Fintech-Driven Approaches for Strengthening Digital Financial Awareness

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Article Info	*Abstract:*
	Digital Financial Services (DFS) have grown significantly in India with the emergence of new technologies such as Unified Payments Interface (UPI), Mobile Banking, Digital Wallets, and Aadhaar linked digital finance. The introduction of these new technologies provides greater access and convenience for individuals who want to transact digitally, however, the ability to effectively and safely take advantage of electronic banking and the products that reside within this environment, is greatly levied on an individual's level of confidence in understanding digital finance products and services, the security associated with the transaction, and the associated fees and charges of that transaction, in addition to the resulting effect on individual's ability to make an informed financial experience and/or decision. This study investigates the contribution that different Fintech based applications and services such as In-App Guidance, Alerts, Simple Interfaces, and Awareness Content provide to build Digital Financial Awareness for its users. As such, a structured questionnaire was distributed to collect primary data for this study so that the author could analyse the relationships among Digital Financial Literacy, Fintech Based Awareness Mechanisms, Awareness Level and Financial Inclusion Outcomes. Based on the findings of this study, Fintech platforms perform the role of not only creating a platform for transaction completion, but also have a dual role of supporting an enriched learning experience within the digital financial ecosystem – thereby increasing a user's confidence, awareness of risk, and responsible use of financial products. This study demonstrates the role that Fintech Applications play in building Digital Financial Awareness and Supporting Informed Participation by Users. ***Keywords:*** Fintech, Digital Financial Awareness, Digital Literacy, Financial Inclusion.

1. Introduction

The advent of digital technologies and the adoption of new business models through technology are completely altering the way people do business. There has been a shift in the way that banks and other financial services provide services; they now use many digital platforms to provide quicker, easier and more efficient services to their customers. The government of India has played an important role in accelerating the development of digital financial services by implementing various initiatives such as the Jan Dhan Yojana, Aadhaar Authentication, and the India Stack to increase access to digital financial services in India.

Unfortunately, just because someone has access to the internet and a smartphone does not mean that they will be able to use that technology responsibly and intelligently. Many people use digital platforms, such as online banking, to make their lives easier without first considering how that digital platform may affect the security of their money, the privacy of their data, the costs of their transactions, and the impacts of their decisions on their finances. The lack of understanding of these issues emphasizes the importance of digital financial literacy, which goes beyond just knowing how to use a digital platform; it includes the ability to assess, understand, and mitigate the risks associated with that platform, know their rights as it relates to the digital platform, and practice safe financial behaviors when using the digital platform.

Recently, many fintech companies have introduced additional functionality and features to their applications to help customers to understand what they are doing when they use them. For example, many applications now include user-friendly tutorials, alerts to remind users of potentially harmful behaviour, easy-to-use interfaces, and support in multiple languages. These additional features provide consumers with ongoing, experiential learning over time as they continue to engage with the digital services offered by fintechs. Therefore, fintech applications may also serve as informal educational tools by providing users with practical applications of the financial literacy concepts they have learned.While the existing research on Digital Financial Literacy is primarily focussed on Digital Financial Literacy being a determinant of FinTech Adoption, there has been very little in the way of examining FinTech-driven initiatives as the means to develop Digital Financial Literacy. This study will fill this gap in the literature by examining the effects that FinTech-driven initiatives have on the generation of Digital Financial Literacy and how they are associated with the promotion of Inclusive Financial Behaviour in the Indian environment.

2. Review of literature

1.Pant and Agarwal (2023)

Pant and Agarwal (2023) examined the impact of digital financial literacy on fintech adoption among Indian banking customers. Using PLS-SEM, the study found that individuals with higher digital and financial literacy perceive fintech platforms as more useful and easier to use. The results indicate that literacy significantly influences adoption behaviour. The authors emphasised that access to fintech alone is insufficient without adequate awareness and capability. The study highlights the importance of structured literacy initiatives for promoting inclusive fintech usage.

2. Mishra et al. (2024)

Mishra et al. (2024) analysed the role of digital financial literacy in shaping financial decision-making among Indian women. The study revealed that higher literacy improves confidence, autonomy, and the ability to use fintech services effectively. Digital financial literacy was found to positively influence investment intentions and responsible financial behaviour. The findings stress the importance of awareness-building initiatives for empowering women in digital finance. This study reinforces the need for targeted fintech-based learning mechanisms.

