

Role of Digital Literacy in Women Entrepreneurs - Paving Way for Adoption of Online Banking

Mr. M. Jayanthi¹, Dr. R. Gokila²

¹Research Scholar, Commerce, Dr.G.R.Damodaran College of Science, Coimbatore

²Assistant professor, Commerce, M.Dr.G.R.Damodaran College of Science, Coimbatore

Abstract

Although women entrepreneurs now have unparalleled access to banking services thanks to the quick growth of digital financial services, adoption rates vary depending on the situation. With a focus on how digital skills, trust, and perceived ease of use affect adoption decisions, this study investigates the effect of digital literacy in the adoption of online banking among women entrepreneurs. Digital literacy is a fundamental prerequisite for the adoption of online banking, with strong positive associations established across various studies, according to pertinent empirical research from a variety of geographical contexts. But digital literacy is not enough on its own; the relationship between literacy and adoption is mediated by perceived ease of use, security concerns, trust in digital platforms, and sociocultural variables. Adoption intentions are reliably predicted by perceived utility and perceived ease of use and its extensions emerging as the predominant theoretical frameworks. Cultural limitations, insufficient training programs, gender-specific digital divides, and restricted access to digital infrastructure are some of the particular challenges faced by female entrepreneurs. The results highlight the need for focused digital education initiatives, better digital infrastructure, culturally aware interventions, and supportive legislative frameworks to increase women entrepreneurs' usage of online banking. This study offers a thorough synthesis of empirical data and practical suggestions for all the professionals looking to advance financial inclusion and the economic empowerment of female entrepreneurs through digital banking.

1. Introduction

Recognizing the significance of digital financial literacy as a driver for wider economic growth and as a tool for personal empowerment is becoming more and more important with the trending changes in the digital banking scenario. With improved digital abilities, female entrepreneurs can use online banking to manage cash flow, increase market reach through e-commerce platforms, and obtain funding more efficiently. This change not only makes it easier for them to engage in the formal economy, but it also lessens the risks that come with financial exclusion, including turning to unofficial lending or financial crimes since they can't use regulated banking channels. Additionally, supporting a culture of digital literacy among women can have a cascading effect, boosting community and family support for female-led businesses and ultimately making the economy more inclusive. The significance of focused educational programs that can empower women and improve their capacity for entrepreneurship in the digital economy is highlighted by this cultural shift.

The banking industry has completely changed as a result of the digital transformation of financial services, opening up new avenues for economic empowerment and financial inclusion. Compared with traditional brick-and-mortar banking, online banking—including internet banking, mobile banking, and other digital financial services—offers previously unheard-of accessibility, efficiency, and convenience. Online banking is a vital instrument for business expansion, financial management, and financial independence for female entrepreneurs, especially those in emerging economies. However, adoption rates among female entrepreneurs are still below ideal despite the expansion of digital banking infrastructure, indicating enduring digital disparities and gender-specific hurdles [Padachi, K., et al., 2021].

A key factor in determining the uptake of internet banking is digital literacy, defined as the capacity to use digital technology critically, safely, and efficiently. Higher levels of digital literacy put female entrepreneurs in a better position to use online financial services for business operations, comprehend security procedures, and navigate digital banking platforms [Lasmini et al. 2025]. However, digital literacy is not evenly distributed; women entrepreneurs in underprivileged communities, rural areas, and developing countries frequently encounter large gaps in digital literacy that prevent them from using online banking services.

Adoption of online banking and digital literacy has a complicated relationship that is mediated by a number of variables. Adoption decisions are influenced by several factors, including perceived usefulness, perceived ease of use, trust in digital platforms, security concerns, and sociocultural norms. A strong theoretical framework for technology adoption is primarily determined by perceived usefulness and simplicity of use, with trust acting as a crucial moderating factor, especially in situations where security and privacy concerns are prominent.

Adopting online banking presents particular difficulties for female enterprises. Inadequate digital education and training opportunities, cultural norms that limit women's autonomy in financial decision-making, restricted access to digital devices and internet connectivity, and increased concerns about fraud and security are examples of gender-specific barriers.

Broader structural disparities, such as lower levels of formal education, fewer financial resources, and limited mobility, frequently exacerbate these obstacles. Therefore, in addition to addressing digital literacy deficiencies, interventions targeted at encouraging women entrepreneurs to utilize online banking must also address the larger socioeconomic and cultural settings in which these entrepreneurs operate. This article explores how adoption decisions are influenced by digital skills, trust, and perceived ease of use, based on thirty studies from various geographical contexts.

