

The mediating role of risk tolerance in the relationship between behavioural factors of small investors and investment decisions in the Saudi stock market.

Hoda Ahmed Ibraheem Abdelnabi
Mostafa Salah Mohamed Elmokadem
Arab East Collage, Saudi Arabia

Keywords

Behavioural factors, small investors, financial investment decisions, risk tolerance, Saudi stock market

Abstract

The aim of this study was to examine the mediating role of risk tolerance in the relationship between behavioural factors of small investors and investment decisions in the Saudi stock market. A random sample of small investors in the Saudi stock market was selected, with a sample size of 384 investors. Descriptive statistical methods such as mean, standard deviation, and frequencies were used to describe the study variables, and the mediation regression analysis was employed to test the study hypotheses.

The main findings of the study revealed that individual investors' risk tolerance acts as a partial mediator in the relationship between behavioural factors and investment decision-making in the stock market. There is a significant relationship between the behavioural factors of small investors and their ability to make investment decisions in the Saudi stock market. Additionally, there is a significant relationship between risk tolerance of small investors and their investment decisions in the Saudi stock market.

Based on the study findings, several recommendations were proposed, including the consideration of behavioural factors and risk tolerance of small investors by brokers and financial advisors in the Saudi stock market when providing advice and guidance on financial investments. They should also provide information based on accurate securities analysis to facilitate sound investment decisions in the Saudi stock market.

Introduction

The investment decision is one of the crucial decisions for the individual investor, as the investor's success and survival within the capital market depends on the accuracy of the investment decision taken. It has been shown that individual investors' investment decisions are affected by their personal characteristics, cognitive levels, and emotional biases, in addition to a group of demographic factors (Al-Najjar, 2017). Investment decisions in the stock markets are equally important for small investors, as there are many factors that can influence the buying or selling decisions that investors make when dealing in securities. Therefore, investors, especially small investors, which is the subject of the study, must take into account many factors. Which would influence their investment decisions, as these factors may be external, over which he has no control (Hussein and Khudair, 2013).

Many researches in the field of behavioural finance have shown that there is a group of psychological and social factors that affect the investment decisions of investors, which may lead to deviations in investor behavior. These deviations in investor behavior are called behavioural biases. The main reason for the emergence of these biases in investor behavior is due to... The attitudes and emotions of individuals differ from each other. On the other hand, individual investors represent the category most vulnerable to being affected by these behavioural biases than other institutional investors, as they may not have sufficient information about the market and may not have the ability to analyze this information. They do not rely on the specialized scientific methods that institutional investors rely on. On the contrary,

institutional investors have enormous resources and professional teams to collect and analyze information and make trading decisions based on specialized knowledge. Therefore, they have the greatest ability to make investment decisions that are characterized by rationality and independence in order to achieve appropriate rates of profits (Al-Badawi, 2016).

Research problem:

Securities prices are affected by the decisions of individual investors within the financial markets. Small individual investors within the Saudi stock market are distinguished by their privacy, which is governed by general economic conditions, in addition to the fact that there is a prevailing investment culture, which requires a study of the conditions of behavioural factors and their impact on small investors' investment decision-making and special factors. Within the capital market, by focusing on behavioural factors, as most studies aim to study and explore the impact of behavioural factors on investors' decisions (Hamada, 2022; Al-Najjar, 2017). Accordingly, the problem of the study is to answer the following main question: What is The Mediating Role of Risk Tolerance in the Relationship between Behavioural Factors of Small Investors and Investment Decisions in the Saudi Stock Market?

Research Hypotheses

- Considering the research problem and objectives, the research hypotheses can be formulated as follows:
- H1- There is a statistically significant effect of behavioral factors on investment decision-making for small investors in the Saudi financial market.
- H2- There is a statistically significant effect of behavioral factors on the risk acceptance of small investors in the Saudi financial market.
- H3- There is a statistically significant effect of the extent of risk acceptance on investment decision-making for small investors in the Saudi financial market.
- H4- There is a statistically significant effect of the extent to which small investors accept risk in the relationship between behavioral factors and investment decisions in the Saudi financial market.

