

## **Fintech-Based Payment Systems and Financial Inclusion in Pakistan: The Mediating Role of Digital Financial Literacy and the Moderating Role of Trust**

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### **Abstract**

*The role of technology is increasing every day globally, and so is its involvement in the banking sector as well. Whether it is about receiving quick and hassle-free payments, receiving funds, and paying bills, banks are working and investing significantly to make things smooth and seamless to gain a competitive edge. Knowing the significance of the technology in financial literacy, this study has been designed to investigate the influence of financial based technology which is known as fintech payment systems on financial inclusion so as to further strengthen the formal economy and improve banking experience in Pakistan. Further, this study also includes mechanisms and involves digital financial literacy, which has a mediating role in the proposed model of this study and the moderating role of users' trust. Using regression-based path analysis with Hayes' PROCESS Macro model, this cross-sectional study employs a quantitative design and collects data from 385 fintech users, who also constitute the study sample, through a structured questionnaire. IBM SPSS 26<sup>th</sup> version software was used, and the PROCESS Macro model plugin was used for data analysis to test simple linear regression, mediation and moderation path tests of the model. It was found that fintech use significantly increases digital financial literacy, which positively affects the ultimate variable, which is financial inclusion. Nevertheless, trust's moderating effect on the link between fintech adoption and financial inclusion is statistically positive but insignificant. This study fills an existing gap in the literature by providing a behavioral-technology-based explanation for fintech-induced financial inclusion in developing countries. The findings underscore the role of digital financial literacy as a primary means whereby fintech drives meaningful impact. The findings offer imperative practical implications for policymakers and fintech providers, highlighting the need to strengthen financial literacy in the digital world. These measures can support the development of more accessible, equitable and inclusive financial systems in the country. This paper*

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*also lays the groundwork for future studies to examine additional moderating variables, including financial technology adoption and efficacy.*

**Keywords:** fintech, financial inclusion, trust, financial literacy.

## **Introduction**

The evolution of financial technology is referred to as fintech, which is rapidly changing the global financial landscape, providing innovative solutions to historic barriers to access and financial inclusion (Gunawan et al., 2023). Noreen et al. (2022) further added that fintech-based payment systems have emerged as a key tool to fill the financial inclusion divide in developing economies, including Pakistan, where many of its residents remain underbanked or use mobile financial services. Mobile wallet platforms like Easypaisa, JazzCash, SadaPay, and NayaPay are among the players who have facilitated and are facilitating users to use financial services through their mobile applications, which are available on the Play Store as well as the App Store, and they do not even require the formal registration forms that traditional banks normally require, thus making the financial experience of the users easier than ever before. These platforms offer more convenient, low-cost, and ubiquitous financial services to the end users. Whether it is about payment transfers or receiving and paying bills, these platforms have a significant direct involvement, and thus they are critical to the inclusion of marginalized population segments into the formal finance system (Telukdarie & Mungar, 2023).

However, the progress has not been uniform, given that the majority of transactions in Pakistan are made in cash instead of online transfers, thus indicating a lopsided area of financial inclusion. It is especially found among low-income groups, rural populations in the country, and those with limited education (Razzaq, et. al., 2024; Khan, et. al., 2025). Furthermore, Khan et al. (2025) also added that fintech adoption has grown significantly, but improved accessibility does not equate to genuine financial inclusion. To ensure conceptual clarity, financial inclusion is separated from some more narrowly defined concepts. Financial access is mainly the physical or digital availability of financial services, while fintech adoption is the acceptance and use of technology-based financial services in the hands of a person (Parvin & Panakaje, 2022). Financial inclusion is a much larger concept and refers to the ability

of individuals or groups to have access to and use financial services that are appropriate, affordable and useful, even if they have obstacles to accessing such services. Hence, the extent of the use of the payment system (fintech) is considered as a technological input, digital financial literacy as an individual capability that can support the effective use of the payment system, and financial inclusion as a wider outcome (Parvin & Panakaje, 2022; Mehdi, et. al., 2026).

