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Challenges for Women Entrepreneurs in Digital Financial Literacy: A Scoping Review

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ABSTRACT

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Introduction/Main Objectives: In the digital era, digital financial literacy (DFL) has become a vital competency for women entrepreneurs, especially in developing countries. **Novelty:** This study contributes to the body of knowledge through a literature review on digital financial literacy among women entrepreneurs. **Research Methods:** This scoping review explores the challenges they face in acquiring and applying DFL, which includes understanding and using financial technologies such as e-wallets, mobile banking, and digital bookkeeping. Despite its potential to enhance business efficiency, transparency, and access to financing, women entrepreneurs often encounter barriers such as limited access to technology, low digital education, and restrictive social norms. Using the PRISMA-ScR framework, this study analyzes 14 selected articles from the Scopus database published between 2020 and 2025. **Finding/Results:** The findings reveal four key focus areas: the level of understanding and use of financial technology, the relationship between DFL and business success, barriers to accessing digital financial services, and the role of training and education in improving DFL. **Research limitation/implications:** The practical implication of this study is the need to develop a digital financial literacy program tailored to the needs of women business actors. Governments, financial institutions, and civil society organizations can design app-based training, online modules, and community mentoring to improve women's digital skills.

1. Introduction

In the increasingly digital era, digital financial literacy is a crucial competency for business actors, particularly for women who run independent businesses (Asandimitra et al., 2024). Digital transformation has changed the way transactions, financial management, and access to financial services are made (Gomber et al., 2018). However, not all community groups have the same access and ability to utilize this technology (Andriamahery & Qamruzzaman, 2022). Women entrepreneurs, particularly in developing countries, often encounter structural and social barriers that impede the effective use of financial technology (Lindvert, 2017).

Digital financial literacy encompasses an understanding of technology-based financial tools, platforms, and services, including e-wallets, mobile banking, and digital bookkeeping applications (Dura & Wardana, 2024). For women entrepreneurs, this ability not only serves to manage business finances but also to increase business efficiency, transparency, and competitiveness (Sallah & Caesar, 2020). Unfortunately, the gender gap in access to and understanding of technology remains a significant challenge, directly impacting the sustainability and growth of the businesses they run (Vasile et al., 2021).

Women's ability to manage digital finance not only improves business operational efficiency but also strengthens their economic independence (Showkat et al., 2024). Furthermore, women's involvement in the digital economy is improved by financial digital literacy, a trend that is growing more significant in the post-pandemic age (Patnaik et al., 2024). Research by Showkat et al. (2025) demonstrates that integrating DFL into digital financial services significantly enhances women's economic empowerment. However, significant challenges persist in increasing DFL among women entrepreneurs, including limited access to technology, gender bias, and low participation in digital finance training (Aripin & Zuhriyah, 2025). Therefore, inclusive policy interventions and educational programs tailored to the specific needs

of women entrepreneurs are necessary (Bullough et al., 2015). From a strategic standpoint, the rise in DFL among female entrepreneurs directly advances the Sustainable Development Goals (SDGs), especially in terms of closing the gender gap and enhancing economic well-being (Gupta et al., 2024). Thus, DFL is not only a tool for individual empowerment but also an instrument of inclusive and sustainable economic development.

The purpose of this paper is to perform a scoping review of the literature on the difficulties faced by female entrepreneurs in terms of digital financial literacy. In order to create policies, training initiatives, and interventions that are more successful and sensitive to the needs of female entrepreneurs, this study is essential in laying the groundwork. Presenting the current state of research on women entrepreneurs who possess Digital Financial Literacy (DFL) is the primary goal of this study. The following inquiries determine the study's scope:

1. **RQ1:** What is the main goal of the research on women entrepreneurs' digital financial literacy?
2. **RQ2:** What are the most important components or indicators of digital financial literacy among female entrepreneurs?

The parts of this article have been structured in the following way. The first part is an explanation of the research background. Second, a summary of the literature review is given in this section. Third, the analysis's process and technique are described in this part. Fourth, a detailed presentation of the research field's descriptive analytical results is made. Additionally, the study's results and consequences are presented in the fifth section.

2. Literature Review

2.1. Women Entrepreneurs in Digital Financial Literacy

The technological, digital era has produced complex transformations in various sectors of society. Digital technology in the financial sector (Fintech) is changing consumer behavior and the demand for financial services. Their proficient use requires digital

and financial literacy to make the right decisions. Some studies show the risks of digital financial services when digital financial education is lacking. For example, the correlation between mobile phone users, compulsive purchases, and financial risks on the internet has been verified (Raikar et al., 2017).