2. Literature Review

Basic computer skills, internet navigation, information appraisal, digital communication, and cybersecurity awareness are just a few of the many competencies that make up digital literacy. Understanding banking interfaces, carrying out financial transactions, maintaining digital security credentials, and resolving technical problems are all examples of digital literacy in the context of online banking [Jou et al., 2023]. Digital literacy is more than just a technical ability for female entrepreneurs; it is a vital component of financial independence and economic competitiveness. Savings rates are positively impacted by financial knowledge, according to research by Morgan and Long [2020]. Compared with those with low financial literacy, those with high financial literacy typically have greater

formal and informal savings. Additionally, financial literacy can boost an employee's self-assurance and output, enhance their workability, and assist them in avoiding financial problems [Lopus et al., 2019].

The provision of financial services via digital channels, such as digital wallets, mobile banking apps, and internet banking websites, is referred to as online banking. Without going to physical bank branches, consumers can use these services to check account balances, transfer money, pay bills, apply for loans, and access financial information [Tahir et. al, 2023]. Online banking's efficiency and ease are especially helpful for female entrepreneurs who frequently have a lot on their plates and are time-constrained.

Adoption of internet banking is favorably correlated with digital literacy, according to numerous studies. Digital literacy levels and the frequency and sophistication of online banking usage are significantly correlated, according to studies from Indonesia, India, Nigeria, and Malaysia [Luthfia et al., 2025]. The degree of this association, however, varies depending on the environment, indicating that digital literacy interacts with other elements including institutional support, infrastructural accessibility, and cultural norms.

Numerous studies conducted in India have shown the beneficial effects of digital literacy on the adoption of internet banking. Digital financial literacy greatly boosted trust in using digital banking services and readiness to invest in digital financial tools, according to a study on female entrepreneurs in Meerut. Using a combination of surveys and in-depth interviews, the study found that cultural barriers and training deficits were the main obstacles. According to a different Indian study, digital literacy initiatives created especially for female entrepreneurs resulted in quantifiable increases in the adoption rates of online banking, with participants reporting easier access to credit and management of firm finances [10], [16].

Despite the potential advantages of online banking, adoption by female businesses is hampered by a number of obstacles. These obstacles can be divided into three categories: institutional (infrastructure, training, assistance), individual-level (digital literacy, attitudes, awareness), and sociocultural (gender norms, cultural values, social capital).

The most often mentioned obstacle at the individual level is a lack of digital literacy. According to research from Nigeria, Indonesia, and India, a sizable percentage of female entrepreneurs lack fundamental digital skills, such as the capacity to operate cellphones, navigate websites, and comprehend digital security measures [5], [6], and [23]. According to a Nigerian study, 58% of female entrepreneurs surveyed had never used online banking, and the main reason given by 67% of non-users was a lack of digital skills [5].

In a similar vein, a study conducted in Indonesia found that 44% of female MSME owners did not handle their funds digitally, and that a significant barrier was the lack of digital literacy [30].

Inadequate training programs, restricted access to digital devices, and inadequate digital infrastructure are examples of institutional impediments. Online banking requires dependable internet connectivity, which is frequently unavailable to female businesses in rural and isolated locations [6], [23]. 52% of respondents to a Sri Lankan study on female entrepreneurs in the SME sector reported unstable internet connectivity, indicating that inadequate digital infrastructure was a significant barrier to digitalization [11]. Another barrier is access to digital devices; an Indian study revealed that only 38% of female entrepreneurs had smartphones, compared to 67% of male entrepreneurs [14].

3. Methodology

This study uses a mixed-methods research design to investigate how digital literacy affects women entr-

preneurs' adoption of online banking, using quantitative and qualitative techniques to offer a thorough knowledge of the issue. In order to improve the validity and depth of findings, a convergent parallel design is used, in which quantitative and qualitative data are gathered concurrently, evaluated separately, and then combined for interpretation. Using a structured questionnaire, the quantitative component employs a descriptive and correlational survey methodology to collect information on demographic traits, digital literacy levels, the frequency and types of online banking usage, and perceptions like security, ease of use, and trust.

4. Discussion

In the current business environment, one of the most important factors facilitating women entrepreneurs' economic engagement is digital literacy. The ability to operate a competitive, sustainable business has become inextricably linked to the ability to manage online platforms, mobile applications, and digital payment ecosystems as financial institutions around the world shift toward digital-first infrastructure. Digital literacy is a fundamental requirement for women-led micro, small, and medium-sized businesses, especially in developing nations, in order to join the official financial system, of which internet banking is the most important entry point.