This indicates that a large number of users are stuck, utilizing only the most basic transactional features and failing to fully utilize the greater variety of offered financial services (Irum & Abbas, 2025). This implies that the ways in which fintech affects the outcomes of financial inclusion are more intricate and motivated by more fundamental factors. Among these, digital financial literacy received a lot of attention as a facilitator that enables people to fully understand, accept, and use digital financial services (Irum & Abbas, 2025; Ha, et. al., 2025). Users may not be able to fully benefit from fintech if they lack literacy, which can make it difficult for them to use platforms, understand financial products, or make wise financial decisions (Khan et al., 2025).

In addition to literacy, trust has a big impact on how users interact with fintech platforms (Devlin et al., 2025; Hanson & Ott, 2026). Hanson & Ott (2026) state that users have grave concerns about data security, fraud schemes, confidentiality and system reliability, which have a damaging impact on the sustained usage of digital financial services. Moreover, Zhao et al. (2024) also describe that trust is a vital factor in countries like Pakistan, where the digital ecosystem is still in a developing phase, and institutional trust is also brittle. Although recent studies have focused on the mentioned relationship, there are still certain gaps in the conceptual and empirical angles of the related relationships. For instance, Khan et al. (2025) explore the relationship between financial digital literacy and mobile money adoption and usage, and Amnas et al. (2024) explore financial digital literacy as a mediator between user characteristics and the perceived regulatory support for mobile money use. Malik et al. (2025) discuss the significance of mobile wallets, financial inclusion, and consumer trust in Pakistan. Although these studies provide important evidence, they do not examine the specific integrated mechanism for the relationship between the use of payment systems based on fintech and financial inclusion that the present study proposes, which places digital financial literacy as a mediator between the use of payment systems based on fintech and financial inclusion, while the concept of trust is tested as a moderator between the use of payment systems based on fintech and financial inclusion. Therefore, the present study does not attempt to claim

that these relationships have not been studied before, but it is the configuration of the mediation–moderation that has been tested in this context in the Pakistani context of fintech payment.

According to Venkatesh et al. (2003), payments system use in the current context is the technology-use outcome resulting from the interaction of the technology use outcome and technology-enabling service. UTAUT, however, focuses largely on acceptance and use instead of the overall socio-economic implications of technology adoption. The study therefore proposes to add the explanatory logic of the associated factors, including digital financial literacy, which works in this model as a mechanism through which fintech use could be linked to financial inclusion, and trust as a contextual factor that could affect the level of the association.

The objectives of this research are: first, to assess how the role of fintech in the banking sector affects users' interest in getting into the banking system, which is financial inclusion. The second objective is to evaluate the mediating role, a bridge of DFL, which refers to the digital financial literacy, between fintech and users' interest in getting into the banking system. The third and final objective of this study is to evaluate the role of trust as a moderator in the relationship between the main cause and effect variables.

This study makes a theoretical as well as practical contribution in the existing knowledge base. By introducing mediation moderation relationships that enables to find out how and under what circumstances fintech benefits financial inclusion along with other constructs of this study. In reaction to recent calls for a more complex, behaviorally informed models in fintech research, this study presents an integrated framework by incorporating digital financial literacy and trust. Policymakers, financial organizations and fintech service providers in Pakistan are expected to be benefited from the findings of this research. We can improve interventions, educational programs for the users and strategies that substitute trust and eventually increase the efficacy of fintech solutions in creating inclusive financial systems by analyzing the implications of financial literacy and trust among the stakeholders.

The range of this study is limited to users involving fintech-based payment solutions, specifically Easypaisa, JazzCash, SadaPay, and NayaPay in Pakistan. This study employs a quantitative research design and collects primary data from mobile wallet users to empirically test the proposed hypotheses using regression-based path analysis with Hayes' PROCESS Macro. Though context-specific, this research has broader significance for other lower-middle income economies that share similar

challenges in achieving financial inclusion. This research further highlights the potential for transformative fintech to alleviate financial exclusion, taking into account that user capability and trust still play important roles in defining their financial outcomes.

## **Literature Review**

### ***Fintech-Based Payment Systems and Financial Inclusion***

Fintech enabled digital transactions have very much potential to accelerate access to payment services in emerging economies, particularly among populations underserved by conventional banking infrastructure. (Goswami, et. al., 2022). Irum & Abbas (2025) show that companies like Easypaisa, JazzCash, SadaPay, and NayaPay in Pakistan are providing financial service solutions that are not only mobile-based but also affordable, as well as user-friendly and easy to access. These platforms provide users with the ability to conduct transactions, pay bills, transfer funds and access basic financial services without needing an actual bank account (Goswami, et. al., 2022; Cosma & Rimo, 2023).