Women entrepreneurs face various challenges in improving their digital financial literacy, including limited access to technological devices and low levels of digital education, as well as social norms that restrict the role of women in financial decision-making (Mishra et al., 2024). In addition, the lack of relevant training and inclusive policy support exacerbates this gap (Choudhary & Jain, 2023). These challenges are multidimensional and require a comprehensive approach to overcome. This study's uniqueness comes from its interdisciplinary synthesis, which integrates digital education, financial technology, and gender perspectives in the framework of financial literacy.

Particularly in developing nations, digital financial literacy, or DFL, has emerged as a critical component in advancing financial inclusion for female entrepreneurs (Showkat et al., 2025). DFL makes it possible to use digital financial services, such as fintech platforms, e-wallets, and mobile banking, safely and effectively (Shehadeh et al., 2024). According to a study by Hasan et al. (2023), women who have higher DFL levels are more likely to use formal banking channels, which increases their access to funding for their businesses. This is significant since one of the biggest obstacles to women launching and expanding businesses is a lack of access to financing.

2.2. Scoping Review

A scoping review is a method of literature review that aims to map research concepts, evidence, and gaps in a particular field (Christou et al., 2025). In contrast to systematic reviews, scoping reviews do not focus on the quality of the study, but rather on its scope and characteristics (Munn et al., 2018). This process is beneficial for topics that are still evolving or haven't been thoroughly researched. In its implementation, the researcher identifies a broad

research question and develops a comprehensive search strategy to address it. The search results are then selected based on predetermined inclusion and exclusion criteria. To maintain transparency and consistency, the PRISMA reporting guide is used.

PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) is a reporting tool that can also be applied in scoping reviews (Smith & Duncan, 2022). Although initially designed for systematic reviews, PRISMA has been developed into a PRISMA-ScR, specifically for scoping reviews (Tricco et al., 2018). PRISMA-ScR helps researchers compile systematic reports, from literature identification to presentation of results. The PRISMA flowchart is used to illustrate the number of studies identified, filtered, and ultimately included in the analysis. It provides a clear picture of the selection process and the reasons for excluding the study from consideration. Thus, PRISMA increases credibility and openness in scoping review reporting.

In practice, scoping reviews with PRISMA involve several essential steps that must be carried out systematically (Peters et al., 2021). The first stage consists of formulating the research questions and study objectives explicitly (Hunt et al., 2018). Next, the researcher conducted a literature search in various relevant databases. After that, a screening procedure is carried out using the entire text, abstract, and title in compliance with the predetermined standards. Key themes were then found by extracting and analyzing data from a few chosen studies. Finally, the study's results are presented in both narrative and visual formats, including PRISMA tables and diagrams, to facilitate readers' understanding. This method is especially helpful for researchers who wish to fully comprehend the state of the field before moving forward with additional study.

3. Research Methodology

This study uses a scoping review approach to identify and analyze the challenges faced by women entrepreneurs in digital financial literacy. A scoping review was chosen because it allows researchers to

explore a broad scope of literature, map key concepts, and identify existing research gaps without limiting the methodological quality of the studies being reviewed. To address the research questions and achieve the study's primary aim, a systematic approach to reviewing the literature was adopted, drawing on the work of Ossandon et al. (2024) and Jose & Ghosh (2025). The process of collecting papers was stopped on September 09, 2025. This study utilizes the Scopus database to present a literature review on digital financial literacy among women entrepreneurs. The research objectives are to map studies that discuss digital financial literacy among women entrepreneurs. The literature search was limited to articles published from 2020 to 2025. A search for the keyword with the query TITLE-ABS-KEY ("digital financial literacy" AND "women" OR "female"), 37 articles. Articles are excluded if any of the inclusion criteria are not met.

filter: 36 articles. At this stage, the article is screened by title and abstract to assess its initial feasibility. Articles issued: review: 0, book chapter: 4, conference: 3, unable to access full text: 9. Articles that passed the next stage: 20 articles. Included at this final stage is a complete assessment of eligibility based on the full text. Irrelevant articles (not focusing on women entrepreneurs): 6. Articles that ended up being included in the review: 14. Articles that pass the final stage are then read in full. The data extracted from each article includes: the research objectives, methods used, subjects, key findings related to the challenge, and recommendations provided.

