ISSN (Print): 2788-8320 ISSN (Online): 2788-8339

JOURNAL OF SOCIAL RESEARCH DEVELOPMENT

www.jsrd.org.pk editor@jsd.org.pk

DIGITAL FINANCIAL LITERACY AND FINANCIAL BEHAVIOR: HOW FINANCIAL CONFIDENCE AND DIGITAL FINANCIAL RISK AWARENESS SHAPE FINANCIAL DECISION-MAKING

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KEYWORDS

Digital Financial Literacy, Financial Behavior, Financial Confidence, Digital Financial Risks, Banking Sector

ABSTRACT

The present research work investigates the digital financial literacy and financial behaviour based on mediating effects of financial confidence and awareness/attitude of digital financial risks in Faisalabad, Pakistan. By applying the Financial Capability Theory, structured questionnaire distributed to 500 customers of banking sector, who are using digital applications, 475 were returned, and 445 valid surveys were taken to provide the final analysis. The results infer that digital financial literacy plays a significant positive role in the financial behavior of adults, financial confidence, and awareness/attitude to digital financial risks. The findings also indicated that financial confidence and awareness/ attitude towards digital financial risks both have significant positive impacts on the financial behavior of adults and also mediate the relationship between digital financial literacy and the financial behavior of adults significantly. The research adds to the literature by applying Financial Capability Theory to digital financial contexts and provides practical implications to banks, fintech providers, policymakers and financial educators in a bid to encourage healthier financial behavior by developing digital financial capability.

ARTICLE HISTORY

Date of Submission: 23-07-2026

Date of Acceptance: 28-08-2026

Date of Publication: 05-09-2026

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Email:	Muhammad.Hafeez@uaf.edu.pk
DOI	https://doi.org/10.59075/jsrd.v7i7.501
Volume/Issue	**7(7), 2026, 48-77**

Introduction

The concept of digital financial literacy is a necessity in the contemporary financial age since financial transactions are being transferred more and more through digital platforms as opposed to conventional banking means. The past ten years have been characterized by a significant shift in the financial services sector, as digital finance has altered the manner in which people, in terms of money management, payments, savings, and investments. According to Gomber et al. (2017), the concept of digitalization has transformed the financial services market across the globe, and Arner et al. (2020) emphasize that mobile banking apps, digital wallets, peer-to-peer payment systems, robo-advisors, and buy-now-pay-later services have facilitated access and increased the speed at which people are able to access financial services. This change has necessitated the people to acquire knowledge and skills that would enable them work efficiently in the digital financial settings.

Digital financial literacy is defined as the power of an individual to utilize, assess, and comprehend digital financial products and services in a responsible manner. The outlines it as a core competency in regard to financial products including budgeting, saving, and investing particularly in technology-driven financial environments. In this respect, Lusardi and Mitchell (2014) further state that financial literacy is the key to the enhanced financial well-being, and OECD (2020) adds that the real idea of financial literacy is about not only knowing how to make good financial decisions but also being able to do it and take risks in the right way. Such a wider interpretation is especially significant in the digital environment where users need to process financial information within seconds and make unassisted independent decisions.

The increased significance of digital financial literacy is closely connected to the increased development of digital finance in the daily life. According to Ozili (2018), digital finance has contributed immensely to access to the financial services and financial inclusion, particularly mobile banking and digital payments systems. Likewise, Morgan et al. (2019) state that financial literacy in the digital era should go beyond conventional financial knowledge and be supplemented with a skill to use the digital tools in a responsible manner. In the absence of such literacy, these people can still be exposed to financial products and end up not using it in a prudent manner.

The other concern is that the digital financial literacy does not only give people opportunities, but also safeguard them against financial errors and malicious consequences. It is stated very clearly that despite the fact that digital finance has the ability to make more people participate, it can also lead the less skillful users to impulse spending, debt accumulation, and fraud. Morgan et al. (2019) note that weak digital financial literacy users are more susceptible in the digital marketplaces and Philippas and Avdoulas (2021) argue that digital tools could be employed positively to enhance financial learning by using features of interactivity, gamification, and auto-budgeting. This implies that digital financial literacy can be seen as an enabling factor as well as a protective factor and enables individuals to take advantage of digital finance without susceptibility to risky and irresponsible practices.

The close relationship with better financial behavior and more responsible financial decision-making is another variable linked to digital financial literacy. Hassan Al-Tamimi and Anood Bin Kalli (2009) established that the increase in financial literacy results in a more rational and informed financial decision-making, especially in the investment process. Similarly, Rai et al. (2019)

document that the financial knowledge, attitudes, and behaviors are highly interrelated, which indicates that financial literacy has applied implications on the management of money among individuals. Moreover, Setiawan et al. (2022) concluded that digital financial literacy promotes a more disciplined saving habit and controlled spending behavior. The hypotheses of these studies indicate that when people learn digital financial instruments and the associated risks, they will tend to make responsible choices regarding saving, spending, and managing money in general.

Digital financial literacy is even more important when special attention is paid to adults, as adults are the active customers of online payments, digital bank, app-based credit, and fintech services. Nevertheless, a high level of technology does not necessarily imply any good financial knowledge. Even those adults who are not afraid of technology can still not know about credit management, risks of investing, and long-term financial planning. Rudeloff (2019) indicates that even digitally exposed populations have gaps in financial literacy, whereas Seemiller and Grace (2019) reveal that the level of digital immersion influences the attitude to money and the consumer consumption pattern. Here, the research of digital financial literacy is valuable as it can be important to understand why some individuals are responsible in the utilization of digital finance and others are risky or unhealthy in finance utilization. That is why the digital financial literacy is a very topical variable within the scope of comprehending the financial behavior of adults in the recently digitalized economy.

Digital finance has transformed how individuals handle their finances, banking operations, payments, and investments using devices like mobile banking applications, digital wallet, peer-to-peer payment systems, robo-advisor, and buy-now-pay-later services (Gomber et al., 2017; Arner et al., 2020). It has not only made the financial activities more accessible and easy to undertake but has also led to more complexity in financial decision making to average users. Such an environment suggests that people will no longer have to have only the conventional financial knowledge, but also learn how to use digital financial platforms effectively and responsibly.

Digital financial literacy is becoming more important in that digital finance poses both opportunities and problems simultaneously. On the one hand, digital financial platforms enhance convenience, reduce the cost of transactions, and increase financial inclusion, as stated by Ozili (2018). Conversely, the usage of digital finance may put users in behavioural risk, particularly when cheap credit, direct payment, and gamified digital tools promote overspending and a lack of financial discipline (Bapat, 2020; Setiawan et al., 2022). Digital financial literacy is thus considered a defensive tool that can assist one to take advantage of digital finance and reduce the adverse effects caused by irresponsible or unknowledgeable use of it. Digital financial literacy is also a key concern when it comes to adults since adults usability of digital financial services in their everyday life is one of the most common. with the aid of the COVID-19 crisis, which accelerated the adoption of digital wallets and e-payments, adults are becoming more and more dependent on contactless payments, mobile-first banking apps, and real-time payment systems (Aji et al., 2020; Dospinescu et al., 2021). Nevertheless, technological exposure will not ensure good financial judgment. Poor borrowing decisions, ineffective emergency savings, and reckless spending can also prevail in the lives of even adults who actively use the digital platforms unless they are adequately literate about digital financial affairs. This is because digital financial literacy is a very topical predictor of financial behavior in contemporary society.

Financial confidence is also an important variable of digital financial literacy to explain how people behave in terms of money. Financial literacy as perceived by the OECD already presupposes that it is not just about knowledge and skills but also confidence to make good financial choices (OECD, 2020). Financial confidence is the level at which people feel that they can perform well in financial practices, make the right choices and solve financial issues. Confidence is even a greater concern in the digital financial environments as sometimes a user can make their financial choice without being guided by the banking personnel or financial advisors as the user may be left to make their own financial choice. Thus, more self-confident people can be in a better position to turn their knowledge into the real financial behavior.

Financial confidence may be considered as a psychological process that digital financial literacy affects behavior. Once the people learn digital financial products, payment systems, and online financial risks, they will feel that they can be able to handle their financial activities. On the contrary, individuals that do not understand them might be hesitant, make hasty decisions or shun constructive financial services altogether. A financially educated person is more responsible and that the degree of confidence and practicality in payment systems needs to be improved to increase the use of digital finance (Aji et al., 2020; Bapat, 2020). In that way, the financial confidence can be used to understand why not all digitally literate adults make optimal financial choices.

