



## ***Digital Literacy and Entrepreneurial Financial Decision-Making in an Emerging Economy: Evidence from Pakistan***

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### **ABSTRACT**

*The rapid digitalization of financial services has significantly transformed the way individuals and businesses manage financial transactions and make economic decisions. In this evolving financial landscape, emerging entrepreneurs are increasingly relying on digital financial tools such as e-wallets to conduct business operations, manage cash flows, and make strategic financial decisions. Understanding the factors that influence how these entrepreneurs perceive and manage their finances has become essential, particularly in developing economies where digital financial adoption is growing rapidly. It explores how digital financial literacy, covering things like knowledge, awareness, experience, and skills, affects their financial attitudes, and how these attitudes, in turn, influence their financial decisions and behaviors. The research draws on established theories like Self-Efficacy Theory, the Theory of Planned Behavior (TPB), and the Technology Acceptance Model (TAM) to create a solid foundation. Using a quantitative approach, the study will gather insights through a questionnaire aimed at emerging entrepreneurial e-wallet users. Ultimately, this research seeks to shed light on how improving digital financial literacy can help emerging entrepreneurs make smarter financial choices and tackle the challenges of managing finances in an increasingly digital economy.*

### **Keywords:**

Digital Financial Skill, Digital Financial Experience, Digital Financial Awareness, Digital Financial Knowledge, Financial Attitude, Financial Behaviour

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## 1. Introduction

### 1.1 Background of the study

Digital finance, through platforms like Easypaisa and Jazz Cash, is transforming entrepreneurship in Pakistan by improving access to financial services. However, many small entrepreneurs underuse these tools due to limited digital financial literacy and skills, hindering effective financial management and business growth (Ali et al., 2024; Khan, 2023; Shehadeh et al., 2024). Despite good internet infrastructure in cities like Karachi, lack of training and practical experience remains a major barrier (Khan & Ullah, 2022).

Digital financial literacy awareness, knowledge, skills, and experience is key to developing positive financial attitudes that drive better business decisions (Potrich et al., 2025; Ali et al., 2024). Gender and cultural barriers, especially for women, also limit adoption (Shehadeh et al., 2024). Coordinated efforts by government, academia, and FinTech are crucial to improve digital competencies and ensure entrepreneurs can safely and effectively use digital finance (Ravikumar et al., 2022; Ali et al., 2024).

### 1.2 Problem Statement

The emergence of digital financial services like online banking, FinTech platforms, and mobile wallets has opened up new avenues for financial inclusion in developing nations like Pakistan; however, unequal access to these services is hindered by differences in DFL. (Ali et al., 2024). Despite easier access, many college students and young adults lack the information, awareness, experience, and skills needed to make wise financial decisions, which results in inconsistent budgeting and saving practices (Bhat et al., 2025). Previous research has frequently linked at DFL elements separately, ignoring how they all together can influence the financial attitude (Ravikumar et al., 2022). The problem is further made worse by gender disparities, restricted digital access, and lack of hand-on training (Hasan et al., 2023). Our goal is to find-out how these four variables all together shapes the financial attitude and ultimately impact the financial behavior of Pakistani emerging entrepreneurs.

### 1.3 Research Objectives

This research examines that how financial attitude and behaviour is impacted by financial digital literacy among Pakistani emerging entrepreneurs;

1. To investigate how digital financial awareness, skills, knowledge, and experience effect the financial attitude.
2. To examine the combined effect of factors on financial attitude.
3. To assess the effect of financial attitude on financial behavior.



## 1.4 Research Questions

The study is an effort to identify answers to the following questions in Pakistan's digital financial literacy among emerging entrepreneurs.

**RQ1:** What extent do Digital financial knowledge, awareness, skills, and experience predict financial attitude?

**RQ2:** What is the effect of financial attitude on financial behavior?

## 1.5 Limitations of the study

This study's focus on Pakistani emerging entrepreneurs limits its applicability to other groups like students, salaried workers, or rural communities. Convenience sampling and self-reported data may introduce bias, while the diverse entrepreneurial landscape means findings may not apply to all business types. The research also overlooks factors like emotional intelligence, financial pressure, and regulatory context. Future studies should use larger, more diverse samples and consider psychological and contextual factors for a fuller understanding of digital financial literacy's impact on entrepreneurship.

