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FINANCIAL LITERACY AND FACTORS AFFECTING INVESTMENT BEHAVIOR

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Abstract
The purpose of the study that in this high inflation investors want to get more return on different mode of investment while financial literacy is more important on investment when asset allocation and investigate an effect of risk perception, loss aversion & over confidence on the decisions regarding investment and identifies the moderation role of financial literacy on the dependent variable. Data was collected from 205 investors from all over the Pakistan the partial least square technique is used to test the relationship using the 205 investors. We applied the bootstrapping method to estimate the coefficient path of the relationships. It is important for the Investors in Pakistan to see the Economic Situation you need to portfolio of investing whether is commodities or stocks or property they get for good return. Financial Literacy is an important role for investors. This research provides insights in the sense that the financial literacy appeared to have the significantly affecting the decision making regarding the investment. Overall evidence indicates that investors are hesitant to make higher-risk investments. It also explains how a lack of financial literacy affects the capital market participation. It has also been found that the male is riskier rather than female.
Keywords: Investment Decision, Loss aversion, Risk Perception, Financial literacy.

1. INTRODUCTION

The speedy evolution of technology is currently affecting the economy and the industrial sector. There is a wide range of products available online where a buyer can buy them in short order without going to store that sells them. As a result, there is an increase in human unlimited needs and desires. Because of technological advancements, increased desire may impact a person's income to no more having power to cover expenses. It is critical for people to take effective decisions regarding their financial matters for overcoming this problem. Meeting their needs and wants in addition to their fixed income from investments is one of the things that can be done. Investment decision basically encompasses the allocation of money between assets with high risks like gold and real estate and assets with low risk like savings and stocks (Barber & Odean, 2001; Keller & Siegrist, 2006).

In this study, we looked at whether people's investing decisions in deposits, foreign currency, shares, stocks, commodities, and portfolios were impacted by risk perception, overconfidence, and loss aversion while having moderating effect of financial literacy. At fundamental level, financial literacy does not vary by gender. With respect to the profile of the respondents who were subjected to the examination. However, it was found that males were more likely than women to have advanced financial literacy. Men also often take greater risks than women. However, risk appetite is not solely influenced by marital status. However, we conclude that unmarried women take greater risks than married women.

Financial knowledge is frequently regarded as a safeguard against developing cognitive biases (Thaler & Benartzi, 2004). For example, status quo bias and inertia should be avoided by having a clear grasp of the necessity of putting a financial strategy into action. If a customer's financial literacy is incorrectly assessed, plans may not be carried out or may not be appropriate for the client. It has been demonstrated that inaccurate financial and investing knowledge influences investment behavior (McCannon et al., 2016). The advantages of financial expertise include lower information processing and acquisition costs, as well as lower barriers to stock market investing (Haliassos et

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al., 1995). Women's financial literacy is lower (Bucher-Koenen et al., 2017; Lusardi & Mitchell, 2008), lower numeracy (Almenberg & Dreber, 2015), inexperience with financial products (Prast et al., 2014), or a reduced risk tolerance (Croson & Gneezy, 2009; Dohmen et al., 2011) are standard justifications for the gender gap in stock market involvement.

1.1. Objective of the study:

Objectives of this study are given as follows:

- To evaluate the influence of Risk perception effects on the investment decision making.
- To evaluate the influence of overconfidence bias on investment decision making.
- To evaluate the influence of loss aversion on investing decision
- To evaluate the influence of economic expectations on investment decision making.
- To find out how financial literacy moderates investment decision making.

1.2. Research Gap:

This study is concerned with employing the role of financial literacy as a moderator acting between independent variables like risk perception, overconfidence and loss aversion and dependent variable which is investment decision making. Furthermore, we have also bifurcated our results based on gender like how the investments decision making influenced by the risk perception, overconfidence and loss aversion while having a financial literacy as a moderating variable the results have different effect on the base of gender which is also the part of this research.