Objectives of the Research

The objectives of the research are to identify

- The four behavioral factors for small investors in the Saudi capital market.
- The level of investment decisions of small investors in the Saudi financial market.
- The level of risk among small investors in the Saudi financial market.
- The impact of the level of risk tolerance of small investors on the relationship between the behavioral factors of these investors and their investment decisions in the Saudi financial market

Theoretical framework

The Saudi stock market, known as "Tadawul," was established in 1985 and has become one of the largest stock markets in the Arab region (Alshammari, [Citationm 2021](#)). It has experienced rapid growth in recent years, reaching a market capitalization of \$2.6 trillion by the end of 2022. However, stock market bubbles are notorious for their detrimental effects on investments and the overall economy. In financial economics, a bubble occurs when an asset's trading price deviates systematically from its fundamental value ([Almansour & Elkrghli, 2023](#)).

Determinants of Investment Decision-making

The investor usually looks for high returns in the levels of risk and return to come up with a right investment decision. Risk is categorized according to their source as the following (Kingdom of Saudi Arabia Capital Market Authority):

1. Business Risk: It is the risk that comes from the nature of the industry.

2. Economic Risk: It is the risk resulting from changes macroeconomic factors such as rates of unemployment, inflation, government spending, budget deficits and so on.
3. Interest Rate Risk: It is the risk resulting from changes in interest rates in the financial system of the economy.
4. Exchange Rate Risk: The risk stemming from changes in currency exchange rates. Usually, companies working in the business of importing and exporting are more influenced by this type of risk.
5. Liquidity Risk: The risk arising from the possibility of converting investment into cash (liquidating it).

One of the important principles that the investor must adhere to when making an investment decision is that information is the main and decisive element in decision-making. Information is what enables him to judge the feasibility of the investment, its suitability to the investment objectives, the risks to which he may be exposed, and the return he can obtain and benefit from the information. It depends on the investor's technical ability to analyze data, otherwise he must resort to specialists and experienced people to seek guidance from their technical advice and opinions (Kadawi, 2008).

Information plays an extremely important and vital role when making an investment decision, provided that this information is correct and accurate, which is what the law requires and what the rules and regulations governing the stock market require. It is provided through disclosure tools such as the subscription prospectus, financial statements, annual reports, and others (Hamada, 2022).

Factors influencing investment decision-making.

Behavioural finance recognizes that individuals' cognitive biases and emotional responses can influence their investment decisions. Risk perception, in this context, serves as a crucial intermediary variable that helps explain how individuals perceive and interpret risks, which subsequently affects their investment decisions.

studies (Saleh, 2014) indicate that the investment decision is linked to the psychological and emotional factors of the individual investor. In applied studies conducted by the American psychologist Daniel Kahneman, it was found that people view the loss of money in a different way than they view the loss of any other material thing, even if its value was equal to the value of the lost money.

According to studies, behavioural finance theory believes that emotions influence the mind when any financial crisis begins, so companies must first look at the extent of dealing with the risks that the customer can bear before he loses his money and build his financial portfolio. This is behavioural finance, which changes investors' actions into decisions that are manipulated by emotion, fear, and other psychological reasons. Proponents of behavioural finance believe that financial markets sometimes do not have information efficiency (Al-Najjar, 2017).

The History of Behavioral Finance

The concept of behavioral finance dates to 1912 when George Seldon published "Psychology of the Stock Market." However, the theory gained popularity and momentum in 1979 when Daniel Kahneman and Amos Tversky proposed that most investors tend to make decisions based on subjective reference points rather than objectively choosing the best option. Behavioral finance is based on the alternative notion that investors, or at least a significant minority of them, are subject to behavioural biases that mean their financial decisions can be less than fully rational. Evidence of these biases has typically come from cognitive psychology literature and has then been applied in a financial context (Byrne & Gifford, 2008).

Behavioural finance also challenges the use of conventional utility functions based on the idea of risk aversion. For example, Kahneman and Tversky (1979) propose prospect theory as a descriptive theory of decision making in risky situations. Outcomes are evaluated against a subjective reference point (e.g.,

the purchase price of a stock) and investors are loss averse, exhibiting risk-seeking behaviour in the face of losses and risk-averse behaviour in the face of gains.

