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THE LINKAGE BETWEEN FINANCIAL LITERACY AND FINANCIAL DECISION-MAKING WITH THE MEDIATING EFFECT OF INVESTMENT BEHAVIOR

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ABSTRACT

This research investigates the linkage between financial literacy and financial decision-making, with the mediating effect of investing behavior in Pakistan's stock exchange. To achieve this very objectives, PLS-SEM was used to justify relationships on an individual-level survey. As the thumb rule, financial decision-making competence may be enhanced by improving financial knowledge, financial skills, and investing behaviour, thereby encouraging their participation in financial services. Above all else, the indirect influence of financial knowledge and financial attitude on investment decision-making competence is reflected as a most relevant significant tool of financial behaviour. The findings support policy-makers and business experts in identifying the most crucial determinants on financial capability in the context of emerging countries, enabling them to propose policies and refurbished programmes to the good mix potential learners with the package of sound information and required skilled-propelled knowledge studded with the legitimate use of the available financial resources.

INTRODUCTION

The rapid financial industrial growth has brought many financial products and services into markets that have grown composite and complex in the developing nations (Ahmed, 2014), and this expanding trend creates a variety of new prospects for capitalists to enter the financial markets (Nguyen & Rozsa, 2019). The government works tirelessly to maintain a conducive environment for investors to comprehend the complexity of their available financing, to execute prudent financial judgments, and to achieve other investment goals. The individual investor decision-making technique is influenced by a variety of criteria that assess the needed financial attitude, abilities, knowledge, awareness, and conduct (Aslam, et. al.,2020). In modern debate, it is proposed that the major goal is to increase financial literacy and other associated elements controlling by multiple regulation, investment strategies, and business practices conditionally leading to collaborate with individuals to enhance their financial skills in the state's financial sector (Cera, et. al, 2020). Since then, the financial market has played an important part in individuals' financial decision-making processes by continually improving the efficacy of fiscal control.

There are numerous perceptions regarding stock market investing behaviour, as many investors have a primary goal of gaining ownership of the firm, other investors are motivated by dividends, and another set of investors is motivated by financial gains (Riaz, Ahmed, Parkash, & Ahmad, 2020). Investors typically purchase a specific number of shares in order to gain strength on the board of directors in the stock market, as well as significant possibilities to give his opinion in crucial decision-making elements (Aziz & Khan, 2016). The "Efficient Market Hypothesis" states that specific information on various forms of investment chances is completely available to investors in a viable manner. In general, the stock market exhibits uncertainty, and the formation of investors clusters together on the homogenous activity, producing investment strategies based on the choice motives of current investors (Sabir, Mohammad, & Shahar, 2019).

In the globalised era, the financial behaviour of individual investors has gained prominence in general academics owing to the active engagement of investors in the financial market, which has recently increased (Calvet, Célérier, Sodini, & Vallée, 2017). There are various reasons for the growth in investing behaviour. The first is extraordinary profit on financial assets of the stock market, which creates several options for "making money work" and maximizing returns on the amount invested in the stock market. Second, the optimal liquidity of financial instruments, which indicates that investors have dramatically converted to stock market instruments in monetary form. Third, different types of financial instruments are equally available to individual investors, with financial instruments chosen based on the investors' financial objectives (Akhtar, Thyagaraj, & Das, 2018). Meanwhile, the stock market's wide range of financial products has made it more difficult for investors to make logical financial decisions (Ledgerwood, Earne, & Nelson, 2013; Sabir, Javed, Khan, & Javed, 2021). Individual investors are influenced by a variety of psychological factors that contribute to irrational stock market investment behaviour (Kumar & Goyal, 2016). The rational behaviour of the financial decision-making method includes gathering as much information and knowledge about investment possibilities as possible, as well as logical thinking on the part of the investor and proper financial data analysis for investment decisions. As a result, it is critical to comprehend an individual's investing behaviour as well as the many elements that impact the conduct of investors in the financial market (Sabir et al., 2021).