Financial confidence becomes even more significant in the digital age due to the fact that digital environments require fast and autonomous decisions. Traditional environments had a lot of oversight in the making of financial decisions by bank employees or by them having a face to face interaction. On the contrary, online platforms usually make people consider the offers, send money, use credit and buy products within minutes. In case the users lack confidence, they might either miss good opportunities or make inappropriate decisions out of confusion. Thus, the financial confidence is not personal emotion only, it is a practical asset whose impact on the success of adult interaction with digital finance can be observed. This justifies its role as a significant mediator in the connection between digital financial literacy and the financial behavior of adults.

Awareness regarding the digital financial risks is another significant variable in your model. Users are now vulnerable to various forms of risks when it comes to digital finance, such as excessive spending, online fraud, debt, the abuse of buy-now-pay-later services, and poor financial planning as digital finance grows. It is clearly stated that gamified online platforms, frictionless single-button purchases, and access to online credit easily are the factors that drive behavioural risks (Bapat, 2020; Setiawan et al., 2022; Son et al., 2022). Awareness of digital financial risks in such a setting means how much people are aware of the threat of financial risk and how they know about the potential impact of this risk.

The importance of awareness to digital financial risks lies in the tendency that it may affect the behavior of users in digital financial contexts. The individual can be exposed to digital tools, and they can even be having fundamental financial knowledge but unless they have enough knowledge of online borrowing pitfalls, hidden fees, payment convenience, or susceptibility to fraud, such an individual can still make destructive financial decisions. Morgan et al. (2019) also concluded that the growth of digital finance could paradoxically and instead of empowering consumers, leave them more vulnerable without digital financial literacy. Similarly, Goyal and Kumar (2021) discovered that low financial literacy is directly connected to bad decisions and susceptibility. These findings provide evidence that risk consciousness is a focal stream of connections between literacy and real action.

Awareness of digital financial risks is also of particular significance in the current study since digital platforms are aimed at the minimization of friction in financial transactions. Son et al. state that the convenience of digital payments can change the spending habits since users experience less of the traditional pain of payment with cash transactions (Son et al. 2022). Consequently, without knowing about the impacts of such behavior, adults can spend more money than expected. In the same way, ready availability of credit on the internet can lead to debt issues as long as the consumer does not fully realize the impact of the repayment in the long term. Consequently, knowledge of digital financial risks can make people exercise caution, introspection, and discipline when they use digital finance instruments.

Dependent variable is the financial behavior of adults, which is a practical expression of financial knowledge, confidence, and risk awareness of individual persons. Financial behavior of adults usually involves activities on budgeting, saving, spending, borrowing, repayment and long-term planning. Here, the financial behavior of adults is the most appropriate dependent variable since it indicates practical ramifications of internet financial literacy in the daily financial dealings.

Financial behavior has been regarded as one of the most important indicators of financial well-being since it is used to depict the degree to which people make disciplined and beneficial usage of their money. Financially educated individuals are more likely to have a responsible financial behavior, such as making better credit card users, managing debt-income more healthily, spending more carefully, and having a stronger retirement planning (Grohmann and Menkhoff, 2021; Bapat, 2020). Kaiser and Menkhoff (2020) also discovered a positive significant impact of financial education on financial behavior. These results indicate that behavior is not simply a peripheral production, but it is a primary manifestation of the financial ability of a person.

The financial behavior of the adults is particularly of interest due to the fact that the adults work at a stage in their life where making financial decisions have severe and long term implications. They have to cover domestic bills, savings, children, utility bills, debts and protection to the future. These functions are being managed by more mobile applications and web-based systems in a digital environment. In case adults are highly digitally financially literate, with financial confidence and understanding digital financial risks, there is a good chance that they will save thoughtfully, borrow judiciously, and make damaging financial choices. Without these capacities, however, convenience can become a liability. This renders the financial behavior of adults an extremely critical field of scholarly examination and policy study.

Problem Identification

The initial issue that is highlighted in this paper is the swift growth of digital financial services in the absence of an equal degree of digital financial literacy among consumers. Mobile banking apps, digital wallets, peer-to-peer payment systems, robo-advisors, crypto platforms and buy-now-pay-later services have changed the financial services industry by making financial access more available and accessible (Gomber et al., 2017; Arner et al., 2020). Hence, greater access does not always imply that people are ready to use these tools in the most appropriate way and act in a responsible manner. The issue is that today lots of people are engaging in digital financial systems merely because the tools exist and are convenient whereas the possibility to consider the financial implications, alternatives, and make safe judgments is yet unclear. This raises a grave issue since the digital participation can increase at light speed compared to the digital financial capability.

The second issue is that even active users of digital financial tools, adults, can still be unable to use those tools in a reasonable manner as they do not have financial knowledge. Even adults, being quite conversant with technology, tend to lack the necessary knowledge in the areas of credit management, investment riskiness, and long-term financial planning (Rudeloff, 2019). It also states that financially educated adults can use budgeting tools, investment trackers, and other such applications more effectively than their less educated counterparts as the less educated ones are more prone to poor budgeting, spending on impulse, and low rates of savings (Hassan Al-Tamimi and Anood Bin Kalli, 2009; Rai et al., 2019; Morgan et al., 2019). This brings out a critical real-life issue: adults can be digitally engaged, yet they are not always economically equipped to apply digital finance in a discerning and useful way.

The last issue that has been detected is the absence of dedicated empirical evidence concerning the impact of digital financial literacy on the financial behavior of adults within the local area of Faisalabad. It is quite clear that, though the role of digital financial literacy has gained more prominence in the literature and practice, little is known about how it works within the behavior of the real adult since most of the previous studies have concentrated on Gen Z people or the overall population but not the behavior and attitude of real adults (Aprea et al., 2016; Carlin et al., 2017). It also highlights the necessity to determine the key predictors of adult financial behavior in Faisalabad and to present evidence-based data to the decision makers regarding the effect of digital financial literacy on adult financial behavior. Hence, the identified issue in this research is academic and contextual: a significant subject matter is becoming increasingly important, but the local data on the digital financial behavior of adults are scarce and unexplored.

Literature Review

Digital financial literacy is considered to be one of the determinants of financial behavior. It prepares people with the knowledge and expertise needed to make informed financial choices, risk management and use of financial products in a responsible manner. The positive connection between financial literacy and responsible financial behavior is always supported by empirical evidence (e.g., better saving habits, spending in a wise manner, and managing debts, etc.; Hassan Al-Tamimi and Anood Bin Kalli, 2009; Kaiser and Menkhoff, 2020). This connection is even more vital in the digital realm, where the convenience and speed of online financial operations may promote impulsive behavior without the necessary knowledge and discipline (Setiawan et al., 2022). On the other hand, low digital financial literacy exposes people to financial errors, fraud, and overborrowing, which underscores the protective power of digital literacy (Goyal and Kumar, 2021; Morgan et al., 2019).

In addition to the direct impact, digital financial literacy also impacts the financial behavior by significant psychological and cognitive processes, especially financial confidence. Financial confidence is the confidence of a person that he has the capacity to make good financial choices and can handle financial issues well. The OECD (2020) defines financial literacy with confidence as one of its intrinsic features, implying that without the necessary knowledge, people will not be able to use it. Research shows that financially literate persons are more likely to be more confident, which positively affects the level of their financial decision-making and participation in financial services (Aji et al., 2020; Aprea et al., 2016). Confidence is a significant mediating factor in digital financial settings, where people are obliged to make quick and independent choices and can apply their knowledge to practice in making financial decisions. Recent evidence suggests that digital financial literacy encompasses not only financial knowledge but also awareness of digital financial services, digital financial tools, online financial security and risk control, and digital financial attitudes and behavior, all of which can contribute to stronger financial competence (Maqsood et al., 2026).

Digital Financial Literacy

Digital financial literacy is a recent subset of financial literacy, which has been created in reaction to the intensive digitalization of financial products. Financial literacy in a traditional context mainly meant the knowledge of an individual in budgeting, saving, borrowing, investing and other issues associated with money. Nonetheless, in the emergence of digital finance, people are now supposed to carry out these tasks with the use of technology-related systems including mobile banking apps, electronic wallets, peer-to-peer payment services, robo-advisors, and buy-now-pay-later services. OECD (2020) definition of digital financial literacy involves awareness, knowledge, skills, attitudes, and behaviors that enable individuals to access digital financial services effectively. The multidimensional approach highlights the fact that literacy does not just involve the capacity to acquire knowledge on financial matters but also the capacity to navigate and critically use digital tools.