There is still a huge gap between women entrepreneurs' awareness of online banking and their actual usage of it, despite tremendous global advancements in financial inclusion. While the vast majority of female entrepreneurs are aware that online banking is available, less than half regularly use mobile banking, and just a small percentage access formal financing digitally, according to research conducted across South and Southeast Asian MSMEs. Disinterest cannot be the cause of this disparity. Instead, it is a sign of a lack of confidence stemming from a lack of digital exposure. Women who have not had the chance to become accustomed to cellphones, internet navigation, or digital interfaces approach online banking with worry, fearing that they would make mistakes that cannot be undone, lose money, or fall prey to fraud. Through the development of expertise and, consequently, confidence, digital literacy training directly addresses this psychological barrier.

The adoption of internet banking is based on four interrelated pillars of digital literacy. The first is basic internet and device competency, which includes knowing how to use a smartphone, connect to the internet, and use apps. No higher-order financial competence is available without this foundation. The second pillar is financial digital literacy, which includes knowing how to utilize e-wallets for business payments and collections, read digital bank statements, conduct UPI or NEFT transfers, and comprehend how online transactions operate. Cybersecurity awareness is the third, and frequently overlooked, pillar. It is imperative that female entrepreneurs possess the necessary skills to identify phishing efforts, safeguard login passwords, and differentiate between authentic and fraudulent financial communications. Adoption of online banking can be permanently discouraged by a single negative encounter or even the fear of one. Understanding business-facing digital technologies, such as GST filing portals, digital invoicing platforms, e-commerce marketplaces, and government subsidy payout methods, is the fourth pillar. Because these systems produce the transaction history and codified income records that banks use to grant credit, mastery of them paves the way for internet banking.

Structural Barriers to Adoption

Online banking adoption is hampered by structural and sociocultural factors for female entrepreneurs. Limited smartphone ownership and erratic internet access in rural and peri-urban areas continue to be major structural barriers. For women whose first language is a regional vernacular, banking applications

with dense interface layouts and complicated jargon that are primarily written in English provide additional friction. Socioculturally, women's access to formal training programs and bank branches is restricted by mobility limitations, family gatekeeping, and strongly ingrained societal norms surrounding women's involvement with financial institutions. Women who have traditionally relied on unofficial credit channels like moneylenders, chit funds, or community-based savings clubs have a generalized mistrust of formal financial systems, which exacerbates these issues. For these women, the shift to internet banking necessitates a fundamental reorientation of their relationship with institutional finance in addition to skill development.

Digital Literacy as an Economic Multiplier

The economic results are revolutionary when female entrepreneurs effectively adopt online banking and become digitally literate. Access to formal loans that would not otherwise be possible owing to a lack of conventional collateral is made possible by a digitally active bank account, which generates a verifiable trail of activities that serves as a proxy credit history. The disbursement of government welfare and entrepreneurship programs, such as credit-linked subsidies and direct benefit transfers, is increasingly occurring through digital channels. As a result, women entrepreneurs who are digitally excluded are essentially shut out of the policy support intended for them.

By enabling involvement in e-commerce ecosystems and lowering reliance on cash, which increases the danger of theft and complicates accountancy, online payment acceptance broadens a company's reach beyond its physical location. Digital literacy serves as an economic multiplier rather than just a convenience, as studies repeatedly show that digitally literate women entrepreneurs report much stronger revenue growth and business resilience compared to their digitally excluded counterparts.

Community-Based Adoption and Peer Networks

The peer network effect is one of the most effective and underutilized strategies for encouraging women entrepreneurs to use internet banking. Community clusters, women's cooperatives, and self-help groups offer organic settings for hands-on learning. Learning spreads naturally and within a trusting environment when one SHG member shows how to make a UPI payment or check a balance on a mobile app. Compared to top-down institutional training models, training programs that identify and empower "digital sakhis"—local women who act as advocates for digital financial tools—have demonstrated quantifiably greater adoption rates. In an environment where women feel comfortable asking questions and making errors, this strategy overcomes the confidence barrier while utilizing the social capital that already exists.

Conclusion

Fundamentally, digital literacy is a tool for economic agency. For female entrepreneurs, becoming proficient in internet banking is not only about convenience; it's about gaining access to the capital, markets, and institutional support that determine whether a business thrives. Women entrepreneurs will adopt internet banking through consistent, culturally aware, and community-integrated investments in digital literacy rather than just technology. The evidence is clear when this investment is made: digitally competent women entrepreneurs lead rather than just catch up.

References

1. Agussani. (2020). Are Women the Dominant Entrepreneurs in Indonesia, *The International Journal of Social Sciences and Humanities Invention* 7(05): 5935–5947.