Individual financial behaviour has been statistically supported in several social and psychological origins. Traditional financial research reveal that buy-and-hold investment trading strategy leads to rational decision of investors which viewed as an ideal planning acknowledged widely as a benchmark (Raut, 2020) to justify reasonable conduct of the individuals. A variety of research were conducted to investigate investor behaviour and the unexpected change in the stock market. As a result, it is proposed to include these financial data into a dynamic model in order to provide a concise representation of individual investor decisions. Thus, the Theory of Planned Behavior (TPB) was shown to be a more effective and popular socio-psychological framework than the other behaviour models (Riebl et al., 2015; Timm & Deal, 2016).

Taking into consideration all existing studies, this study explores individual investor behaviour utilising the Theory of Planned Behavior to get access to the decision-making process for investing in the financial market. However, the current research study aims to assess the impact of financial literacy on investment decision-making capability by determining the significance of financial behaviour as a moderator in the Pakistan stock exchange. Furthermore, the study's research objectives are to examine the impact of financial literacy on individual investment decisions and to evaluate the mediating role of financial inclusion and investing behaviour on financial market investment decisions. This study includes the following sections: Section two (2) discusses the relevant literature review, Research aim, suggested hypothesis, and research framework, Section three (3) details data collecting and empirical research methods, and Section four (4) elaborates on the empirical computed results, Section five (5) describes the present study findings and discusses them, Section six (6) concludes the research and Section seven (7) suggests the research implication, scope, and research with future direction & paths.

LITERATURE REVIEW

Recent studies have emphasized on the major role of financial literacy, with the core importance of financial goods with increasing significance consequences of individuals' financial choices of investment portfolios (Lusardi & Mitchell, 2014; Lusardi & Mitchelli, 2007). However, financial instruments are seen as sophisticated items that require individual investors to be financially educated in order to make sound investment decisions. Following the above-mentioned occurrence, financial literacy received the most attention from a research standpoint. The new research of Lusardi and Mitchell (2014) revealed appropriate improvemed strategies that have been generalised over the world, with complete focus on financial knowledge and abilities comprehension and financial literacy. According to Zucchi (2018), financial literacy issues do not just exist in developing nations, but also among individual investors in developed financial markets who suffer financial losses due to inefficient financial planning. During the 2008 financial crisis, the presentation of these themes was highlighted (Klapper, Lusardi, & Panos, 2013).

Many studies on financial literacy have been undertaken internationally with regard to many nations to investigate the impact of financial studies. The consumer protection by the World Bank Governance in the Financial Services Program, highlighted the survey study, boosting levels of investor protection and financial education and literacy, as well as enhancing investor trust in the various sectors of the financial market (Rasool & Ullah, 2020). According to Awais, Laber, Rasheed, and Khursheed (2016), many households have less understanding of the most prevalent facts when making financial decisions, raising various doubts regarding the usefulness of financial skills and learning on financial literacy before investing. Thus, Sayinzoga, Bulte, and Lensink (2016) emphasized on the discrepancy that exists between the effectiveness of financial education in fostering financial literacy and its immediate influence on investor behaviour in both short-run and long-run time periods. As a result, Sundarasen, Rahman, Othman, and Danaraj (2016) showed how financial literacy increases the potential of cash flow management, investing behaviour, and saving behaviours to a greater level. Thus,

H_1= Financial attitude influences investing decisions positively.
H_2= Financial skill is connected to investing decisions in a positive way.
H_3= Financial knowledge is linked to investing decisions in a beneficial way.

The Theory of Planned Behavior was used to quantify financial literacy, which is widely accepted as the most successful model in several fields of current study (Kourtidis, Chatzoglou, & Sevic, 2017; Rasool & Ullah, 2020). The theory of planned behaviour (TPB) is essentially an expanded version of the idea of reasoned action (TRA). Since the publication of the theory of planned behaviour, it has become the most renowned theory and is relevant to several aspects of individual conduct (Sayinzoga et al., 2016). TPB develops the various components of individual investors' planning procedures for taking appropriate steps and making decisions. However, a few researches underlined the importance of the TPB model in financial decision-making techniques.