Digital Financial Behavior

Digital financial behavior of adults is a collection of financial behaviors that adults execute when they apply digital channels, tools and platforms to undertake activities involving money. It would also encompass this behavior in the way adults save, spend, borrow, make payments, use digital wallets, management of credit, and how they plan their finances when using financial systems that are based on technology. It describes that how people have been transformed by digital finance to handle money, bank, and invest using mobile banking apps, digital wallets, peer-to-peer payment systems, and buy-now-pay-later technology. This implies that financial conduct in the digital era is no longer restricted to the conventional cash processing or face to face banking but rather more and more it is being conducted in quick and convenient and technologically driven fiscal settings.

Digital financial risks awareness/attitude

The idea of risk awareness is based on more general literature on financial literacy, which insists on the need to know opportunities as well as risks of financial decisions. OECD (2020) states that good financial literacy encompasses not just understanding of financial products but also the realization of the risks involved and mitigating them. This awareness is expanded in digital settings to how financial technologies work and the risks that they can bring about, so it is a vital part of digital financial capability.

The awareness of digital financial risks is especially pertinent because of the specifics of digital financial services. The convenience, accessibility, and expediency of online transactions may at times lower the risk perception of individuals, making them less cautious. Studies have shown that people tend to underestimate risks on the internet because money is not visible in online transactions, and it may lead to excessive spending and bad financial decisions (Bapat, 2020). Thus, it is important to raise awareness to overcome such behavioral tendencies.

Attitude to digital financial risks is the way people perceive and react to these risks. It includes their degree of concern, risk-taking, and their readiness to take precautionary measures. Proactive and cautious people tend to adopt protective measures, including checking the authenticity of the transaction, securing the passwords, and not attending to suspicious financial transactions. On the other hand, people who possess a complacent or risk-taking attitude might overlook the possible risks, making them more susceptible to financial losses (Goyal & Kumar, 2021).

Financial Confidence

Financial confidence is a feeling of an individual that he or she can make sound financial judgments and manage finances effectively because of the belief that he or she has the right knowledge in financial matters. This notion is highly relevant in the framework of your research since adults are getting more and more demanded to make autonomous choices in the financial sphere when services are fast, self-driven, and technology-oriented. This point is already promoted among the OECD (2020) perceptions that financial literacy is not exclusively knowledge and skills, but also confidence to pursue a good fiscal decision in various conditions. This implies that the issue of financial confidence is not a detail, but it is a major component of financial capability since individuals can have information, but fail to use it appropriately when they lack confidence to do so. This trust is even more applicable in digital finance environments where most of the financial decision-making is done in a hurry and without the support of a financial professional. The contemporary financial services, as suggested, are now performed via mobile banking applications, digital wallets, real-time payment systems, and online platforms, which place a more significant burden on the user to decide on their own (Gomber et al., 2017; Arner et al., 2020). Financial confidence may thus be viewed as the sense of self-confidence that allows them to make sense out of these systems in a clear and responsible manner.

Financial control and emotional stability in financial issues is also depicted in the idea of financial confidence. It is stated that improved financial education may help to alleviate stress, boost savings, and help to work toward financial goal attainment in adults (Kaiser and Menkhoff, 2020). This demonstrates that confidence does not only entail having a positive feeling, it also helps an adult to be calm, disciplined and focused when handling financial tasks. A self-assured person will tend to organize the spending money, make decisions without panic and will not be lost even in an unsure situation. Accordingly, financial confidence is a measure of competence and mental preparedness to deal with the financial life in an effective manner.

Relationship between Digital Financial Literacy and Adults' Financial Behavior

Digital financial literacy and its connection to the financial behavior among adults have gained more meaning over the last few years due to the fact that most of the financial activities of adults are being conducted online. Digital finance has changed how individuals handle funds, save, spend, make payments, and receive financial services using mobile banking applications, digital wallets, peer-to-peer systems, and buy-now-pay-later offerings (Gomber et al., 2017; Arner et al., 2020). Within such a context, adults with better digital financial literacy have a greater chance of knowing how such tools functionality, weighing their opportunities and threats, and using them to achieve responsible financial results. Thus, it is predicted that digital financial literacy will define how adults will act concerning financial issues during the digital age. Financial inclusion plays an important role in improving economic outcomes, while institutional conditions such as governance can strengthen the effectiveness of financial inclusion (Bajwa, 2026).

The interaction between digital financial literacy and the financial behavior of adults has become an increasingly popular topic in recent years, especially in the framework of the ever-changing digital financial ecosystem. Digital financial literacy empowers individuals by providing them with the knowledge and skills to comprehend financial products, operate digital platforms, and make informed financial choices. As financial systems drive towards technology, the capacity to operate the digital financial tools has become a necessity in management of day-to-day financial operations. Studies have continuously found that people who have better digital financial literacy tend to have responsible financial behaviors, such as good budgeting, saving, and wise borrowing (Morgan et al., 2019; Goyal and Kumar, 2021).

Decision-making capability is one of the major channels in which digital financial literacy has an effect on financial behavior. Digital literate people can better read and understand financial information, enabling them to compare financial products, assess risks, and choose suitable financial solutions. This power minimizes information asymmetry and improves the quality of decision making. According to OECD (2020), financial literacy boosts the ability of individuals to process information and make informed financial choices which eventually results in improved financial outcomes.

Digital financial literacy will also lead to higher financial inclusion, and subsequently to financial behavior. Digital literacy promotes financial system participation by allowing people to use formal financial services. Nevertheless, access does not mean everything people need to use such services effectively they should also have the knowledge and skills. Studies indicate that more digitally financially literate people will use and seek financial services in a way that enhances their financial well-being (Gomber et al., 2017; Morgan et al., 2019).

Moreover, digital financial literacy makes people better able to cope with financial risks, which directly affects their financial behavior. Those with knowledge of digital financial risks will be more willing to mitigate risks and prevent fraud and make safer financial decisions. This risk-consciousness minimizes the number of financial losses and promotes the financial stability in general. Research shows that risk-conscious people are more likely to be cautious and responsible in their financial practices than their less-aware counterparts (Goyal and Kumar, 2021).

The significance of digital financial literacy in the formation of financial behavior in developing countries is even greater. Low access to conventional financial education and the quick uptake of digital financial services generate a disparity between usage and knowledge. In these settings, adults might embrace digital financial means without clear knowledge of what they entail and this poses a greater threat of financial mismanagement. Thus, to make sure that people can adequately use and manage financial technologies, it is necessary to improve digital financial literacy (Morgan et al., 2019).

To sum up, digital financial literacy has a critical influence on adult financial behavior developing and advancing the knowledge base, decision-making, self-controlling, and risk awareness. It forms a basis of responsible financial management within digital spaces and provides enhanced financial results. With the growing popularity of digital financial services, enhancing digital financial literacy will be essential in fostering sustainable financial behavior and enhancing financial well-being in general among adults.

Relationship between Digital Financial Literacy and Awareness/Attitude toward digital financial risks

Digital financial literacy is closely connected to the awareness and attitude toward the digital financial risks since literacy allows people to comprehend the advantages of digital finance as well as the potential threat. Adults in digital spaces actively use mobile banking applications, digital wallets and online credit services and other fintechs to handle their finances. But with your suggestion, it becomes apparent that digital finance is not a risky activity. Morgan et al. (2019) state that despite the ability of digital finance to make the process more engaging and more convenient, the unskilled users can be influenced to spend impulsively, accumulate debts, and engage in fraudulent activities. This implies that in instances where the level of digital financial literacy is more powerful among adults, they can perceive these risks better and form a more conservative view on digital financial behavior.

Digital financial literacy and its connection to the awareness and attitude of people towards digital financial risks is one of the key themes when it comes to explaining behavior in the context of the modern financial ecosystems. Risk awareness is developed on a digital financial literacy basis.

People familiar with the financial concepts and digital tools, will have a better chance to comprehend the processes by which risks emerge within the digital financial setting. According to OECD (2020), financial literacy includes the ability to assess risks and make informed decisions, highlighting the integral link between knowledge and risk awareness. In the digital world, this involves the knowledge of cybersecurity threats, security in transactions, and the consequences of posting personal financial details over the internet.

