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Impact of Investors Behavioural Factors Leading Investment Decision Making an Empirical Study in a Mediating role of Financial Literacy a Case Study of Local Investors of Pakistan Stock Market.

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Abstract
Purpose - In this research paper, we study the behavioral factors that impact investment decision making among the Pakistan stock exchange (PSX) investors in Karachi, considering the aspects of investor sentiments, overconfidence bias, and herding behavior, with financial literacy acting as a mediating factor.

Methodology - A quantitatively designed survey was shared with PXS investors, out of which we received 115 valid responses. SPSS (version 22, SPSS Inc.) and Excel were used to perform correlation and multiple linear regression analysis.

Findings - Investor sentiments, overconfidence, and market herding behaviour are the main factors affecting investment decision making, whereas financial literacy helps to moderate these factors

Implications - Understanding psychological profiling of investors and improving their financial literacy can assist investors, analysts and policymakers to make informed investments and avoid irrational behavior

Originality - This research adds to the behavioral finance literature in the context of Pakistan's PSX by delineating psychological and financial literacy factors affecting investment decisions.

Type of Research - The quantitative study that used survey data and statistical methods to investigate the relationship between prospective investor sentiments, overconfidence bias, herding behavior, and investment decision-making while testing the mediation of financial literacy.

Keywords: Investment Decision-Making, Behavioral Finance, Investor Sentiments, Overconfidence Bias, Herding Behavior, Financial Literacy, PSX Investors, Karachi Stock Market.

Introduction
The study of behavioural finance has developed into a fundamental branch of analysis whose researchers analyse psychological elements which control investment choices. **Behavioural finance** differs from traditional finance theories because it demonstrates that investors choose decisions through information-based rationality but show deviations through cognitive biases and social pressures and emotional reactions (Tversky & Kahneman, 1974). Market inefficiencies and volatility happen because investors

make suboptimal investment choices because of the biases including overconfidence and loss aversion and **herd behaviour** and risk aversion.

Overconfidence of investor (Barber & Odean, 2001); Investors tend to think that they can predict the market better than they actually do and this leads them to make unnecessary trades and invest in riskier businesses. This indicate that when market participants act other than doing personal research and they do actions that are matching with the reference group behaviour, the participants contribute to the market trends which could cause irrational bubbles and crashes (Bikhchandani et al., 1992). According to Kahneman and Tversky (1979), investors conduct risk aversion that they do not make an investment with a high-risk reward but a large amount of risk to be avoided because they prefer to have selective risks.

Set against the backdrop of Pakistan Stock Market this research examines detail oriented impact of psychological determinants on investment habits of local investors who show decreased financial understanding. This study aims to explore financial literacy as a mediator which connects behavioural biases with investment choices of local investors. The analysis of this relationship in the research will show how financial education allows investors to detect and control biassed behaviour which leads to enhanced decision-making capabilities.

Financial Literacy as A Mediating Role

Financial literacy serves as the basic underpinning of investment decision-making quality. Financial literacy is the knowledge of an individual on the basic finances such as investment strategies, risk management and diversification and financial planning (Lusardi & Mitchell, 2014). Investors with more financial literacy make different (better) decisions as a consequence of knowledge on financial concepts that help them to make rational choices despite their decisions are influenced by psychological biases.

The researchers view **financial literacy as a mediating factor which demonstrates** how behavioural biases affect investors' financial choices. Investors who demonstrate better understanding of financial concepts can better interpret investment risks and rewards to spot biases when they occur including overconfidence and herd behaviour. When investors understand financial matters they use logical reasoning instead of their emotions to limit their responses to investment choices and unrelated peer behavior. The research assumes financial literacy plays a mediating role which reduces the influence of behavioural biases on investment choice decisions including such distortions as overconfidence and risk aversion and following other investors. Financial literacy functions as a protective shield which counteracts negative influences produced by biases thus creating investment choices based in reason and knowledge.

Purpose of The Study

The study examines how local Pakistani investors make investment decisions while exploring behavioural elements that affect their investment behaviour along with the central role that financial literacy plays as a mediator. Proceeding with this analysis targets to understand both investment behavioural influences of standard decision-discouraging factors and how financial literacy functions as an interference against these errors.