2. THEORETICAL FRAMEWORK AND HYPOTHESIS

2.1. Investment Decision

Investment is regarded as the practice of collecting assets from resources intended to maximize the potential profits in the future. Financial assets are also known as financial securities and tradeable instruments. The ROI on investment portfolio is considered as the strong indicator of investment performance. A portfolio of investments may comprise of multiple assets. All investors are interested in making the greatest possible investing choices. (Sharpet, 1964). According to Merton (1987), advanced financial knowledge is required for optimal and rational investment decisions. Traditional finance assumes that individuals always have all the knowledge they need and make logical decisions. (Ameur et al., 2019).

On the other hand, behavioral finance presumes that investment decisions are frequently irrational as a result of incomplete information rationality with limits, anomalies, primary heuristics, biases in psychology (Kent & John, 2002) or behavioral biases (Nurita, 2022).

A commitment to allocate money or any other fund for a predetermined span of time with the expectation of future returns is known as an investment. and psychological reports mental advancements of investors play a crucial role in an irrational sort of decision-making (Munk, 2018). Real assets include things like land, structures, equipment, and even commodities like gold that can be utilized to invest money. Bonds, mutual funds, shares, and bank accounts (savings and deposits) are a few examples of financial asset investments. A certain amount of risk or uncertainty is present in almost all types of investments. Risk level and predicted return percentage are positively correlated. An individual must be prepared to take on a lot of risk when expecting a high rate of return. Bank deposits and savings are reasonably secure investments since it is rare that the bank would fail to fulfill promised income or profit share, as well as principal repayment. Investing in stock is the most risky, but it also has the highest anticipated return (Keller & Siegrist, 2006) Investment in real estate and bonds is considered to have a medium risk profile according to the average variance of investment returns (P. M. A. Eichholtz, 1996). Investors need to be aware of the variables that affect asset allocation because the risks and returns of investing differ. The process of choosing how to divide up assets across different asset classes is known as asset allocation. An asset class shares the same characteristics, features, and attributes. Investors must understand the elements that influence asset allocation because investment risks and rewards vary.

2.2. Risk Perception and Financial Literacy

Finucane et al. (2000) argues that the risk is a component of both profit and the loss and contains both. According to (Gärling et al., 2009), Risk perception is important in financial decisions and is impacted by a variety of variables, including personality and demography. However, studies on risk perception have produced varying and contradictory results.

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Men are shown to take more chances than women, while single males are found to take more risks than married men. Although males risks more than women (Bernasek & Shwiff, 2001; Betz et al., 2002; Grable & Roszkowski, 2007; Tolerance et al., 2000; Yao, 2011) were not able to discover any proof that risk perception differs by gender. Studies on another demographic, age, are more reliable. Almost all investigations reach the same conclusion: young people are more likely than older people to make risker decisions for investment.

2.3. Overconfidence and Financial Literacy

Overconfidence has already been connected to a number of risky behavior in the financial literature. (Moore & Healy, 2008). It has been demonstrated that overconfident people are likely to take part in competitive market places and tasks (Camerer & Lovallo, 2019). Over confidence in share market is linked to turnover and trading volume (Barber & Odean, 2001; Statman et al., 2006). The construct of overconfidence is frequently measured in the psychology field by contrasting subjective confidence measures with measures of performance (Larrick et al., 2007). Overconfidence has also been evaluated using this technique in financial literature (Biais et al., 2005). The advantages of financial knowledge and experience include lesser computational complexity and acquisition costs, as well as lower barriers to stock market investing (Haliassos et al., 1995). Women have lesser financial literacy than men (Lusardi & Mitchell, 2008; van Rooij et al., 2012), lesser math skills (Almenberg & Dreber, 2015), and are less familiar with investment instruments than men (Prast et al., 2014).

Organizers are particularly worried about overconfidence due to the various ways it can adversely affect financial decisions (Kramer, 2016). Financial knowledge is commonly considered as a barrier to the advancement of some cognitive biases (Thaler & Benartzi, 2004). For instance, status quo bias and inertia should be avoided by having a clear grasp of the necessity of putting a financial strategy into action. If a customer's financial literacy is incorrectly assessed, plans may not be carried out or may not be appropriate for the client. It has been shown that insufficient financial and investing knowledge influences investment behavior (McCannon et al., 2016). Because of this, clients with an overinflated sense of their own financial literacy could ask for more complex financial advice than they are capable of understanding. This could reduce the efficacy of a financial strategy and increase the likelihood of conflicts.