## 2. Literature Review

### 2.1 Theoretical Background

#### 2.1.1 Self-Efficacy Theory

Self-efficacy theory, introduced by Bandura (1986), highlights how belief in one's abilities influences persistence and success, especially in entrepreneurship (Arifin et al., 2023; Zakaria et al., 2025). Factors like digital adoption, financial literacy, and social support build self-confidence, helping entrepreneurs adapt and grow. Financial self-efficacy, the confidence in managing finances, leads to better budgeting and decision-making, promoting the use of digital financial tools and fostering resilience and independence (Kumar et al., 2023).

#### 2.1.2 Technology Acceptance Model (TAM)

The Technology Acceptance Model explains technology adoption through perceived usefulness and ease of use (Vijayakumar, 2024). For MSME owners, digital financial services are attractive due to convenience, security, and efficiency, which improve financial decisions (Awe & Ertemel, 2021; Morales-Pérez et al., 2022). TAM helps understand how these perceptions influence the integration of digital finance into business operations, supporting better financial performance and sustainability (Thatsarani & Jianguo, 2022; Chanda et al., 2023).

#### 2.1.2 Digital Financial Knowledge (DFK) and Financial Attitude

DFK includes skills like using mobile payments and understanding digital risks (Normawati et al., 2021; Asif et al., 2023). Higher DFK leads to better financial decisions, improved savings, and more rational behavior by enhancing understanding of digital financial tools (Hasan et al., 2023; Shehadeh et al., 2024).

**H1:** Digital Financial Knowledge positively impacts Financial Attitude.



### ***2.1.4 Digital Financial Awareness (DFA) and Financial Attitude***

DFA is awareness of digital finance benefits, risks, and security, which builds confidence and safer financial behaviors (Peter et al., 2024; Chen et al., 2023). Greater awareness encourages positive attitudes and adoption of digital financial services (Shehadeh et al., 2024).

**H2:** Digital Financial Awareness positively impacts Financial Attitude.

### ***2.1.5 Digital Financial Experience (DFE) and Financial Attitude***

DFE refers to practical use of digital financial tools, improving financial discipline and confidence (Shree et al., 2021; Patil et al., 2023). Repeated use reduces perceived risks and fosters responsible financial behavior (Shehadeh et al., 2024).

**H3:** Digital Financial Experience positively impacts Financial Attitude.

### ***2.1.6 Digital Financial Skill (DFS) and Financial Attitude***

DFS are the abilities to effectively use digital finance platforms, promoting better budgeting, saving, and trust in digital payments (Bhat et al., 2025; Rahman et al., 2024). Education enhances these skills, leading to more positive financial attitudes (Ullah et al., 2022).

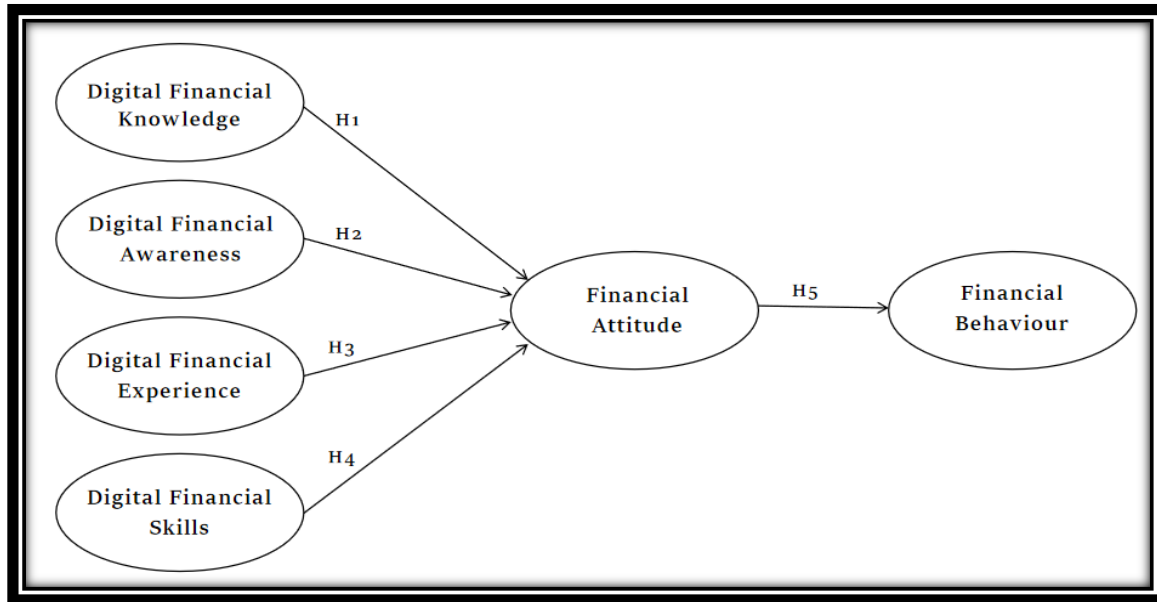
**H4:** Digital Financial Skill positively impacts Financial Attitude.