The study will focus on the following research objectives:

1. Research investigates which behavioural biases exist most commonly among Pakistani investors who invest in local markets.
2. A new examination explores whether financial literacy functions as a mechanism which links behavioural biases to the process of formulating investment choices.
3. This project investigates how demographic characteristics such as age and gender in combination with educational attainment and financial status affect both economic decisions along with financial knowledge levels of investors.

Literature Review

The way in which investors make their decisions about investments is strongly affected by behavioural biases which result in substandard investment results. Researchers of behavioural finance have studied many types of biases that affect individual investment choices and have recognised key elements in these choices. When individual and institutional investors grasp behavioural biases they become better able to counteract their negative forces while making sound financial choices.

Overconfidence Bias:

Overconfidence base their assumption on their ability to forecast market shifts and measure their insights correctness (Barber & Odean, 2001). This strategy influences investors to think their skills surpass others which causes excessive market transactions. Overconfident investors execute several trades that create costs for transaction fees and choosing wrong moments thus reducing their total profits (Odean 1998). Bad diversification and increased risk exposure stem from investors who underestimate their losses (Kahneman, 2011). Pakistan has very little financial literacy available to the masses, which can aggravate the cases of 'overconfidence' among investors who are inexperienced when it comes to performing 'financial market activity'. Inadequate analytical research results most investors rely on personal bias for investment decisions creating both overtrading and risky financial decisions (Mansoor & Ghafoor, 2020). Mistakes made at the local market in addition to false information only serve to bolster investor overconfidence which makes investors believe they can market timing welly and predict prices as well. Solving this cognitive bias requires not just better financial education but also reliable investment tools that can lead to better investment decisions. Herding Behaviour: Bikhchandani et al. (1992) people tend to stick to collective decisions rather than individual assessment; this is what is referred to as herding behaviour. The phenomenon manifests critical problems ever since in the midst of market volatility when investors continue to act irrationally and respond instantly according to the directions of the market, causing market bubbles and bursts. There are three underlying psychological drivers of herding behaviour, which are fear of missing out (FOMO), social pressure and lack of confidence to make independent decisions. The collective cultural traditions of Pakistan augment the strength of social influence to have people take action based on family members and work colleagues actions (Hussain et al., 2017). The existing Pakistani cultural trends tend to restrict individuals in making decisions based on rationality while taking an investment decision and consequently, they always move along with others.[3:9] Due to insufficient exposure to professional financial research, most investment seekers in Pakistan are used to getting financial advice through second-hand recommendations. In conclusion, as prices deviate from fundamental values due to the aggregate irrationality of the market individuals, market inefficiencies arise. Reducing the impact of herd behaviour on collective monetary choices can be latest educated persons independently on matters of finance alongside striving critical funding thought.

2. The Role of Financial Literacy

Financial literacy is one of the factors that affect efficient investment decision making. Managing financial resources through the process of informed decision making, requires the foundational component of knowledge along with skill, and enough comprehension skills. Not only the analysis and assessment of investment alternatives and risks but also returns, people seek to have the experience available of knowledge and skills. A sense of finance enables an individual to figure out the complexities of a market so as to invest rationally, keeping in view of the future monetary goals for themselves by managing their assets. The research shows that when making educated financial decisions, your understanding improves with less negative effects from cognitive bias that affect individuals when it comes to financial decisions. Financial literacy gets things done accordingly, high level of knowledge and skills in finance and it serves as a building block to their success results and increases their net worth and overall financial well-being.

