

The Nexus of Fintech Use and Well-Being

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Abstract

Financial technology (Fintech) development has brought about seismic changes in how people access financial services and interact with their finances, impacting both economic and psychological aspects. The purpose of the current research is to explore the relationship between Fintech and well-being, the mediating effects of financial literacy and financial behavior, and the moderating effect of gender among Pakistani users. A sample of 281 respondents from Pakistan's largest cities, i.e., Lahore, Karachi, Islamabad, and Multan, was used to gather data. We used SmartPLS 4 to evaluate the data. The findings showed that Fintech use had a substantial influence on financial behavior and financial literacy, both of which lead to increased levels of mental, emotional, and financial well-being. The association between Fintech use and wellbeing is mediated by financial literacy and wellbeing. In a similar vein, gender had a substantial moderating influence. Our work adds to the body of knowledge on fintech and behavioral finance and has several ramifications for managers, legislators, and other stakeholders in developing economies.

Keywords: Fintech, Financial Literacy, Financial Behavior, Well-being, Gender Analysis.

Introduction

The phenomenon of financial technology (Fintech) is rapidly changing the international financial landscape by reconfiguring how individuals access, use, and experience their financial products (Arner et al., 2023; World Bank, 2024). Fintech is the integration of technology (such as mobile banking and digital wallets; peer-to-peer, marketplace, crowdfunding, and remittance platforms) into the provision of financial services to create better, faster, and cheaper solutions (OECD, 2024). Recently, Fintech has evolved from a secondary imitation to a central concept in contemporary financial markets, particularly in emerging economies with limited banking access (Demirgüç-Kunt et al., 2018).

Fintech platforms have also gained momentum worldwide and have driven financial inclusion by reducing transaction costs, expanding outreach to potential savings and credit avenues, and facilitating real-time financial management (Allen et al., 2016; IMF, 2024). In developing countries, digitalized financial services have become essential infrastructures for everyday economic activity, facilitating remittances, bill payments, and micro-savings (Asian Development Bank, 2024). Beyond these functional benefits, recent research suggests that Fintech use may also influence users' psychological and emotional experiences by altering perceptions of control, security, and predictability in financial decision-making (Lusardi & Mitchell, 2014; Kahneman & Deaton, 2010).

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However, although this emergent paradigm fits, most extant FinTech studies have focused on usability, technology acceptance, and adoption intentions, predominantly adopting models such as the Unified Theory of Acceptance and Use of Technology (UTAUT) (Venkatesh et al., 2003). Numerous studies have examined behavioral intention and perceived ease of use as predictors of FinTech adoption rather than its long-term effects, focusing primarily on consumer readiness and adoption drivers (Kaur & Arora, 2022; Lee & Shin, 2018; Zhou, 2011; Davis, 1989). Such studies can provide little explanatory value, despite their merit, regarding the impact of continuous or habitual FinTech use on overall life outcomes, including psychological empowerment, emotional balance, and financial well-being (Balatif et al., 2024; Dote Pardo & Parra-Dominguez, 2025; Zhang, 2023).

These connections have several positive advantages and reasons to study them in the situation of Pakistan. The country represents a unique and transforming FinTech environment, marked by significant gender inequalities in technology use, low levels of financial literacy, and unbalanced access to the digital environment. Most users continue to use fintech primarily to transfer money and make bill payments, but do not engage much in savings, investment, and insurance services, although digital financial services have been growing rapidly over the last few years through applications such as Easypaisa and JazzCash (Klapper et al., 2015; State Bank of Pakistan [SBP], 2024). Additionally, socioeconomic constraints, digital skills gaps, and regional differences are barriers to the full potential of FinTech use in financial empowerment and well-being (Asian Development Bank [ADB], 2025). Studies have proposed that financial knowledge and behavioral discipline are key factors in the association between access to digital finance and improvements in financial well-being (Hilgert et al., 2003; Grohmann et al., 2018).

To fill these gaps, the current research examines the intersection of FinTech use and well-being among Pakistani users. Based on the Unified Theory of Acceptance and Use of Technology (Venkatesh et al., 2003), Behavioral Finance theory (Thaler & Sunstein, 2008), and the Capability Approach (Sen, 1999), the study will combine technological, behavioral, and welfare-related approaches to explain the benefits of digital financial engagement to the overall well-being of users. The paper will examine the direct effects of FinTech use on the financial, emotional, and mental aspects of well-being and investigate the mediating role of financial literacy and financial behavior in these effects. In addition, it aims to determine how gender mediates these associations by influencing differences in access, confidence, and participation in FinTech services (Falahati & Paim, 2011).