Sivaramakrishnan, Srivastava, and Rastogi (2017) evaluated the effect of investors' financial literacy on financial decision making in the stock market. The idea of planned behaviour was used in this study to analyse and explain investors' strategic planning for financial products and services in the stock market. For data processing and interpretation, structural equation modelling was used. The research findings revealed that in order to invest in the financial market, investors' intentions must be influenced by both subjective and objective kinds of financial literacy. The research also reveals that objective financial literacy and knowledge have a substantial impact on investment behaviour. Thus,

H_4= Investment behaviour is related to investing decisions in a good way.

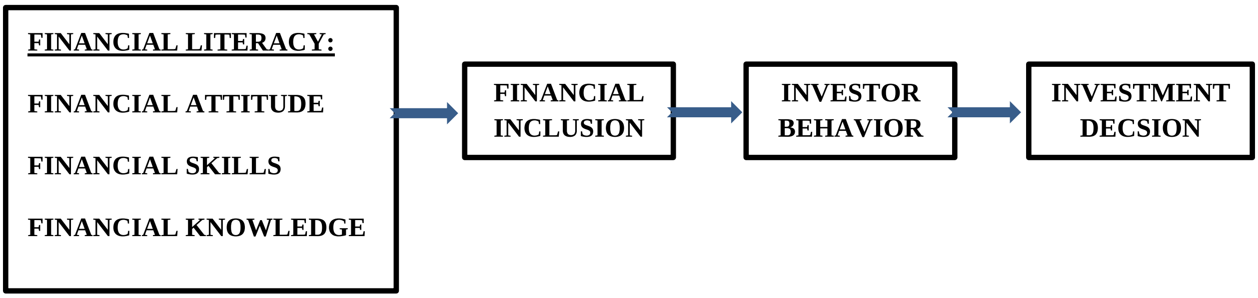
Furthermore, Bongomin, Munene, Ntayi, and Malinga (2018) investigated the empirical relationship between financial literacy and financial inclusion in the state's rural areas. As a research design, this study employed cross-sectional quantitative data. The Baron and Kenny model was utilised in the study to assess the moderate relationship and cognitive link between financial literacy and inclusion. The findings then show that there is a cognitive relationship between financial inclusion and literacy. Similarly, Hamza and Arif (2019) discovered that financial inclusion is a crucial driver of poverty alleviation and inclusive economic growth. At the micro level, several studies on financial inclusion have been conducted, which indicate that financial inclusion can help to alleviate poverty (Brown, Ivkovi, Smith, & Weisbenner, 2008), improve employment opportunities (Bruhn & Love, 2014), and improve individuals' saving behaviour (Brune, Giné, Goldberg, & Yang, 2016). At the macro level, financial inclusion has a major impact on overall economic development (Inoue & Hamori, 2016) and promotes financial market stability (Han & Melecky, 2013). Several researches have examined the significance of subsequent factors impacting financial inclusion. Allen, Demirguc-Kunt, Klapper, and Peria (2016) conducted a recent study that underlined the importance of individual income and education in determining financial behaviour and knowledge to invest in bank accounts and other financial organisations. Thus,

H_5= Financial inclusion is positively related to investment decisions.
H_6= Financial inclusion mediates the association between financial literacy and investment decisions.

In general, financial conduct and attitude appear to be some other aspects that assess investors' financial skills (Potocki & CierpiaWolan, 2019). Individuals with a high level of financial capability exhibit more efficient and less hazardous investing behaviour. Individual and structural components of financial capacities assess the individual's ability to act, which is financial inclusion (Shkvarchuk & Slav'yuk, 2019). This individual capacity is assessed by financial conduct (Moreland, 2018), and it is noteworthy that financial behaviour is a significant component of evaluating financial capabilities (FC) (Xiao, Chen, & Chen, 2014). FC denotes the degree of financial awareness, knowledge, and abilities that are supported by the necessary financial behaviours to achieve economic happiness (Potocki & CierpiaWolan, 2019; Yong, Yew, & Wee, 2018). Thus

H7: Investment behavior mediates the association between financial inclusion and investment decision.