2.4. Loss Aversion and Financial Literacy

Individuals might even pay too much attention to gains and losses because they tend to underestimate how rapidly they will adapt to such adjustments (Cxxi, 2006). Cognitive biases among investors are influenced by cultural values; for instance, in Pakistan, women are more risk averse than men (Hassan et al., 2014). When making financial decisions, it is believed that female investors are more risk-averse than male investors.

Loss aversion is a concept mainly belonging to the field of behavioral finance. Loss averse people tend to save themselves from bearing losses. Two myopic loss aversions are experimentally evaluated. If investors with myopic risk aversion analyze their investments less frequently in order to get high returns, they will be more inclined to take risk (Gächter et al., 2022). The same potential for loss aversion effects means that strategies for responding to changes in economic circumstances should routinely distinguish between instances of positive and negative transformation (Kahneman et al., 2019). As according to Kahneman, Knetsc, and Thaler (1991), Investors who are loss aversion inclined frequently make unwise financial decisions.

2.5. Risk Perception and Investment Decision

The mental process of perception includes the senses of sight, hearing, and feeling. Information influences perception, which in turn affects judgement. Someone who gathers input can use it to form an image of the data's outcomes. Understanding threats that are different from one's estimates, assumptions, or realities is known as risk perception. Among cognitive biases is the sense of risk. The lesser the risk perception of an individual, the greater the behavior will be biased (Simon et al., 2000). Risk perception is critical in human behavior, particularly when making decisions in unknown conditions (Forlani & Mullins, 2000). When a person suffers a loss because of poor judgment, he or she tends to label the situation as dangerous, especially if the loss has a financial consequence. As a result, the perception of risk is an evaluation of individual which is potentially a dangerous circumstance that is strongly influenced by the individual's psychological characteristics and state (Antonides & Van Der Sar, 1990; Hoffmann et al., 2015; Nguyen et al., 2016; Weber et al., 2005). According to Hariharan, Chapman, and Domian (2000), A person is far less inclined to commit resources to high-risk investments and much more likely to choose low-risk assets the more risk-averse they are. Investors that perceive risk less favor high-risk assets over low-risk assets (Aren & Zengin, 2016) (Keller & Siegrist, 2006).

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2.6. Overconfidence and Investment Decision

The most commonly studied aspects of behavioral bias is the overconfidence (Barber & Odean, 2001; Dittrich et al., 2005; Gervais et al., 2011;TGlaser & Weber, 2007; Malmendier & Tate, 2005). Overconfidence is considered as an illogical conviction that is supported by a strong sense of self-worth and high levels of cognitive ability. Overconfidence leads a person to assume he is wiser and possess more knowledge, so when he predicts an event to be unavoidable, truth is commonly just under predicted. Overconfidence is also known as an incorrect belief in individual's own skills, efficiency, or chance of success. Overconfidence is described as the conviction that one's judgement is superior to than others in addition to that an excessive certainty that one's opinions are correct (Moore & Healy, 2008). Someone who is overconfident tends to disregard the knowledge acquired because he is overconfident in his own thoughts, overly confident, and trusting in his own ideas and abilities. Overconfidence does have the negative effect of leading to people making more intense decisions than they ought to (Pikulina et al., 2017; Zacharakis & Shepherd, 2001). Overconfident investors believe they will profit greatly from their investments with little risk, even though this is not always the case and cannot be guaranteed. Chu et al. (2012) and Glaser & Weber, (2007) point out that overconfident investors make too many stock trades, reducing the number of returns gained (Barber & Odean, 2000, 2001). The overconfidence leads to the preference of threat over the security (McCannon, Asaad, & Wilson, 2016). A person having excessive confidence makes riskier financial judgments and invests money in those assets which are having high risk because of increased confidence (Breuer et al., 2014; Dittrich et al., 2005), even if the investment's ultimate outcomes are less than ideal. Overconfident investors are more likely to take profits too soon and maintain lost stocks since it is embarrassing to admit losses (Chen et al., 2007; Chu et al., 2012). Overconfidence improves stock investment involvement in high-risk circumstances (Xia et al., 2014). People who are overconfident invest more money in Investment Trusts for Real Estate (P. Eichholtz & Yönder, 2015).