Adoption of the technology is rapidly increasing in the banking sector as it is considered as a player that plays a role as a catalyst to increase individual's interest to bring their money into proper banking system and to perform seamless and cash-free financial activities (Buckley, et. al., 2019; Cosma & Rimo, 2023; Datta, 2024). In addition to that, Kandpal et al. (2023) found that mobile financial services reduce geographical and cost barriers, enabling the unbanked population to access formal financial systems. Nevertheless, access to fintech services alone does not necessarily result in substantive financial inclusion. Many users are stuck at the entry-level services, which limit their financial service experience and prevent them from gaining stronger savings, investment, and credit access (Arner et al., 2020; Metlo et al., 2021; El Amri, et al., 2021; Dangmeng, 2025). This suggests that there are other constructs; something else is needed to turn fintech adoption into true financial inclusion, which should be added to the loop to account for differences. Thus, from the above conversation, the following hypothesis is suggested: **H1:** Fintech-based payment systems have a significant positive impact on the financial inclusion in Pakistan.

### ***Digital Financial Literacy - The Mediator***

According to Jose & Ghosh (2025), digital financial literacy is defined as an individual's ability to comprehend, assess, and use financial services using digital platforms effectively and efficiently. It includes

knowledge of financial products, digital skills, and confidence in engaging with fintech platforms. Within fintech, literacy is a key determinant of whether users can progress past basic transactions to more sophisticated financial behavior (Hasan, et. al., 2023; Jose & Ghosh, 2025).

Previous studies indicate that fintech adoption and effective use increase with individuals' digital financial literacy levels (Adel, 2024; Jose & Ghosh, 2025; Kanungo, 2026). Literacy helps users to comprehend transaction processes, manage financial risk and make informed financial decisions (Mpofu, 2023). On the other hand, while looking at the other side of the coin, it has been found that the literacy levels allow for misuse, distrust, or avoidance of digital financial services altogether. That is especially pertinent in Pakistan, where a significant portion of the population has little if any exposure to formal financial education and digital technologies (Hassan, et. al., 2021; Amnas, et. al., 2024; Raza, et. al., 2024).

Furthermore, Kamble et al. (2024) added that digital financial literacy provides a pathway through which fintech usage can lead to financial inclusion. This suggests that common users who have basic knowledge of fintech platforms for budgeting, savings and financial planning always experience more significant inclusions.

This indicates a mediating pathway by which fintech use improves literacy, thereby contributing to financial inclusion. Therefore, the following hypotheses are formulated:

**H2:** Fintech-based payment systems have a significant positive effect on digital financial literacy.

**H3:** Digital financial literacy has a significant positive effect on users' interest in getting into the banking system.

**H4:** DFL mediates the relationship between fintech-based payment systems and users' interest in getting into the banking system, which is known as financial inclusion.

#### ***Trust – The Moderator***

Trust is one of the key components having great significance when it comes to something newly introduced in the market (Tinta et. al., 2022). According to Simatele & Maciko (2022), trust in technology relates to the belief that the digital system is reliable, secure and can conduct transactions as they would expect. Perceived security is similar to trust, but a specific evaluation of the risk of unauthorised use, fraud and disclosure of personal or financial data. The concept of trust in this study is defined as users' trust in the reliability, security, and integrity of payment

systems offered by fintech (Khera, et. al., 2022). Nagañ & Cichocki (2022) and Bekele (2023) discovered in their studies that low trust always thwart adoption completely or limit usage to only rudimentary functions of the technology.

As far as Pakistani perspective is considered, trust becomes even more critical for banking organizations as digital ecosystems, e-payments and regulatory frameworks change the entire settings (Aslam & Ghouse, 2023; Malik, et al., 2025). Lest common users see fintech platforms not only secure but also reliable, they will be unwilling to trust them. Trust then serves as a boundary condition that enhances or diminishes the association between use of Fintech and financial inclusion (Heyert & Weill, 2025; Malik, et. al., 2025). From this intuition, the following hypothesis is derived:

**H5:** Trust play a positive role as a moderator in between fintech and users' interest in getting into the banking system.