The current paper contributes to the existing body of knowledge on digital finance and well-being in three ways. To start with, it expands the FinTech literature by redefining the analytical subject in terms of post-adoption outcomes rather than adoption- and intention-based approaches, thereby underscoring the impact of continuous FinTech use on the user's financial, emotional, and mental health. Second, it contributes to theoretical knowledge by proposing a dual-mediation model in which financial literacy and financial behavior operate as the primary channels linking FinTech use to multidimensional well-being outcomes. Third, it emphasizes the role of inclusivity and equity in the digital finance ecosystem by focusing on gender as a mediating variable, thus making the policy implications of developing FinTech services that improve individual capacities and minimize socio-digital gaps within the Pakistani context.

Literature Review

Fintech Use and Digital Financial Services

Financial technology (Fintech) refers to the application of digital technologies to deliver financial services, including mobile payments, digital wallets, online lending, AI-based financial advisory services, and blockchain-based apps (Arner et al., 2020; OECD, 2022). Past research has considered Fintech with technology adoption theories as the main approach of looking at how user perceptions are usefulness (performance expectancy), ease of use (effort expectancy), social influence, and facilitating conditions that influence decisions to adopt and maintain their use of Fintech services (Davis, 1989; Venkatesh et al., 2003). Regardless of the specifics of the research, empirical studies always demonstrate that performance expectancy and effort expectancy are considered important variables that influence the intention of users to adopt and continue using the Fintech platform, particularly in an economy where the diffusion of digital infrastructure is uneven (Chawla & Joshi, 2019; Venkatesh et al., 2003).

Although adoption-oriented research provides useful information on early adoption decisions, recent literature has argued that more attention should be paid to the impacts of Fintech use beyond adoption. People's financial behavior can be altered over the long term through digital financial services, increased transaction transparency, reduced information asymmetry, and real-time monitoring of financial activities (Malaquias and Hwang, 2016). Such characteristics imply that different socio-economic and psychological consequences can follow the use of Fintech, including feelings of control over personal finances and financial security, as well as efficiency benefits (Allen et al., 2016).

Financial Literacy and Fintech Use

Lusardi and Mitchell (2014) define financial literacy as the capacity to use knowledge of financial risks, products, and concepts to make informed financial decisions. The significance of financial literacy as an auxiliary skill that helps people navigate an increasingly complex financial system was emphasized in the vast majority of the literature. Financial literacy is essential, particularly in the Fintech environment, where consumers must read between the lines, manage digital risks, and compare recommendations generated by algorithms (Grohmann et al., 2018).

Empirical studies show that financially literate individuals are more likely to use Fintech services, as they are more confident and cognitively prepared to navigate the digital financial space (Klapper et al., 2015). Conversely, poor financial literacy can undermine the benefits of Fintech use, exposing users to overborrowing, compulsive spending, or scams (Hilgert et al., 2003). The outcomes of this work imply that financial literacy is a factor that not only facilitates the use of Fintech but also affects the quality and outcomes of its use.

Financial Behavior as a Mechanism

Financial behavior involves apparent activities in regard to budgeting, saving, spending, borrowing, and investment choices (Hilgert et al., 2003). The literature in behavioral finance stresses that financial tools alone, without a combination of disciplined and informed financial behavior, are insufficient to enhance financial outcomes (Thaler and Sunstein, 2008). Fintech can impact financial behavior through the ability to send reminders, provide spending analytics, offer goal-setting features, and enable automated saving systems, which remind users they need to be more financially responsible.

The previous study indicates a strong correlation between financial literacy and positive financial behavior, suggesting that knowledge would improve the effectiveness of actions triggered by

financial access among individuals (Lusardi & Mitchell, 2014). Besides, research in developing-country settings reveals that digital financial services can facilitate savings and budgeting when users are proactive in using platform features, thereby enhancing financial resilience (Bruhn & Love, 2014). This fact supports the hypothesis that financial behavior is a crucial process that connects the use of Fintech to overall well-being outcomes.

Fintech Use and Well-Being

Well-being is a multidimensional phenomenon that encompasses the financial, emotional, and mental aspects of individuals' quality of life (Diener et al., 2018). Financial well-being is an indicator of perceived financial security and the capacity to afford present and future financial demands, whereas emotional and mental well-being are associated with affective states, stress levels, and psychological resilience (Kahneman & Deaton, 2010; Seligman, 2011). In recent research, it is indicated that financial experiences and financial stress factors were strongly interconnected with emotional and mental health outcomes.

There is growing evidence that the use of Fintech can positively be associated with well-being because it can alleviate transaction-related stress and make people feel more in control of their financial assets (Demirgüç-Kunt et al., 2018). Nevertheless, these advantages are not intuitive, and some will be influenced by the user's financial literacy and behavioral responses to online financial applications. In the absence of proper knowledge and self-control, the adoption of Fintech can only contribute to the growth of financial anxiety rather than its reduction, especially in situations where literacy levels and income volatility are high.

