

UNLOCKING FINTECH POTENTIAL: THE ROLE OF DIGITAL FINANCIAL LITERACY IN ADOPTION OF UPI, MOBILE WALLETS, AND DIGITAL BANKING AMONG WOMEN

Divyaniben D Purohit¹, Prof. (Dr) Trilochan Sharma², Dr. Pankaj Kumar Tripathi³

¹Research Scholar, Faculty of Commerce, Maharaja Sayajirao University of Baroda, Vadodara, Gujarat, India

²Department of Business Administration, MJP Rohilkhand University, Bareilly-India

³Assistant Professor, Faculty of Commerce, Maharaja Sayajirao University of Baroda, Vadodara, Gujarat, India

Abstract

This paper titled “*Unlocking FinTech Potential: The Role of Digital Financial Literacy in Adoption of UPI, Mobile Wallets, and Digital Banking among Women*” inquire into how digital financial literacy persuade the use of modern FinTech platforms. Nowadays financial technology transforming quickly, the way individuals manage and access financial services has gone through a major transformation. Platforms such as mobile wallets, digital banking, and the Unified Payments Interface (UPI) have played important role in driving the transition toward a cashless economy. This study focuses on women living in Daman, aiming to understand their level of digital financial awareness and its impact on the adoption of these digital financial tools. Data will be gathered from 280 working and non-working women using structured questionnaires. The analysis will be done by using descriptive summary statistics such as frequency distribution, mean and percentage. It was revealed that digital financial literacy plays a crucial role in encouraging women to adopt FinTech tools. It also found that working women use more FinTech tools than non-working women. These study offers meaningful insights into how financial socialization can be strengthened. The results are expected to guide policymakers in formulating effective FinTech strategies and designing targeted digital literacy programs that promote greater financial inclusion for women.

Keywords: FinTech Tools, (DFL) Digital Financial Literacy, Women Literacy

INTRODUCTION

Over the past decade, the financial services industry has experienced a major shift fueled by the swift expansion of financial technology- FinTech. In India, supported by the Digital India initiative, FinTech has emerged as one of the fastest-growing markets worldwide. Platforms such as the digital banking, Unified Payments Interface (UPI), and mobile wallets such banking applications have transformed the way financial transactions are offering greater speed, security and convenience. These innovations have not only make cashless but also advances financial inclusion. The use of digital financial services has emerged as a global phenomenon, and India in particular, has made remarkable progress in this area. A wide range of DFS platforms have been developed and actively adopted by users, driven by both a growing openness to technology and strong initiatives from the Government of India. Key digital financial services in India include the Unified Payments Interface (UPI), National Automated Clearing House (NACH), Bharat Interface for Money (BHIM), RuPay cards, Bharat QR Code, National Electronic Toll Collection (NETC), CSC and Aadhaar Enabled Payment Services (AePS). These platforms represent some of the renowned tools leading the country’s transition toward a digitally empowered financial ecosystem. These innovations have fundamentally transformed the way individuals, businesses, and households conduct financial activities—ranging from payments and money transfers to credit access, investment, and the purchase of financial products (“T Ravikumar, B Suresha, N Prakash, Kiran Vazirani & T.A. Krishna (2022)”). Yet the success of FinTech largely depends on the users of DFL — that is, their ability to comprehend, access, and securely utilize digital financial services. While younger, urban, and working populations have readily embraced these

technologies, a considerable digital gap still exists, particularly among women in rural and urban areas.

Encouraging women's financial inclusion is not only an economic imperative but also a way to social empowerment. Access to digital financial services enables women to access credit with greater ease, manage their savings more effectively, and actively participate in household and financial decisions. However, challenges such as limited awareness, fear of cyber fraud, low technological confidence, and cultural barriers continue to hinder their adoption of FinTech. With a focus on UPI, mobile wallets, and digital banking platforms, this study attempts to investigate how women's use of FinTech products is influenced by their level of digital financial literacy.