### ***Theoretical Foundation***

The theory that strongly support and builds foundation of this research's proposed model is The Unified Theory of Acceptance and Use of Technology (UTAUT) (Venkatesh et al. 2003). The theory explains that the adoption of technology is significantly influenced by how users expect the performance, the amount of the efforts they expect they will exert to avail favorable results, its usage either it is widely accepted or not, and the finally the facilitating conditions of the technology impacts users to adapt a new technology or not.

These theoretical factors are used to provide the overarching explanation for users' usage of technology-embedded payment systems. The construct "fintech-based payment systems" does not necessarily measure all the individual UTAUT determinants but rather reflects the usage and involvement with digital payment technologies. To this end, this study has used UTAUT as the theoretical basis to explain technology usage and expanded the explanatory power to the financial inclusion results.

The motivation for the extension is that technology acceptance and use do not necessarily determine if users deliver wider financial inclusion outcomes. Digital financial literacy is thus a mediating mechanism since the extent to which people comprehend and engage with digital financial services can shape their financial participation outcomes. Confidence in the reliability, security, and integrity of fintech systems can be a moderator, as it may influence the magnitude of the links between the use of fintech products and services and financial inclusion. The model

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therefore continues the logic of technology use from UTAUT but does not consider digital financial literacy and trust as original UTAUT constructs. In general, the literature indicates that although fintech-based payment systems can contribute to an increase in financial inclusion, this contribution is conditional on users' digital financial literacy and levels of trust with these platforms (Khera, et. al., 2022). This integrated analysis of mobilizing social capital for fintech-based financial inclusion extends our understanding of the dynamics in Pakistan, where culture-centric factors overshadow purely economic ones (Irum & Abbas, 2025).

### Research Model

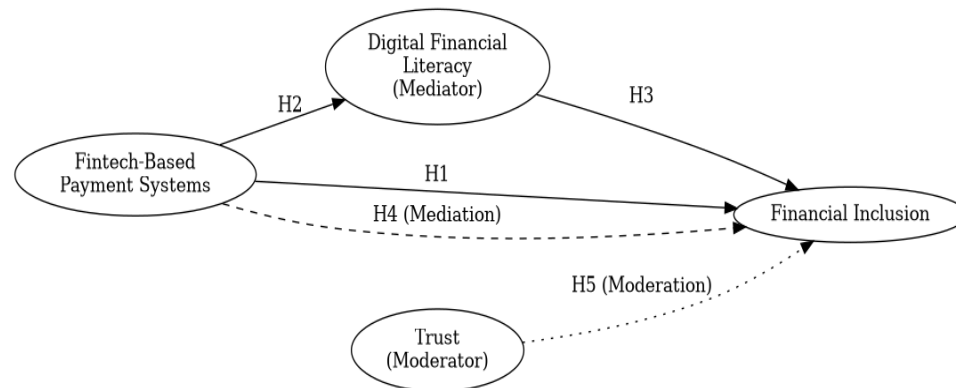


**Figure 1: Proposed research Model – Source: (Author, 2026)**

### Research Methodology

The research onion framework guides this study to systematically construct and organize the research process (Saunders et. al., 2019). The framework outlines a tiered strategy, moving from epistemological beliefs through data gathering and analysis methods to ensure consistent methodological rigor.

At the outer layer of the framework, this study informs that a positivist research philosophy is adapted to confirm the hypotheses related to objective relationships between variables through empirical testing. This philosophy assumes the reality is measurable and uses quantitative methods to understand it (Bell et. al., 2022). Additionally, the deductive research approach is used. This method starts from the literature, especially models of technology adoption and then derives hypotheses

which are statistically tested on the data that has been gathered. The deductive approach best fits the objective of this study, which is to test the hypothesized relationships (H1–H5) in the Pakistani context regarding fintech usage (Saunders et. al., 2019; Bell et. al., 2022).