4. Results

The results of the analysis are presented in narrative form and tables to facilitate understanding. The degree of digital financial literacy among female business actors, the impact of literacy on sustainability and business management, the function of technology in assisting women's financial activities, and the necessity of digital-based training and mentoring are the four main areas of focus listed in Table 1.

1. The level of understanding and use of financial technology by women entrepreneurs.

Based on four studies, one of the most important factors in fostering economic independence and the long-term viability of women entrepreneurs' enterprises is their degree of financial technology knowledge and proficiency (Fauzi et al., 2020; R. Hasan et al., 2023; Igamo et al., 2024; Peter et al., 2024). In the current digital era, women now have more opportunities to effectively manage their business finances thanks to access to technology-based financial services like online financing platforms, e-wallets, and mobile banking (Dura & Wardana, 2024). However, not all women entrepreneurs have adequate digital literacy to make optimal use of this technology. The biggest obstacles to the equitable use of financial technology are disparities in educational backgrounds, a lack of knowledge, and inadequate training (Menberu, 2024).

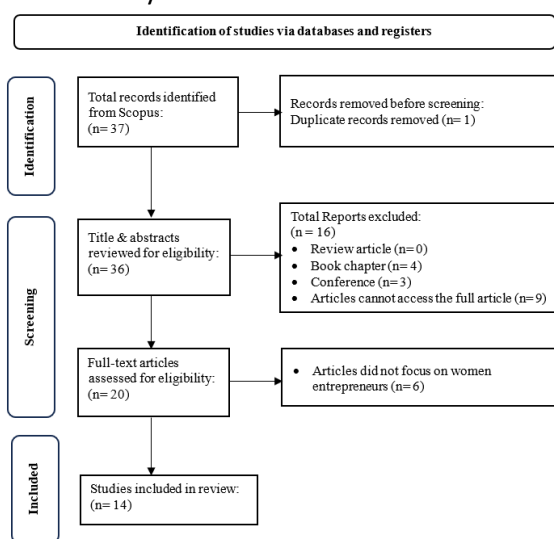


Figure 1. PRISMA flow diagram for the scoping review process.

This study employs a PRISMA flowchart, which describes the scoping review process as illustrated in Figure 1. This figure demonstrates a systematic and transparent approach to selecting relevant studies for the literature review. There are three main stages: Identification, Screening, and Inclusion. Identification, at this early stage, aims to collect all potential relevant articles from the database. Articles were identified from Scopus, totaling 37 documents. Duplicate of 1 article that was deleted before the screening process. Total unique articles to

Table 1. Focus of the studies on the digital financial literacy of women entrepreneurs selected in the review

No	Authors	Aim/purpose	Methods	Subjects	Focus
1	Fauzi et al.(2020)	To investigate on how digital and financial literacy affects the expansion of women-run small and medium-sized businesses (SMEs) in Indonesia.	Structural equation modeling (SEM)	240 women entrepreneurs	The level of understanding and use of financial technology by women entrepreneurs.
2	Hasan et al.(2023)	To investigate how women's financial inclusion is affected by digital financial literacy, a subject that has not received much attention in the literature to yet.	Probabilistic regression	144 countries using the World Bank Global Findex Database	The level of understanding and use of financial technology by women entrepreneurs.
3	Dura & Wardana (2024)	To investigate the ways in which financial literacy and technology can strengthen the resilience of East Javan companies run by women entrepreneurs.	Multiple Linear Regression	390 female entrepreneurs	The relationship between digital financial literacy and business success.
4	Igamo et al.(2024)	To extend the Technology Acceptance Model (TAM) in the post-COVID-19 scenario in order to investigate the antecedents of women's behavioral intention and use behavior in Indonesia.	Partial Least Squares Structural Equation Modeling (PLS SEM)	403 female respondents	The level of understanding and use of financial technology by women entrepreneurs.
5	Mishra et al.(2024)	To determine the factors affecting women's financial decision-making, especially in light of Fintech uptake and digital financial literacy in India.	Structural Equation Modeling (SEM)	385 Indian women respondents	The relationship between digital financial literacy and business success.
6	Peter et al.(2024)	To investigate how entrepreneur financial decision-making (EFDM)	Hierarchical regression	223 Indian women entrepreneurs	The level of understanding and use of financial technology by