### ***2.1.7 Financial Attitude and Financial Behavior***

Financial attitude shapes how people manage money, influencing saving, investing, and spending (Wangi et al., 2021; Banthia & Dey, 2022). Positive attitudes lead to responsible financial behavior and better long-term outcomes (Mutlu & Özer, 2022).

**H5:** Financial Attitude positively impacts Financial Behavior.

## 2.2 Conceptual Framework



## 2.3 Empirical Reviews

Peter et al. (2024) examine how digital financial literacy (DFL), financial competency (EFC), and financial skills (EFS) impact women entrepreneurs’ financial decision-making (EFDM). The study finds that digital financial knowledge and awareness significantly improve decision-making, while experience has little effect. Despite the importance of budgeting and financial skills, many women entrepreneurs have yet to fully adopt digital financial tools. Those with strong digital finance understanding make better financial choices, boosting business success. The study highlights the need for targeted initiatives to enhance digital literacy and financial inclusion for women entrepreneurs, especially in developing countries like India.

Shehadeh et al. (2024) investigated the impact of digital financial literacy (DFL) on the adoption of cashless payments among Jordanian university affiliates using a gender moderator. Using survey data from 418 participants at 34 universities, the study examined DFL components such as awareness, skills, experience, and the digital legal framework. SPSS and Smart PLS were used for analysis. It was discovered that awareness, experience, and skills had a greater impact on the adoption of cashless payments than did legal frameworks or subjective knowledge. Gender differences were discovered, with women showing stronger links between experience and adoption. In order to enhance financial inclusion, fortify DFL, and promote the use of digital payment systems, the study suggests gender-sensitive policies and targeted educational initiatives. It also emphasizes how important practical skills are in comparison to theoretical knowledge.



### **3.0 Research Methodology**

#### **3.1 Research Approach**

This study's research methodology is quantitative in nature. The statistical value of the relationships between the variables is assessed by the quantitative research approach. It entails gathering and evaluating numerical data, which enables hypothesis testing and the derivation of broad conclusions (Ghanad, 2023).

#### **3.2 Research Purpose**

This study uses an explanatory research purpose. Examining and evaluating the connections between the independent and dependent variables is made easier by explanatory research. Additionally, it explains how and why a relationship exists (McDermott, 2023).

##### **3.2.1 Study Setting**

The study took place in the participants' natural surroundings, or in a non-contrived setting (Zaki & Tashfeen, 2023). No conditions were manipulated or created artificially by the researcher. The respondents' regular schedules were not disrupted during the data collection process.

##### **3.2.2 Unit of Analysis**

In this research, Emerging entrepreneurs are taken who are using e-wallet services as our unit of analysis. Each entrepreneur is considered a separate data point, showcasing the individual financial attitude and behavior which is influenced by the digital financial practices.

#### **3.3 Research Design**

In this research, Correlational research design is adopted. As correlational research design is used to analyze the relationships between the key variables. This research design enables us to analyze whether and how strong variables are connected or related without changing the study environment (Devi et al., 2022).

#### **3.4 Research Philosophy**

The research is based on the positivist philosophy, which emphasizes objectivity, quantifiable observations, and statistical analysis (Ali, 2024). Positivism supports hypothesis testing through empirical data, which aligns with the quantitative approach used in this study.

#### **3.5 Target Population**

The target population chosen for this study comprises emerging entrepreneurs who are actively using e-wallet services in Karachi, Pakistan. They represent the financially engaged segment of society most likely to have experienced digital financial services.