Many investors tend to follow the crowd or exhibit overconfidence biases when making investment decisions. This herding behaviour stems from investors' low-risk propensity or risk avoidance, driven by their desire to minimize the risk of financial loss (Dickason et al., Citation, 2018). During herding, individuals who are otherwise rational start behaving irrationally by relying on the judgments of others. This behaviours may stem from a lack of investment knowledge or the inclination to follow the opinions and directions of others (Wattanasan et al., Citation, 2020). Financial behaviour is of great importance which is manifested through the investors' decisions in the financial market that plays an important role in defining the market trend, which then influences the economy in general. Financial behaviour directly affects the development of the financial system and the increase of the competitiveness of the financial markets (Gorshkova & Ksenda, 2020). It is reasoned that willingness to change financial behaviour may play a pivotal role in the emotional and cognitive experiences associated with decisions and financial hardship (Fiksenbaum, Marjanovic & Greenglass, 2017).

Financial behaviour is associated with one's responsibility regarding their way of managing his investments, and that financial culture for investors has an influence on financial behaviour (Andarsari & Ningtyas, 2019). The quality of information source has an impact on investor behaviour as a piece of news reliable may lead to more trading than from a less trustworthy one. So in behavioural finance literature, a few studies have modelled the trading behaviours of investors based upon the insights taken from psychology (Tauni, Fang, & Iqbal, 2016). Good investment decisions can lead to high returns and long-term growth for investors, while poor investment decisions can result in significant losses. For this reason, investors must carefully research and analyse different investment options before making a decision.

Behavioural Theory

Behavioural finance psychology has explored various levels of rationality and irrational behaviour in which individuals and groups may act (Ritter, 2003). Here are some theories regarding the behaviour of the investor that explain the factors that affect his decisions in the stock market:

- **Regret Theory:** this theory deals with the emotional reaction investors experience after realizing they have made an error in their evaluation and then their decision, faced with the prospect of selling a stock, investors become emotionally affected by the price at which they purchased the stock (Forgel & Berry, 2006).
- **The Theory of Overconfidence** affects investor decisions and risk perception, causing investors to underestimate risks and exaggerate their ability to control events (Strong, 2006).
- **Over/Under Reacting Theory:** It says that investors get optimistic when the market recovers. On the contrary, investors become extremely pessimistic when the market goes into recession. A consequence of anchoring is an over- or under-reaction to market events which results in prices falling too much on bad news and rise too much on good news (Hong and Stein, 1999).
- **Herding Theory:** It is the behavior of an individual who gives up his decision in favor of the group. Herd theory is the economic theory about the stock market, the stock market is reflected by this theory especially when declining markets collapse as investors get Hysterical selling out of fear of loss and the loss of their capital which is called "herd sale" (Shleifer, and Vishny, 1997).
- **Risk Perception:** It is the subjective judgment that people make about the characteristics and severity of a risk. Risk perception refers to people's judgments and evaluations of hazards they are or might be exposed to (Ricciardi, 2004).

Literature review

Behavioural Factors Influencing Investment Decision Making Investment decision-making is a very difficult task. According to (Kannadhasan, 2010) investors must keep themselves updated in

multidimensional fields to achieve their desired objectives in business. According to most financial and economic theories individuals act rationally and think about all accessible information for decision-making of investment. However behavioural finance believes that investors act irrationally in the stock market. (Pavabutr, 2002) said investors' psychology, behavioural biases, and emotions lead to systematic errors in the way in which they process their information. Studies done by (Kahenman & Tverseky, 1979 & Waveru, Munyoki & Uliana, 2008) also show that the decisions of investors are affected by behavioural, emotional, and psychological factors. The empirical findings of studies done by (Chen, Kim, Nofsinger & Rui, 2005) illustrate that investors make poor trading and investing decisions because of behavioural biases. (Ricciardi and Simon, 2000) also identified many different behavioural factors that affect investment decision-making. However, a study done by (Hunjra, Rehman & Qureshi, 2012) illustrates that behavioural factors have a positive impact on investment decision-making.

Financial behavior is the level of change in the selection of the financing sources in the terms of ownership (Al_Duhaidahawi et al, 2020) Funding sources are divided into owned funding sources Which the owners pay to the organization from the paid-up capital which is the Common stock the other type is borrowed financing these are the loans taken by the owners. The traditional finance theory assumes that investors always make rational decisions based on complete information, but behavioural finance argues that investors are influenced by their emotions, biases, and cognitive limitations (Almansour & Arabyat, Citation, 2017). Financial behavior directly affects the development of the financial system and the increase of the competitiveness of the financial markets (Gorshkova & Ksenda, 2020).