3. Ravikumar (2022)

Ravikumar (2022) developed a comprehensive scale to measure digital financial literacy among Indian adults. The study identified education, income, and prior digital experience as major determinants of literacy levels. Results showed that individuals with higher literacy use digital payment platforms more

frequently and safely. The research highlights digital financial literacy as a multidimensional concept including risk awareness and security practices. This work provides a strong conceptual foundation for studies on digital financial awareness.

4. Al Rifai (2025)

Al Rifai (2025) explored the role of fintech in enhancing financial inclusion from a regulatory perspective. The study argued that fintech innovations can promote inclusion only when supported by strong digital financial awareness and consumer protection. Without adequate awareness, fintech adoption may increase financial risks. The author emphasised the responsibility of regulators and fintech firms to integrate awareness mechanisms. This study supports the view that fintech-driven approaches must actively strengthen user understanding.

5. Dhevan (2025)

Dhevan (2025) examined digital financial transformation in India using secondary data from RBI and NPCI. The study linked the rapid growth of UPI transactions to improvements in financial well-being. However, the author noted that sustained benefits depend on users' comfort and awareness of digital financial tools. The findings suggest that awareness plays a critical role in translating digital access into positive outcomes. This highlights the need for continuous awareness-building initiatives.

6. Kamal et al. (2025)

Kamal et al. (2025) reviewed how fintech innovations are reshaping financial access in India. The study highlighted that mobile wallets and digital lending have expanded financial reach beyond traditional banking. However, digital literacy gaps, trust issues, and cyber risks continue to limit their impact. The authors emphasised the importance of awareness campaigns to address these challenges. The study aligns with the argument that fintech solutions must incorporate learning features.

7. Anakpo and Mishi (2023)

Anakpo and Mishi (2023) examined digital financial inclusion challenges in a developing economy context. The study identified low digital financial literacy and weak awareness as key barriers to effective fintech usage. Policy and infrastructure alone were found to be insufficient without capability-building initiatives. The authors stressed that awareness is essential for achieving sustainable development goals. This study supports integrating awareness-building strategies into fintech models.

8. Guild (2017)

Guild (2017) provided a broad overview of the evolution of fintech and its impact on financial systems. The study discussed both opportunities and risks associated with digital financial platforms. It highlighted that user understanding of products and risks is crucial for fintech to promote inclusive finance. The author argued that lack of awareness can widen financial inequalities. This work offers important theoretical support for embedding awareness in fintech solutions.

9. Amnas et al. (2024)

Amnas et al. (2024) analysed the relationship between fintech usage and financial inclusion with digital financial literacy as a mediating factor. The findings showed that fintech directly and indirectly improves inclusion through enhanced literacy. Regulatory support further strengthened this relationship. The study highlights literacy as a crucial link between fintech access and meaningful usage. This reinforces the importance of fintech-driven awareness mechanisms.

10. Kumar et al. (2024)

Kumar et al. (2024) studied the impact of digital financial literacy on financial inclusion in Telangana. The findings indicated that higher literacy significantly increases fintech adoption and inclusive financial behaviour. Fintech services were found to mediate the relationship between literacy and inclusion. The authors recommended targeted education and awareness programs. The study directly supports the role of fintech-driven learning approaches.

Statement of the Problem:

The tremendous rise of Financial Technology as UPI, mobile banking and digital wallets has granted millions of people entry to digital finance. Today, many of these customers have extensive use of these products because of the convenience offered, yet they possess little knowledge about security risks associated with their use, transaction fees, the data collected from them and their ability to make informed financial decisions based on the information received through these services. Thus, a lack of digital financial awareness exposes users to potential financial scams, misuses of services, and ultimately to negative financial experiences, despite improved access to the financial marketplace. Most research conducted to date has examined financial literacy as a determining factor regarding the adoption of Fintech products or services, while very little emphasis has been placed on how the Financial Technology platforms themselves may provide tools or mechanisms to create awareness. Currently, many Fintech applications include user-friendly interfaces, in-app tutorials and alerts, yet very little research has been conducted on how these features may enhance and/or improve users' digital financial awareness. This research seeks to fill this gap by investigating how the features and functionality provided by Fintech platforms may aid in increasing users' Digital Financial Awareness and thereby create greater opportunities for responsible financial behaviour.