Informed Decision-Making

Low and no definition on financial literacy increases people's ignorance in making quality investment decisions. Purchasing financial literacy is not only needful lines of credit worth your learning, as well responsible open account/date ranges to work with, branches of market experience, etc. The people who comprehend economic aspects such as asset assessment and the risk versus reward harmony and the market volatility handling skills make strategic investment as per their economic planning goals. Such assessments enable superior decision-making through exploration of both current performance and future viability and danger points of potential investments. Lusardi and Mitchell (2014) established that financial literacy helps investors link mutual funds and stocks to real estate investments and bonds into their complete financial strategy. Through financial literacy investments become more accessible since people can select opportunities that align with their preferences for risk and requirements. People who have limited financial knowledge tend to base their investment choices on feelings rather than market trends therefore they often suffer from bad investment outcomes. Individuals who understand financial matters construct diversified investment portfolios because it decreases their financial risk. By distributing investments into various asset types through diversification people reduce the negative consequences that stem from poor performance within a single investment category. The research of Hastings et al. (2013) states that people who demonstrate higher financial competency plan their investments through diversification and risk control methods to produce improved investment results. Their understanding of market conditions enables such investors to decide when to retain or exit particular investments while preserving their investments from typical impulsive choices which newbie investors often make.

Behavioral Bias Mitigation

Human decision-making is subject to well-known behavioural biases, not least overconfidence, loss aversion and herd behaviour, all of which affect rational decision-making processes. Educating oneself about financial concepts cheque book encourages investors to identify these behavioural blemishes and to implement practices to minimize them. It is financial literacy that allows investors to approach this challenge, showing them how human cognitive limits structure the decisions they make regarding their investments. Many investors suffer from overconfidence believing they can predict changes in the markets as successfully as they can pick winning stocks to invest in. Financier education individuals use the information surrounding them that causes them to seen data limitations can change their choices as per these restrictions. Consequently, a knowledgeable investor would seek expert consultation and carry out detailed research or rely on facts above speculation. A financial literacy is a tool to reduce a possibility of going for unwise or high-risk investments. Individuals who demonstrate loss aversion through their psychological bias experience stronger fears of loss than they do gains which causes them to make irrational investment decisions by improperly extending their ownership of losing assets. Financially literate investors make investments with a focus on long-term goals because they master the ability to think rationally when markets experience volatility. Financially literate people according to Almenberg and Säve-Söderbergh (2011) maintain their resilience against loss aversion since they know how to regulate risks and establish financial targets and distribute investments effectively. Financially informed people who understand the concepts of diversity and risk control can escape from making irrational decisions because they have a better knowledge of following independent strategies instead of just copying what others do. Knowledgeable investors base decisions from personal analysis because financial education enables them to act independently instead of choosing what others do in the market.

The Interplay Between Behavioral Factors And Financial Literacy

The relationship between financial literacy and behavioural biases exists in a complicated manner. The learning of financial topics helps minimise behavioural bias effects in financial decision-making but such education remains subject to cultural factors. The Pakistani population including those who are financially literate shows biassed behaviour because of strong cultural habits and social norms (Khan & Rizvi, 2020). During market volatility periods people get influenced by family and peer choices which causes them to make poor independent financial choices.

The psychological biases in people often resist complete elimination through standard financial literacy programmes. Financial education programmes show reduced effectiveness when they fail to use behavioural analysis for helping people recognise the psychological elements which drive their financial choices (Hastings et al., 2013). A complete financial education programme that teaches both financial expertise along with psychological behaviour patterns will create superior investment results for Pakistani investors in emerging markets.

Hypotheses Testing

Based on the theoretical and conceptual framework, the following hypotheses have been formulated:

- **H1**: Investor sentiment positively influences investment decision-making in the Pakistan Stock Market.
- **H2**: Overconfidence bias positively influences investment decision-making in the Pakistan Stock Market.
- **H3**: Herding behavior positively influences investment decision-making in the Pakistan Stock Market.
- **H4**: Financial literacy mediates the relationship between investor sentiment and investment decision-making.
- **H5**: Financial literacy mediates the relationship between overconfidence bias and investment decision-making.
- **H6**: Financial literacy mediates the relationship between herding behavior and investment decision-making.
-

Conceptual Framework:

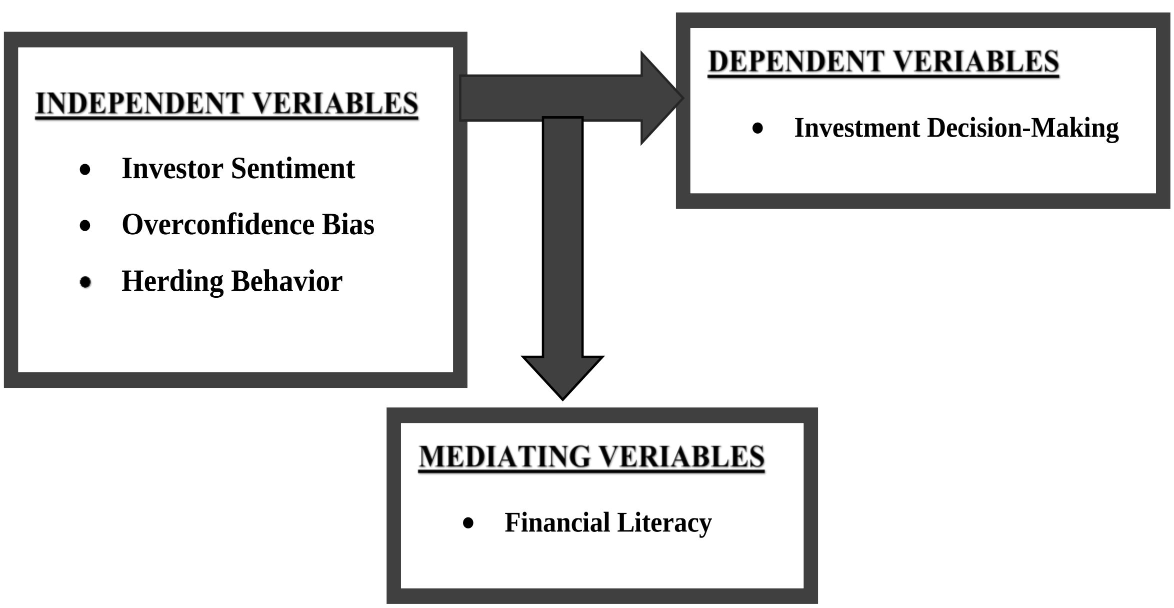

Figure 1: Conceptual Framework

Methodology

Research design & data collection

This study is based on **primary data collection** through structured questionnaires. The collected data was analyzed using **statistical tools and techniques**, specifically **descriptive analysis, multiple regression, and correlation analysis** in **SPSS**. These techniques were chosen because **regression and correlation** are among the most effective statistical methods for assessing the impact of **independent variables** on **dependent variables** in financial research.

Target Population & Sampling Method

The target population for this study comprised **individuals inclined towards investment in the Pakistan Stock Exchange (PSX)**, particularly those residing in **Karachi** with potential interest in stock market investments. The rationale for selecting this group was their **relative inexperience** in investing in PSX, making them suitable for studying **investment decision-making (IDM)** patterns.

The study employed a **non-probability sampling technique**, specifically **convenient sampling**, and due to the **lack of an exact population number** of investors. This approach allowed researchers to reach respondents **based on accessibility.** The selection of this sampling method is supported by prior studies, such as **Bakar & Yi (2016)**, which followed a similar methodology in investor research.

Results & Discussions

1. **Demographic Insights**

Table 01: Demographic Overview

Category	Variable	Frequency (N)	Percentage (%)
Gender	Male	89	77.4%
	Female	26	22.6%
Age	Under 25	37	32.2%
	25 - 35	69	60.0%
	36 - 45	8	7.0%
	46 and above	1	0.9%
Education	High School or Below	57	49.6%
	Bachelor	46	40.0%
	Above Bachelor	8	7.0%
	Master	4	3.5%
Occupation	Employed	84	73.0%
	Self-Employed	13	11.3%
	Student	2	1.7%
	Retired	16	13.9%

The demographic analysis of the survey data indicated that most respondents were working-age males, 77.4% in total, the larger share (60.0%) within the 25–35 age bracket. Education levels are clearly clustered around high school (49.6%) and bachelor’s degree (40.0%), while employment status is heavily skewed towards the employed (73.0%). The study believes that the sample is representative of financially active individuals with moderate educational backgrounds.