Framework



This empirical study is completely depend upon the well collection of primary data through the use of a detailed descriptive survey approach. The collection of primary data was chosen because it provides the accurate and real-time data that had not previously been used in any of the study. Structured questionnaires were developed under the Organisation for Economic Cooperation and the International Network on Financial Education for data collection, and financial literacy questionnaires were developed to ensure the qualities that are comparable with other recent studies (Morgan & Long, 2020). To examine the proposed hypotheses in the suggested theoretical framework, a questionnaire based on prior research studies was originally produced, and this data collecting approach is frequently used by many researchers (Raoof et al., 2021; Abdulmuhsin et al., 2021; Hameed et al., 2021; Yan et al., 2020; Nuseir et al., 2020;Cera et al., 2020; Morgan & Long, 2020; Rasool & Ullah, 2020).

The questionnaire is divided into two sections : the first is intended to collect general socio economic and financial demographic characteristics about the respondents (as gender, age group, income, employment, education, and investment experience), and the second is intended to obtain information about financial literacy, financial inclusion, investment behaviour, and investment decisions. Financial literacy questions will be designed to capture three dimensions: financial attitude, financial skills, and financial knowledge in order to develop long-term financial strategies, financial services, and financial techniques (Cera et al., 2020; Hamza & Arif, 2019). All of these variable statements were assessed using five-point likert scales, and the convenient sampling technique was used to reach out to the necessary respondents. As a result, these questionnaires are distributed to various groups of investment institutions in Lahore and filled out by individual investors who have invested in various bonds, securities, shares, and so on.

According to information provided from Pakistan's Central Depository Company (CDC), the number of retail investor sub-accounts is 245,975 as of June 2018, with Lahore accounting for 40% of all individual investors. The following formula was used to calculate the sample size:

$$\mathbf{n} = \frac{z^2 p(1-p)}{e^2}$$

When the degree of confidence was set at 95%, the sample proportion (p) was determined to be 50%, and the margin of error was 5.6%. The computation yielded an estimated sample size of 300 observations (Rasool & Ullah, 2020).

Finally, to ensure that individual investors responded, 650 questionnaires were delivered to them in order to assess the study's generalizability. After one month, 308 questionnaires were received out of 650, with 8 rejected owing to incomplete completion. This resulted in 300 correctly completed surveys with a response rate of 46.15 percent. As a result, it was important to ensure the relevant association between the financial literacy and individual investor behavioural characteristics. The data collecting region was limited to the capital market of Lahore throughout the research since it was not difficult to collect data from the whole population of Pakistan owing to several associated hurdles such as a lack of time, significant expense, and huge effort on the data collection. Hence, this research study proceeds with the sample size to conduct the main analysis.

Table 1. Sample profile

Category	Sub-category	Percentage %
Gender	Male Female	84 16
Income	Less than 01 million 02 to 3.5 million More than 3.5	32 46 22
Age group	Under 30 30 – 40 40 – 50 Above 50	14 37 41 08
Education	Below to Intermediate Graduation Masters Others	11 39 28 22
Employment	Self employed Paid employed Student / Retired Others	17 43 21 19
Investor Experience	Less than 2 years 3 – 7 years 8 – 15 years More than 15 years	13 39 34 14

Source: Own elaboration

ANALYSIS

The current work used partial least squares structural equation modelling (PLS-SEM) to investigate the relationships indicated in the theoretical model (Sarstedt, Ringle, & Hair, 2017;Asada et al., 2020; Junoh et al., 2019; Basheer et al., 2019a;Muneer et al., 2019; Basheer et al., 2019b; Basheer et al., 2018). Because given constructs were not normally distributed, the PLS-SEM was used, and the proposed variable ratings for follow-up studies were necessary for this investigation. (Hair, Risher, Sarstedt, & Ringle, 2019). Since all of the components in this study were reflected indicator outputs, PLS-SEM was done with Smart-PLS 3.0. (Ringle, Wende, & Becker, 2015). So, the independent and dependent variables cannot be obtained from the distinct sources, single factor test of Harman and the questionnaire design were selected as two different relevant methodologies for the present investigation. As a result, the titles for each item section were omitted from the questionnaire. Furthermore, when a single component appears or captures the most of the variation (50%), Harman's single-factor test indicates a substantial percentage of variance in common methods (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). According to main axis factoring, this single component accounted 34.27% of the total variation.