Gender Differences in Fintech Use and Well-Being

Gender inequalities are also a long-standing characteristic of digital financial inclusion, particularly in developing economies. Structural barriers, such as limited access to technology, lower financial literacy, and socio-cultural constraints, tend to shape how women interact with financial services (Falahati & Paim, 2011; OECD, 2020). According to previous studies, these differences may have implications for the adoption of Fintech on its own, as well as for the extent to which its adoption will lead to positive financial and psychological effects.

Research has demonstrated that, with access and literacy deficiencies that can be addressed, women can gain significant well-being benefits from digital financial services, including greater financial autonomy and lower stress levels (Grohmann et al., 2018). This fact highlights the importance of analysing gender as a resilience variable in relation to Fintech use, financial literacy, financial behavior, and well-being.

Research Gap and Conceptual Foundation

Nevertheless, the current literature on Fintech and digital financial services has several critical drawbacks. First, the Fintech literature is still focused on adoption intentions and usage determinants, with less attention to post-adoption outcomes, including well-being and quality of life (Venkatesh et al., 2003; Chawla and Joshi, 2019). Although the main focus of financial inclusion research is on access to digital finance, in most cases, it does not go further to determine whether this access will result in long-lasting benefits for individuals' financial, emotional, and mental health (Demirguc-Kunt et al., 2018; World Bank, 2023).

Second, the role of financial literacy as an intermediate variable between the use of Fintech and well-being outcomes has not yet been researched, despite its well-established importance in managing modern financial systems. Previous research typically treats financial literacy as a

predictor or factor of financial inclusion rather than as a factor in financial behavior itself, without providing the context of financial literacy within a longer, sequential process linking digital finance to multidimensional well-being (Lusardi & Mitchell, 2014; Grohmann et al., 2018).

Third, the theoretical gaps in understanding how Fintech use via behavioral channels might affect well-being are underdeveloped. Studies in behavioral finance show that the availability of financial tools is insufficient to achieve better results unless people demonstrate disciplined financial habits such as budgeting, saving, and responsible borrowing (Hilgert et al., 2003; Thaler and Sunstein, 2008). Nevertheless, financial behavior is rarely examined as a mediating variable in empirical Fintech-well-being models.

Lastly, contextual and demographic factors (e.g., gender) have not received much attention in existing models. The existence of gender-based differences in financial literacy, digital access, and financial autonomy is well established, particularly in developing economies, but little research explicitly examines how these differences precondition the indirect impacts of Fintech use on well-being (Falahati and Paim, 2011; OECD, 2020).

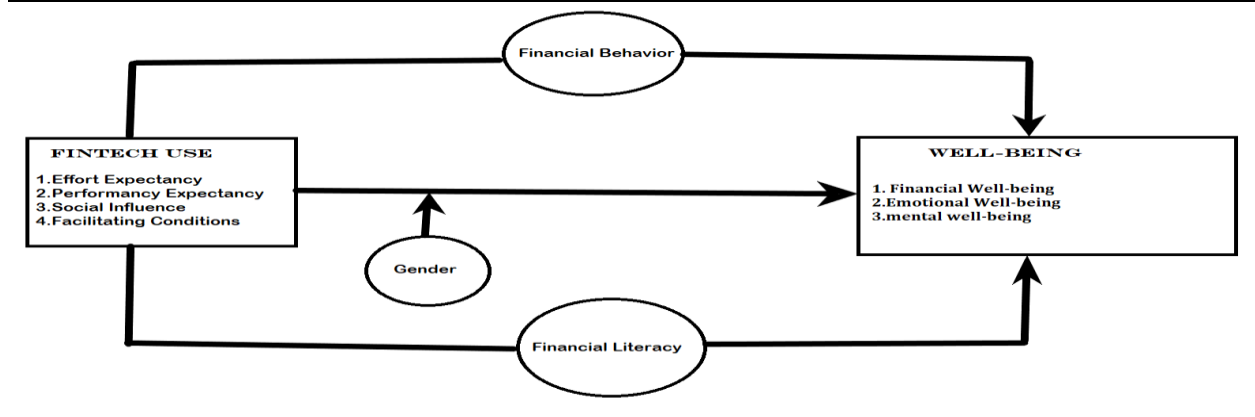
Conceptual Framework and Hypotheses Development

Conceptual Framework

Basing its work on the Unified Theory of Acceptance and Use of Technology (UTAUT), Behavioral Finance Theory, and the Capability Approach, this study introduces an integrated concept that describes how the use of Fintech can be translated into multidimensional well-being outcomes. UTAUT assumes that the performance expectancy, effort expectancy, social influence, and facilitating conditions facilitate the use of technology (Venkatesh et al., 2003). Expanding on this argument, the Capability Approach asserts that access to resources is not enough unless people have the capabilities to transform those resources into valued life outcomes (Sen, 1999).