2. **Reliability & Validity of Data**

Table 02: Reliability Statistics

Variables	Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	No of Items
All Variables	**0.826**	**0.844**	17

There are 115 valid cases in the dataset, and so all data is available and completely reliable for statistical analysis. The reliability analysis, as measured by Cronbach's Alpha, yielded a value of 0.826, reflecting a high internal consistency. This demonstrates that the 17 items that were used were well-correlated and can measure a common construct.

3. **Descriptive Statistics & Key Variable Trends**

Table 03: Descriptive Statistics

Variable	N	Minimum	Maximum	Mean	Std. Deviation	Skewness		Kurtosis	
	Stats	Stats	Stats	Stats	Stats	Stats	Std. Error	Stats	Std. Error
IS	115	1.67	5	3.713	0.72128	-0.621	0.226	0.418	0.447
OB	115	1	5	3.1536	0.74442	-0.265	0.226	0.257	0.447
HB	115	1	5	3.2812	0.84764	-0.574	0.226	0.328	0.447
FL	115	1.25	5	3.8413	0.64066	-1.059	0.226	2.858	0.447
IDM	115	1.25	5	3.8696	0.66503	-1.112	0.226	2.608	0.447

The descriptive analysis shows different levels of influence among the five variables. Investment Decision-Making (IDM), Investor Sentiment (IS), Overconfidence Bias (OB), Herding Behavior (HB) and Financial Literacy (FL).

- The mean score (3.8696) shows a strong positive tendency toward investment decisions made by respondents, with IDM (Investment Decision-Making).
- FL comes next (3.8413), underlining its significance in influencing investment choices.
- Both IS (3.7130) and HB (3.2812) have moderate mean values, indicating that they impact the choice of investment.
- OB (Mean = 3.1536) had the lowest mean indicating that overconfidence bias is less prominent in their decision making.

Values of standard deviation indicate some moderate variability across responses, as HB (0.84764) has the most variability and FL (0.64066) is the most consistent. Additionally, the skewness values of all variables have negative values, which suggests that responses have a tendency to cluster in their upper ratings, with the highest skewed values being IDM (-1.112) and FL (-1.059) respectively. Moreover, FL (2.858) and IDM (2.608) show the largest kurtosis indicating peakedness and that the responses concentrate around the mean. Overall, these results indicate that respondents provided positive ratings overall, however, some variability in certain variables indicates mixed opinions.

4. **Regression Analysis**

Table 04: Regression with Mediator

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	**0.671**	**0.45**	**0.43**	**0.50227**
a. Predictors: (Constant), FL, HB, OB, IS				
Without Mediator				
Model	**R**	**R Square**	**Adjusted R Square**	**Std. Error of the Estimate**
1	**0.475**	**0.225**	**0.204**	**0.59318**
a. Predictors: (Constant), HB, OB, IS				

When calculating the mediator the independent variables explain **45%** of the variance for **IDM (R^2 = 0.450)** with strong models for the prediction. Individually, **FL, IS, OB and HB** were given a statistical significance **(F = 22.464, $p < 0.001$),** confirming their joint influence on **IDM**.

- The model without mediator **(FL)** explains **22.5%** of the variance **(R^2 = 0.225)** with less predictive power.
- The explanatory power of the model increases dramatically to **45% (R^2=0.450)** when the mediator **(FL)** is taken into account, which further emphasizes the importance of financial literacy **(FL)** in investment decisions.
- **FL** indicates the strongest positive impact **(β = 0.532, $p < 0.001$)** cementing its noteworthy role in informing sound investment decisions.
- **Investor sentiment (IS)** and **overconfidence (OB)** have marginal significance **(IS:β=0.167,p=0.054;OB:β=0.158,p=0.051)** indicating that these two proxies have a potential effect on IDM, but these results may need a confirmation.
- For **HB, β = -0.045, p = 0.595**—is not statistically significant.
-

Key Findings

- **FL** gives **R^2 = 0.450** compared to just **R^2 = 0.225** without it, strongly showing that fully linking ESG is important to investment decision-making.
- The most influencing factor is **FL (β = 0.532, $p < 0.001$)** which has the strongest positive impact.
- **(FL),** indicating that **IS** and **OB** are somewhat mediated through **FL**.
- Indeed, the results suggest that herding behavior does not significantly influence **IDM**, as HB remains t-stat non-significant across the models.