The methodology of research:

The current research follows an analytical descriptive methodology. This methodology consists of a set of procedures, which include:

- **Research Sampling:** The study population consists of small investors in the Saudi stock market, and their number is unlimited. The ideal sample size should be around 384 individuals, based on the equation by Krejcie and Morgan (1970). However, due to time constraints and the refusal of many individuals and brokers to provide investor data (which is legally prohibited), a convenience sampling method was utilized.

- **Data collection tool :** The data collection tool consists of a questionnaire, prepared to gather data related to the characteristics of the study sample and their perception of study variables. The questionnaire is comprised of three parts. The first part includes a set of statements that measure the demographic characteristics of the study sample, such as age, educational qualification, years of experience, income level, and the amount allocated for financial investment in the stock market. The second part of the questionnaire contains a scale of behavioural factors with its four dimensions, according to the scale developed by Al-Najjar (2017). The third part of the questionnaire includes a scale of investment decisions, according to the scale developed by Hamada (2022). Lastly, the fourth part of the questionnaire includes a risk acceptance scale.

Reliability and validity of the study variables measurement.

Reliability of research variables measurements

The Reliability of study variables measurement refers to the consistency or reliability of measurement results when the measurement is repeated, either over different time periods or by using alternative measures to assess the same phenomenon, or when the measurement result is consistent with that of another validated measure. This means that when the measurement is repeated on the same sample, consistent measurements are obtained (Elmokadem, 2020). Additionally, stability indicates the absence of random error in the measurement. A measurement is considered stable if the value of the Cronbach's alpha coefficient (α) is 0.70 or higher (Hair, 2014). Table 1 shows the values of the alpha coefficient for the stability of the study variables.

Table (1): Reliability of Study Variables Measurement

Variable	Dimension	No of items	α
Behavioural factors	Expectations	4	0.655
	Herd Behavior	4	0.877
	Inference	8	0.74
	Market Developments	6	0.659
Behavioural factors			0.732
Investment Decisions	Selection	5	0.721
	Timing	5	0.759
	Diversification	6	0.667
Investment Decisions			0.72
Risk tolerance		7	0.657
Total reliability			0.84

The table indicates that the overall reliability coefficient of the study variables' measurements is (0.840). The reliability coefficient for all dimensions was greater than (0.6) based on the Cronbach's alpha test. This means that the sample respondents' answers were consistent and homogeneous in their response to all dimensions and study variables.

Validity of research variables' measures:

The validity of research variables was measured by assessing the construct validity through the Extracted variance of scale items, ensuring that these items are closely related to the intended variable being measured. A scale is considered to have construct validity if the average extracted variance is 50% or higher, indicating that the scale items explain 50% or more of the variance in the intended variable. The scale is considered ideal if the extracted variance is 70% or higher. Table 2 illustrates the average extracted variance of the study's variable measures, reflecting the construct validity.

Table 2: Extracted Variance of Study's Variable Measures

Variable	EV
Expectations	52.41
Herd Behavior	63.87
Inference	71.781
Market Developments	75.83
Selection	81.67
Timing	77.24
Diversification	83.33
Risk tolerance	73.33

It is evident that all of the study's variable measures have an acceptable level of interpretive variance. The interpretive variance values for the study's variable measures ranged from 52.41% to 88.61%, indicating that the study's measures have an acceptable level of construct validity.

Hypothesis Testing:

Hypothesis 1: There is a statistically significant effect of behavioural factors on the investment decision-making of small investors in the Saudi stock market.

To confirm the validity of this hypothesis, simple linear regression analysis was employed, and the results of the regression analysis are presented in Table 4:

Table 4: Significance of the impact model of behavioural factors on the investment decision-making of small investors in the Saudi stock market.

Model	R	R ²	adj R ²	F	df ₁	df ₂	Sig
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1	0.64 1	0.4 1	0.402	50.8 31	1	73	0.00 0
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Table 5 illustrates the significance of the elements in the impact model of behavioural factors on the investment decision-making of small investors in the Saudi stock market.