#### **3.6 Sample size**

To calculate the sample size, Daniel Soper's A-priori Sample Size Calculator was used, which indicated a minimum required sample size of 161. However, to enhance the reliability of

the dataset, 250 responses were collected from emerging entrepreneurs actively using e-wallet services in Karachi, Pakistan.

### 3.7 Data Collection Method

For this research, Likert's five point scale was adopted as a data collection method. It ranges from Strongly Agree indicating as "1" to Strongly Disagree which indicates as "5". The questionnaire was adapted from established sources: Peter et al., (2024), Potrich et al., (2025), Shehadeh et al., (2024). All variables in the questionnaire were adapted to fit the study context of digital finance in Pakistan.

### 3.8 Data Collection Instrument

Variable Name	No. of Items	Details of the Items	Adapted From
Digital Financial Knowledge	5	<ol style="list-style-type: none"> <li>1. I understand digital payment products clearly.</li> <li>2. I understand digital asset management tools.</li> <li>3. I know about alternative digital finance options.</li> <li>4. I understand how digital insurance works.</li> <li>5. I know my digital financial rights.</li> </ol>	Potrich, et al. (2025)
Digital Financial Awareness	5	<ol style="list-style-type: none"> <li>1. I know features of cashless payment services.</li> <li>2. I know privacy issues in digital finance.</li> <li>3. I understand digital finance transaction fee charges.</li> <li>4. I'm aware of interest rate risks.</li> <li>5. I understand legality of fintech service providers.</li> </ol>	Peter et al. (2024)
Digital Financial Experience	5	<ol style="list-style-type: none"> <li>1. I use cashless payment methods often.</li> <li>2. I engage with financial institutions digitally.</li> <li>3. I participate in digital payment communities.</li> <li>4. I access financial education on digital tools.</li> <li>5. I regularly make digital financial transactions</li> </ol>	Peter et al. (2024)
Digital Financial Skills	5	<ol style="list-style-type: none"> <li>1. I can identify financial risks easily.</li> <li>2. I understand numeric data in finance.</li> <li>3. I choose the best digital services.</li> <li>4. I pick suitable digital financial products.</li> <li>5. I apply financial knowledge when needed.</li> </ol>	Shehadeh, et al. (2024)
Financial Attitude	5	<ol style="list-style-type: none"> <li>1. I stay updated on financial planning.</li> <li>2. I know personal finance essentials well.</li> <li>3. I follow investment news and updates.</li> <li>4. I manage finances with full confidence.</li> <li>5. I understand agents' role in investing.</li> </ol>	Potrich, et al. (2025)
Financial Behaviour	5	<ol style="list-style-type: none"> <li>1. I save money for future needs.</li> <li>2. I regularly save for long-term goals.</li> <li>3. I manage my financial matters personally.</li> <li>4. I set and pursue financial goals.</li> <li>5. I save more after salary increases.</li> </ol>	Potrich, et al. (2025)



### 3.9 Sampling Technique

For this research, a non-probability sampling method was adopted which is convenience sampling. It's the easiest and fastest way to collect data (Shamsudin et al., 2024). Individuals who are emerging entrepreneurs and using the e-wallet services in Karachi, they are selected by convenience to collect responses from them.

### 3.10 Statistical Technique

SmartPLS 4 and SPSS 22 were used for data analysis. The Fornell-Larcker criterion and HTMT were used to assess the evaluation structure's discriminating validity, overall reliability (CR), the average variance extracted (AVE), or outer loadings. To ensure reliable and valid results, the structural model was evaluated using the blindfolding method for evaluating its predictive significance using the Q-square ( $Q^2$ ) value and the bootstrapping technique for evaluating hypotheses.

### 3.11 Operational Definition of Key terms

#### 3.11.1 Digital Financial Knowledge

To make the best financial decisions in a time when technology is developing quickly, people need to be able to comprehend, assess, and use digital financial tools, platforms, and services (Potrich et al., 2025; Shehadeh et al., 2024). This is what we refer to as "digital financial knowledge."

#### 3.11.2 Digital Financial Awareness

The term (DFA) describes a person's comprehension of the accessibility, advantages, and application of digital financial services. This data is crucial for influencing financial habits and promoting the use of electronic payment methods (Shehadeh et al., 2024).