Research Gaps

1. Existing studies primarily examine digital financial literacy as a driver of fintech adoption, but provide limited empirical evidence on fintech platforms as active instruments for strengthening digital financial awareness through in-app guidance, alerts, and simplified interfaces.

2. While fintech adoption and financial inclusion have been widely studied, the role of fintech-driven awareness mechanisms in improving users' understanding of security risks, transaction costs, and responsible digital financial behaviour remains underexplored.

3. There is a lack of integrated India-focused studies that simultaneously analyse digital financial literacy, fintech-driven awareness approaches, and their combined impact on digital financial awareness and inclusive financial behaviour.

Objectives of the Study

1. To examine the role of fintech-driven features in improving digital financial awareness.
2. To study the relationship between digital financial literacy and digital financial awareness.
3. To assess the impact of fintech-driven mechanisms on user confidence, risk awareness, and responsible financial behaviour.

4. To evaluate the role of fintech approaches in promoting inclusive digital financial participation.

Research Hypotheses

H1: Fintech-driven awareness mechanisms have a significant positive effect on digital financial awareness.

H2: Digital financial literacy has a significant positive influence on digital financial awareness.

H3: Fintech-driven awareness mechanisms significantly enhance users' confidence and risk awareness in digital financial transactions.

H4: Digital financial awareness positively influences inclusive and responsible digital financial behaviour.

3. Research Methodology

1. Research Design

The present study adopts a descriptive and analytical research design to examine the role of fintech-driven approaches in strengthening digital financial awareness among users. The study analyses the relationships between digital financial literacy, fintech-based awareness mechanisms, digital financial awareness, and financial inclusion.

2. Sampling Method and Sample Size

A convenience sampling technique was employed to collect data from individuals who actively use digital financial services such as UPI, mobile banking, and digital wallets. A total of 211 valid responses were collected from respondents belonging to urban, semi-urban, and rural areas, providing a diverse demographic representation.

Convenience sampling was adopted due to accessibility and time constraints.

3. Source of Data

The study is based entirely on primary data collected through a structured questionnaire. The questionnaire was designed using a five-point Likert scale ranging from Strongly Agree to Strongly Disagree. All responses were collected for academic research purposes, and confidentiality of respondents was ensured.

4. Measurement of Variables

The questionnaire consisted of four major constructs:

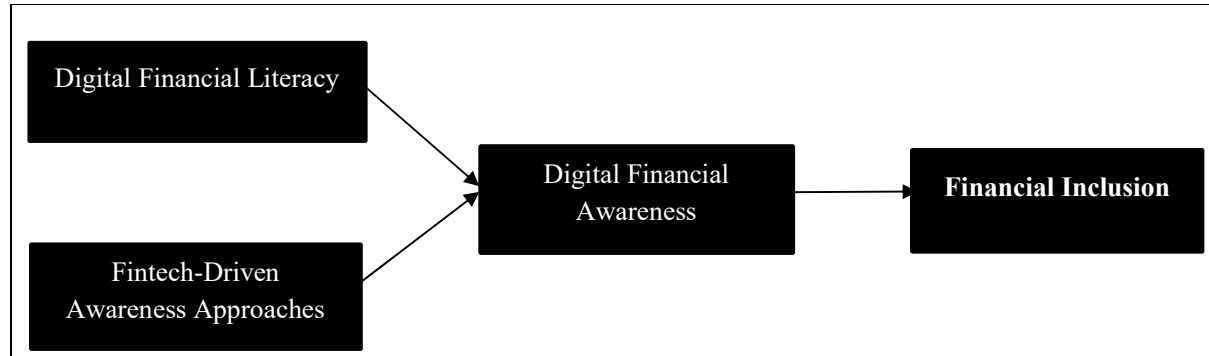Digital Financial Literacy – measured using 5 items