In addition, the digital financial literacy increases the critical thinking skills of individuals about financial information they come across in the digital environment. When using online platforms, users are usually bombarded with numerous content regarding finances in form of advertisements, investment opportunities, and promotional offers. Higher literacy levels enable people to discern trustworthy information and non-trustworthy information, and become less vulnerable to swindles and fraudulent activities. According to research, the ability to critically evaluate is a major determinant of how individuals develop a level of awareness of digital financial risks (Goyal and Kumar, 2021).

The correlation between digital financial literacy and awareness/attitude toward digital financial risks is also significant especially in developing countries where the high-speed adoption of digital financial services may not be accompanied by financial education. In this case, people can operate digital financial instruments without the full awareness of the risks involved in these cases, which makes them more susceptible to financial loss. This gap can be addressed by increasing digital financial literacy to both enhance awareness and attitudes and increase safer financial practices (Gomber et al., 2017).

Finally, digital financial literacy is an essential factor in determining the awareness and attitudes individuals would have towards digital financial risks. It makes them improve their capacity to identify possible risks, analyze financial data, and assume a proactive risk management approach. Digital financial literacy helps in making the use of digital financial services safer, and more responsible by enhancing both awareness and positive attitudes. As digital finance keeps developing, it will be necessary to reinforce this relationship and minimize financial vulnerability and enhance financial well-being.

Relationship between Digital Financial Literacy and Financial Confidence

Digital financial literacy is closely associated with financial confidence since the former gives the knowledge basis on which individuals start believing in their financial judgment. Digital financial literacy is defined as the capacity to read, comprehend and operate with monetary products like budgeting, saving and investing and OECD (2020) outlines that financial literacy encompasses not merely such information and proficiencies, but also the assurance to make a wise fiscal decision. This goes directly to imply that confidence is not independent of literacy; in fact it grows when people have a knowledge of financial concepts and are confident that they can apply them in real life. Thus, adults who have a high digital financial literacy may be more confident in addressing financial issues than weakly literate adults.

Hassan Al-Tamimi and Anood Bin Kalli (2009) discovered that an increase in financial literacy results in more rational and informed choices of investment and risk-aware decisions. Their study was about decisions on investment but the implication is wider, the more people get to know about financial matters the better they are able and confident to make a decision. Similarly, Aprea et al. (2016) noted that the financial literacy education with digital aspects promotes effective decision-making and assists more adults in becoming more competent in financial aspects. These results hint at the fact that digital financial literacy does not just enhance the level of knowledge; it also instils the necessary confidence to apply the knowledge in practice.

Mediating role of Awareness/Attitude toward digital financial risks between Digital Financial Literacy and Adults' Financial Behavior

Consciousness (or disposition) towards digital financial risks may have a significant mediating role between digital financial literacy and the financial behavior of adults since being financially literate does not necessarily result in responsible financial behavior. Adults are subjected to convenient and possibly risky systems like mobile banking, digital wallets, one- click payment, buy now pay later services, and simple online credit, in digital financial worlds. Despite the fact that digital finance is making it more accessible and participative, it also leaves less skillful users vulnerable to impulse purchase, debt, and malicious financial pitfalls (Morgan et al., 2019). This implies that digital financial literacy can initially enhance the awareness and selectiveness of digital financial risk among adults and such awareness can subsequently transform to more accountable financial conduct.

The mediating logic is theoretically good due to the fact that digital financial literacy is essentially about the comprehension of financial products, evaluation of outcomes, and good decision-making under complicated conditions. Digital financial literacy, assists people in reading, comprehending, and manipulating financial products, including budgeting, saving, and investing, whereas according to OECD (2020), financial literacy entails the capacity to evaluate risks and negotiate complex financial circumstances. When grown-ups have this kind of literacy, they will understand more clearly the latent dangers or threats inherent in digital systems, which will include but not be limited to overly convenient systems, frictionless borrowing, and a decrease in the pain of payment. Thus, the digital financial risk awareness may be considered the reasonable tool in the way that literacy influences the behavior.

The effect of digital platforms in spending and borrowing behavior is what helps to make sense of this mediation. The behavioral risks are also enhanced by gamified digital features, low-cost credit, one-button payments, and the BNPL models, which could prompt more financially uneducated users to spend more (Bapat, 2020; Setiawan et al., 2022). Adults with better digital financial literacy will have high chances of understanding that such eye-catching digital features have long term financial impacts. Having been sensitised on such risks, they have greater chances of exhibiting disciplined and careful spending, borrowing, and payment choices. By doing so, the consciousness of digital financial risks provides an explanatory gap between literacy and financial behavior.

This mediating pathway is also indirectly supported by Setiawan et al. (2022) discovered that digital financial literacy enhances saving discipline and spending restraint, whereas Son et al. (2022) demonstrated that convenient digital payment procedures might change the spending behaviours and highlighted the significance of raising awareness of the consumer in promoting healthy financial behaviours. Put in combination, these results imply some kind of mediation, i.e. same digital financial literacy leads to awareness of the behavioral impact of digital payment convenience, and the awareness in turn leads to a decrease of impulsive or irresponsible financial behavior. Risk awareness can therefore not be merely an extra variable, it is a plausible conduit whereby the literacy impacts the financial behavior.

The results of Noor et al. (2024) indicate that financial literacy itself was a mediator between the application of digital finance and its results, which indicates that the delegating mechanisms are very specific in the digital finance domain. Even though their model does not coincide with that of the current study, it substantiates the overall notion that variables relating to literacy tend to disclose the origins of the impact of digital finance. Similarly, Phan et al. (2025) established that financial literacy enhanced the intention of adults to use robo-advisory services and suggested raising financial awareness to help them adopt them. These studies indicate that awareness-oriented channels are relevant in digital financial settings, which reinforces the argument in that awareness or attitude toward digital financial risks can mediate the association between digital financial literacy and financial behavior of adults.

The mediating effect of awareness and attitude towards digital financial risks is a very important explanatory factor in the comprehending of how digital financial literacy affects the financial behavior of adults. Although digital financial literacy can provide people with the knowledge and skills required to interact with financial systems, it does not necessarily lead towards responsible financial behavior. Rather, this relationship tends to be mediated by cognitive and psychological aspects especially the awareness of risks and the way people deal with them. The more people get digitally and financially literate, the more they learn about the possible financial risks, which consequently precondition their behavior when making financial decisions (Morgan et al., 2019).

Besides awareness, the mediating role is an important aspect of attitudes towards digital financial risks. Attitude indicates the way people view, interpret and react to the risks in digital financial contexts. The more digitally financially literate people are, the more cautious and proactive they are towards financial risks. They will be more inclined to take preventative measures, including determining the legitimacy of financial platforms, suspicious transactions, and financial discipline. These attitudes provide an interface between knowledge and action so that people can render their literacy in a way that leads them to be responsible in their financial behaviors (Goyal & Kumar, 2021).

The mediating effect of risk awareness has been found to support the relationship between financial literacy and financial behavior in empirical studies. It has been shown that the more financially literate a person is, the more a risk-aware attitude can be observed, which subsequently results in more responsible financial behaviours, including spending restraint and more successful debt management (Morgan et al., 2019). Likewise, research indicates that risk perception is a major determinant of financial decision-making, which supports the notion that financial literacy can determine behavior via awareness and attitudes.

According to Asian Development Bank Institute, the capacity to deal with digital financial risks is greatly enhanced when individuals are better aware and have positive attitudes (Canton, 2021). The moderating influence of awareness and attitude is especially applicable in the developing nations where digital financial services adoption is frequently faster than financial education. In those settings, people can use online financial systems without comprehending the risks that come with them, resulting in the inability to act optimally. Moreover, the attitude and awareness of digital financial risks assists in balancing the opportunity/caution aspect of the financial behavior. Although digital financial literacy promotes exploration of financial opportunities, awareness and attitude assure that this exploration is done in a responsible manner. This equilibrium is essential to attain sustainable financial conduct as it enables people to enjoy digital financial services with some of the possible risks reduced (Arner et al., 2020).

Mediating Role of Financial Confidence between Digital Financial Literacy and Adults' Financial Behavior

The conceptual significance of mediatory role of financial confidence between digital financial literacy and financial behavior among adults is that financial literacy does not necessarily affect financial behavior directly and automatically. Even adults can have financial knowledge and possibly even know how to use digital financial tools but their behavior will not improve until they feel that they are competent enough to put such knowledge to practical use in a financial scenario. This argument is supported even with references to OECD (2020), according to which financial literacy is the capacity to know, have skills, and be confident in making good fiscal choices in various situations. This implies that confidence is not out of the nature of literacy; it is actually among the processes by which literacy is realized into real financial practice.