No	Authors	Aim/purpose	Methods	Subjects	Focus
		among Indian women entrepreneurs is influenced by the interaction of entrepreneur digital financial literacy (EDFL), entrepreneur financial competency (EFC), and entrepreneur financial skill (EFS).			women entrepreneurs.
7	Prabadevi et al.(2024)	To examine how digital financial literacy and Digital Libraries (DLs) impact women's financial inclusion, particularly among Rural Women Entrepreneurs (RWE) in southern India	Multiple Linear Regression	499 Rural Women Entrepreneurs	The relationship between digital financial literacy and business success.
8	Widyastuti et al.(2024)	To investigate, taking gender disparities into account, the connection between digital financial inclusion (DFI) and digital financial literacy (DFL).	Partial Least Squares - Multi-Group Analysis (PLS-MGA)	90 female households	Barriers to Women's Access to Digital Financial Services.
9	Kaur & Sahni (2025)	To examine how different aspects of digital financial literacy—such as digital financial self-protection, digital financial awareness, and digital financial usage—affect individual financial management practices.	Multiple Regression Analysis	385 respondents	Barriers to Women's Access to Digital Financial Services.
10	Peter et al.(2025)	To examine how digital financial literacy affects financial inclusion and firm performance, emphasizing how financial inclusion acts as a	Structural Equation Modeling (sEM)	214 women entrepreneurs	The relationship between digital financial literacy and business success.

No	Authors	Aim/purpose	Methods	Subjects	Focus
		mediator in this interaction.			
11	Purwoto et al.(2025)	To evaluate how overconfidence and digital financial literacy (DFL) affect women entrepreneurs' resilience, highlighting the importance of these factors in building resilience.	Multiple regression analysis	494 female entrepreneurs	Barriers to Women's Access to Digital Financial Services.
12	Showkat et al.(2025)	To investigate on how women's adoption and use of digital financial services (DFS) are influenced by financial literacy (FL), and how this in turn affects their economic empowerment.	Partial Least Squares Structural Equation Modelling (PLS-SEM)	426 women	The role of training and education in improving digital financial literacy.
13	Tan et al.(2025)	To investigate on how digital financial inclusion, with an emphasis on gender disparities, mediates the relationship between digital financial literacy and Malaysian households' financial well-being.	Partial Least Squares Structural Equation Modeling (PLS-SEM)	105 samples in Malaysia	The role of training and education in improving digital financial literacy.
14	Xie & Chen (2025)	To investigate how home entrepreneurship is affected by digital financial literacy, emphasizing its importance in the digital era.	Ordinary Least Squares (OLS)	34.643 households in China	The role of training and education in improving digital financial literacy.

Source: Authors' own analysis

Nonetheless, patterns show that more and more female business owners are incorporating financial technology into their operations (Leitch et al., 2018). The use of financial recording applications, digital transactions, and e-commerce platforms has helped them increase business transparency, efficiency, and competitiveness. Increasing digital financial literacy

requires assistance from the government, financial institutions, and local communities in the form of mentoring and education (Goyal & Kumar, 2021). With greater knowledge, female entrepreneurs can actively support the development of an inclusive digital economy in addition to being able to handle money on their own.

2. The relationship between digital financial literacy and business success.

Four studies proposed using the relationship between digital financial literacy and business success (Dura & Wardana, 2024; Mishra et al., 2024; Peter et al., 2025; Prabadevi et al., 2024). A key factor in determining business performance is digital financial literacy, particularly for small and medium-sized business players (Abdallah et al., 2025). A good understanding of financial technology enables businesses to manage their cash flow, record transactions, and access financial services efficiently and securely (Hasan et al., 2024). With adequate literacy, business actors can leverage various digital platforms, such as e-wallets, bookkeeping applications, and online loan services, to support their business operations (Putrevu & Mertzanis, 2024). This not only improves efficiency but also expands access to previously hard-to-reach markets and sources of financing.

The ability of business actors to make well-informed financial decisions has a major impact on corporate success, and digital literacy is the main pillar of this process (Koskelainen et al., 2023; Raharjo et al., 2024). Business actors who are literate in financial technology tend to be more adaptive to market changes, able to identify opportunities, and avoid adverse financial risks (Hidayat-ur-Rehman, 2025). Additionally, using digital technology in financial management improves accountability and transparency, which is beneficial for gaining the trust of customers and business partners (Herath & Herath, 2024). As a result, digital financial literacy is not just a tool but also a crucial tactic for building a competitive and long-lasting company.