#### 3.11.3 Digital Financial Experience

The term (DFE) refers to how people interact and perceive digital financial services, how this influences financial behavior, usability, and trust, and how it promotes increased adoption and confidence in digital platforms (Shree et al., 2021; Shehadeh et al., 2024).

#### 3.11.4 Digital Financial Skill

DFS refer to the essential knowledge and abilities individuals need to effectively manage digital financial services, make informed decisions, and maintain financial self-control in a tech-driven economy (Rahman et al., 2024; Shehadeh et al., 2024).

#### 3.11.5 Financial Attitude

A person's financial attitude includes their propensity to save, plan, and make well-informed financial decisions. It also includes their mindset, motivation, and confidence regarding money management (Potrich et al., 2025; Banthia & Dey, 2022).



### 3.11.6 Financial Behaviour

The decisions and actions people take to manage their finances, including budgeting, investing, saving, and spending sensibly, are all included in financial behavior. It influences overall financial stability and health by reflecting how well one applies financial attitudes and knowledge in day-to-day living (Potrich et al., 2025; Banthia & Dey, 2022).

### 3.12 Ethical Consideration

The study was conducted with strict adherence to ethical considerations. Respondents were under no obligation to continue, and their participation was completely voluntary. After thoroughly outlining the goals and methods of the study, informed consent was acquired. By guaranteeing that all data remained anonymous and was utilized only for academic purposes, confidentiality was preserved. Furthermore, there was no deceit because participants were guaranteed transparency while being watched over by the course facilitator.

## 4. Data Analysis

Partial Least Squares Structural Equation Modeling (PLS-SEM) was used to analyze the data, which was based on 252 valid responses. This method was selected because it works well with small-to-medium sample sizes and complex models. To guarantee solid and significant insights into the usage patterns of digital financial services, it comprised validity and reliability evaluations, hypothesis testing, and model fit assessment.

### 4.1 Data Screening

The integrity, accuracy, and quality of the data were ensured through a thorough data screening process prior to hypothesis testing, which is crucial for producing valid and reliable research findings.

#### 4.1.1 Missing Value and Outlier

Using SPSS software, the final dataset of 252 replies was thoroughly examined to identify outliers and missing values. The screening method revealed no notable outliers or missing values, indicating that the data was complete, clean, and appropriate for further statistical analysis. This guaranteed the reliability of the findings and their credibility.

## 4.2 Descriptive Analysis

### 4.2.1 Composition of Data

Table 01 presents the demographic profile of the respondents. Out of the 252 participants, 38% were male and 62% female. The majority of respondents (50%) were aged between 18 and 24, followed by 30.1% in the 25–34 age group, 15.4% aged 35–44, and 4.5% aged 45 and above. In terms of education, 53.5% held a bachelor's degree, 24.2% had a master's degree, 13% had higher education qualifications, and 9.3% reported other education levels. All respondents (100%) reported using digital financial services. Regarding the frequency of E-wallet use, 26.9% used it daily, 29.7% weekly, 25.3% monthly, and 17.8% rarely.

**Table 01: Demographic Profile**

		<b>Frequency</b>	<b>Percentage</b>
<b>Gender</b>	Male	96	38%
	Female	156	62%
<b>Age</b>	18 -- 24	126	50%
	25 - 34	76	30.1%
	35 - 44	39	15.4%
	45 and Above	11	4.5%
<b>Education level</b>	Higher Education	33	13%
	Bachelor's Degree	135	53.5%
	Master's Degree	61	24.2%
	Other	23	9.3%
<b>Do you use any digital financial services?</b>	Yes	252	100%
	No	0	-
<b>How frequently do you use E-wallet services?</b>	Daily	68	26.9%
	Weekly	75	29.7%
	Monthly	64	25.3%
	Rarely	45	17.8%