The digital financial literacy will most likely promote financial confidence due to the lack of uncertainty and the level to which adults comprehend the new financial frameworks. Digital finance has revolutionized financial life; through mobile banking applications, digital wallets, peer-to-peer payment systems, robo-advisors, and the rest of fintech services (Gomber et al., 2017; Arner et al., 2020). Within this highly dynamic setting, more digitally financially literate adults have higher chances of comprehending the character of digital transactions, assess alternatives, and assess the impact of their decisions. This knowledge has the natural outcome of enhancing self-belief and confidence regarding financial handling. Conversely, weakly literate adults might continue to be confused, indecisive and skeptical in their use of online financial products.

The mediation reasoning is more powerful in case one takes into consideration the fact that financial confidence has the direct impact on behavior. When adults feel at ease with money-related issues, they will tend to manage their finances more effectively, think sensibly when spending, and comparing financial options, and utilize online tools in a meaningful way. Conversely, adults that are not confident can become paralysed when making decisions, over-rely on others, avoid helpful financial services and become impulsive under uncertainty. Financially literate adults are more sound, informed and risk aware when it comes to decision making as demonstrated by Hassan Al-Tamimi and Anood Bin Kalli (2009). Such an informed and rational behavior cannot be maintained without financial confidence. Thus confidence can be regarded as the walk taken in the internal psychology through which literacy may influence behavior.

Financial confidence also decreases the overdependence on external advice and encourages personal financial decision-making. People who are well informed about finance will be in a better position to assess financial products, compare products and also to avoid being misled by financial information. This autonomy leads to increased rational and goal-oriented financial behavior. On the contrary, low financial confidence can cause people not to make financial decisions or overdepend on others, which can compromise their financial performance (OECD, 2020).

In addition, financial confidence enhances the positive effect of digital financial literacy by motivating people to put their knowledge into practice in a real-life context. Even though one might have sufficient financial knowledge, lack of confidence could prove to be a barrier to the real world implementation of such knowledge. Financial confidence thus is an activating process that transforms knowledge into action. To illustrate, a person can be aware of the advantages of saving or investing online, but only act when they are sure they can utilize digital tools and handle risks related to these investments (Xiao , 2022).

Research Gap

In spite of the fact, the recent years have seen a growing attention to digital financial literacy, the empirical evidence available is limited in a number of significant respects. In particular, less is known about the role of digital financial literacy in determining the financial behaviour of adults, as most of the prior research has been either on Gen Z, young people, investors, or the general population, and not on adults as their own group with their own financial responsibilities and experiences (Aprea et al., 2016; Carlin et al., 2017). Moreover, other researchers have predominantly focused on direct relationships (between financial literacy and investment behavior, digital finance and inclusion, or digital literacy and saving/spending behaviour) but have paid a lot less attention to the mediating role whereby digital financial literacy influences financial behaviour of adults (Hassan Al-Tamimi and Anood Bin Kalli, 2009; Ozili, 2018; Setiawan et al., 2022). To be more precise, there is a paucity of empirical studies that have concurrently explored financial confidence and awareness/attitude towards digital financial risks as the explanatory routes between digital financial literacy and the financial behavior of adults. Hence, a significant empirical gap is identified in the testing of a more complex mediation model dedicated to adults in the sphere of digital finance.

Theoretical gap is also manifested in the fact that, most of the previous literature has considered digital financial literacy primarily as a direct predictor of financial outcomes, without providing adequate coverage to a wider capability-based account of how knowledge is converted to behavior. The literature examined mostly describes direct relations, i.e. literacy and investment decisions, literacy and inclusion, or literacy and spending/saving, though less emphasis is placed on the manner in which internal processes, e.g. confidence and digital risk awareness turn literacy into responsible adult behavior. This creates a gap in the theory since digital financial behavior in modern context is not fully explicable through knowledge only; it is also necessary that it is psychologically ready and risk assessed. Your present model fills this gap because it bases the study upon Financial Capability Theory that upholds the belief that financial performance is not only a matter of literacy, it is also a matter of the ability to exercise the literacy through a sense of confidence, judgmental ability and risk awareness. This way, the current research contributes to previous research by providing a more coherent theoretical account of the digital financial behavior of adults in a current fintech landscape.

Theory and Research Framework

Financial Capability Theory

There is no one scholar that can claim to be the origin of Financial Capability Theory as there are in the case of some of the traditional theories of management. It is widely thought to have a strong theoretical foundation in the Capability Approach of Amartya Sen, who, in his 1980 Tanner Lecture, Equality of What?, formulated the broader notion that well-being can be viewed not as a matter of what a person has, but as what he is really able to do with it to attain a desired outcome. This view was later elaborated in scholarship on the capability theory, such as that by Martha Nussbaum. In financial studies, this expanded capacity of thinking was slowly applied in personal finance where the perspective changed over having financial access or knowledge to the practicality of making good financial choices and realizing financial prosperity.

The financial conceptualization of this concept was elaborated in the United Kingdom, where the concept of financial capability was operated very much explicitly as elucidated by Elaine Kempson, Sharon Collard and Nicholas Moore (2005) in their discursive work on the measurement of financial capability in the United Kingdom Financial Services Authority. The synthesis by the World Bank later refers to the fact that the United Kingdom was successful in coining and developing the term in its contemporary broad meaning and that financial capability extended the very narrow financial literacy concept to encompass skills, attitudes, behaviour and outcomes. The same report issued by the World Bank further requests the explanation that those who can afford their finances are the ones that will exhibit desirable financial behaviors which include; budgeting, expenses control, and future planning. Thus, to get it right in your thesis, you can say that theoretical basis is derived in the Capability Approach proposed by Sen, whereas the financial capability framework was constructed and operationalised in financial literature by Kempson and others.

Because of its fundamental conceptualization, Financial Capability Theory can be said to explain that individuals fail to produce good financial results not only because they possess money or because they are familiar with some financial terminology. Instead, they should be able to apply the financial knowledge to action. This entails knowledge of financial products, choice of alternatives, risk management, daily expenditure control, and future financial planning. It is why the theory considers behavior as central. According to the analysis of financial capability research by the World Bank, the concept is no longer limited to the aspect of literacy alone, which brings out the emphasis of the behaviorally significant expressions as the controlled budgeting and making a provision in the future. This insight can be applied quite well in relation to your study since your model does not just focus on knowledge but also financial confidence, awareness of digital financial threats, and financial behavior of adults.

Model Development

The independent variable (IV) has been Digital Financial Literacy as the initial assumption had been constructed to test how digital financial literacy impacts adult financial behavior, and the construct is also confirmed in the previous literature as a significant capability that affects financial behavior and financial outcomes (Lusardi and Mitchell, 2014; OECD, 2020; Chhillar et al., 2024). The proposed study has identified Financial Behavior of adults as the dependent variable (DV) that financial behavior becomes the primary outcome of the research, whereas the financial behavior is also seen in the previous literature as the practical outcome of digital financial literacy and other psychological variables (Respati et al., 2023; Setiawan et al., 2022). Financial Confidence, the first mediator, is borrowed by the work of Respati et al. (2023), in which it was employed as a significant explanatory variable in the predictive of financial behavior; in the given study, it is taken as a mediator since adults with a higher digital financial literacy level are assumed to acquire more confidence in dealing with financial issues that, in its turn, might enhance their financial behavior (Respati et al., 2023; OECD, 2020). The second mediator, Awareness/Attitude toward Digital Financial Risks, has been based on the dimensions determined by Chhillar et al. (2024), especially digital financial risk and control and digital financial attitude, which imply awareness of digital financial risks and cautious consideration of digital financial application. In the current research, this variable is also considered as a mediator as digitally financially literate adults are supposed to be more conscious of digital financial risks and to adopt more cautious attitude towards the risks that can eventually result in more responsible financial behavior (Morgan et al., 2019; Chhillar et al., 2024). On the whole, the model can be presented in the form of Digital Financial Literacy (IV) p. Financial Confidence (Mediator) / Awareness Attitude toward Digital Financial Risks (Mediator) p. Adults Financial Behavior (DV), with the first two offering the knowledge and capacity foundation, the third place describing the internal psychological and risk-assessment process, and the last one reflecting the resultant behavioral pattern.