3. Barriers to Women's Access to Digital Financial Services.

Three studies proposed using barriers faced by women in accessing digital financial services (Kaur & Sahni, 2025; Purwoto et al., 2025; Widyastuti et al., 2024). Despite the rapid advancement of technology that makes financial management easier, women entrepreneurs still encounter a number of barriers when trying to use digital financial services (Hasan et

al., 2023). One of the main obstacles is the limitation of digital literacy, where some women lack a sufficient understanding of how financial applications work, the security of digital transactions, and the benefits of these services (Showkat et al., 2025). The growing disparity in the usage of digital financial services is also a result of other issues, including low educational attainment, restricted access to technology, and a dearth of information that is easy to understand (Md Faudzi et al., 2024).

Significant obstacles are also presented by social and structural constraints. Many women are reluctant to use technology-based financial services due to cultural norms that restrict their involvement in financial decision-making and a lack of environmental support. However, the digital financial services that are currently accessible are frequently not inclusively built, which means that they do not adequately address the requirements and circumstances of female entrepreneurs. A more comprehensive strategy is required to overcome these obstacles, one that incorporates gender-responsive service design, sustainable education, and community support that promotes women's active involvement in the digital financial ecosystem.

4. The role of training and education in improving digital financial literacy.

Three studies proposed using the role of training and education in improving digital financial literacy (Showkat et al., 2025; Tan et al., 2025; Xie & Chen, 2025). Enhancing digital financial literacy is largely dependent on education and training, especially for female business actors who still face barriers to accessing and comprehending financial technology (Desai et al., 2025). Through structured and ongoing training, women can gain an understanding of the basic concepts of digital finance, become familiar with the various applications and platforms available, and learn how to manage transactions safely and efficiently (Dura & Wardana, 2024). Inclusive, contextual education helps them overcome technical and psychological barriers, making them more confident in using digital financial services (Purwoto et al., 2025).

Table 2. Indicators/Items of Variable in Digital Financial Literacy of Women Entrepreneurs

Focus	Author(s)	Items/Indicators
The level of understanding and use of financial technology by women entrepreneurs.	Peter et al. (2024)	Entrepreneurial Digital Financial Awareness (EDFa) EDFa1: Knowledge of digital financial risk and the fintech provider's legitimacy. EDFa2: interest rate awareness of possible digital financial risk. EDFa3: transaction fee knowledge of possible digital financial risk. Entrepreneurial Digital Financial experience (EDFe) EDFe1: Possessing prior digital payment experience. EDFe2: Possessing loan finance experience. EDFe3: Possessing financial asset management expertise. Entrepreneurial Digital Financial Knowledge (EDFk) EDFk1: Being well-versed in the digital payment system. EDFk2: Being well-versed in the digital asset management system. EDFk3: Being well-versed in digital alternatives. EDFk4: Being well-versed in digital insurance. EDFk5: Being well-versed on consumer protection and rights.
The level of understanding and use of financial technology by women entrepreneurs.	Igamo et al. (2024)	DFL1: I am aware of online payment platforms like OVO and ShopeePay. Pay now. LinkAja. Amazon Pay, and so forth. DFL2: I am aware that financial securities can be traded online. DFL3: I am aware of digital lending practices such supply chain finance, peer-to-peer lending, and app-based lending. DFL4: You can buy insurance goods online.
The relationship between digital financial literacy and business success.	Dura & Wardana (2024)	DFL1: Accounting Documentation. DFL2: Budgeting for the Future. DFL3: Budgeting for Businesses.
Barriers faced by women in accessing digital financial services.	Purwoto et al. (2025)	DFL1: I am aware of online and digital financial transaction methods. DFL2: I am aware that using digital financial transactions carries a number of hazards, including phishing and spyware. DFL3: I am capable of overcoming mistakes that arise in online financial transactions. DFL4: I am aware that if I fall victim to online financial transactions, there is a suitable forum or process in place.
Barriers faced by women in accessing digital financial services.	Kaur & Sahni (2025)	Digital Financial Awareness (DFA) DFA1: I am aware of how to create an online bank account. DFA2: I am aware of how to defend myself from online fraud and scams. DFA3: I am aware of the channels and agencies for reporting instances of online fraud. Digital Financial Usage (DFU) DFU1: Online bill payment is my preference. DFU2: Online money transfers make me feel at ease. DFU3: I like to use digital payment apps (such as bank apps, Paytm, Google Pay, PhonePe, and mobile wallets) to request and pay for products and services.