Returning to the research strategy, this study is based on survey research, one of the most widely used forms of quantitative research for collecting standardized information from a large number of respondents. With such characteristics, they are fairly common in studying behavioural perceptions and attitudes toward fintech services. While, as a methodological choice, the study takes a quantitative research approach. The quantitative aspect includes standardized data collection and statistical analysis using a reliable statistical tool. The time horizon for this study is cross-sectional due to the point-in-time nature of data collection. This method usually works fine for collecting data from the respondents' attitudes and actions; with regards to the use of fintech and financial inclusion without necessarily requiring long-term monitoring. Furthermore, the methods and processes for collecting and evaluating data is as mentioned in the research onion's innermost layer. A structured, closed-ended questionnaire is used to gather the data, and Google Forms is used to distribute it online. Participant responses are consistent when using this format, and they can be entered for quantitative analysis. A five-point Likert scale (1 = strongly disagree; 5 = strongly agree) is used to measure each construct in the two sections of the questionnaire, which also includes demographic data.

This study uses a convenience sampling technique since the technique used to collect the data is online using Google Forms. Individuals in the target population were mobile financial service users, and they were provided a link to participate in the study. The sample size of this study is 385 respondents. Data collection occurred online until this sample size was obtained.

The target population is users of fintech-based payment systems in Pakistan. Inclusion and exclusion criteria were also applied to ensure quality and relevancy of the responses. Respondents were required to be active users (having performed at least one transaction in the last 3 months) of at least one fintech platform, e.g., Easypaisa, JazzCash, SadaPay, or NayaPay. Moreover, the respondents had to be residents of Pakistan and over 18 years of age. Further, for the data analysis part, IBM's software SPSS version 26 is used for data analysis. Some of the needed tests were performed, including frequency analysis of the demographic section and the Cronbach's alpha test to measure the reliability of the scale, which was adopted from the previous studies, and their sources can be

seen below in Table 1. Performing hypothesis tests through regression-based analysis. Moreover, moderation and mediation effects are also examined through process Macro, where Model 4 is used to assess the role of digital financial literacy as a mediator and Model 1 is employed to test trust as a moderator. Bootstrapping (5,000 resamples) was used to test the robustness of results. This methodological approach supports the precise, reliable and valid investigation among the associations of fintech use and financial inclusion.

As far as ethical consideration for this study is concerned, it is important to add here that the study was conducted on a voluntary basis. The respondents were explained the aims of the study before they filled out the questionnaires. No personal information was gathered and all answers were analysed anonymously. The participants were freely able to exit the survey before responding. So, all these measures were taken under considerations before collecting the data for this research study.

## Results & Discussion

In order to achieve the objectives of the study, some tests were applied using statistical software, and one of these tests includes Cronbach's Alpha for testing the most important aspect, which is the reliability of the scale. This test was applied to the data in order to identify the internal consistency between the items of the scale adapted. As indicated in Table 1 below, all constructs of the study are given in the first column, and the sources from which each construct was adapted are given in the last column of the same table. The general acceptance criteria for this test suggest good reliability when the alpha score is equal to or greater than 0.70.

**TABLE 1: RELIABILITY ANALYSIS**

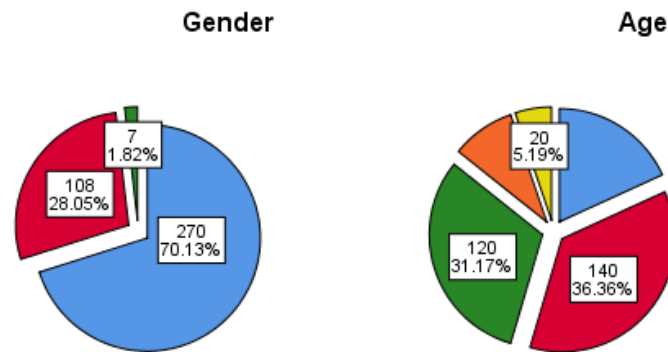
| CONSTRUCT                    | Cronbach's Alpha | No of Items | Source                                          |
|------------------------------|------------------|-------------|-------------------------------------------------|
| Fintech-Based Payment System | .827             | 10          | Oliveira et al. (2016); Venkatesh et al. (2003) |
| Digital Financial Literacy   | .818             | 09          | Morgan et al. (2019); OECD (2018)               |
| Financial Inclusion          | .832             | 08          | Demirgüç-Kunt et al. (2018); Ozili (2021)       |
| Trust                        | .837             | 10          | McKnight et al. (2002); Kim et al. (2009)       |