In this framework, the concept of Fintech use is understood as an empowering tool that enhances a person's financial capabilities. Financial literacy is a cognitive skill that equips users with the knowledge and confidence to comprehend and analyse online financial products (Lusardi & Mitchell, 2014). Financial behavior, in turn, enables the behavioral realization of these abilities through disciplined behavioral features such as budgeting, saving, and prudent borrowing (Hilgert et al., 2003). These processes presuppose that the impact of using Fintech passes sequentially to the financial, emotional, and mental well-being.

Moreover, gender is considered a moderating variable that helps explain variations in the transformation of Fintech use into financial capabilities and well-being outcomes. The literature indicates that gender disparities in financial and digital literacy, along with socio-cultural factors, may precondition the success of Fintech use (Falahati & Paim, 2011; OECD, 2020). In line with this, the concept model suggests that there are direct and indirect routes between Fintech use and well-being, and that financial literacy and financial behavior mediate these relationships in a sequential manner, with gender moderating the relationships.

Figure 1: Conceptual framework

Fintech Use and Well-Being

The application of fintech can improve individual well-being by making financial services more accessible, lowering transaction costs, and fostering greater control over financial resources (Demirgüç-Kunt et al., 2018). The use of digital financial resources helps people track their spending, manage cash flow, and budget for the future, thereby reducing financial pressure and facilitating emotional stability (Allen et al., 2016). Empirical research indicates that better financial experiences are closely associated with greater financial satisfaction and general well-being (Diener et al., 2018).

The correlation between Fintech use and well-being, though, might not be straightforward. The more accessible digital finance is, the more people may be subject to financial risks and therefore the less potential well-being gains. This research, however, will be based on the previous evidence of positive correlations between financial inclusion and quality of life and assumes that there should be a direct positive correlation between the use of Fintech and their well-being.

H1: The use of fintech positively influences individual well-being.

The use of Fintech platforms may involve participants communicating with digital interfaces, comparing financial possibilities, and interpreting financial data. The experience of such interactions could increase the user's financial literacy and trust over time, especially when applications offer educational features, a transaction history, and a feedback system (Grohmann et al., 2018). Empirical evidence suggests that online financial inclusion can enhance financial literacy by providing exposure to formal financial products and services (Klapper et al., 2015).

According to the Capability Approach, the use of Fintech can be a learning environment that enhances an individual's cognitive financial capability. In this regard, the hypothesis presented below:

H2: The fintech utilization positively impacts financial literacy.

Financial literacy is a significant factor that shapes individuals' financial behavior. Opportunities with greater financial knowledge are better at assessing financial decisions, helping them avoid costly errors and practice wise financial behavior, such as budgeting and saving (Lusardi and Mitchell, 2014). Previous research has consistently found a strong correlation between financial literacy and positive financial behavior across various settings (Hilgert et al., 2003). In the digital finance setting, financial literacy can help users make efficient use of Fintech tools and treat their use as a good financial practice. Thus, the hypothesis is as follows:

H3: Financial behavior is positively influenced by financial literacy.

Financial behavior is a direct pathway through which financial capabilities can contribute to well-being. Financial disciplines such as saving habits, managing expenditure, and borrowing cautiously, help to achieve financial security and minimize exposure to financial shocks (Thaler & Sunstein, 2008). Empirical data show that people who remain engaged in positive financial practices experience lower financial stress and greater emotional and mental well-being (Kahneman & Deaton, 2010). To this end, the present paper suggests that there is a positive relationship between financial behavior and well-being outcomes.

H4: There is a positive influence of financial behavior on individual well-being.

Based on the above arguments, the research suggests a sequential mediation effect: the use of Fintech will improve financial literacy, which, in turn, will result in positive financial behavior, and, finally, well-being will improve. This chronological procedure aligns with the Capability Approach, which focuses on turning resources into functioning through capabilities and actions (Sen, 1999). According to previous literature, these multi-stage processes can be more structured to explain financial performance than one-path models (Grohmann et al., 2018).

In this connection, the next hypothesis is formulated:

H5: There is a sequential mediation of Fintech use and individual well-being by financial literacy and financial behavior.

Financial literacy, technology use, and financial autonomy, depending on gender, could help explain how Fintech use translates into financial capabilities and well-being. Women are also prone to structural and socio-cultural barriers that limit their ability to fully benefit from digital financial services, even when facilities are accessible (Falahati & Paim, 2011; OECD, 2020). On the other hand, the use of Fintech can provide significant well-being benefits when these constraints are alleviated. On this basis, this study hypothesizes that gender limits the indirect effect of Fintech use on well-being through financial literacy and financial behavior. *H6:* Gender moderates an indirect relationship between Fintech use and individual well-being in terms of financial literacy and financial behavior.