Fintech-driven Awareness Approaches – measured using 5 items

Digital Financial Awareness – measured using 5 items

Financial Inclusion – measured using 5 items

5. Tools and Techniques of Analysis

Data were analysed using SPSS software. The following statistical tools were applied:

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│  ┌──────────────────────────┐                                           │
│  │ Digital Financial Literacy│                                          │
│  └──────────────────────────┘─┐    ┌──────────────────┐                 │
│                                └──→ │ Digital Financial│   ┌──────────────────┐
│                                     │    Awareness     │──→│Financial Inclusion│
│  ┌──────────────────────────┐  ┌──→ └──────────────────┘   └──────────────────┘
│  │    Fintech-Driven        │──┘                                        │
│  │  Awareness Approaches    │                                          │
│  └──────────────────────────┘                                          │
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1. **Reliability Analysis (Cronbach's Alpha)** to test the internal consistency of the measurement scales.
2. **Correlation Analysis (Pearson's correlation)** to examine the strength and direction of relationships among digital financial literacy, fintech-driven awareness approaches, digital financial awareness, and financial inclusion.
3. **One-Way ANOVA** to examine demographic differences in digital financial literacy across age groups.
4. **Multiple Regression Analysis** to assess the impact of digital financial literacy and fintech-driven awareness approaches on digital financial awareness.

6. Ethical Considerations

Participation in the study was voluntary, and respondents were informed about the academic purpose of the research. Anonymity and confidentiality of responses were strictly maintained.

Conceptual Framework of the Study

4. DATA ANALYSIS & RESULTS

1. Reliability Analysis (Cronbach's Alpha)

To examine the internal consistency of the measurement scales, Cronbach's alpha was computed for each construct. The results are presented in Table 1.

Construct	No. of Items	Cronbach's Alpha	Reliability Status
Digital Financial Literacy (DFL)	5	0.702	Good
Fintech-Driven Awareness (FDA)	5	0.716	Good
Digital Financial Awareness (DFA)	5	0.649	Acceptable
Financial Inclusion (FI)	5	0.606	Acceptable

Interpretation:

Cronbach's alpha was used to assess the internal consistency of the measurement scales. The Digital Financial Literacy and Fintech-Driven Awareness Approaches scales recorded alpha values above 0.70, indicating good reliability. The Digital Financial Awareness and Financial Inclusion scales recorded alpha values above 0.60, which are considered acceptable for exploratory and behavioural research. Overall, the instrument demonstrates adequate reliability and is suitable for further analysis.

2. Correlation Analysis

Pearson correlation analysis was conducted to examine the relationships among digital financial literacy, fintech-driven awareness approaches, digital financial awareness, and financial inclusion.

Variables	DFL	FDA	DFA	FI
Dig. Fin. Literacy (DFL)	1.000			
Fintech Awareness (FDA)	0.642	1.000		
Dig. Fin. Awareness (DFA)	0.669	0.674	1.000	
Financial Inclusion (FI)	0.668	0.677	0.674	1.000

Interpretation:
The correlation matrix shows strong and positive relationships among all study variables at the 1% significance level. Digital financial literacy is strongly associated with fintech-driven awareness approaches (r = 0.642), digital financial awareness (r = 0.669), and financial inclusion (r = 0.668), indicating that higher literacy improves both awareness and inclusion. Similarly, fintech-driven awareness approaches are positively related to digital financial awareness (r = 0.674) and financial inclusion (r = 0.677), suggesting that fintech-based guidance and alerts effectively enhance awareness and inclusive financial participation.

Hypothesis	Statement	Result
H1	Fintech-driven awareness mechanisms positively influence digital financial awareness	Supported
H2	Digital financial literacy positively influences digital financial awareness	Supported
H3	Fintech-driven awareness mechanisms enhance users' confidence and risk awareness	Supported
H4	Digital financial awareness positively influences financial inclusion	Supported

3. One-Way ANOVA

Dependent Variable: Digital Financial Literacy (DFL_AVG)
Factor: Age Group
Sample Size (N): 211

Source of Variation	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	19.123	3	6.374	9.361	0.000