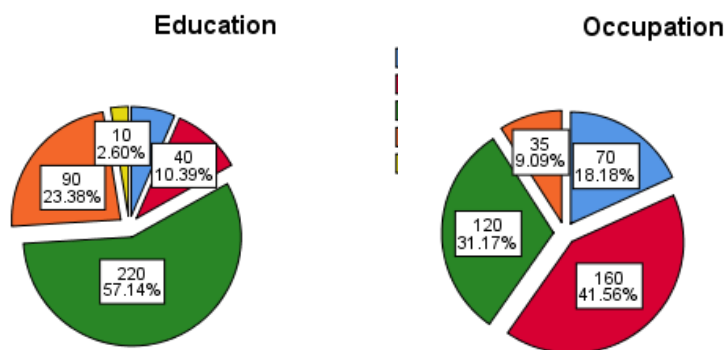
|       |      |    |
|-------|------|----|
| Total | .828 | 37 |
|-------|------|----|

The results confirm that all constructs are reliable and thus can be used for further analysis. Also, the overall reliability of instrument ( $\alpha = 0.828$ ) confirms some more about consistency of dataset

### Demographic Analysis

Demographic profile of the respondents reveals that most were male (70.1%) followed by female respondents (28.1%) and (1.82%) preferred not to disclose their gender. 36.4% of respondents were in the age groups of 24–29 years and 31.2% were between 30–35 years, showing that among all adults' usage is higher among young customers, which makes sense if we look at what are fintech services? Education-wise, there were more individuals with bachelor's degrees (57.1%) than with master's degrees (23.4%). The respondents are either employed (41.6%) or self-employed (31.2%), suggesting that those who are economically stable are more inclined to use fintech services. Hence, the data is displayed in the form of pie charts, as under: -





### Correlation Analysis

**TABLE 2: CORRELATION MATRIX**

| VARIABLES    | Mean   | SD     | 1      | 2      | 3     | 4 |
|--------------|--------|--------|--------|--------|-------|---|
| 1. FINTECH   | 3.6353 | .59730 | 1      |        |       |   |
| 2. LITERACY  | 3.1986 | .62398 | .540** | 1      |       |   |
| 3. INCLUSION | 3.5468 | .78551 | .637** | .581** | 1     |   |
| 4. TRUST     | 3.7158 | .50284 | -.032  | -.016  | .117* | 1 |

(\*\*P < 0.01, \*P < 0.05)

In the results;  $r = 0.637$ ,  $p < 0.01$  indicates a clear correlation between fintech and financial inclusion, highlights that increased use was related with better access to financial services. Moreover, there is a significant correlation between fintech use and digital financial literacy ( $r = 0.540$ ,  $p < 0.01$ ), highlights that recurrent users of diverse fintech systems typically have advanced levels of digital financial literacy.

Financial inclusion and digital financial literacy are positively correlated as the findings in the table can be seen as  $r$  value is 0.581 and significance  $p$  value is less than 0.01. This is suggesting that people with higher levels of digital proficiency and financial knowledge are more likely to profit from financial services. While the correlations between trust and the other variables are negligible, Table 3 demonstrates a weak but significant relationship between trust and financial inclusion ( $r =$

0.117,  $p < 0.05$ ). These analyses' findings provide preliminary evidence in favor of the H1, H2, and H3 hypotheses.

### *Regression Analysis*

Direct Effect of Fintech → Financial Inclusion

**Table 3: Regression Results (Fintech → Financial Inclusion)**

| Path                       | $\beta$ | T      | p    | R <sup>2</sup> |
|----------------------------|---------|--------|------|----------------|
| H1: Fintech → F. Inclusion | 0.637   | 16.189 | .000 | 0.406          |
| H2: Fintech → Literacy     | 0.540   | 12.544 | .000 | 0.291          |
| H3: Literacy → Inclusion   | 0.581   | 13.987 | .000 | 0.338          |

The results showing in the table 3 tells a story that fintech is positively influencing the change in the positive change in the inclusion of the users in the bank's financial system as it can be seen that beta value is  $\beta = 0.637$ , and the significance value  $p < 0.001$ . Given that it explains 63.7% of the variation in financial inclusion, the model has a high explanatory power. H1 is therefore supported.

Resultantly, fintech use is an important determinant of digital financial literacy ( $\beta = 0.540$ ,  $p < 0.001$ ), suggesting that those who use fintech platforms more frequently have greater ability and skill in managing their finances. The model accounts for 29.1% of the variation. Therefore, H2 is supported.