Measurement Development

Measurement development of this study is anchored on the already tested scales that are referred to the existing literature to ascertain the content validity and conceptual consistency. The independent variable is digital financial literacy evaluated using 13 items based on Junaid et al. (2022) and Chhillar, Arora, and Chawla (2024). The awareness/attitude towards digital financial risks as a mediating variable is measured using 9 items modified by Chhillar, Arora, and Chawla (2024) and Banik and Datta (2020). The second mediating variable is financial confidence, and the scale is measured by 3 items that have been also adapted to Junaid et al. (2022). Financial behavior of adults is the dependent variable that can be measured using 4 adapted items based on OECD (2022). Each measurement item will be measured by a 5-point Likert scale of 1 = strongly disagree to 5 = strongly agree. The application of available measurement scales is suitable in this research since it enhances the reliability and validity of the instrument and all the measures of the constructs are taken in accordance with previous empirical studies.

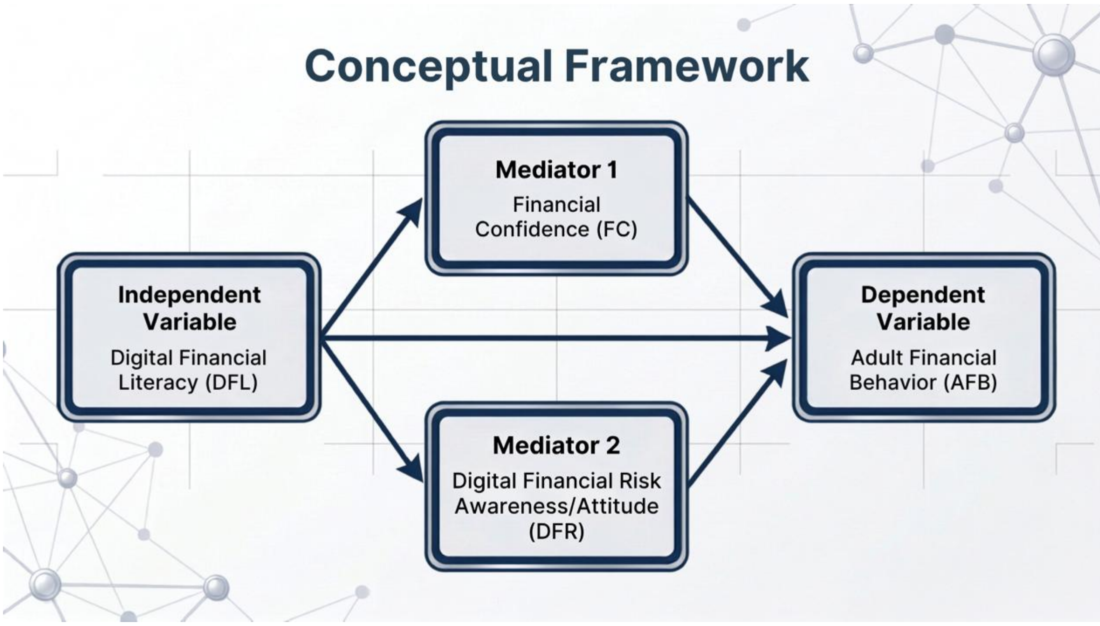

Figure 1 Proposed Model

Data Collection

The research data used in this study were taken among the customers of the banking sector, who use digital banking applications and other financial services. Five hundred questionnaires were sent to randomly chosen respondents and 475 questionnaires were returned. Following the screening procedure where the reasons behind the incomplete responses, the missing values, and the unuseable entries were identified, 445 questionnaires were considered appropriate to undergo the final analysis. A convenience sampling method was used in the study since it is easy to access the respondents since they are active users of digital financial applications and eager to take part in the survey. The method was deemed suitable in the current research since it enabled the researcher to collect data effectively on subjects that were of interest in the targeted group.

Data Analysis and Results

Table 1 CFA

	FL	CA	CR (rho_a)	CR (rho_c)	AVE
AFB		0.810	0.810	0.875	0.637

AFB1	0.823				
AFB2	0.780				
AFB3	0.797				
AFB4	0.791				
DFL		0.926	0.926	0.936	0.529
DFL1	0.727				
DFL10	0.709				
DFL11	0.722				
DFL12	0.714				
DFL13	0.718				
DFL2	0.744				
DFL3	0.748				
DFL4	0.725				
DFL5	0.714				
DFL6	0.737				
DFL7	0.723				
DFL8	0.734				
DFL9	0.736				
DFR		0.891	0.892	0.912	0.534
DFR1	0.720				
DFR2	0.721				
DFR3	0.723				
DFR4	0.762				
DFR5	0.725				
DFR6	0.728				
DFR7	0.725				
DFR8	0.738				
DFR9	0.734				
FC		0.734	0.737	0.849	0.653
FC1	0.839				
FC2	0.806				
FC3	0.778				

The table 1 showed the results of the measurement model, which suggests that all constructs reveal satisfactory reliability and validity. The Financial Behavior (AFB) of adults demonstrates a good internal consistency (Cronbachs alpha = 0.810, rho a = 0.810, composite = 0.875, and AVE = 0.637) and item loadings (between 0.780 and 0.823), which validate good indicator reliability. Digital Financial Literacy (DFL) also demonstrates good measurement properties with Cronbach alpha = 0.926, rho = 0.926, composite reliability = 0.936 and AVE = 0.529 with item loading values ranging between 0.709 and 0.748, which is within the acceptable range. In the same way, Digital

Financial Risks (DFR) has a good reliability and convergent validity, Cronbach alpha = 0.891, rho a = 0.892, composite reliability = 0.912 and AVE = 0.534, with a factor loading of 0.720 to 0.762. Financial Confidence (FC), has the necessary standards as well, with Cronbach alpha = 0.734, rho a = 0.737, composite reliability = 0.849, and AVE = 0.653, and item loadings ranging 0.778 to 0.839. In general, because all the factor loadings are greater than 0.70, all the reliabilities are greater than the recommended cutoff of 0.70 and all the AVEs are greater than 0.50, the table confirms that there is sufficient indicator reliability, internal consistency reliability and convergent validity of the constructs. Figure 2 is also showing the factor analysis results.

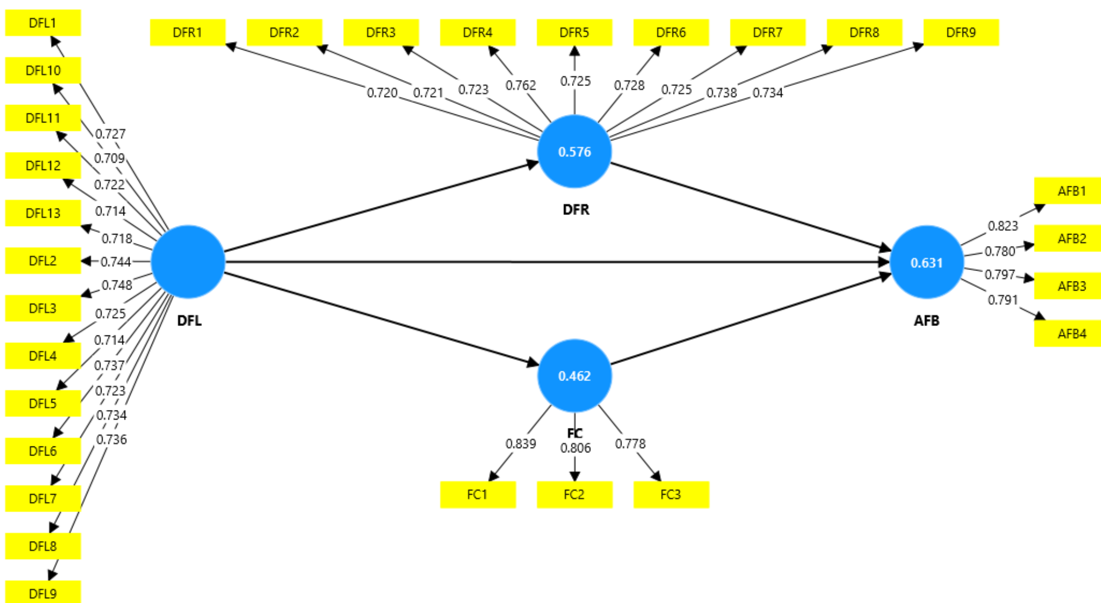

Figure 2 Confirmatory Factor Analysis

The findings presented in the table 2 would imply that the correlations between the constructs of the study are positive and do not exceed the acceptable level of correlation, implying the presence of satisfactory discriminant validity. Precisely, DFL and AFB are associated with 0.864, DFR and AFB with 0.840, FC and AFB with 0.824, DFR and DFL with 0.833, FC and DFL with 0.824 and FC and DFR with 0.805. As the values of all of them fall below the generally accepted cutoff of 0.90, the results confirm the hypothesis that despite the correlation between the constructs, they remain empirically different and are not plagued by severe cases of discriminant validity. In general, the table proves the conclusion that AFB, DFL, DFR, and FC are distinct enough constructs and can be used in the additional structural model and hypothesis testing.