THEORETICAL FRAMEWORK

The study is based on the following theoretical perspectives:

a) Planned Behavior Theory

In order to explain why people, choose to act in a specific manner when they believe they have control over their activities, this theory expands on the idea of planned behavior ("Sharahiley 2020"). It implies that a person's intention to carry out particular acts may be reliably predicted by their attitudes about the conduct, subjective norms, and perceived behavioral control. A significant portion of the diversity in actual behavior can be explained by these intentions in conjunction with perceptions of behavioral control. Although the precise nature of these relationships is still unclear, related sets of salient behavioral, normative, and control ideas about the particular activity shape attitudes, subjective norms, and perceived behavioral control.

b) Technology Acceptance Model (TAM)

This theory is Proposed by Davis (1989), TAM argues about the adoption of technology depends on two critical factors: perceived easy to use and utilization of it. Women who understand fintech tools are more likely to perceive them as beneficial and user-friendly tools to increase adoption of it.

c) Diffusion of Innovation Theory (Rogers, 2003)

This theory explains how modernization spread in a social system. Adoption follows stages—knowledge, persuasion, decision, implementation, and confirmation. Women who have higher level of digital financial literacy tend to more confidently through these stages of adoption of innovation, whereas those with lower literacy often show slower engagement and greater hesitation.

REVIEW OF LITERATURE

Many studies have highlighted about the connection between financial decision making, digital financial literacy, and the adoption of modern FinTech tools among women.

Mishra et al. (2024) examined the relationship between women's participation in microfinance, financial literacy and women empowerment. Their findings suggest that microfinance enhances women empowerment but overall impact by women's financial literacy. This study ensuring women's financial education strengthens their decision-making capacity and fosters socio economic outcomes, sustainable economic growth including reduction in poverty and gender equality.

Mishra et al. (2024), in a study published in the *Journal of Risk and Financial Management*, highlighted the requirement of government initiatives to amplify digital financial literacy and foster FinTech adoption among rural and urban women in India. The authors observed that individuals with managerial experience are more receptive to adopt FinTech practices and

managers of MSME with higher levels of digital financial literacy positively correlates with business experiences. It also finds that increasing age have a negative influence on adoption of FinTech tools.

Pant and Agarwal (2023) assessed digital financial literacy (DFL) among adults and analyzed its influence on FinTech adoption. Their model revealed that the dependent variables— usefulness of tools, financial ease of use, and relative advantage—showed high explanatory power, emphasizing the decisive role of digital financial literacy in shaping technology adoption behavior. They reported that digital literacy and digital financial literacy both significantly affect the acceptance and use of financial technologies.

In the European context, Ferilli et al. (2023) explored during the period of COVID 19 pandemic how FinTech innovation have influenced digital financial drive. It underscores reducing the importance of social and digital infrastructures by balancing financial access and FinTech adoption across developed regions.

Majjid (2022) investigated the interaction between financial literacy and financial risk tolerance in determining FinTech adoption among entrepreneurs. The study bring attention that individuals with higher financial knowledge and risk tolerance are more likely to embrace innovative financial technologies.

Taken together, these studies underscore that for promoting FinTech adoption the digital financial literacy plays a pivotal role in shaping financial decision-making. By strengthening digital infrastructure and supportive policy interventions fostering equitable participation and bridging digital divides for financial innovation. Enhanced financial literacy empowers women economically and contributes to wider societal goals.

OBJECTIVES OF THE STUDY

The present study is designed with the following objectives:

- To know the present level of financial literacy among women.
- To evaluate the digital financial literacy among women in relation to the use of Mobile wallets, UPI, and digital banking.
- To identify barriers faced by working and non-working women in operating digital financial services.
- To study the correlation between digital financial literacy and adoption of FinTech tools.
- To advocate government for making policy aimed to enhancing digital financial literacy and FinTech adoption among women.