The results also demonstrate a large positive relationship between digital financial literacy and inclusivity ( $\beta = 0.581$ ,  $p < 0.001$ ), highlighting the effect of knowledge and capability in driving financial participation. Thus, H3 is supported.

**Table 4: Mediation Analysis (PROCESS MODL 4)**

| Effect Type     | Effect | BootLLCI | BootULCI | Result      |
|-----------------|--------|----------|----------|-------------|
| Direct Effect   | 0.6005 | 0.4878   | 0.7131   | Significant |
| Indirect Effect | 0.2378 | 0.1714   | 0.3091   | Significant |

As the users are literate about the usage of the digital platforms, they will certainly use it easily and will accept it as a tool to ease their working activities. Similar, findings have also been identified as results showing DF literacy is strongly mediating the relationship between fintech and people's interest to get into the banks financial system. The direct effect is .60 and the indirect effect is .2378, this is showing that indirect effect dilutes significantly due to the existence of the mediation in the

model, therefore, H4 is supported and suggests that mediation exist in the path and suggest an impact of the fintech applied to DF literacy that ultimately increasing the numbers of the financial inclusion.

**TABLE 5: MODERATION ANALYSIS (PROCESS MODEL 1)**

| VARIABLE                             | B      | p     | Result          |
|--------------------------------------|--------|-------|-----------------|
| Interaction (Fintech $\times$ Trust) | 0.1012 | 0.300 | Not Significant |

The findings above show that the interaction between fintech and trust is not statistically significant ( $p$ -value  $> 0.05$ ). This indicates that trust is not a major driver of heightened or inhibited connections between fintech usage and financial inclusion. Therefore, H5 is not supported.

## Discussion

This study provides sound empirical evidence supporting the positive role of fintech-based payment systems in improving financial inclusion in Pakistan. The positive association between fintech usage and financial inclusion corroborates the existing literature that mobile payment systems help to lower barriers to access to financial services, especially for people living in underserved segments around the globe (Adel, 2024). Moreover, the strong influence of fintech on digital financial inclusion reinforces technology as a learning medium. This is because, as consumers continue to use fintech platforms, their financial literacy and digital skills grow, ultimately enabling them to use financial services more effectively. Further, results also validate that digital financial literacy does play a significant role as an underlying factor driving financial inclusion. This is consistent with previous findings that mere access without the requisite knowledge and skills does not translate into value from financial services (Goswami, et. al., 2022; Bekele, 2023). The relationship is partially mediated, with digital financial literacy serving as a pathway linking fintech usage to financial inclusion. This indicates that policymakers and fintech providers must not only advance access but also educate users about their finances to ensure maximum impact.

Contrary to belief, trust in this study has not been found to significantly moderate the effect of fintech usage on financial inclusion. This could mean either that users in Pakistan are already comfortable enough using fintech services to not need reassurance, or that the convenience and accessibility of these services outweigh any trust

concerns. Alternatively, rather than the quality of outcomes, trust may drive adoption, which demands further investigation.

**TABLE 6: SUMMARY OF HYPOTHESES TESTING**

| <b>HYPOTHESIS</b> | <b>Statement</b>                           | <b>Result</b> |
|-------------------|--------------------------------------------|---------------|
| <b>H1</b>         | Financial Technology → Financial Inclusion | Supported     |
| <b>H2</b>         | Fintech → Literacy                         | Supported     |
| <b>H3</b>         | Literacy → Financial Inclusion             | Supported     |
| <b>H4</b>         | Mediation (Literacy)                       | Supported     |
| <b>H5</b>         | Moderation (Trust)                         | Not Supported |

### **Conclusion and Recommendations**

This study aimed to investigate and evaluate components that significantly influence people's interest in adding up as part of the formal banking system, which is known as financial inclusion, and these components include fintech and the mediating role of DFL and the moderating role of trust. These results are important as they provide strong empirical support for the claim that fintech is significantly used by companies, including Easypaisa and JazzCash, and that these companies play an important role in improving financial inclusion.