5. **Correlation Analysis & Mediating Role of Financial Literacy**

Table 05: Correlation

	Variables	IS	OB	HB	FL	IDM
IS	**Pearson Correlation**	1	.255**	.538**	.272**	.328**
	Sig. (2-tailed)	-	0.006	<.001	0.003	<.001
	N	115	115	115	115	115
OB	**Pearson Correlation**	.255**	1	.282**	.422**	.413**

	Sig. (2-tailed)	0.006	-	0.002	<.001	<.001
	N	115	115	115	115	115
HB	**Pearson Correlation**	.538**	.282**	1	.195*	.193*
	Sig. (2-tailed)	<.001	0.002	-	0.037	0.039
	N	115	115	115	115	115
FL	**Pearson Correlation**	.272**	.422**	.195*	1	.636**
	Sig. (2-tailed)	0.003	<.001	0.037	-	<.001
	N	115	115	115	115	115
IDM	**Pearson Correlation**	.328**	.413**	.193*	.636**	1
	Sig. (2-tailed)	<.001	<.001	0.039	<.001	-
	N	115	115	115	115	115
Correlation is significant at the 0.01 level (2-tailed). Correlation is significant at the 0.05 level (2-tailed).						

These results are in line with the correlation matrix which indicates a strong correlation between **Financial Literacy (FL)** and Investment Decision-Making **(IDM): r = 0.636, p < 0.001**. This indicates that the literacy of finance is greatly increasing the ability of investors to make rational choices.
On the other hand, Overconfidence Bias **(OB)** displays a moderate relationship **(r = 0.413, p < 0.001)**, signifying that optimism also plays a role in investment decisions, but excessive overconfidence may be counterproductive **Investment Sentiment (IS)** showed a weaker, but still significant correlation **(r = 0.328, p < 0.001),** indicating that investment behavior is influenced by emotions and trends, albeit to a lesser degree than other measures.
Moreover, **FL** serves as an essential mediator in the link between cognitive biases **(OB, HB)** and **IDM**. Higher levels of financial literacy allow investors to identify and ignore psychological biases when making their investment decisions.

Key Findings

1. **FL** is the most important factor in **IDM** and emphasize the importance of financial literacy.
2. The average values of R-squared are **0.1293, 0.1738**, and **0.1332**, indicating that **OB** and IS have a moderate impact on **IDM**.
3. Investors have less tendency to herd in our sample as **HB** has no significant contribution to **IDM**.
4. **FL** prevents the adverse impact of cognitive and emotional biases on investment choices by acting as a mediator.
5. The overall model explains **45%** of variance in **IDM** confirming a robust predictive relationship between the variables studied

These results highlight the important contribution of financial literacy to improve investment decisions and mitigate the effect of psychological biases.

Hypothesis	Statement	Decision
H1	Investor sentiment positively influences investment decision-making in the Pakistan Stock Market.	✓ **Accepted**
H2	Overconfidence bias positively influences investment decision-making in the Pakistan Stock Market.	✓ **Accepted**
H3	Herding behavior positively influences investment decision-making in the Pakistan Stock Market.	✕ **Rejected**
H4	Financial literacy mediates the relationship between investor sentiment and investment decision-making.	✓ **Accepted**

H5	Financial literacy mediates the relationship between overconfidence bias and investment decision-making.	✓ **Accepted**
H6	Financial literacy mediates the relationship between herding behavior and investment decision-making.	✕ **Rejected**

The study reveals that investment decision making in **Pakistan Stock Market** is influenced greatly by both investor sentiment **(H1, β = 0.263, p = 0.010)** and overconfidence bias **(H2, β = 0.360, p < 0.001);** yet herding behaviour is rejected **(H3 rejected, β = -0.050, p = 0.618).** This shows the sentiments and confidence plays an important role in making investment decisions, but in making investment decisions the Pakistanis investors does not follow the herd.