RESEARCH METHODOLOGY

Selection of Research Approach:

Based on the study requirement, the researchers decided on the type of study to be conducted.

Research Methodology

This study is multidisciplinary, covering digital financial literacy, adoption of FinTech Tools. The study employs a quantitative research approach, specifically utilizing a descriptive research method to collect information, analyze data, and outline the characteristics of the population represented in the sample.

Population of the Study

The target population of this study comprises working and non-working women residing in Daman, aged 25 to 56 years. This study including both working and non-working women for a comparative analysis of how digital financial literacy affects financial behavior. The reason

behind the selection of this age group as it represents the economically active and decision-making segment of women who are engage with household financial activities.

Sample size and Data collection for the study

For Daman’s 66,514 female population, Krejcie and Morgan’s (1970) formula at a 90% confidence level (margin of error 5%) recommended a sample size of 280. Using Google Forms, a well-structured survey was created and distributed online to women who utilize FinTech tools. 285 women completed an online survey that was distributed to them. After the questionnaires' information was verified, 280 of them had all of the information. The sample size was determined as 280.

RESULT

A self-administered questionnaire was used to collect data from women residing in Daman, resulting in a total of 285 responses. However, 5 questionnaires were excluded due to incomplete data and a response pattern known as straight-lining, where participants selected the same answer for all questions. This left a final sample of 280 valid responses for analysis. Prior to the main data collection, a pilot study involving 20 participants was conducted to refine the questionnaire and minimize the risk of data collection errors. (“Alghifari Mahdi Igamo et.al,2024”)

Table 1: Respondent’s Age

Age	Frequency	%
25-35	74	26.43%
36-45	108	38.57%
46-55	16	5.71%
56 and Above	9	3.21%
56 and Above - similar response	2	0.71%
56 and Above (similar)	2	0.71%
Below 25	69	24.64%
Grand Total	280	100.00%

Table 2: Employment Status

Employment Status	Frequency	%
Non-working (homemaker, retired, student, etc.)	80	28.57%
Non-working (homemaker, retired, student, etc.) - similar response	11	3.93%
Non-working (homemaker, retired, student, etc.) (similar)	16	5.71%
Working (salaried/self-employed)	105	37.50%
Working (salaried/self-employed) - similar response	53	18.93%
Working (salaried/self-employed) (similar)	15	5.36%
Grand Total	280	100.00%

Table 3: Education Level

Education	Frequency	%
Below Secondary (10th)	41	14.64%
Below Secondary (10th) - similar response	8	2.86%
Below Secondary (10th) (similar)	9	3.21%
Graduate	102	36.43%
Higher Secondary (12th)	37	13.21%
Higher Secondary (12th) - similar response	12	4.29%
Higher Secondary (12th) (similar)	8	2.86%
Postgraduate and above	44	15.71%
Postgraduate and above - similar response	9	3.21%
Postgraduate and above (similar)	10	3.57%
Grand Total	280	100.00%

Table 4: Monthly Income

Monthly Income	Frequency	%
₹20,001–₹40,000	51	18.21%
₹20,001–₹40,000 - similar response	42	15.00%
₹20,001–₹40,000 (similar)	9	3.21%
₹40,001–₹60,000	34	12.14%
₹40,001–₹60,000 - similar response	9	3.21%
₹40,001–₹60,000 (similar)	5	1.79%
Above ₹60,000	4	1.43%
Above ₹60,000 (similar)	2	0.71%
Below ₹20,000	88	31.43%
Below ₹20,000 - similar response	13	4.64%
Below ₹20,000 (similar)	23	8.21%
Grand Total	280	100.00%

Table 5: Use of Smart Phone

Do you use Smartphone	Frequency	%
No	10	3.57%
Yes	270	96.43%
Grand Total	280	100.00%

Table 6: Internet Access

Internet Access	Frequency	%
Daily	229	81.79%
Never	8	2.86%
Rarely	10	3.57%
Weekly	33	11.79%
Grand Total	280	100.00%