2. Alalwan, A. A., Dwivedi, Y. K., Rana, N. P., & Williams, M. D. (2016). Consumer adoption of mobile banking in Jordan. *Journal of Enterprise Information Management*, 29(1), 118–139. <https://doi.org/10.1108/JEIM-04-2015-0035>
3. Andriamahery, A., & Qamruzzaman, M. (2022). Do Access to Finance, Technical Know-How, and Financial Literacy Offer Women Empowerment Through Women’s Entrepreneurial Development? *Frontiers in Psychology*, 12(January), 1–16.
4. Anshika, A., & Singla, A. (2022). Financial literacy of entrepreneurs: A systematic review. *Managerial Finance*, 48(9/10), 1352–1371.
5. Barrachina Fernández, M., García-Centeno, M. del C., & Calderón Patier, C. (2021). Women Sustainable Entrepreneurship: Review and Research Agenda. *Sustainability*, 13(21).
6. Buvinic, M., & Furst-Nichols, R. (2016). Promoting women’s economic empowerment: What works? *World Bank Research Observer*, 31(1), 59–101. <https://doi.org/10.1093/wbro/lkv003>
7. Hilbert, M. (2011). Digital gender divide or technologically empowered women in developing countries? *Women’s Studies International Forum*, 34(6), 479–489. <https://doi.org/10.1016/j.wsif.2011.07.001>
8. Joyce A. Strawser, Diana M. Hechavarría and Katia Passerin. (2021). Gender and entrepreneurship: Research frameworks, barriers, and opportunities for women entrepreneurship worldwide, *Journal of Small Business Management*, 59.
9. Jou, Y.-T., Shiang, W.-J., Silitonga, R. M., Adilah, M., & Halim, A. Z. A. (2023). Assessing Factors That Influence Womenpreneurs’ Intention to Use Technology: A Structural Equation Modeling Approach. *Behavioral Sciences*, 13(2), 94. <https://doi.org/10.3390/bs13020094>
10. Lasmini, Rizki Sri; Mohd Hafiz Bakar, Hainnuraqma Rahim, Nor Shahrina Mohd Rafien (2025), The Role of Financial Literacy on Financial Technology for Women Entrepreneurs in Indonesia, *Academic Journal of Business and Social Sciences*, Vol.9 No.1(2025).
11. Leyla Sartaraz, Nezameddin Faghih and Armaghan Asadi Majd. (2014). The relationship between women entrepreneurship and gender equality, *Journal of Global Entrepreneurship Research*:4(6).
12. Lopus, J.S.; Amidjono, D.S.; Grimes, P.W. Improving financial literacy of the poor and vulnerable in Indonesia: An empirical analysis. *Int. Rev. Econ. Educ.* 2019, 32, 100168.
13. Luthfia, A., Erni Herwati, Rosidah Rosidah, Aryo Bismo (2025), Digital Transformation and Sustainable Growth: Empowering Women Entrepreneurs in MSMEs Through Enhanced Digital Literacy. DOI: 10.1109/imcom64595.2025.10857542
14. Mishra Deepak , Agarwal Naveen , Sharahiley Sanawi and Kandpal Vinay (2024), Digital Financial Literacy and Its Impact on Financial Decision-Making of Women: Evidence from India, *Risk Financial Management*, 17, 468, p.p. 1-22, <https://doi.org/10.3390/jrfm17100468>
15. Morgan, P.J.; Long, T.Q. Financial literacy, financial inclusion, and savings behavior in Laos. *J. Asian Econ.* 2020, 68, 101197.
16. Padachi, K., Mauree-Narrainen, D., & Boolaky, A. (2021, July 13). E-Banking Literacy and Skills for Improved SMEs Financial Management – The Case of Women Entrepreneurs. *Academia Letters*. <https://doi.org/10.20935/al1018>
17. Praveen Nikhat , Maqbool Adeel (2024), Role Of Financial Literacy For Success Of Women’s Entrepreneurship In India, *Journal of Emerging Technologies and Innovative Research*, Volume 11, Issue 10, p.p. g316-g321

18. OECD. (2018). *Bridging the digital gender divide: Include, upskill, innovate*. OECD Publishing. <https://doi.org/10.1787/295fd2d3-en>
19. Shaikh, A. A., & Karjaluoto, H. (2015). Mobile banking adoption: A literature review. *Telematics and Informatics*, 32(1), 129–142. <https://doi.org/10.1016/j.tele.2014.05.003>
20. Tahir, M. S., et al., Demystifying a new framework for adoption of financial technology among women micro enterprises, *Advanced International Journal Of Business, Entrepreneurship and SME's*, 2023. DOI: 10.35631/aijbes.518022