Table 5: Significance of the Impact of Elements in the Model of Behavioural Factors on the Investment Decision-Making of Small Investors in the Saudi Stock Market

	Non standardized parameters		standardized parameters	T	Sig
	b	SD	B		
Constant	1.3 93	0.3 11		4.4 8	0
Behavioural factors	0.6 1	0.0 86	0.641	8.8 88	0

Based on the previous analysis, the alternative hypothesis is accepted, indicating that there is a significant effect of behavioural factors on the investment decision-making of small investors in the Saudi stock market. The correlation coefficient is 0.641, indicating a statistically significant relationship between behavioural factors and investment decision-making in the Saudi stock market. Additionally, the behavioural factors variable explains 41% of the variance in the dependent variable, as indicated by the coefficient of determination (R-squared) value of 0.410. This is further supported by the regression model, where the beta regression coefficient (B) is 0.610, with a t-test value of 7.130 and a significance level of 0.000, confirming the impact of behavioural factors on investment decision-making in the Saudi stock market.

The analysis of variance also demonstrates the significance of the relationship in the regression model between behavioural factors and investment decision-making in the Saudi stock market, with an F-value of 78.992, exceeding the critical F-value, and a significance level of 0.000. This indicates the significance of the relationship and the validity of the regression model.

Therefore, the first hypothesis stating that there is a statistically significant effect of behavioural factors on the investment decision-making of small investors in the Saudi stock market is accepted. It is found that a 100% change in behavioural factors leads to a 61% change in investment decision-making. Furthermore, the variation in behavioural factors explains 39.3% of the observed variation in investment decision-making in the Saudi stock market.

Hypothesis 2: There is a statistically significant effect of risk tolerance on the investment decision-making of small investors in the Saudi stock market.

To test this hypothesis, simple linear regression analysis was conducted, and the results of the regression analysis are presented in Table 6 and 7.

Table 6: Significance of the risk tolerance model on the investment decision-making of small investors in the Saudi stock market.

Model	R	R ²	adj R ²	F	df ₁	df ₂	Sig
2	0.73	0.5 3	0.526	83.1 52	1	73	0.00 0

Table 7: Significance of the elements for risk tolerance in the investment decision-making of small investors in the Saudi stock market.

	Non standardized parameters	standardized parameters	T	Sig
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	B	SD	β		
Constant	1.279	0.256		4.988	0
Risk tolerance	0.632	0.069	0.73	9.119	0

Based on the previous analysis, the hypothesis stating that there is a statistically significant effect of risk tolerance on the investment decision-making of small investors in the Saudi stock market is accepted. The correlation coefficient is 0.730, indicating a significant and meaningful relationship between risk tolerance and investment decision-making. The risk tolerance variable explains 53.3% of the variance in the dependent variable, as indicated by the coefficient of determination (R-squared) value of 0.533. This is further supported by the regression model, where the beta regression coefficient (B) is 0.632, with a t-test value of 4.988 and a significance level of 0.000, confirming the impact of risk tolerance on investment decision-making in the Saudi stock market.

The analysis of variance also demonstrates the significance of the relationship in the regression model between risk tolerance and investment decision-making, with an F-value of 83.152, exceeding the critical F-value, and a significance level of 0.000. This indicates the significance of the relationship and the validity of the regression model.

Therefore, the hypothesis stating that there is an effect of risk tolerance on the investment decision-making of small investors in the Saudi stock market is accepted. It is found that a 100% change in risk tolerance leads to a 63.2% change in investment decision-making. Furthermore, the variation in risk tolerance explains 53.3% of the observed variation in investment decision-making in the Saudi stock market.

Hypothesis 3: There is a statistically significant mediating effect of behavioural factors on the relationship between risk tolerance and investment decision-making of small investors in the Saudi stock market.

To test this hypothesis, simple linear regression analysis was conducted, and the results of the regression analysis are presented in Table 8 and Table 9.

Table 8: Significance of the mediating effect model of behavioural factors on the relationship between risk tolerance and investment decision-making of small investors in the Saudi stock market.

Model	R	R ²	adj R ²	F	df ₁	df ₂	Sig
3	0.556	0.309	0.299	32.637	1	73	0.000

Table 9: Significance of the elements in the mediating effect model of behavioural factors on the relationship between risk tolerance and investment decision-making of small investors in the Saudi stock market.