As a consequence, these findings imply that common technique variation is not a concern in this study.

Table 2. Measurement Model

Each of the constructed items	IL
Financial Literacy: **Financial Attitude: (CA 0.86, CR 0.91, AVE 0.71)** Setting goals for the future is important. I always pay my payments promptly. I maintain a close personal eye on my financial circumstances. I am willing to put some of my own money at risk in order to save or invest.	 0.845 0.843 0.897 0.783
Financial Skills: (CA 0.69, CR 0.83, AVE 0.62) I have the ability to prepare a personal budget. I have the ability to decide what financial services to choose. I have the ability to accurately determine benefits from financial dealings. I am capable of evaluating the different financial products and services.	 0.866 0.785 0.812 0.877
Financial Knowledge: (CA 0.76, CR 0.84, AVE 0.52) I realise the expense of purchasing on credit. I am quite skilled at calculating profit and loss percentages. A high-return investment is likely to be high-risk. Inflationary pressures mean that the cost of living is rapidly rising. If prices rise significantly, the money that many individuals have in savings accounts may lose value.	 0.783 0.766 0.874 0.816 0.788
Financial Inclusion: (CA 0.67, CR 0.86, AVE 0.75) I don't have essential documents to open a bank account. I don't require financial assistance. I do not have the insurance policy. I do not hold saving and retirement product.	 0.788 0.824 0.991 0.845
Investment Behavior: (CA 0.81, CR 0.87, AVE 0.57) In terms of spending, I stick to a weekly or monthly plan. I compare prices when buying something. Before making a big purchase, I analyze my financial condition. I set long-term financial targets that impact how I manage my spending. I have strategies to meet my financial objectives (retirements, savings, investments etc.).	 0.789 0.866 0.810 0.889 0.817
Investment Decision: (CA 0.69, CR 0.83, AVE 0.62) I considered the statements of government officials about the company. You feel satisfied with your trading frequency and trading volume. I considered past performance of the firm's stock before investing.	 0.825 0.878 0.788 0.850

I considered my feelings for a firm's products and services.	

Note: CA, Cronbach's alpha; CR, composite reliability; AVE, average variance extracted; IL, item loading; a, reverse order.
Source: Own elaboration

Variables

Table 2 lists all of the factors that were assessed as self-reported. The questions on the suggested constructs were answered on a five-point Likert scale. According to the findings (see table 2), financial attitude, financial skills, financial knowledge, and financial behaviour had subsistence reliability, with Cronbach's alpha by including the composite reliability values ranging between .7 and .95. These financial literacy and the financial inclusion figures met the limits that used in exploratory study (Hair et al., 2019), indicating that the factor model is up to the mark and accurate. Furthermore, the constructs showed the significant convergent validity by explaining more than the half of the variation in their indicated values as evaluated by AVE criterion. Further, the VIF values were less than the conservative signaling collinearity criterion. At last, all Heterotrait-Monotrait correlations were smaller than .85 (Henseler, Ringle, & Sarstedt, 2015), explained that all the constructed values were distinct. As a consequence, discriminant validity was judged to be established for this study.