As the banking sector increases the use of the technology, the increase in the interest of the people will lead them to bring their money into official banking channels. This statement is one of the core findings of this study, and it is also supported by the existing literature as well (Cosma & Rimo, 2023). The findings of this study further also add that there is a positive relationship between the use of fintech and DFL, which suggests that increasing the usage of the technology will ultimately increase users' ability and interest to learn about the new technology and its usage in order to know if it's useful, they must adapt it sooner to ease their working activities. Further, the findings also support the positive and significant impact of the DFL on users' interest in getting into the banking system. The mediation analysis indicates that digital financial literacy mediates the relationship between financial inclusion and fintech use, and this mediation is statistically significant. Due to the use of cross-sectional

data, the results of this study should be understood as associations that are in line with the proposed relationships rather than as causal effects.

However, there was no statistically significant moderator of trust. This suggests that while trust is crucial, it might not have a significant effect on the close connection between fintech and financial inclusion in Pakistan. One possibility is that consumers already have a certain level of trust in fintech systems, or that the advantages of accessibility and convenience outweigh any trust-related worries. Some suggestions could be made in light of these findings. First, especially in rural and unbanked areas, policymakers should prioritize digital financial literacy through awareness campaigns.

By improving users' knowledge of fintech services, they will be able to make the most of the financial resources at their disposal. The second is that fintech providers should create user-friendly platforms, complementing these with in-app educational resources to enhance the overall user experience and engagement. Third, it is important that the financial institution and government work together to help enhance fintech infrastructure and access in Pakistan. Thirdly, as trust was not a significant moderator, fintech companies can potentially continue investing in security and communication transparency measures to maintain user confidence and long-term adoption as the underlying risk is reduced.

### **Limitations**

The study has certain limitations. Therefore, the results of this study should not be taken as definitive due to certain limitations. The first limitation is that the cross-sectional research design prevents establishing causal relationships between the variables examined since the data were gathered at only one time. Longitudinal study designs could be used in the future to address change over time.

Secondly, the study employed non-probability convenience sampling method on online questionnaire, which might restrict the generalizability of results. Future studies should either incorporate a more representative sampling methodology such as probability sampling, or develop a sampling methodology that represents specific artisanal components if that is feasible. The most important limitation is that, although the respondents have been made anonymous, the findings are based on self-reported information, which can be subject to respondent response bias or social desirability bias.

Moreover, the study was restricted to Pakistan, and the results might not be directly transferable to other nations having varying economic, technical and regulatory systems. It is suggested that comparative studies are conducted on a country level. This study was

restricted to mobile wallet users; such as Easypaisa, JazzCash, NayaPay and SadaPay. Future researchers are guided to explore more with regards to financial inclusion and additional research to examine other fintech services like internet-banking, peer-to-peer lending and other crowdfunding platforms.

### **Implications**

This study delivers the considerable impact to the corpus of research on financial inclusion and fintech. By adding digital financial literacy as a mediating variable, first of all it expands conservative frameworks for technology acceptance, particularly the Unified Theory of Acceptance and Use of Technology (UTAUT). Additionally, rather than focusing solely on usage patterns, it offers a more inclusive understanding of the relationship between the adoption of fintech and visible socioeconomic outcomes.

Secondly, the study provides the knowledge base on financial inclusion by demonstrating that user capability facilitates both access and usage. While earlier studies in this field have focused on availability and adoption, this study expands the earlier research by showing that digital financial literacy is an important mechanism that fintech can use to promote inclusion.

Third, the study documents new evidence in this field of financial literacy and supplements earlier fintech data that were subjugated by advanced economies by presenting empirical data from the Pakistani context. These results deliver a contextualized understanding of fintech adoption and its consequences in Pakistan that can be used as a model for comparable dynamics in-front of emerging markets face.

Finally, a captivating academic implication that suggests trust is not always a boundary condition for fintech outcomes; as it is provided by the negligible moderating role of trust. This paves the way for future research to include additional mediating and moderating factors like perceived risk, usability and regulatory support by the government. Traditional banking system can benefit from this by incorporating fintech insights and creating hybrid models that respond to a large number of user inquiries. Enterprises between banks and fintech private companies can further develop financial inclusion by combining technological innovation with institutional credibility.

Moreover, having high levels of security and transparency is always important, even though trust was not a significant moderator as mentioned in the results section. Fintech companies are required to

guarantee a high degree of security in their products and the data of users held with them (electronic signatures and identity cards details).

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