Table 7: Digital Payment Tool

Digital payment Tool	Frequency	%
Basic	22	7.86%
Excellent	179	63.93%
Good	61	21.79%
No knowledge	16	5.71%
No knowledge - similar response	1	0.36%

Table 8: Training or Awareness

Training or awareness received	Frequency	%
No training	32	11.43%
No training - similar response	5	1.79%
No training (similar)	4	1.43%
Yes, formal training	72	25.71%
Yes, formal training - similar response	11	3.93%

No knowledge (similar)	1	0.36%
Grand Total	280	100.00%

Yes, formal training (similar)	20	7.14%
Yes, informal guidance (friends/family)	81	28.93%
Yes, informal guidance (friends/family) - similar response	38	13.57%
Yes, informal guidance (friends/family) (similar)	17	6.07%
Grand Total	280	100.00%

Table 9: Security Practice

Do you Understand security practice	Frequency	%
Not at all	17	6.07%
Not at all - similar response	2	0.71%
Not at all (similar)	2	0.71%
Somewhat	54	19.29%
Yes, very well	155	55.36%
Yes, very well - similar response	26	9.29%
Yes, very well (similar)	24	8.57%
Grand Total	280	100.00%

Table 10: Use of Digital Platform

Frequently used Digital platform	Frequency	%
Digital Banking (Net banking, mobile banking apps)	13	4.64%
Digital Banking (Net banking, mobile banking apps) - similar response	2	0.71%
Digital Banking (Net banking, mobile banking apps) (similar)	3	1.07%
Mobile Wallets (Paytm, Amazon Pay, etc.)	26	9.29%
Mobile Wallets (Paytm, Amazon Pay, etc.) - similar response	6	2.14%
Mobile Wallets (Paytm, Amazon Pay, etc.) (similar)	6	2.14%
None	18	6.43%
UPI (Google Pay, PhonePe, Paytm, etc.)	159	56.79%
UPI (Google Pay, PhonePe, Paytm, etc.) - similar response	21	7.50%
UPI (Google Pay, PhonePe, Paytm, etc.) (similar)	26	9.29%
Grand Total	280	100.00%

Table 12: Motivation to

Table 11: Digital Platform safer than Cash

Digital Platform safer than Cash T/F	Frequency	%
No	75	26.79%
Not sure	33	11.79%
Yes	172	61.43%
Grand Total	280	100.00%

Table 13: Motivation to use of Digital Payment

What motivates you to use digital payments?	Frequency	%
Not confident	36	12.86%
Not confident - similar response	8	2.86%
Not confident (similar)	7	2.50%
Somewhat confident	52	18.57%
Somewhat confident - similar response	10	3.57%
Somewhat confident (similar)	12	4.29%
Very confident	85	30.36%
Very confident - similar response	22	7.86%
Very confident (similar)	48	17.14%
Grand Total	280	100.00%

Table 14: Recommendation for digital financial tools

Would you recommend digital financial tools to other women?	Frequency	%
Maybe	56	20.00%
No	19	6.79%

use of Digital Payment

What motivates you to use digital payments?	Frequency	%
Compulsory in some places	20	7.14%
Compulsory in some places - similar response	2	0.71%
Compulsory in some places (similar)	5	1.79%
Convenience	109	38.93%
Convenience - similar response	11	3.93%
Convenience (similar)	20	7.14%
Discounts/cashbacks	46	16.43%
Discounts/cashbacks - similar response	5	1.79%
Discounts/cashbacks (similar)	8	2.86%
None	21	7.50%
Peer/family influence	27	9.64%
Peer/family influence - similar response	4	1.43%
Peer/family influence (similar)	2	0.71%
Grand Total	280	100.00%

Table 15: Women to adopt digital payments

In your opinion, what steps should be taken to encourage more women to adopt digital payments?	Frequency	%
Awareness/training programs	82	29.29%
Awareness/training	53	18.93%