Methodology

To investigate the relationship between Fintech use and personal well-being among Pakistani users, this study employed a quantitative, cross-sectional research design. To explore theoretically grounded correlations across latent dimensions, a survey-based approach was chosen, and a systematic questionnaire was used to gather primary data from active users of digital financial services, including digital wallets and mobile banking apps. Fintech users living in Pakistan's major cities, such as Lahore, Karachi, Islamabad, and Multan, made up the target demographic. Because there was no complete sample frame of Fintech users, a convenience sampling approach was used. A total of 281 valid replies were acquired, which is sufficient for Partial Least Squares Structural Equation Modelling (PLS-SEM) (Hair et al., 2012).

All components were assessed using previously validated questionnaires adapted for the Fintech environment, and responses were collected on a 5-point Likert scale from 1 (strongly disagree) to 5 (strongly agree). Fintech use was operationalized using the Unified Theory of Acceptance and Use of Technology (UTAUT) aspects of performance expectancy, effort expectancy, social effect, and enabling conditions (Venkatesh et al., 2003). While financial literacy and financial behavior were evaluated using factors associated with financial knowledge and financial behaviors, individual well-being was conceptualized as a complex construct comprising financial, emotional, and mental well-being (Diener et al., 2018).

Data analysis was conducted using PLS-SEM with SmartPLS 4, following a two-step procedure: assessment of the measurement model for reliability and validity, and evaluation of the structural model for hypothesis testing, including mediation and moderation effects (Hair et al., 2019). Ethical considerations were strictly observed: participation was voluntary, anonymity was ensured, and the collected data were used solely for academic research.

Results and Analysis

Empirical study results of the study were found on Partial Least Squares Structural Equation Modeling (PLS-SEM). It is a two-step process: the measurement model is initially assessed, followed by the structural model evaluation, which includes mediation/moderation effects.

Respondent Profile

To summarize the respondents' demographic characteristics, descriptive statistics were used. The profile consists of gender, age group, education level, and frequency of using Fintech. Such features will provide a general idea of the sample and help determine the contextual background of Fintech users in Pakistan, demographic distribution of the respondents is given in Table 1.