The results of R-square in Table 3 show that the model explains moderately to substantially the endogenous constructs in the research. Particularly, the R-square of AFB is 0.631 and the adjusted R-square is 0.629, indicating that the independent and mediating variables can explain 63.1

percent of the variance in the financial behavior of adults, indicating that the model has a high predictive power. Likewise, DFR has an R-squared of 0.576 and adjusted R-squared of 0.575, which means that 57.6 percent of the change in the awareness/attitude towards digital financial risks can be attributed to the predictor(s) in the model. Similarly, FC has an R-square of 0.462 and adjusted R-square of 0.461 indicating that the model accounts 46.2 percent of financial confidence variation. The stability of the model is also further proved by the very small difference between the values of R-square and adjusted R-square in all constructs. These results, on the whole, indicate that the proposed model is able to explain a significant amount of variance in AFB, DFR, and FC, which justifies the acceptable explanatory power of the model.

Table 2 Discriminant Validity

	AFB	DFL	DFR	FC
AFB				
DFL	0.864			
DFR	0.840	0.833		
FC	0.848	0.824	0.805	

Table 3 R-Square Analysis

	R-square	R-square adjusted
AFB	0.631	0.629
DFR	0.576	0.575
FC	0.462	0.461

The VIF outcomes in Table 4 show that multicollinearity between the measurement items applied in the research is not a problem. All of the indicators have values of the VIF between 1.373 and 1.967 which is far less than the generally accepted value of 5.00 and also less than the more strict value of 3.30 recommended in other research. Specifically, the VIF values of AFB items range from 1.536 to 1.796, DFL items from 1.779 to 1.967, DFR items from 1.691 to 1.897, and FC items from 1.373 to 1.547. These values indicate that the indicators are not over correlated with each other and each item adds some individual contribution to its own construct. All in all, it can be stated that the measurement model is not at risk of collinearity and the data can be further assessed in terms of reliability, validity, and structural model.

The outcomes of the model fit in Table 5 show that the proposed model fits the data well and acceptably. Both the saturated model (0.041) and the estimated model (0.046) SRMR values are less than the recommended value of 0.08, which proves a good fit. On the same note, the NFI values of the saturated model (0.906) and the estimated model (0.904) exceed the acceptable cutoff of 0.90, and so is also indicative of the sufficiency of the model. Moreover, the d ULS values of 0.740 and 0.915 and the d G ones of 0.253 and 0.266 are low implying a satisfactory level of discrepancy between the empirical and the model implied correlation matrices. As an overall fit measure, the chi-square value of 654.760 of the saturated model and the chi-square value of 673.617 of the estimated model are also reported. Altogether, these results show that the measurement and structural model fits the observed data quite well, and the model could be used to test additional hypotheses as well as analyze the path.

Table 4 Multicollinearity

Items	VIF	Items	VIF
AFB1	1.796	DFR1	1.747
AFB2	1.536	DFR2	1.712
AFB3	1.676	DFR3	1.691
AFB4	1.633	DFR4	1.897
DFL1	1.894	DFR5	1.710
DFL10	1.814	DFR6	1.756
DFL11	1.824	DFR7	1.743
DFL12	1.779	DFR8	1.798
DFL13	1.823	DFR9	1.760
DFL2	1.966	FC1	1.547
DFL3	1.967	FC2	1.477
DFL4	1.861	FC3	1.373
DFL5	1.785		
DFL6	1.929		
DFL7	1.845		
DFL8	1.862		
DFL9	1.891		

Table 5 Model Fit Values

	Saturated model	Estimated model
SRMR	0.041	0.046
d_ULS	0.740	0.915
d_G	0.253	0.266
Chi-square	654.760	673.617
NFI	0.906	0.904

The results of the direct path analysis in Table 6 indicate that all the relationships in the model are positive and statistically significant. In particular, there is a strong positive impact of DFL on AFB (= 0.399, SD = 0.046, t = 8.674, p = 0.000) which means that the more digital financial literacy, the better the financial behavior of adults. DFL also influences DFR (0.759, SD = 0.022, t = 35.093, p = 0.000) meaning that digitally financially literate adults are more aware of digital financial risks. Similarly, DFL has a major impact on FC (0.680, SD 0.029, t = 23.479, p = 0.000), indicating that digital financial literacy increases financial confidence. In addition, DFR has a significant positive effect on AFB (β = 0.279, SD = 0.045, t = 6.179, p = 0.000), while FC also positively and significantly affects AFB (β = 0.203, SD = 0.040, t = 5.055, p = 0.000). In general, the results indicate that all the direct hypotheses are supported, and they indicate that digital financial literacy does not only have a direct positive effect on the financial behavior of adults but also a direct positive effect on it by enhancing financial confidence and awareness of digital financial risks. Path analysis results are also shown in Figure 3.

Table 6 Direct Path Analysis

Hypotheses	B	SD	T statistics	P values
DFL -> AFB	0.399	0.046	8.674	0.000
DFL -> DFR	0.759	0.022	35.093	0.000
DFL -> FC	0.680	0.029	23.479	0.000
DFR -> AFB	0.279	0.045	6.179	0.000
FC -> AFB	0.203	0.040	5.055	0.000

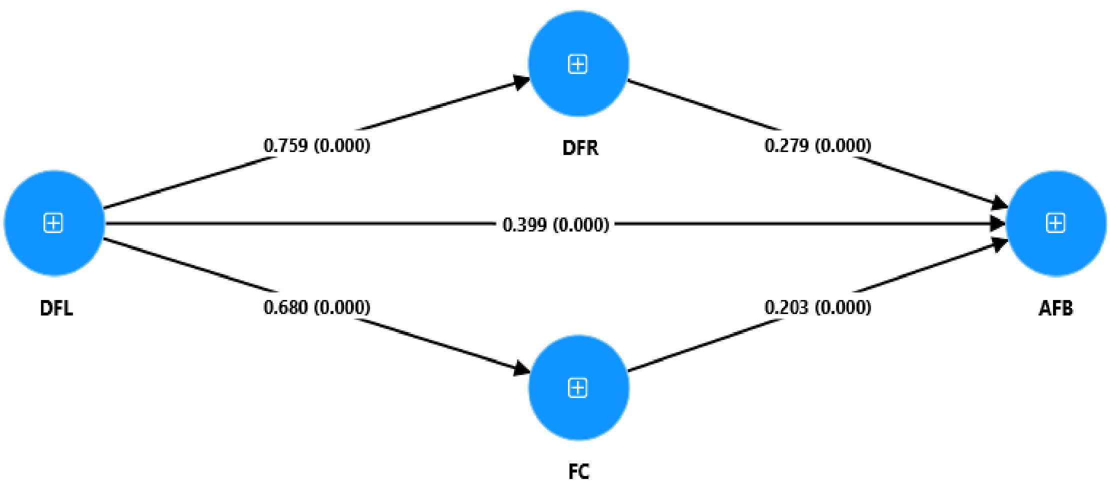

Figure 3 Path Analysis

The results of the mediation analysis indicate, Table 7, that both of the indirect relationships are positive and significant, which proves the mediating effect of FC and DFR between DFL and AFB. In particular, the indirect impact of DFL on AFB via FC is important (0.138, SD = 0.029, t = 4.766, p = 0.000), which implies that digital financial literacy positively influences the financial behavior of the adults through financial confidence. In the same way, the correlation between DFL and AFB via DFR is also high (= 0.212, SD = 0.036, t = 5.903, p = 0.000), indicating that digital financial literacy has a positive effect on the financial behavior of adults by making them more aware of the dangers of digital financial risk. As both indirect effects are meaningful, the results confirm both hypotheses of mediation and indicate that both FC and DFR are important explanatory variables of how DFL influences AFB. In general, the findings affirm that the concept of digital financial literacy has an indirect impact on the financial behavior of adults via the two mediating variables.