Yes, strongly	128	45.71%
Yes, strongly - similar response	20	7.14%
Yes, strongly (similar)	57	20.36%
Grand Total	280	100.00%

Table 16: digital financial literacy can empower women economically

Do you believe digital financial literacy can empower women economically?	Frequency	%
Agree	78	27.86%
Disagree	8	2.86%
Neutral	19	6.79%
Strongly agree	111	39.64%
Strongly agree - similar response	49	17.50%
Strongly agree (similar)	15	5.36%
Grand Total	280	100.00%

programs - similar response		
Awareness/training programs (similar)	13	4.64%
Better security measures	38	13.57%
Better security measures - similar response	9	3.21%
Better security measures (similar)	11	3.93%
Improved security	7	2.50%
Incentives for women users	8	2.86%
Simple user-friendly apps	31	11.07%
Simple user-friendly apps - similar	5	1.79%
Simple user-friendly apps (similar)	2	0.71%
Training & awareness programs	20	7.14%
User-friendly apps	1	0.36%
Grand Total	280	100.00%

DISCUSSION

The result indicates that women with higher education are more likely to adopt financial tools, whereas a lower educational segment highlights to take more digital literacy initiatives. Among the respondent's, employed women were 61.8% reflecting that working women tend to be more likely to engaged with fintech tools. However, the 38.2% non-working women were representing an unrealized potential for promoting financial inclusion and empowerment at the household level. The limited proportion of respondents who had received formal training many of them had get informal leaning sources like family and friends as the most common channel of learning, which often results in incomplete knowledge. Only 6.4% of respondents among working women who do not use any digital payment platforms highlighting barriers such as literacy gaps, limited access, and lack of trust. The predominance UPI usage illustrates its accessibility and conveniently use has built trust among users. While mobile wallets are used for specific purposes, and many other digital banking applications remain underutilized for daily

transactions. For strengthening women's financial inclusion and unlocking the full potential of FinTech, it is essential to provide formal training especially in rural areas, utilize peer network for community-based learning, enhance the user-friendliness of financial applications.

CONCLUSION

The digital era has transformed the present financial ecosystem with abounded opportunities for financial inclusion; however, these benefits remain undistributed with rural area especially with women. This study about the Daman which is unique with its socio-economic landscape highlights that digital financial literacy is prime driver for the financial inclusion. The finding of the study reveals the basic understanding of FinTech tools have greater exposure to utilize digital financial literacy. If we do comparative analysis between working and non-working women it found that working women have more access rather to non-working women because of higher education, confidence to handling digital tools. Consequently, enhancing digital financial literacy in particular area it may not be sufficient it should take broader initiatives to improve women's participation and their integration into digital financial ecosystem. Furthermore, this study give opportunities to rethinking about the policies and financial application to make it accessible and useful for women of rural areas. It draws attention towards the digital financial literacy programs to make aware and trained women- specially who are non-working or having lower education. By providing such initiatives women are equipped with confidence, knowledge, and resources to effectively utilize and manage digital financial tools.

Contributions to knowledge and study

This study contributes to the prior studies by emphasizing the key role of digital financial literacy in promoting FinTech adoption among women residing in Daman. It offers a gender-sensitive perspective, demonstrating how employment status influences the use of digital financial tools such as UPI, mobile wallets, and digital banking applications. By examining both working and non-working women, the research addresses a significant gap in gender-focused and regional studies on digital finance. Furthermore, the study positions digital financial literacy as primary driver of financial inclusion beyond mere access to highlight meaningful and empowered participation. The findings provide policymakers practical insights in framing financial strategies and literacy initiatives aimed at strengthening women's involvement and empowerment within the digital economy.

