billion by 2030, up from \$22.1 billion in 2023. This growth represents a Compound Annual Growth Rate (CAGR) of 45.6% between 2023 and 2030. Key players in this market include Lemonade, Hippo, Root Insurance, We fox, and Trov.

Buy Now, Pay Later (BNPL)

According to projections, the global Buy Now, Pay Later (BNPL) market is anticipated to grow significantly, reaching a value of approximately \$80.2 billion by 2034, with a substantial Compound Annual Growth Rate (CAGR) of 21.8% from 2024, starting from an estimated market size of \$14.55 billion in the same year. Key players in this market include Klarna, After pay, Affirm, Zip, and Sezzle.

6. Conclusion:

Digital finance and Fintech offer unprecedented opportunities to empower women, enhance financial inclusion, and promote gender equality. However, for this potential to be fully realized, targeted efforts must be made to remove barriers and promote digital and financial literacy among women. Inclusive product design, public-private partnerships, and supportive policies can help ensure that the Fintech revolution is equitable and accessible to all. When women thrive financially, families, communities, and economies thrive with them. Digital finance should improve the welfare of individuals and businesses that have formal bank accounts and have fund in their bank accounts to complete multiple financial transaction and empowering women with digital financial capability is more important than ever,

so that they are not left behind as the financial industry moves toward more widespread adoption of digital financial services.

7. Recommendations:

Increase Digital Literacy:

Implement digital literacy program to empower women with the skills and knowledge needed to access and use digital financial Services.

Improve Access to technology:

Invest in infrastructure and initiatives that improve women access to technology such as mobile phones and internet connectivity.

Promote Inclusion policies:

Encourage government and regulatory bodies to develop policies and regulatory framework that promote digital finance and fintech for women.

Support Women-led Businesses:

Provide support and resources to women –led businesses, including access to funding, mentorship, and networking opportunities.

Reference:

1. www.google.com
2. www.google.com
3. www.researchgate.com
4. Dr. S. Theerthamalai and Dr. Elumalai D (2024),” Emergency for Digital Financial Services of Fintech Its Literacy and Usage in Tamil Nadu”, International Journal of Multidisciplinary Research, Vol-2, Issue-4, and ISSN: 2583-973X.
5. Balasubramaniyan Lavanya and Athisayam Dunstan Raj Kumar (2024),” Adoption of Digital Innovations in Rural Banking of Vellore District: Based on UTAUT Model”, International Research Journal of Multidisciplinary Scope, vol-5, Issue-1, ISSN: 2582-631X.
6. **Mohamed Abdirahman Abdulla and Dayah Abdi Kulmie et al (2025),” Female University Students and Fintech Literacy: Evidence from Somalia”, International Journal of Economics and Financial Issues, Vol-15, Issue no-2, ISSN: 2146-4138.**