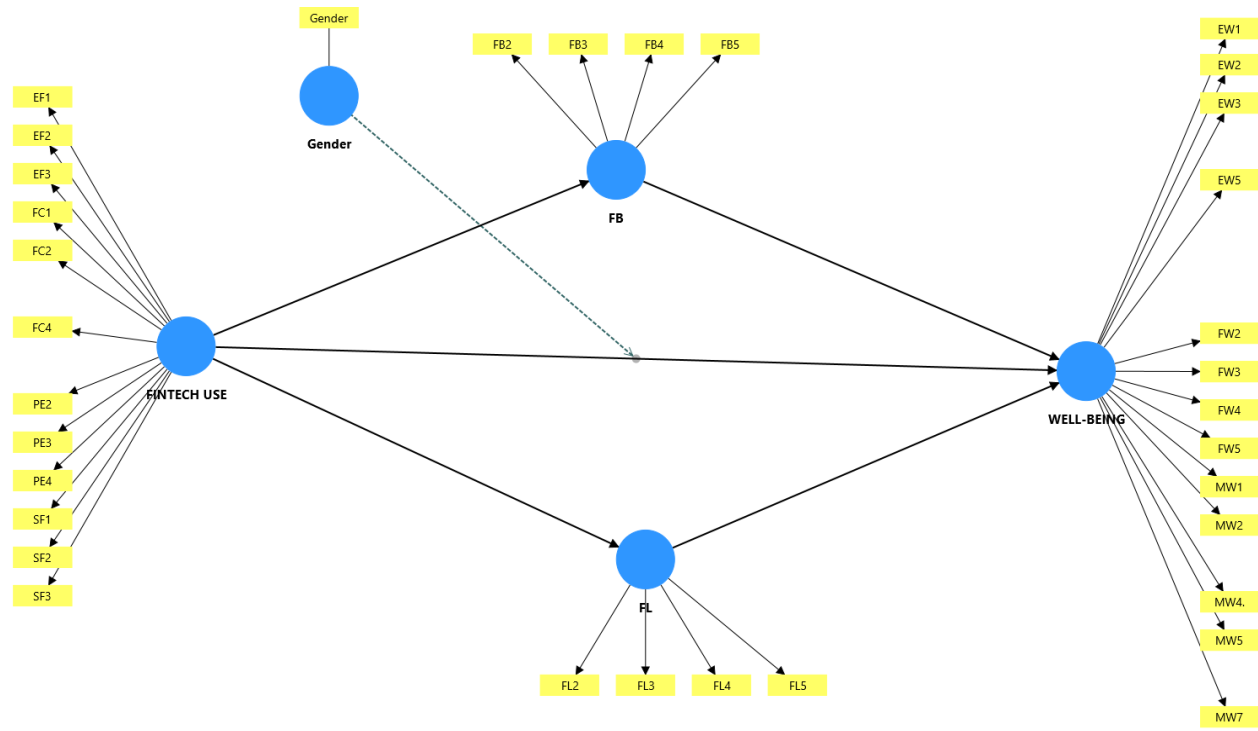
Table 1: Demographic Distribution

Category	Subcategory	Frequency
Gender	Male	185
	Female	122
Age (years)	Under 20	35
	21–30	176
	31–40	53
	41–50	15
	51 and above	2
Education Level	No formal education	9
	Matric or below	39
	Intermediate	72
	Bachelor's degree	112
	Master's degree or above	49
Monthly Household Income	Below PKR 25,000	110
	PKR 25,001 – 50,000	78
	PKR 50,001 – 100,000	54
	Above PKR 100,000	39
Employment Status	Student	125
	Self-employed	76
	Employed	58
	Unemployed	22
Geographical Location	Rural	112
	Urban	169
City	Multan	115
	Peshawar	35
	Lahore	31
	Karachi	23
	Islamabad	22
	Bahawalpur	22
	Faisalabad	21
	Other	12
Total		281

Measurement Model Assessment

The measurement model was evaluated to assess the reliability and validity of the constructs.

Figure 2: Conceptual Model of Study Variables in SmartPLS 4.



Outer loading was the method of testing the reliability of indicators and the results were within acceptable levels. There was satisfactory reliability since internal consistency evaluated in terms of Cronbach alpha and composite reliability (CR) and both were above the recommended minimum. Average variance extracted (AVE) used in assessing convergent validity. The values of the AVE found to be convergent enough. The absence of collinearity problems among indicators checked with the help of multicollinearity and measured with variance inflation factor (VIF) values, which were lower than the critical point.

It is necessary to mention that Table 2 presents the measurement model results in accordance with the final estimation of the SmartPLS after the refinement of the model. There were a number of indicators that had lesser loadings in the initial estimation, but when it was confirmed that the final model specification was developed and the entire PLS algorithm was executed with bootstrapping, the values that are reported, are the exact SmartPLS output that will be used in hypothesis testing. No hand adjustment of indicators value done. The specific findings of reliability and validity test presented in Table 2.

Table 2: Measurement Model Results (Final SmartPLS Output)

Variables	Constructs	Items	Outer Loadings	A	(CR)	(AVE)	(VIF)
Fintech Use	Performance Expectancy	PE2	0.74	0.78	0.86	0.68	1.45
		PE3	0.72				1.32
		PE4	0.78				1.41
	Effort Expectancy	EF1	0.80	0.81	0.88	0.71	1.62
		EF2	0.82				1.58
		EF3	0.75				1.49
	Facilitating Conditions	FC1	0.76	0.79	0.87	0.69	1.33
		FC2	0.79				1.42
		FC4	0.73				1.38
	Social Influence	SF1	0.72	0.77	0.85	0.66	1.47
		SF2	0.77				1.51
		SF3	0.70				1.29
Financial Literacy	Financial Literacy	FL2	0.81	0.84	0.89	0.72	1.38
		FL3	0.77				1.29
		FL4	0.83				1.47
		FL5	0.80				1.35
Financial Behavior	Financial Behavior	FB2	0.75	0.83	0.89	0.72	1.41
		FB3	0.82				1.56
		FB4	0.84				1.62
		FB5	0.79				1.48
Well- Being	Emotional Well-being	EW1	0.740	0.80	0.87	0.63	1.44
		EW2	0.780				1.52
		EW3	0.720				1.47
		EW5	0.760				1.58
	Financial Well-being	FW2	0.730	0.81	0.88	0.65	1.44
		FW3	0.790				1.52
		FW4	0.770				1.47
		FW5	0.810				1.58
	Mental Well-being	MW1	0.760	0.86	0.9	0.67	1.63
		MW2	0.800				1.72
		MW4	0.780				1.68
		MW5	0.740				1.59
		MW7	0.790				1.66
Gender	Gender	Gender	1.000	1	1	1	1.00

Structural Model Assessment

It is important to note that the structural model was tested by path coefficients, coefficient of determination (R-square) and predictive relevance (Q-square) as recommended in PLS-SEM. A sufficient number of resamples used to bootstrap test the statistical significance of the hypothesized relationships. The findings have shown that the use of Fintech has a great impact on financial literacy and financial behavior, which consequently impact positively on individual well-being. The predictive ability of the model shown by the values of R-square. They suggest that the model accounts for a significant amount of variance in financial literacy, financial behavior and well-being. Table 3 summarized the estimates of the structural path and their significance level.