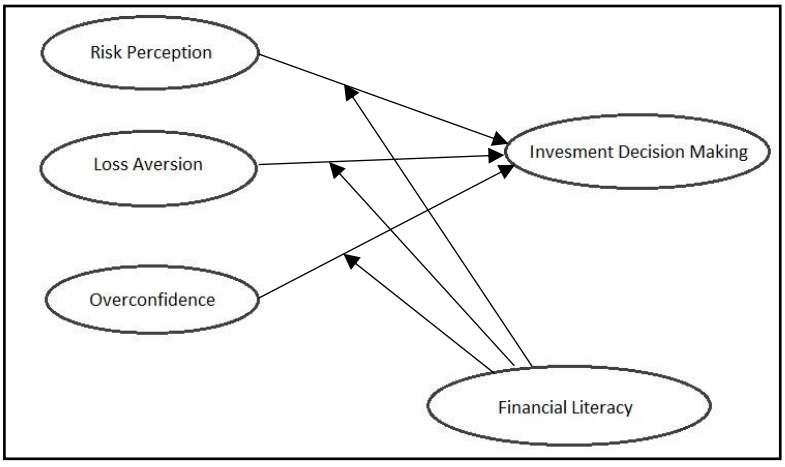
2.7. Loss Aversion and Investment Decision

Owing to the underestimation regarding the adaption to these changes, it is possible for people to overpay attention to losses and gains (Cxxi, 2006). The cognitive biases of investors are also influenced by cultural values; in Pakistan, men are more risk takers than women (Hassan et al., 2014). Particularly, it is said that while making financial judgments, women investors are probabilistically having more tendency to avoid risk than men.

2.8. Financial Literacy and Investment Decision

Money, which also acts as a source of income, has a significant impact on our social lives. Money can be saved or put into the stock market to make the most of their money, but in order to do either of those things effectively, they need to comprehend important financial information (Križanová et al., 2013). The combination of skills, knowledge and self-belief required to make wise financial decisions is referred to as financial literacy. Education level and literacy are positively correlated. Financial literacy and general education have a close relationship (Duca & Kumar, 2014). People with higher levels of education are better familiar with the evolving features of the financial sector. As financial markets have developed, financial literacy is becoming increasingly important (Marcolin & Abraham, 2006). The social contacts that people have with their coworkers, friends, and family significantly affect their financial literacy and decision to engage in active trading in stock markets. Due of proximity, word-of-mouth communication effectively disseminates information (Bönte & Filipiak, 2012).

Figure 2.1: Conceptual Framework



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3. METHODOLOGY

3.1. Respondents

The data was collected Investors across Pakistan. We contacted investors in various areas and invited them to take part in the poll. 205 respondents in all were contacted, and 168 gave their consent and supplied their information.

3.2. Demographics

128 males, or around 62% of the sample's 205 responses, were found in the sample's demographics, while 77 females, or roughly 38% of the sample, were represented. According to the facts acquired, investors are users who fall within the 25 to 45 age range.

Table 3.1: Demographics

Demographic Items	Frequency	Percentile
Gender		
Male	128	62%
Female	77	38%
Age		
20 – 29	104	51%
30 – 39	73	36%
40 – 49	21	10%
50 above	7	3%
Education		
Bachelor's	103	50%
Master's	30	15%
Professional Certification	36	18%
Others	36	18%
Occupation		
Businessman	31	15%
Doctor	35	17%
Engineer	11	5%
Teacher	18	9%
Other	110	54%

3.3. Sampling

Resident investors of Pakistan, Karachi made up the study's sample. Convenience sampling and purposeful sampling were the sample methods employed in this investigation. Convenience sampling is a sampling approach that uses conveniently available research items. Purposive sampling is a sample technique that is based on criteria that are relevant to the study's goals. This study relied on original data gathered through questionnaires. This study's objectives are to clarify the causal connections between the variables under examination.