RESULTS

It is assumed that no PLS-SEM assumptions are violated, the analysis proceeds to the next phase, which is the study of the structural model. The model accounts for 33.7% of the variation in financial behaviour and 31.6% of the variation in financial competence. Table 3 displays the model's obtained findings. As we know that the VIF values of the components were substantially less than the conservative criteria of 3, multicollinearity was not identified (Hair et al., 2019). According to the above-mentioned theoretical framework, financial literacy is defined by financial skills, financial attitude and financial knowledge. Thus, it was discovered that the financial attitude (b 0.426, $p < 0.001$), financial skills (b 0.413, $p < 0.001$), and financial knowledge (b 0.248, $p < 0.01$) all had a substantial influence on financial literacy. Using Cohen's criteria, the size of the impacts on the financial literacy by the financial attitude (f_2 0.219), financial skills (f_2 0.259), and financial knowledge were moderate and minor, respectively (f_2 0.172). As a consequence, the subsistence evidence estimated to justify the hypothesis H_1 and H_2. In terms of investing behaviour determinants, data show that financial literacy has a moderate influence (b 0.278, $p < 0.001$, f_2 0.787), the financial knowledge has a little effect (b 0.189, $p < 0.01$, f_2 0.0457), and financial inclusion has a tiny effect (b 0.203, $p<0.01$, f_2 0.05). As a result, strong evidence was discovered to support H_3, H_5, and H_6. The direct impact of financial attitude on investment decisions was shown to be insignificant (b 0.057, $p>0.10$) (see table 3). However, it had a statistically significant indirect influence on investment decisions through investing behaviour (b 0.124, p < 0.01). In addition, the total estimated effect of financial attitude on the investment decision making was statistically significant (b 0.178, t 2.064, p0.05). So, in the case of financial attitude, there were included the mediation effect but there is no direct impact, a phenomenon known as indirect-only mediation (Zhao, Lynch Jr, & Chen, 2010), reflecting the best-case scenario because it demonstrates that our mediator completely conforms to the predicted theoretical framework. As a result, data confirmed H_4, which indicated that financial behaviour statistically mediates the relationship between financial attitude and investment decisions. The data analysis revealed a positive and significant mediation for the indirect impact of financial knowledge on investment decision (b 0.072, p<0.05). The overall influence (b 0.259, t 3.614, p<0.001) was also statistically significant. According to Zhao et al. (2010), this is referred to as complimentary mediation since both the mediated variable and direct effects occur and it pointed towards the same direction. Taken as a whole, the findings supported the expected mediating link. Consequently, financial inclusion moderated the influence of financial knowledge on investment decisions, therefore enhancing H_6.

Table 3. Hypotheses testing

Hypotheses	Path	B	T	P
H1	FA to ID	0.423	5.037	0.003
H2	FS to ID	0.362	4.214	0.004
H3	FK to ID	0.288	3.243	0.001
H4	IB to ID	0.256	2.276	0,002
H5	FI to ID	0.187	2.176	0.033
H6	FI to FL to ID	0.203	1.842	0.002
H7	IB to FI to ID	0.332	1.265	0.003

Note: FA, financial attitude; FS, financial skills; FK, financial knowledge; IB, investment behaviour; FI, financial inclusion; ID, investment decision; B, standardized coefficient.

Source: Own elaboration.

DISCUSSION

The present study reveals that financial attitude, financial abilities, and financial knowledge are major determinants of individuals' investing behaviour. As a result, this study shows the persistent message for the central governing body, educational institutes, and leaders in the financial industry to develop the suitable policies and curricula that aim to enhance the individuals' financial skills, knowledge and awareness. Changes in their investing behaviour and, as a result, investment choice capacities may arise from financial awareness. This research study showed that an appropriate financial attitude, financial abilities, and financial knowledge are essential for changing individuals' financial behaviour, even in Pakistan, earlier studies confirmed these result (Fessler, Silgoner, & Weber, 2020; Garg & Singh, 2018). The recent study supports earlier studies by indicating a favourable association between the financial knowledge and behaviour. Financial knowledge, for example, has been linked to greater returns from mutual fund holdings (Chu, Wang, Xiao, & Zhang, 2017), indicating superior investing decision-making behaviour. There are many different studies corroborate the approximately same conclusion: financial education improves both short and long term financial behaviour (Kim, Anderson, & Seay, 2019). In the same way the positive association between financial attitude, financial ability, and financial behaviour is consistent in respect to the earlier study findings emphasising the significance of financial attitude in determining investment behaviour (Yap, Komalasari, & Hadiansah, 2018).

Second, it has been discovered that strengthening individuals' status financial knowledge, financial skills, investment behaviour, and financial inclusion can improve investment decision making behaviour. However, financial attitude has a considerable influence on financial decision-making skill. This might be due to one of the following factors. First, there is a conceptual divide between financial mentality and financial decision-making skill. As the previous study (Cera et al., 2020) revealed, having a specific degree of financial attitude toward money does not always imply that it should be represented in financial capacity and financial opportunity to act. Second, the results should be described in relation to the investigation's context. It emphasises the importance of financial inclusion in light of an external opportunity to develop financial decision-making abilities (Huang, Nam, & Sherraden, 2013; Sherraden et al., 2015).