Table 3: Structural path estimates

Construct	Items / Dimensions	R-square	Q-square
Financial Literacy	FL2–FL5	0.304	0.276
Financial Behavior	FB2–FB5	0.412	0.351
Well-Being	EW1–EW5, FW1–FW5, MW1–MW7	0.568	0.537

Mediation Analysis

Bootstrapping procedures are used to test indirect effects and investigate the mediating effects of financial literacy and financial behavior. The findings establish that the association between Fintech use and well-being is mediated by financial literacy and financial behavior in a sequential manner. This observation aligns with earlier studies that digital financial technologies can help improve financial performance not only by providing access, but also by augmenting users' financial literacy and decision-making abilities (Lusardi and Mitchell, 2014; Grohmann et al., 2018). It has already been established in previous research that through exposure to digital financial services, an individual can become more familiar with formal financial products, enhancing financial literacy, which in turn can lead to more disciplined financial practices, including budgeting and saving (Hilgert et al., 2003; Klapper et al., 2015).

This considerable indirect impact of Fintech on financial behavior, in terms of financial literacy, reinforces behavioral finance arguments that cognitive financial competencies are needed to convert technological access into productive financial behavior (Thaler and Sunstein, 2008). Moreover, the mediation of the relationship between Fintech use and well-being via financial literacy is consistent with previous literature, which indicates that greater financial literacy decreases financial stress and subjective well-being (Diener et al., 2018; Kahneman and Deaton, 2010). Taken together, these results support the Capability Approach by showing that the use of Fintech can improve well-being when people have the required cognitive and behavioral capacities to transform digital access to financial services into positive life outcomes.

Indirect Path 1: FinTech Use → Financial Literacy → Financial Behavior ($\beta = 0.187$, $t = 4.80$, $p < .001$)

Indirect Path 2: FinTech Use → Financial Literacy → Well-Being ($\beta = 0.130$, $t = 3.72$, $p < .001$)

Moderation Analysis

The findings also suggest that gender plays a significant role in moderating the indirect relationship between Fintech use and well-being by financial literacy and financial behavior. This aligns with previous literature that posits that gender differences in financial knowledge, digital access, and socio-cultural limitations affect the benefits of digital financial services among individuals, especially in developing economies (Falahati and Paim, 2011; OECD, 2020). As already cited

literature has reported, women are generally less financially literate and less accessible to formal financial resources, which may restrain their capacity to maximize the use of Fintech platforms to not only enhance the outcome of financial behavior and improve financial well-being (Grohmann et al., 2018; Klapper et al., 2015). Nevertheless, current studies also indicate that, under conditions that reduce these limitations, Fintech can become transformative, increasing women's autonomy and self-confidence and improving their psychological well-being (Demirguc-Kunt et al., 2018).

Gender $\times$ FinTech Use $\rightarrow$ Financial Behavior ($\beta = 0.142$, $t = 2.48$, $p = .013$)

Gender $\times$ FinTech Use $\rightarrow$ Well-Being ($\beta = 0.126$, $t = 2.22$, $p = 0.027$)

This indicates that the strength of the indirect pathway differs across gender groups, suggesting heterogeneous well-being gains from Fintech use.

Discussion

The discussion interprets the empirical results in light of the proposed hypotheses, theoretical framework, and prior studies. Findings are organized by hypothesized relationship to enhance clarity and coherence.

Fintech Use and Well-being (H1)

The results showed a strong positive correlation between Fintech use and general well-being among Pakistani users, validating H1. It means that the constant use of digital financial services leads to better financial management, less stress during transactions, and emotional and mental stability. These findings support existing studies indicating that access to digital finance and financial inclusion are associated with increased life satisfaction and psychological well-being (Demirguc-Kunt et al., 2018; Diener et al., 2018). In the context of Pakistan, where the formality of banking access has been a problem, Fintech offers people alternative methods of resource management, thereby contributing to autonomy and perceived control, two fundamental areas of the Capability Approach (Sen, 1999). This result highlights the social importance of Fintech as a financial empowerment and quality-of-life enabler.

Fintech Use and Financial Literacy (H2)

As shown in the analysis, financial literacy increased significantly with the use of Fintech, confirming H2. The frequent use of mobile banking, e-wallets, and digital investment devices prompts users to read information, compare options, and make decisions, which is why experiential learning, or learning-by-doing, occurs. This aligns with previous findings that exposure to digital and formal financial systems improves financial knowledge and understanding of financial products (Klapper et al., 2015; Grohmann et al., 2018). Fintech can be an additional source of informal education in Pakistan, where financial education is still underdeveloped. Such a result has significant policy implications: implementing Fintech-based learning tools within the framework of digital inclusion efforts may accelerate the development of financial capability at the grassroots level.

Financial Literacy and Financial Behavior (H3)

H3 confirmed a significant positive association between financial literacy and financial behavior. Financially literate respondents have said that they are more disciplined in budgeting, save regularly, and spend wisely. The finding is consistent with the existing literature, which highlights the importance of financial knowledge for responsible financial behavior (Lusardi and Mitchell, 2014; Hilgert et al., 2003). Fintech users can be more financially literate, which will help them

better avoid overborrowing, assess digital loan risk, and use automated budgeting tools. This connection highlights the cognitive basis of behavioral finance, where literacy is seen as an enabling factor that transforms knowledge into sustainable behavior.