Focus	Author(s)	Items/Indicators
		<p>DFU4: Using different online marketplaces like Amazon, Myntra, Flipkart, Meesho, and Ajio to make purchases is more convenient for me.</p> <p>Digital Financial Self-Protection (DFSP)</p> <p>DFSP1: In response to an email, phone call, or message that I later discovered was fraudulent, I unintentionally gave my personal financial information (password/card number).</p> <p>DFSP2: I believed recommendations to invest in an online financial product, but it turned out to be a fraud.</p> <p>DFSP3: I previously applied for a credit/loan online.</p>
<p>Barriers faced by women in accessing digital financial services.</p>	<p>Widyastuti et al. (2024)</p>	<p>DFL1: I am well-versed in digital payment methods such as e-wallets, e-debit, e-credit, e-money, and mobile/internet banking.</p> <p>DFL2: I am well-versed in Tanamduit, Finansialku, and Bareksa, among other digital asset management products.</p> <p>DFL3: I am knowledgeable about digital asset management options such as Kreditku, Investeree, and others.</p> <p>DFL4: I am well-versed in digital insurance products, such as Rajapremi, Cekpremi, and W+.</p> <p>DFL5: I understand the process for submitting complaints regarding digital financial service providers, as well as the rights and protections of customers.</p> <p>DFL6: I've used fintech services and products like Ovo, Gopay, and LinkAja for digital payments in the real world.</p> <p>DFL7: I have practical experience with fintech services and products including CoinWorks, Investree, Modalku, and Amarta for investment and financing (loans).</p> <p>DFL8: I've personally used fintech asset management tools and services including Bareksa, Tanamduit, and Finansialku.</p> <p>DFL9: I am aware of the possible financial risks connected to utilizing fintech or digital financial providers, including factors like interest rates, transaction fees, and the legitimacy of the fintech service.</p> <p>DFL10: I can effectively manage the expenses related to digital financial transactions because I have strong financial management skills through digital platforms.</p> <p>DFL11: I use digital platforms to evaluate spending in order to exercise sound control over my financial actions.</p>
<p>The role of training and education in improving digital financial literacy.</p>	<p>Tan et al. (2025)</p>	<p>DFL1: I never give my close friends access to my bank account password or PIN.</p> <p>DFL2: Before completing an online purchase, I am aware of a website's security.</p> <p>DFL3: I send and receive pictures, send and receive text messages, and make and receive phone calls using a smartphone.</p> <p>DFL4: I use my phone to access social networking sites, download games, music, or videos, surf the Internet, and conduct financial transactions.</p> <p>DFL5: I understand how to access a menu for</p>

Focus	Author(s)	Items/Indicators
		online, mobile, or e-wallet banking, locate the specific options, start a transaction, and successfully finish it. DFL6: When using online banking, mobile banking, or an e-wallet, I am able to successfully fix errors, reverse transactions, or cancel transactions. DFL7: I've used e-wallets, internet banking, and mobile banking to send and receive money. DFL8: I've used e-wallets, internet banking, and mobile banking to check my account balance. DFL9: I am aware of the advantages of using e-wallets, online banking, and mobile banking.

Source: Authors' own analysis

Furthermore, practical training not only increases knowledge but also encourages behavioral change in business financial management (Desai et al., 2025). With the proper education, women entrepreneurs can make more informed financial decisions, utilize technology for financial recording and analysis, and access digital financing that meets their business needs (Fauzi et al., 2020). Financial technology adoption has been accelerated by training programs that use case studies, simulations, and one-on-one mentoring. As a result, funding education and training in digital financial literacy is a calculated move toward building a diverse and fiercely competitive business environment.

Indicators and variable items used to evaluate women entrepreneurs' digital financial literacy are shown in Table 2. Digital knowledge, financial technology proficiency, and attitudes toward the use of digital financial services are the primary factors under analysis. Every variable is further developed into a number of distinct indicators, which are further developed into statements or question items that can be included in surveys or other research tools.