Table 7 Mediating Path Analysis

Hypotheses	B	SD	T statistics	P values
DFL -> FC -> AFB	0.138	0.029	4.766	0.000
DFL -> DFR -> AFB	0.212	0.036	5.903	0.000

Discussion

H1: Digital Financial Literacy significantly influences Adults' Financial Behavior.

The study results indicated that digital financial literacy positively and significantly influences the financial behavior of adults. It implies that the more adults know and understand the digital financial tools, services, and platforms, the higher the chances of responsible financial behavior, including increased spending control, stronger saving behavior, and more prudent financial decision-making. This observation is in line with the previous literature that postulates that financial literacy positively increases the capacity of individuals to make good financial choices and financial well-being. Lusardi and Mitchell (2014) described that financial literacy is crucial in enhancing economic decisions and Setiawan et al. (2022) found out that digital financial literacy has a positive impact on saving and spending behavior. Similarly, Choung et al. (2023) found that digital financial literacy has a positive relationship with financial well-being and less risky financial management in digital environments. Thus, the current finding validates the hypotheses that digital financial literacy is a valuable factor in healthy financial behavior in adults.

H2: Digital Financial Literacy significantly influences Awareness/Attitude toward Digital Financial Risks.

The findings revealed that digital financial literacy positively influences awareness/attitude towards digital financial risks strongly. It implies that better digital financial literate adults can be more effective to recognize the risks of online financial transactions, including fraud, hidden fees, overspending, misusing digital credit services, and abuse. This finding is closely relevant to Morgan et al. (2019), who highlighted that digital financial literacy cannot be reduced to the operational exploitation of digital platforms, but it should also cover the capacity of digital financial risk understanding and control. Similarly, the OECD/INFE toolkit acknowledges that financial literacy in the digital environment requires knowledge, awareness, confidence, and behavior that are required to make safe financial decisions.

Ahmed et al. (2025) demonstrate that financial confidence declines during periods of economic impairment, highlighting the importance of confidence and risk perceptions in shaping financial decision-making. Therefore, the existing result confirms the hypothesis that the level of digital financial literacy improves the level of awareness and attitude of adults towards the risks inherent in the digital financial systems.

H3: Digital Financial Literacy significantly influences Financial Confidence.

The research also established that financial literacy on digit has a positive and significant impact on financial confidence. It means that the better adults learn about digital financial issues, the more confident they are to handle money, make financial decisions, and use digital financial tools without any supervision. This finding is in line with OECD/INFE framework that financial literacy involves a set of knowledge, skills, attitudes, and confidence required to make effective financial judgments. In like manner, Morris et al. (2022) reported that financial knowledge has a positive relationship with financial confidence and financial behavior. Therefore, the current result suggests that digital financial literacy not only reinforces the knowledge, but also builds self-confidence in making financial decisions, which is particularly significant in online settings where users tend to make decisions without direct human assistance.

H4: Awareness/Attitude toward Digital Financial Risks significantly influences Adults' Financial Behavior.

The results also established that awareness/attitude to digital financial risks has a positive and significant influence on the financial behavior of adults. This means that the more adult people are aware of the dangers of digital finance, the more they will act cautiously and responsibly in their financial practices. This observation confirms the claim by Morgan et al. (2019), who observed that the lack of adequate knowledge of digital financial risks can make users more susceptible to unwise choices, fraud, and unhealthy loan practices. OECD (2022) also supports it, emphasizing the need to make informed and safe financial decisions in digital settings. Further, Ahn and Nam (2022) demonstrated that financial knowledge decreases the overspending tendency that is related to using mobile payments, which also contributes to the preserving effects of risk awareness on financial behavior. Thus, the existing finding supports the hypothesis that awareness of digital financial risks is a behavioral protective factor in the digital financial setting.

H5: Financial Confidence significantly influences Adults' Financial Behavior.

The findings demonstrated that financial confidence positively and significantly influences the financial behavior of adults. This implies that adults who are more confident about their ability to deal with financial issues are more apt to exhibit more positive financial behavior in practice. This conclusion coincides with Morris et al. (2022) who discovered that financial confidence plays a positive role in financial behavior. The finding indicates that confidence helps one put his or her knowledge into practice and make superior financial decisions in everyday life. Nevertheless, this result is contrary to the research by Noor et al. (2020), who have documented that financial self-efficacy was not a pronounced predictor of financial account ownership behavior in Pakistan. The difference could be explained by the fact that account ownership is a more limited result than general financial behavior. The dependent variable in the current research is more inclusive of financial behavior, such as saving, spending, and management behavior, in which the role of confidence can be more observable.

H6: Financial Confidence mediates the relationship between Digital Financial Literacy and Adults' Financial Behavior.

The mediation analysis has verified that financial confidence plays an important role in mediating between digital financial literacy and financial behaviour among adults. This implies that digital financial literacy enhances the financial behavior of the adults partly due to its ability to make them more confident in handling financial issues. Theoretical support of this finding is provided by the OECD/INFE framework, which incorporates confidence as a fundamental aspect of financial literacy, and by Morris et al. (2022), who demonstrated that both financial knowledge and confidence determine financial behavior. Thus, the current result builds upon previous research by empirically demonstrating that financial confidence is a significant psychological process by which digital financial literacy is converted to positive financial performance in adults.

H7: Awareness/Attitude toward Digital Financial Risks mediates the relationship between Digital Financial Literacy and Adults' Financial Behavior.

The findings also revealed that the awareness/attitude towards the digital financial risks plays a significant role in mediating the connection between digital financial literacy and financial behavior of adults. This means that digital financial literacy enhances financial behavior not only directly, but indirectly as it enhances awareness of digital financial risks among adults and stricter in their financial behavior. The result is highly consistent with Morgan et al. (2019), who suggested that the digital financial literacy should involve the skills of interpreting and acting on risk in online finance, and with OECD (2022), who made a point of safe and informed behavior in online financial situations. Although direct empirical data on this particular mediation path is yet to be provided, the evidence is highly consistent. Therefore, the present research has a significant contribution since it empirically shows that awareness/attitude toward digital financial risks is a significant explanatory pathway where digital financial literacy has an impact on the financial behavior of responsible adults.

Conclusion

The conclusion of the study is that digital financial literacy is a key element of how adults act financially in the digital financial environment. The empirical results supported the fact that digital financial literacy positively influences the financial behavior of the adults significantly, and it implies that more informed and more able to use digital financial instruments adults are more likely to make responsible financial choices in their everyday life. The findings also indicated that digital financial literacy also has a significant effect on improving financial confidence and awareness/attitude with regard to digital financial risks. It means that digital financial literacy is not a question of technical or financial literacy, but it is also a valuable quality that enhances the willingness of adults to behave wisely in digital financial environments. All in all, the study confirms that digital financial literacy is a good predictor of positive financial behavior in adults.

The research is also able to conclude that financial confidence and awareness/attitude toward digital financial risks are significant explanatory variables with help of which digital financial literacy determines the financial behavior of adults. The findings have shown that both the mediators play important positive role in the financial behavior of adults and also play important role in mediating the relationship between digital financial literacy and financial behavior. These results indicate that the improvement in the financial behavior of adults occurs not only due to their knowledge but also due to the fact that the knowledge makes the adults more confident about managing financial issues and more aware of digital risks, including excessive spending, fraud, and irresponsible use of digital credit. Thus, the research supports the idea that responsible financial behavior in the digital age is an integrated effect of the knowledge, confidence, and risk awareness coupled with a larger financial capability process.

Recommendations

The paper thus notes that there is a need to enhance digital financial capability among the adults particularly in a place as Faisalabad where the digital financial services are rapidly growing and yet there is a concern of responsible use among the population.

i. Based on these results, the study recommends that policy makers, banks, financial service providers, and financial educators must aim not only to enlarge access to digital financial services, but to heighten the literacy, confidence, and awareness of digital financial risks of user.
ii. Through this, the study makes a significant contribution to the learning about the way adults can be better prepared to utilize digital financial systems in a safe, informed, and financially responsible way.

Future Recommendation

To conduct future studies, it is advisable that researchers should consider expanding this model to include other cities, provinces and demographic groups to determine whether the results can be generalized to other areas other than Faisalabad. Further, longitudinal or mixed-method designs can be employed by the researchers to observe the digital financial literacy and behavior change over time and better understand adult reactions to changing digital financial services and risks. This future research would aid in deepening the literature on digital financial capability and offer more evidence on policy and practice in developing digital economies.

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