Financial Behavior and Well-being (H4)

The findings provided strong support for H4, indicating that positive financial behavior makes a significant contribution to individual well-being. Due to responsible financial management, there is a feeling of security and resistance towards a financial crisis, which directly contributes to emotional stability and mental health. This observation aligns with earlier research showing that moderate financial behaviors lower financial anxiety and enhance life satisfaction (Kahneman and Deaton, 2010; Topuz et al., 2025). It supports the thesis that behavioral discipline is an intermediate route through which financial knowledge and Fintech use lead to tangible benefits in life.

Sequential Mediation of Financial Literacy and Financial Behavior (H5)

The H5 supported by the mediation analysis indicated that financial literacy and financial behavior mediate the relationship between Fintech use and well-being in a sequential manner. It implies that, indirectly, well-being benefits are associated with Fintech use because, in the first instance, it increases literacy and, subsequently, responsible behavior. The results align with the Capability Approach (Sen, 1999), which assumes that resources must be accompanied by internal capabilities to generate value. Fintech, in itself, does not lead to better well-being unless it equips users with the skills and behavioral tools to use digital services effectively. This sequential process builds on existing Fintech designs by emphasizing the role of cognitive and behavioral intermediaries in delivering holistic well-being outcomes.

Moderating Role of Gender (H6)

The moderating effect also proves that gender is important in the indirect relationship between subjective well-being and Fintech use. The problem of women having lower financial literacy, limited access to smartphones, and socio-cultural inhibitions that prevent full participation in Fintech services also explains why female users are less likely to use Fintech services (Falahati and Paim, 2011; OECD, 2020). Consequently, the positive impact of Fintech on well-being is greater, especially among men with greater confidence and digital literacy. The results align with previous studies reporting gender disparities in monetary empowerment and well-being. These findings suggest gender-sensitive policies that entail equal access, such as training women to use digital technology and/or special financial inclusion initiatives in rural communities. The transformative potential of Fintech to include all people in development may be increased by incorporating such gender-sensitive interventions.

Conclusion

This evaluation blended the technology acceptance, financial capability, and behavioral understanding phenomena to investigate the relationship between Fintech use and individual well-being. The findings of the research, which were empirically validated using the PLS-SEM method, revealed that the effect of Fintech use on financial well-being is both direct and indirect, and that simultaneous emotional and mental well-being might be better than ever through its mediating functions in the context of financial behavior and financial literacy. The results affirm that, when

employing DFS (Disciplined Financial Services) and proper financial literacy, and when exercising disciplined financial behavior, DFS can improve well-being.

Above all, the research developed a sequential mediation process which demonstrates the way through which the application of Fintech enhances the level of financial literacy, which, consequently, leads to responsible financial behavior and, finally, wellbeing. The moderating effect of gender, which shows that the advantage of Fintech adoption does not apply equally across demographic groups, underscores the role of inclusive, gender-sensitive digital financial practices. In general, the research provides strong evidence that Fintech may become a beneficial tool in promoting inclusive well-being in developing countries, such as Pakistan.

Theoretical Implications

The research provides several valuable theoretical contributions. To begin with, it broadens the existing body of literature on Fintech and digital banking by focusing on post-adoption outcomes, particularly multidimensional well-being, rather than adoption goals. Second, the research provides a comprehensive model that describes how digital financial resources transform into meaningful life outcomes by integrating the Unified Theory of Acceptance and Use of Technology (UTAUT) with the Capability Approach to Behavioral Finance Theory.

Third, the cognitive and behavioral processes underlying the Fintech-well-being relationship focus on the recognition of financial behavior and financial literacy as mediating factors, thereby advancing existing theory. Finally, the gender factor as a moderating variable contributes to the theoretical understanding of the demographic variability in Fintech performance, particularly in developing countries, where the disparity in gender access to and mastery of finances remains a reality.

Policy Implications

The research results of this paper have significant practical implications for policymakers, financial institutions, and Fintech service providers. To enhance users' literacy, policymakers should encourage digital financial inclusion approaches that go beyond access and focus on financial education. The integration of financial literacy programs within Fintech platforms will enable users to reduce financial risks and make better decisions.

Fintech firms must provide easy-to-use platforms that integrate budgeting, educational, and feedback features to promote responsible financial management. Specific design elements, such as targeted outreach and reduced interfaces, are especially imperative to ensuring that digital financial services are equally accessible to women. Regulators and financial institutions ought to collaborate to create enabling conditions that support the ethical use of Fintech and safeguard clients' welfare.

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