	Levene Statistic	df1	df2	Sig.		
	2.470	3	207	0.063		
Within Groups	140.951		207	0.681		
Total	160.074		210			

Interpretation: A one-way ANOVA was conducted to examine whether digital financial literacy differs across age groups. The results indicate a statistically significant difference in digital financial literacy among different age categories (F = 9.361, p < 0.01). This suggests that age plays a significant role in influencing digital financial literacy levels. The Levene's test for homogeneity of variances was non-significant (p = 0.063), indicating that the assumption of equal variances is satisfied. Therefore, the ANOVA results are considered valid and reliable. **The ANOVA analysis was conducted as a supplementary examination to understand demographic variations.**

4.Regression Analysis

Dependent Variable: Digital Financial Awareness
Sample Size (N): 211

Model	R	R2	Adj. R2	Std. Error	F-Value	Sig.
1	0.741	0.549	0.545	0.54182	126.696	0.000

Predictor	Unstandardized β	Std. Error	Standardized β	t-value	Sig.
(Constant)	0.537	0.122	-	4.396	.000
Digital Fin. Literacy	0.370	0.056	0.402	6.623	.000
Fintech-Driven Approaches	0.389	0.057	0.416	6.844	.000

Dependent Variable: Digital Financial Awareness

Predictor	Unstandardized B	Std. Error	Standardized Beta (β)	t	Sig.
Constant	0.537	0.122	–	4.396	0.000
Digital Financial Literacy	0.370	0.056	0.402	6.623	0.000
Fintech-Driven Awareness Approaches	0.389	0.057	0.416	6.844	0.000

Interpretation

Multiple linear regression analysis was conducted to examine the impact of digital financial literacy and fintech-driven awareness approaches on digital financial awareness. The regression model was statistically significant (F = 126.696, p < 0.01) and explained 54.9% of the variance in digital financial awareness (R² = 0.549). Both digital financial literacy (β = 0.402, p < 0.01) and fintech-driven awareness approaches (β = 0.416, p < 0.01) exert a positive and significant influence on digital

financial awareness. The results indicate that fintech-driven awareness approaches have a slightly stronger effect. Hence, Hypotheses H1 and H2 are supported.

Findings

1) All measurement scales utilised in this study exhibited acceptable levels of reliability

2) Digital Financial Literacy and FinTech-driven Awareness are positively correlated to Digital Finance Awareness

3) FinTech-driven Awareness mechanisms were more effective than Digital Financial Literacy alone

4) Higher Digital Financial Awareness leads to Individuals having Higher levels of Confidence/Engagement with Digital Financial Services

5) Digital Financial Awareness serves as the bridge between FinTech Utilization and Financial Inclusion.

Discussion of Results

Overall, in addition to the data collected and findings generated, our research has shown that developing Digital Financial Literacy and Awareness of Fintech Solutions are working together to increase Digital Financial Awareness. Specifically, we're seeing significant impacts as a result of the guidance mechanisms being provided through Fintech-based solutions. This highlights the effectiveness of real-time learning through applications, which is consistent with previous research that cites Real-life Learning through Digital Finance. Additionally, the fact that being aware of your Digital Financial Usage leads to Financial Inclusion demonstrates that having Knowledge of How to use Digital Financial Services is critical to successful participation in the Digital Financial Ecosystem.

5. Conclusion

The results of this study support that Fintech Platforms are not only transactional tools; but also provide an avenue for developing Digital Financial Awareness. While Digital Financial Literacy is important, incorporating Embedded Rules (e.g. alerts/tutorials/user-friendly interfaces) into Fintech Platforms greatly increase a user's ability to Learn About and have Confidence in using Fintech Solutions. With increased Digital Financial Awareness, there is greater opportunity for the Inclusive and Responsible Use of Digital Financial Services. The results stress the importance of integrating awareness-building into Financial Institutions through the use of Fintech.

Scope for future research

Future studies could investigate the evolution of digital finance awareness through longitudinal research. Researchers could also investigate various fintech-enabled awareness means across different segments of the population—for example, rural dwellers, seniors, and small business owners. Researchers could further use advanced analytic techniques such as mediation or structural equation modelling to examine these populations' causal relationships with fintech use, awareness, and financial inclusion.

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