### 4.3 Data Analysis through PLS-SEM

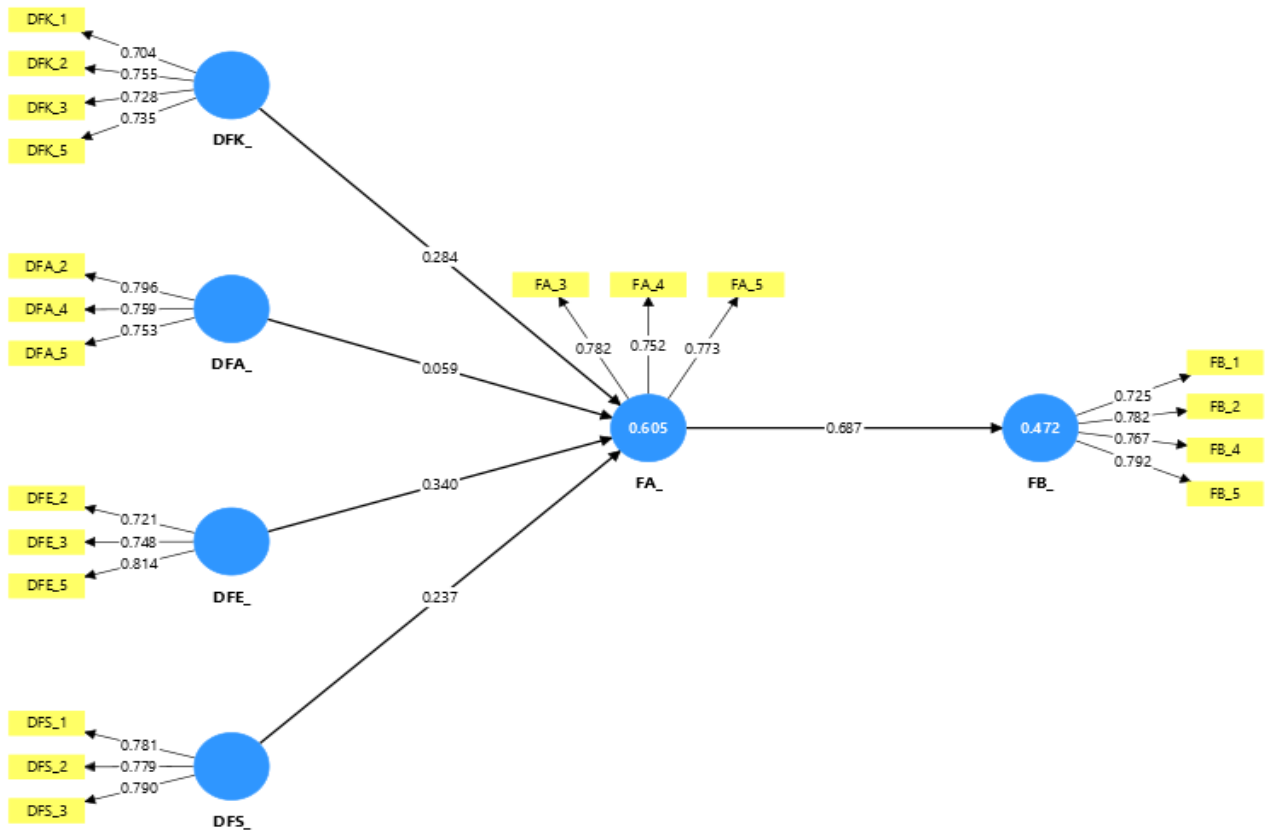
The hypotheses were tested using SmartPLS 4's Partial Least Squares Structural Equation Modeling (PLS-SEM), which is adaptable and capable of handling non-normal data without strict parametric assumptions (Hair et al., 2021).

#### 4.3.1 Outer Measurement Model

The outer measurement model assessed the relationship between latent constructs and their observed indicators in order to ensure validity and reliability (Hair et al, 2020). Because PLS-SEM can handle complex models with mediating effects, it was a good fit for this investigation. The precision and validity of the measurement model were strengthened when Exploratory Factor Analysis (EFA) verified that each indicator appropriately represented its construct.



Figure 03: Measurement of outer model



### 4.3.2 Reliability and Validity Testing

According to Chin & Yao (2024), convergent validity shows how well a set of indicators represents one clear concept. It is checked using three main criteria: factor loadings should be above 0.7 and significant, the Average Variance Extracted (AVE) should be over 0.5, and composite reliability must be above 0.7 (Cheung et al., 2024). In this study, all indicators meet these standards (Table 02), confirming strong reliability and convergent validity.