3.4. Variables and Measurement

The dependent variable in this research was investment decision making, whereas independent factors were loss aversion, risk tolerance risk perception and overconfidence, and financial literacy has been taken as a moderator.

3.4.1. Investment Decision Making

Investment Decisions Setting goals, discovering and assessing information on a variety of different investment instruments are an integral part of the investment decision-making process. To evaluate investment decision-making, the percentage of funds allocated to low risky and high risky assets is employed. High risk investments have both a high rate of return and a high rate of risk, whereas low risk assets have the opposite

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characteristics. Savings and deposits are the measures used to measure financing and the ratio of financing in low risky assets, whereas homes, land, and gold are used to determine the ratio of financing in high risky assets (Hemal et al., 2016). If the proportion of low risky assets is more than the proportion of high risky assets, the variable is measured by employing nominal scale coded as (1), and if the proportion of assets with higher level of risk is greater than the proportion of low risky assets, the variable is measured using the code (2).

3.4.2. Risk Perception

Even this the risk is ambiguous and may not correspond to reality, a person's sentiments or ideas about danger are referred to as their risk perception. Risk perception factors can be measured by well performed appropriate investment, substantial value of future investment and the investment with good return (Nguyen et al., 2016). A Likert scale was used to evaluate the risk perception variable, with the response options being (1) Strongly Agree (A), (2) Agree (A), (3) Neutral (N), and (5) Strongly Disagree (SD) (SA).

3.4.3. Over Confidence

Overconfidence is the feeling of having too much confidence in one's skills and enthusiasm. Overconfidence implies that one believes their skills and knowledge are superior to those of others. The markers used to measure overconfidence variables are better possession, management ability when it comes to investment returns, and confidence in prior triumphs (Pan & Statman, 2011). Scale is used to assess overconfidence. A Likert scale was developed from the overconfident sentence, with the five response options being (5) Strongly Agree (SD), (4) Agree (D), (3) Neutral (N), (2) Disagree (A), and (1) Strongly Disagree (SA).

3.4.4. Loss Aversion

Someone who is excessively risk averse and unable to accept losses is said to have loss aversion. Loss aversion is a maladaptive behavior brought on by a fear of losing that results in a disproportionate rejection of risks that can be damaging. Loss aversion caution, investments with obvious losses, and investments with a track record of consistent performance are the indicators that are used to quantify loss aversion variables (Khan et al., 2017). Utilizing a Likert scale with five response options from 1 to 5, (5) Strongly Agree (SD), (4) Agree (D), (3) Neutral (N), (2) Disagree (A), and (1) Strongly Disagree (SA) the loss aversion variable is evaluated.

3.4.5. Financial Literacy

Understanding how money functions in society, including how people earn it, handle it, invest it (to generate more), and give it to others to help them out, is referred to as financial literacy (Giesler & Veresiu, 2014). When it comes to gender, employment experience, class level, and education, financial literacy varies. Males are more financially literate than females, and those with higher levels of work experience, education, and class status will likewise be more financially literate than those with lower levels of these factors. Americans are more financially literate than those in other nations. Researchers have studied the significance of financial literacy and its impact on making choices regarding investment. H4: Financial literacy significantly influences investment decision-making in a good way.

4. DATA ANALYSIS

The Partial Least Square (PLS) analysis with the Structural Equation Model (SEM) approach and the Warp PLS 4.0 program were employed in this investigation. The approach was used to assess the link between latent components in nonlinear and linear relationships using multiple types of barometers for the PLS statistical test. For the PLS (Partial Least Squares) technique, to validate the measurements, and to test the hypotheses, the Smart PLS 4.0 software was employed. The estimation of model has been performed by employing a the PLS technique. It is concerned with testing the structural models. The PLS technique was used as normality of the data is not required. The use of path modeling was employed by bringing the use of Smart PLS 4.0. Instruments used in this research have established reliability and validity. Additionally, the sample comprising of 207 respondents was used in bootstrapping for producing the standard error of the estimate and t-values. The PLS technique is used by the Smart PLS for assessing the hypotheses developed for this study.