Financial literacy was confirmed as a mediator in between investor sentiment **(H4, β = 0.167, p = 0.054)** and overconfidence bias **(H5, β = 0.158, p = 0.051)** but was still significant in decision-making as an independent factor **(β = 0.532, p < 0.001).** However, it does not mediate herding **(H6 rejected, β = -0.045, p = 0.595),** reinforcing that herding is not a significant aspect of Pakistani investing.

Limitations

Even though it meets the quality criteria, this study has some limitations as mentioned below:

Statistical techniques have been run for this study, the sample size is 115. Indeed, it is sufficient for analysis purposes but is limited and statistical techniques produce more accurate and realistic results on a large sample size while estimating the population of investors at PSX. Resulting in a possibility of bias within the outcome. So, more accurate results have to, based on this.

Since a convenient sampling technique is applied to approach the investors of PSX so there is a possibility of error in estimating all features of the population.

Practical Implication

This study would assist to assist the professionals, investment advisors, policymakers, and regulatory authorities to realize the significance of behavioral factors in their decision making as well as its significance, which they ignore while making decisions on investments.

Conclusion

This study examines both Qualitative & Quantitative factors that affect IDM decisions in the PSX, emphasizing on IS, OB, HB & FL. The study indicates that financial literacy is critically important in the formation of rational investment decisions, with a significant contribution made by information in reducing the negative effects of a cognitive and emotional nature. The regression implies that financial literacy alone has the most significant positive effect on investment decision-making, whether on its own or facilitating any connections between psychological biases and making that kind of decision.

Investor sentiment and overconfidence bias has a moderate positive and significant effect on investment decision. Israelis are less likely to deter any lessons from these trends and are more likely to get caught up in positive thinking when investing. In a like manner, the overconfidence bias has a significant effect which shows that the investor would opt for riskier investments if the investor has high belief about their skills and knowledge. The presence of financial literacy in the model is reduces the effect of IS and OB, which means that financially literate investor was much able to control the emotional impact and overconfidence in decision making process. While herding behavior does negatively correlate Invest Decision. This indicates that investors on average make less reliance on the crowd while making investment decisions and tend to use their own insights instead, as compared to the sample investors in the vicinity of the previous studies. Furthermore, she found that financial literacy does not mediate the relationship between herding behaviour and IDM (individual decision making), a finding that corroborates that investors in Pakistan do not seem to exhibit behaviours of collective decision making (at least in this sample) based on the movements of the market. In addition, the predictive model yielded robust results, where adding financial literacy increased the model's explanatory power from 22.5% to 45%, underscoring the necessity of assessing individuals' financial literacy as they make investment decisions. This collective analysis not only reaffirms the link between FL and IDM but also elucidates the associated influence of cognitive biases and investor sentiment on financial behaviours.

Although the study provides valuable insights, it also recognizes certain limitations, such as the relatively small sample size of only 115 respondents and reliance on non-probability convenience sampling. As such, these elements could cause biases and tensions upon generalizing the findings to the population of PSX investors. Future studies with a greater, more representative sample and using alternative sampling methods may reveal even more dependable insights into investor behavior.

On a practical level, this research is important for finance professionals, policymakers, investment advisors, and regulatory bodies. This is also useful in the way that stakeholders will develop appropriate investor education programs or policies that help investors to invest rationally or be away from their behavioral biases, because well we already know that financial literacy can reduce behavioral biases. Overall, enhancing financial literacy among investors can result in more informed and strategic investment decisions, lessening the impact of psychological biases and contributing to a smoother and more efficient financial market in Pakistan.

Future Directions

Further studies may investigate how digital platforms, demographics and culture can affect investor bias. Exploring intervention strategies such as behavioral coaching, financial nudges, and AI-driven decision support tools would provide strategies to combat irrational behavior. Exploring the impact of biases during financial crises and their implications on long-term portfolio performance, as well as their role in other areas of finance (such as insurance and retirement planning), would give readers a more holistic insight into how finance decisions are made. Improving existing research on investor knowledge and behaviour will be essential for demand-side interventions in investor education as well as in regulatory policies to lessen systemic volatility in the financial markets.

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