Table 02: Reliability and Validity

	Items	Loadings	CR	AVE
<b>Digital Financial Awareness</b>	DFA_1	Deleted	0.813	0.592
	DFA_2	0.796		
	DFA_3	Deleted		
	DFA_4	0.759		
	DFA_5	0.753		
<b>Digital Financial Experience</b>	DFE_1	Deleted	0.805	0.580
	DFE_2	0.721		
	DFE_3	0.748		



	DFE_4	Deleted		
	DFE_5	0.814		
<b>Digital Financial Knowledge</b>	DFK_1	0.704	0.821	0.534
	DFK_2	0.755		
	DFK_3	0.728		
	DFK_4	Deleted		
	DFK_5	0.735		
<b>Digital Financial Skill</b>	DFS_1	0.781	0.826	0.613
	DFS_2	0.779		
	DFS_3	0.790		
	DFS_4	Deleted		
	DFS_5	Deleted		
<b>Financial Attitude</b>	FA_1	Deleted	0.813	0.591
	FA_2	Deleted		
	FA_3	0.782		
	FA_4	0.752		
	FA_5	0.773		
<b>Financial Behaviour</b>	FB_1	0.725	0.851	0.588
	FB_2	0.782		
	FB_3	Deleted		
	FB_4	0.767		
	FB_5	0.792		

### 4.3.3 Discriminant Validity

Discriminant validity checks if items can clearly distinguish between different constructs (Rönkkö & Cho, 2022). This study used three methods: first, cross-loadings were checked to ensure each item's loading was at least 0.1 higher on its own construct than on others (Chin & Yao, 2024). Second, the square root of AVE for each construct was confirmed to be greater than its correlations with other constructs (Fornell-Larcker, 1981). Finally, the HTMT ratio was tested, with all values below the 0.85 cutoff, confirming discriminant validity (Hensel et al., 2015).



**Table 03: Discriminant Validity by using Fornell and Larcker (1981) criterion**

	<b>DFA</b>	<b>DFE</b>	<b>DFK</b>	<b>DFS</b>	<b>FA</b>	<b>FB</b>
<b>DFA</b>	0.770					
<b>DFE</b>	0.446	0.762				
<b>DFK</b>	0.553	0.608	0.731			
<b>DFS</b>	0.452	0.566	0.695	0.783		
<b>FA</b>	0.469	0.672	0.686	0.653	0.769	
<b>FB</b>	0.495	0.542	0.680	0.612	0.687	0.767

**Table 04: Cross-loading**

<b>Items</b>	<b>DFA</b>	<b>DFE</b>	<b>DFK</b>	<b>DFS</b>	<b>FA</b>	<b>FB</b>
DFA_2	0.796	0.332	0.413	0.364	0.384	0.386
DFA_4	0.759	0.323	0.381	0.279	0.321	0.375
DFA_5	0.753	0.374	0.433	0.392	0.371	0.383
DFE_2	0.279	0.721	0.45	0.4	0.44	0.357
DFE_3	0.364	0.748	0.435	0.391	0.534	0.398
DFE_5	0.369	0.814	0.503	0.497	0.552	0.476
DFK_1	0.345	0.383	0.704	0.526	0.463	0.512
DFK_2	0.373	0.482	0.755	0.549	0.494	0.481
DFK_3	0.359	0.47	0.728	0.441	0.525	0.513
DFK_5	0.476	0.436	0.735	0.521	0.518	0.483
DFS_1	0.397	0.419	0.53	0.781	0.501	0.497
DFS_2	0.337	0.486	0.584	0.779	0.511	0.492
DFS_3	0.329	0.424	0.519	0.79	0.522	0.45
FA_3	0.356	0.564	0.566	0.53	0.782	0.513
FA_4	0.349	0.477	0.484	0.526	0.752	0.545
FA_5	0.376	0.508	0.531	0.449	0.773	0.528
FB_1	0.328	0.311	0.501	0.474	0.455	0.725
FB_2	0.354	0.408	0.557	0.498	0.523	0.782
FB_4	0.458	0.442	0.499	0.435	0.566	0.767
FB_5	0.37	0.486	0.533	0.478	0.553	0.792

**Table 05: Heterotrait-Monotrait Ratio (HTMT)**

	<b>DFA</b>	<b>DFE</b>	<b>DFK</b>	<b>DFS</b>	<b>FA</b>	<b>FB</b>
<b>DFA</b>						
<b>DFE</b>	0.681					
<b>DFK</b>	0.776	0.781				
<b>DFS</b>	0.669	0.852	0.872			