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Table 4.1: Reliability and Validity

Variables	Cronbach's alpha	rho_A	Composite reliability	Average variance extracted (AVE)
FL	0.689	0.689	0.828	0.616
IDM	0.848	0.848	0.929	0.868
LA	0.705	0.708	0.835	0.629
OC	0.736	0.746	0.85	0.654
RP	0.819	0.82	0.873	0.58

Two criteria are available in Smart PLS to determine convergent validity by (Fornell & Larcker, 1981): 1. Composite reliability and Cronbach's Alpha 2. the average variance extracted (AVE) demonstrates that any variables that meet the standard established by Tabachnik and Fidell are dependable. Additionally, the variables meet the criterion for composite reliability, according to which the dependability of the composite should be larger than 0.7, as proposed by Nunnally (1978). AVE should be more than 0.5 to determine the convergent validity (Fornell and Larcker, 1981) and every variable in the suggested framework satisfies this condition. In the current study, construct reliability, convergent validity, and construct discriminant validity are investigated to determine whether the measurement model is adequate. The construct dependability is established through a comparison of Cronbach's alpha and composite reliability (CR). Interitem consistency is used to quantify construct reliability using Cronbach's alpha and composite reliability. The needed value for both should be greater than 0.7 (Fornell & Larcker, 1981). The interim consistency is established, as shown in the table, because the alpha and CR values for every construct are more than 0.7. When items would have a factor loading of 0.7 or greater, convergent validity would be established (Hair et al., 2014) The construct must measure at least 50% of the variance, and each construct's average variance extracted (AVE) must be at least 0.5 (Henseler et al., 2015). The establishment of item-level and construct-level convergent validities is shown in the table; for the purpose of creating groups, the minimum loading for each construct is greater than 0.7 and the AVE for each construct is greater than 0.5. The Bartlett's test findings show that the significance value is 0.000, which is less than 0.05. The results show that the variables are sufficiently connected, and they generally provide a solid foundation for factor analysis.

Table 4.2: Hypothesis Testing

Path	Hypothesis	Original sample (O)	P values	Conclusion
FL -> IDM	H1	-0.169	0.000	Accepted
LA -> IDM	H2	-0.205	0.000	Accepted
OC -> IDM	H3	0.112	0.020	Accepted
RP -> IDM	H4	-0.179	0.000	Accepted
FL x LA -> IDM	H5	0.251	0.000	Accepted
FL x OC -> IDM	H6	0.032	0.574	Rejected
FL x RP -> IDM	H7	0.119	0.028	Accepted

5. DISCUSSION

The study's goal is to examine how factors such as financial literacy, loss aversion, excessive confidence, and risk perception affect investment decision-making. It also examines how these factors affect investment decision-making when the construct of financial literacy moderates the relationship. Testing path coefficients in the structural equation model can be used to conduct hypothesis analysis based on the study's empirical model. According to Table 2, the SEM model's estimation results indicate that the majority of the variables significantly affects the making of decisions regarding investment, including the influence of financial literacy as a moderator and the effects of loss and risk aversion on investment decision making a impact of overconfidence and risk perception. The effect of excessive confidence on investing decisions, even with financial literacy acting as a moderator, is,

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however, not very important. The order in which the hypotheses have been examined is shown in the discussion below.

Financial literacy's impact on investment decision-making (H1) Investment decision-making was significantly impacted negatively by financial literacy (p 0.01, o=-0.169). The original sample's score for financial literacy was -0.169, indicating that the more financially intelligent an investor is, the more likely it is that they will avoid risky investments. The ability to make financial decisions while considering one's own short- and long-term interests is known as financial education literacy (Mandell, 2008). In general, investors believed that having financial literacy brings about extra advantages. Also demonstrated the detrimental effect of financial market investments, which is brought on through a lack of financial education and ultimately results in loss (Cocco et al., 2005). To properly invest, one's financial literacy should be improved (Cocco et al., 2005). Improved financial literacy is necessary for successful investing.