The digital knowledge indicator encompasses a fundamental understanding of digital financial concepts, including e-wallets, mobile banking, and online transaction security. Meanwhile, the skill indicator reflects technical ability in using financial applications, conducting transactions, and managing financial data digitally. Attitudes towards financial technology are measured through the perception of benefits, trust in digital systems, and readiness to

adapt to technological changes. All things considered, Table 2 offers a thorough conceptual framework for evaluating women entrepreneurs' degree of digital financial literacy. Researchers can create instruments that are both valid and reliable and highlight areas where digital empowerment programs need to be improved according to the indicators' and items' systematic structure. This table can also serve as a reference for designing training or policy interventions aimed at enhancing technology-based financial inclusion.

5. Discussion

Based to the reviewed literature, the main objectives of this scope review are to determine the key initiatives that have been suggested or put into practice for women entrepreneurs' digital financial literacy across various nations. The study's findings suggest emerging economies have adopted the main focus. Given the importance of education and training in boosting digital financial literacy, the majority of the studies found in this review concentrated on the connection between women's business success and digital financial literacy. Nonetheless, the main emphasis noted might be relevant to the obstacles women have while trying to obtain digital financial services.

Knowledge, abilities, and attitudes toward financial technology are some of the elements of digital financial literacy that are identified in this study. This literacy is thought to be essential for improving women's economic empowerment and financial inclusion, especially in light of small and

microbusinesses that depend more and more on digital technology.

Most studies analyzed demonstrate that education and training play a central role in shaping digital financial literacy (Desai et al., 2025). Community-based training programs, online platforms, and experiential approaches have been proven effective in enhancing women's understanding and skills in utilizing digital financial services (Hapsoro et al., 2022). Additionally, support from governments and financial institutions is crucial to provide the necessary infrastructure and regulations that facilitate the safe and inclusive adoption of technology.

Social and cultural factors also affect women's digital financial literacy levels. Women in remote areas or with low educational backgrounds face greater challenges in accessing technology and financial information. Therefore, a contextual and sensitive approach to local norms is essential in designing effective and sustainable digital literacy interventions.

Digital financial literacy has been shown to improve financial management, operational efficiency, and the capacity to make well-informed strategic company decisions. Digitally literate women are more able to use digital platforms for product promotion, financial administration, and transactions. This has a direct impact on their business's sustainability and revenue growth.

All things considered, the study's findings support the idea that developing digital financial literacy is essential to empowering female business actors. A multidimensional approach that includes educational, technological, policy, and cultural aspects is necessary to create an inclusive digital financial ecosystem. These findings can serve as a basis for developing training programs, public policies, and advanced research that focus on building women's capacity in the digital age.

6. Conclusion

This study contributes to the body of knowledge through a literature review on digital financial

literacy among women entrepreneurs. This research identified four main focuses of the study: the level of understanding and use of financial technology by women entrepreneurs, the relationship between digital financial literacy and business success, Barriers faced by women in accessing digital financial services, and the role of training and education in improving digital financial literacy. Furthermore, several items and indicators were found to realize digital financial literacy among women entrepreneurs.

This study demonstrates that digital financial literacy is a crucial component in empowering women economically, particularly among small and micro business owners. This literacy includes an understanding of digital financial products, skills in using financial technology, and a positive attitude towards digital innovation. Women who possess good digital financial literacy tend to be better equipped to manage business finances efficiently and make informed business decisions.

The studies studied in this document emphasize that technology-based education and training are very effective in improving digital financial literacy. Training programs designed inclusively and contextually can bridge the gap in access to information and technology, particularly for women in remote areas or those with limited educational backgrounds. Digital literacy has also been proven to increase women's confidence in using technology-based financial services.

The practical implication of this study is the need to develop a digital financial literacy program tailored to the needs of women business actors. Governments, financial institutions, and civil society organizations can design app-based training, online modules, and community mentoring to improve women's digital skills. An experience-based approach, along with case studies, will be more effective in building a practical understanding. There is a need for regulations that support the security of digital transactions, protect personal data, and ensure equitable access to technology. Governments can encourage financial inclusion

through incentives for digital financial service providers that reach women, as well as expand internet networks in underdeveloped areas. This policy will strengthen the position of women in the digital economy ecosystem. Academically, this study opens up further research opportunities on the relationship between digital financial literacy and women's business performance.

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Author contributions

A-I had the idea for the article. G-A-N, D-P-P and A-N-T-S performed the literature search. A-I, G-A-N, D-P-P and A-N-T-S performed the data analysis. All authors drafted and critically revised the work. All authors read and approved the final manuscript.

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Conflict of interest

The authors have no conflicts of interest to declare that are relevant to the content of this article.

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