<b>FA</b>	0.711	0.672	0.754	0.732	
<b>FB</b>	0.692	0.761	0.665	0.848	0.768

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#### **4.3.4 Hypothesis Testing**

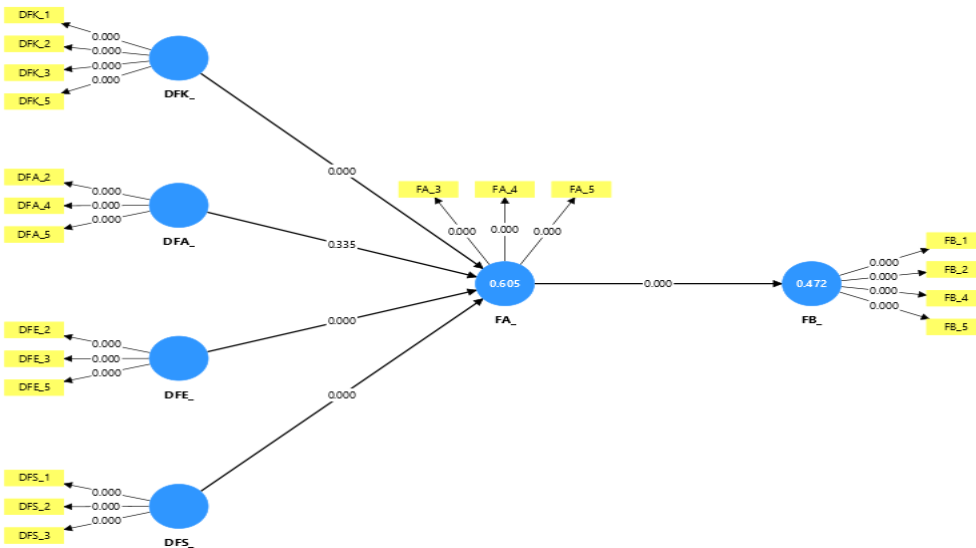
After verifying the validity of the measurement model, the structural model was evaluated using SmartPLS 3. To test the suggested hypotheses, path coefficients were examined, and bootstrapping with 252 samples was used to assess significance. T-values greater than 1.96 were deemed significant at a 5% significance level. H2 was not supported by the results, but H1, H3, H4, and H5 were.



**Table 06: Inner Model Results**

Hypothesis No.	Hypothesized Effect	Coefficients	T-values	P-values	Decision
H1	DFK -> FA	0.284	4.047	0.000	Accepted
H2	DFA -> FA	0.059	0.964	0.335	Rejected
H3	DFE -> FA	0.340	5.178	0.000	Accepted
H4	DFS -> FA	0.237	3.497	0.000	Accepted
H5	FA -> FB	0.687	14.530	0.000	Accepted

**Figure 04: Hypothesis Testing after Bootstrapping**



**Table 07: Predictive Quality Indicators of the Model**

	R-square	R-square adjusted
FA	0.605	0.599
FB	0.472	0.470

## 5. Introduction

This section summarizes how digital financial literacy (DFL) affects financial attitudes and behaviors of emerging entrepreneurs in Pakistan. It discusses findings in light of previous studies and offers practical recommendations for policymakers, academics, and fintech stakeholders to support entrepreneurial financial growth.

### 5.1 Discussion of Findings

The study shows digital financial knowledge, experience, and skills significantly improve financial attitudes, while awareness alone does not. Hands-on experience with digital tools is the strongest predictor of positive financial attitudes, which in turn strongly influence prudent



financial behaviors. Effective interventions should focus on practical learning, not just raising awareness.

## 5.2 Conclusion

The research confirms that digital financial knowledge, experience, and skills (but not awareness alone) shape entrepreneurs' financial attitudes and behaviors in Pakistan. Positive financial attitudes mediate this relationship, encouraging better budgeting, saving, and investing. The study stresses the need for programs that build practical digital finance skills to foster resilient entrepreneurial ecosystems in developing countries.

## 5.3 Recommendations

Prioritize hands-on training over awareness campaigns through peer learning, app demos, and simulations. Integrate digital financial literacy into entrepreneurial education at universities and incubation centres. Design targeted programs for women and underrepresented groups to improve digital financial skills and inclusion. Encourage public-private partnerships to create innovative fintech initiatives and monitor their impact for sustained success.

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