Loss aversion's effect decision regarding investment (H2) Loss aversion significantly and negatively affects investment decision, according to the model estimation results (p 0.01; o = -0.205). This indicates that aversion of loss negatively affects the choice of an investing strategy. It means that a individual decision to assign money to high risky and low risky assets can be influenced by their level of loss aversion. Loss aversion has a major detrimental impact on investing choices for high risky assets (Arano et al., 2010; Berkelaar et al., 2004) Additionally, it promotes the purchase of lower-risk investments (Dimmock & Kouwenberg, 2010).

Overconfidence's impact on investment decision-making (H3) Customer satisfaction is significantly and favorably impacted by service (p 0.1; o = 0.112). The initial sample size for making investment decisions was 0.112, which demonstrates that overconfidence has a considerable beneficial impact. The more overconfidence there is, the more investment decisions are made in high-risk assets. Overconfidence is when a person has an overly positive outlook on their knowledge or information. The research findings are in alignment with earlier studies showing that individuals are more fond to invest in shares when they are overconfident (Xia et al., 2014) and investment in real estate (P. Eichholtz & Yönder, 2015), Whereas placing money in a bank account carries a lower risk than these two sorts of assets.

Risk perception's impact on investment decision-making (H4) Investment decision was negatively and significantly impacted by risk perception (p 0.1; o = -0.179). It indicates that if a person has the perception or belief that an investment asset's risk is high or harmful, they are more likely to avoid investing in that asset and opt instead to put their money into low-risk investments like savings accounts and certificates of deposit. The outcome of this investigation is in alignment with the research of Nguyen et al. (2016), Aren and Zengin (2016), and Keller and Siegrist (2006) It shows that the allocation of hazardous assets is significantly impacted negatively by risk perception and (Hariharan, 2000) Additionally, it shows how favorably it affects the investment of funds in low risky assets. The way a person perceives risk has a direct effect on their investment decisions (March & Shapira, 1987).

Loss aversion's impact on investment decision-making (H6) Loss aversion has a positive and significant influence on investing decision, with financial literacy acting as a moderator (p 0.01; o= -0.251). The findings demonstrate the importance of financial literacy as a moderator between loss aversion and investment decision-making. It implies that a person's tendency to be loss-averse and steer clear of investing in risky assets increases with their level of financial literacy.

Financial knowledge acts as a moderator but has no bearing on the effect of overconfidence on investment decision-making (H6) (p > 0.1; o = -0.032). The findings indicate that, whether an investor is highly financially literate or not, financial literacy cannot act as a moderator to reduce risk in the relationship between their level of overconfidence and their investment decisions. Instead, they show that there is no relationship between these two factors.

Financial literacy as a moderator has no impact on investment decision-making when it comes to the effect of risk perception on investment decision-making (H6) (p > 0.1; o = -0.119). The study's findings demonstrate the value and significance of financial literacy as a moderator between risk perception and investment decision-making. It shows that the investor has a higher risk perception the more financially knowledgeable they are, and as a result, they are more likely to choose less riskier investments.

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Table 5.1: Multicollinearity

Variables	*FL*	*IDM*	*LA*	*OC*	*RP*	*FL x LA*	*FL x OC*	*FL x RP*
FL	1	-0.724	0.588	-0.628	0.585	-0.598	0.684	-0.639
IDM	-0.724	1	-0.728	0.689	-0.722	0.803	-0.713	0.755
LA	0.588	-0.728	1	-0.539	0.565	-0.605	0.584	-0.613
OC	-0.628	0.689	-0.539	1	-0.607	0.577	-0.614	0.609
RP	0.585	-0.722	0.565	-0.607	1	-0.629	0.633	-0.568
FL x LA	-0.598	0.803	-0.605	0.577	-0.629	1	-0.675	0.724
FL x OC	0.684	-0.713	0.584	-0.614	0.633	-0.675	1	-0.794
FL x RP	-0.639	0.755	-0.613	0.609	-0.568	0.724	-0.794	1