Third, the findings demonstrate the significance of investing behaviour in mitigating the effects of financial attitude, financial abilities, and financial knowledge on investment decision making. This is, to the best of the authors' knowledge, the first research to look at such implications. While financial attitude had a significant influence on financial decision-making competence, the current study revealed sufficient evidence to support the role of financial behaviour as a mediator in this connection. Individuals are unable to make realistic investment decisions if they do not have a financial attitude, financial abilities, and financial knowledge, according to Vlaev and Elliott (2018). As a result, investing behaviour is critical not only for building financial decision-making aptitude, but also for coordinating the impacts of financial attitude, financial skills, and financial knowledge on financial decision-making. The general findings of current research highlighted gap in prior studies and corroborate the direct and indirect empirical findings. This is consistent with prior study, which discovered that financial literacy and investment behaviour are major indicators of a person's financial decision-making skill (Potocki & CierpiaWolan, 2019; Xiao, Chen, et al., 2014).

CONCLUSIONS

This study makes numerous important contributions to knowledge and institutions. To begin, by emphasising the application of the perspective (resource base theory), this study explores the role of investment behaviour in mediating the influence of financial literacy components and financial decision-making skills. Recent research, to the best of the authors' knowledge, has mostly focused on the direct linkages between financial literacy components and financial decision-making abilities. The findings of this study add to the body of knowledge in this subject by indicating that the links between financial literacy components and financial decision-making ability are predominantly mediated by investing behaviour. This study presents a more thorough approach for investigating the relationships between financial literacy and financial decision-making ability by emphasising the importance of financial behaviour as a mediator.

Second, substantial evidence was shown that financial attitude, financial skills, and financial knowledge positively impact investing behaviour even in impoverished nations such as Pakistan; these findings corroborated prior research studies done in affluent countries as well (Fessler et al., 2020). Thus, the relevance of financial skills, knowledge, and attitude in influencing individuals' financial behaviour is crucial for both established and emerging economies. As a result, the amount of financial literacy in each country's three stages is more essential than the effect of financial skills, knowledge, and attitude on investment behaviour. An international report confirms this (Klapper, Lusardi, & Van Oudheusden, 2015), and the same issue is stated about financial inclusion (Messy & Monticone, 2016).

RESEARCH IMPLICATION &LIMITATIONS

This study provides useful perspectives for policymakers to improve financial decision-making skills, and policymakers may create various approaches to achieve better outcomes in giving individuals with sufficient financial literacy and decision-making capacity that are required in today's market (Cera et al., 2020). In this case, the triple helix method can be a useful way to enhance people' financial literacy and decision-making abilities (Yong et al., 2018). According to this model, the alignment of policies and tactics by the government, educational institutions, and corporations may encourage individuals to invest in start-ups. This criterion might also be applied to investment decisions. Banks in several European countries, for example, have partnered with local educational institutions to develop online asset management and virtual asset portfolio programmes. Individuals may learn about financial goods and markets while also gaining experience investing in equities. According to the present study, this initiative should be expanded to include additional institutions and enterprises, as well as persons of all ages in the community.

The research study has the following limitations: To begin, information was gathered by asking individual investors to self-report their views on a variety of topics. As a result, their answers were susceptible to recollection (Xiao, Ahn, Serido, & Shim, 2014). The usage of financial diaries as a data and information collection strategy is thought to overcome this problem (Potocki & CierpiaWolan, 2019). Second, because this study report only covers one country, the results are restricted in their applicability to other countries. However, replicating the conceptual framework employed in this study report can help overcome these constraints. Furthermore, the current study analysed financial inclusion using just two variables, limiting the conclusions. As a result, the creation of a financial inclusion scale that considers a broader variety of attributes is required. Scholars can take this into account in future study. Marketing researchers must explore the influence of financial decision-making ability in an individual's buying choice, including internet channels. It is thought that the higher an individual's level of financial decision-making skill, the more likely their participation in online purchase.

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