REFERENCES

- Ravikumar, T., Suresha, B., Prakash, N., Vazirani, K., & Krishna, T. A. (2022). Digital financial literacy among adults in India: measurement and validation. *Cogent Economics & Finance*, 10(1). <https://doi.org/10.1080/23322039.2022.2132631>
- The impact of digital financial literacy on financial technology adoption sudhir kumar pant ,Dr Manjari Agarwal, July 2023
- The impact of FinTech innovation on digital financial literacy in Europe: Insights from the banking industry Greta Benedetta Ferilli a b, Egidio Palmieri b c ,Stefano Miani c, Valeria Stefanelli a
- Impact of Digital Financial Literacy on Financial Technology Adoption Bharatiya Shiksha Shodh Patrika, Vol. 42, No. 2(i), July-December, 2023
- Digital Financial Literacy and Its Impact on Financial Decision-Making of Women: Evidence from India *Journal of Risk and Financial Management (JRFM)*October 202417(10):468

The impact of FinTech innovation on digital financial literacy in Europe: Insights from the banking industry Author links open overlay panel Greta Benedetta Ferilli ^{a b}, Egidio Palmieri ^{b c}, Stefano Miani ^c, Valeria Stefanelli ^a

<https://doi.org/10.1016/j.joitmc.2024.100236>

Financial Literacy and Adoption of Fintech: The Role of Financial Risk Tolerance
DOI:[10.31703/gssr.2022\(VII-I\).1](https://doi.org/10.31703/gssr.2022(VII-I).1)

OpenAI. (2023). ChatGPT (Feb. 13 version) [Large language model]. <https://chat.openai.com/>

Amnas, M. B., Selvam, M., & Parayitam, S. (2024). FinTech and Financial Inclusion: Exploring the Mediating Role of Digital Financial Literacy and the Moderating Influence of Perceived Regulatory Support. *Journal of Risk and Financial Management*, 17(3), 108.

<https://doi.org/10.3390/jrfm17030108>

The impact of digital literacy and technology adoption on financial inclusion in Africa, Asia, and Latin America [10.1016/j.heliyon.2024.e40951](https://doi.org/10.1016/j.heliyon.2024.e40951)

The role of financial literacy, digital literacy, and financial self-efficacy in FinTech adoption
[http://dx.doi.org/10.21511/imfi.21\(2\).2024.30](http://dx.doi.org/10.21511/imfi.21(2).2024.30)

Digital Financial Literacy and Its Impact on Financial Decision-Making of Women: Evidence from India <https://doi.org/10.3390/jrfm17100468>

DOI:[10.35847/WGolden.LCordie.4.3.20](https://doi.org/10.35847/WGolden.LCordie.4.3.20)

Ravikumar, T., Suresha, B., Prakash, N., Vazirani, K., & Krishna, T. A. (2022). Digital financial literacy among adults in India: measurement and validation. *Cogent Economics & Finance*, 10(1). <https://doi.org/10.1080/23322039.2022.2132631>

Alghifari Mahdi Igamo, Ryan Al Rachmat, Muhammad Ichsan Siregar, Mohammed Ibrahim Gariba, Vivian Cheron, Andi Sri Wahyuni, Budi Setiawan, Factors influencing Fintech adoption for women in the post-Covid-19 pandemic, *Journal of Open Innovation: Technology, Market, and Complexity*, Volume 10, Issue 1, 2024, 100236, ISSN 2199-8531, <https://doi.org/10.1016/j.joitmc.2024.100236>.

(<https://www.sciencedirect.com/science/article/pii/S2199853124000301>)

DIGITAL FINANCIAL LITERACY: AN ASSESSMENT OF THE CURRENT BEHAVIOUR OF SAVINGS, SPENDING AND THEIR FUTURE FORESIGHTS IN GHANA Ibrahim Zubairu, Accra Technical University, Ghana, Benjamin Mac-Charway, Accra Technical University, Ghana, Benjamin Amoako Amanquah, Accra Technical University, Ghana
<http://dx.doi.org/10.18374/JIFE-24-3.6>

Financial Literacy for The Digital Age: Make Better Money Decisions
<https://doi.org/10.21203/rs.3.rs-7535443/v1>