The relationships between the constructs have been examined using a structural model. However, to determine relationships between constructs, correlational analysis comes first. The table displays the correlation between the constructs; correlation values among independent variables greater than 0.9 suggest multicollinearity issues; problems may also be there at lower correlation values (Dohoo et al., 1997). The problem of multicollinearity is indicated by the correlation of 0.724 between loss aversion and financial knowledge. Variance inflation factors (VIFs) are estimated for the independent variables listed in Table 4 to test for multicollinearity. The maximum value for VIF is 4 (Hair et al., 2010). Since none of the VIF values are greater than 4, multicollinearity is not a concern, according to empirical evidence.

6. CONCLUSION

This study intends to examine how investors' investing decisions are affected by their perceptions of risk, loss aversion, and overconfidence while taking financial literacy into account as a moderating factor. In contrast to overconfidence, which shows a positive link with investment decision-making as described, the results of our study show a negative relationship with financial literacy, loss aversion and risk perception. Financial literacy possessed a significant impact on investment decision-making in this study. Overall evidence suggests that investors are unlikely to make higher riskier bets. It is also shown that a lack of financial literacy contributes to the negative effects of capital market participation.

Furthermore, loss aversion has a big influence on investment choices. This suggests that an investor's decision to allocate money to high-risk vs low-risk assets might be influenced by their loss aversion. In our research, overconfidence significantly improves investment choices. The tendency to make investments in high-risk assets increases with the level of overconfidence. When someone perceives a risk as being high or dangerous, there is a less chance of investing in it and a greater chance to invest in low-risk assets like savings accounts and certificates of deposit. The research demonstrates that loss aversion and investment decision-making are significantly influenced by financial literacy. This shows that a person's likelihood of being loss averse and avoiding investing in risky assets increases with their level of financial literacy. Financial literacy has not been found to attenuate the relationship between investor overconfidence and investment decisions. If an investor has overconfidence when making an investment decision, they will still make risky investments regardless of whether they are financially educated. Financial literacy can operate as a moderator in the relationship between risk perception and investing decision-making, showing that the more financially literate an investor is, the higher their risk perception.

7. IMPLICATION FOR MANAGERS

This knowledge is useful for managers or investors who are involved in the investment process, whether they are investing on an individual or institutional basis. When it comes to making investment decisions, accepting investment risk, and creating investment portfolios for the intended return, this information provides fund managers with guidance. The information offered also gives fund managers guidance on how to invest specifically. The investments that have already been made provide a clear roadmap for future investment decisions. Fund managers might use many factors that have a direct relationship to investments to make judgments. Individual and professional investors, fund managers, and other management in the financial services industry can all benefit from this data. The current research identifies variables that have an impact on the choice of investments. Additionally, research has produced the answer to the issue.

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8. LIMITATION AND FUTURE RECOMMENDATION

This study has some drawbacks. It did not include alternative investment products like bonds and mutual funds, to start. Additionally, the research model only included Karachi, therefore, to conduct an analysis, the researchers had to look at the distinctive features of various cities. Furthermore, this study did not investigate how gender affects investment choices.

The community should be aware of the potential for behavioral bias to avoid and reduce the making of illogical investment decisions. That is why it ought to be considered when selecting investment assets. To be aware of the potential for behavioral bias that their clients may face, investment advisers are expected to help determine the characteristics of clients, particularly those connected to risk. This will allow them to correctly direct clients when allocating their own assets. Because each group may have different features, the researchers should divide the research model by area and gender in subsequent studies. They could also add various investment possibilities than savings, deposits, houses, land, and gold.

This research has been tested with some of the independent variables with specific moderation of financial literacy, but there are other independent variables that affect investment decision making process. Moderation can be replaced for different results. If research area can be extended to further cities, sample size is increased and real investors particularly participate in future study so, the results will be different and could be better.

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