	Non standardized parameters		standardized parameters	T	Sig
	B	SD	β		
Constant	1.454	0.389		3.740	0.000
Behavioural factors	0.611	0.107	0.556	5.713	0.000

Based on the previous analysis, the hypothesis stating that there is a statistically significant mediating effect of behavioural factors on the relationship between risk tolerance and investment decision-making of small investors in the Saudi stock market is accepted. The correlation coefficient is 0.556, indicating a significant and meaningful relationship between behavioural factors and investment decision-making in the Saudi stock market. The behavioural factors variable explains 30.9% of the variance in the dependent

variable, as indicated by the coefficient of determination (R-squared) value of 0.309. This is further supported by the regression model, where the beta regression coefficient (B) is 0.611, with a t-test value of 5.713 and a significance level of 0.000, confirming the impact of behavioural factors as a mediating variable on risk tolerance and investment decision-making.

The analysis of variance also demonstrates the significance of the relationship in the regression model between behavioural factors as a mediating variable and investment decision-making, with an F-value of 32.637, exceeding the critical F-value, and a significance level of 0.000. This indicates the significance of the relationship and the validity of the regression model.

Therefore, the hypothesis stating that there is a statistically significant mediating effect of behavioural factors on the relationship between risk tolerance and investment decision-making of small investors in the Saudi stock market is accepted. It is found that a 100% change in behavioural factors leads to a 61.1% change in risk tolerance and explains 30.9% of the observed variation in investment decision-making in the Saudi stock market.

Hypothesis 4: Risk tolerance of small investors serves as a mediating variable in the relationship between behavioural factors and investment decision-making in the Saudi stock market.

The results of the direct effects in the model indicate that behavioural factors have a direct impact on investment decision-making (0.37) and directly influence risk tolerance (0.58), while risk tolerance has a direct impact on investment decision-making (0.517).

The results of the indirect effects in the model show that behavioural factors have an indirect effect on investment decision-making (0.299) through the mediating variable of risk tolerance.

The overall effects in the model reveal that behavioural factors have a total indirect and direct effect on investment decision-making (0.669), while behavioural factors have an indirect effect on the mediating variable (risk tolerance) (0.665), and the mediating variable has a total effect on investment decision-making (0.451).

The results indicate the presence of a direct effect of behavioural factors on investment decision-making and risk tolerance, as well as an indirect effect of behavioural factors on investment decision-making mediated by risk tolerance. Additionally, there is a total effect of risk tolerance as a mediating variable on investment decision-making. The significance of the overall effect, direct effect, and indirect effect suggests that the mediating variable (risk tolerance) has a partial mediating effect.

Research results:

The results related to the study hypotheses are as follows: There is a statistically significant effect of behavioural factors of small investors on investment decision-making in the Saudi stock market. - There is a statistically significant effect of risk tolerance of small investors on investment decision-making in the Saudi stock market. - There is a statistically significant effect of behavioural factors of small investors on risk tolerance in the Saudi stock market as a mediating variable. - The risk tolerance of small investors has a significant impact on the relationship between their behavioural factors and investment decision-making. These results are consistent with most previous studies conducted in different contexts. This study corroborates the findings of previous studies, but within the context of the Saudi financial investment environment.

Recommendations

The key practical recommendations are as follows:

- Brokers and financial advisors in the Saudi stock market should consider the behavioural factors of small investors when providing advice and guidance. They can provide education and awareness to investors about the importance of these factors and how to properly assess and analyze them before making investment decisions.
- The relevant authorities in the Saudi financial market should enhance financial education for young individuals and provide necessary resources to develop their skills in understanding behavioural factors and making informed investment decisions. Offering lessons, training courses, and appropriate educational tools can help improve their risk tolerance and make conscious investment decisions.

– Financial companies and investment institutions in the Saudi stock market should work on providing diverse investment options that align with the risk tolerance levels of small investors. Designing products and services targeting this age group and including investment choices that cater to various levels of risk tolerance can be beneficial.

The scientific recommendations are as follows:

– It is recommended to conduct future studies to gain a better understanding of the behavioural factors of small investors in the Saudi stock market and their impact on investment decision-making. The use of longitudinal study design can track individuals over a specified period and assess changes in investment behavior and risk tolerance over time.

– Comparative studies between different age groups, occupations, and social categories of small investors in the Saudi stock market are suggested. These studies can shed light on the differences in behavioural factors and risk tolerance among these groups and provide valuable insights for financial institutions and regulatory authorities.

– Further studies are advised to understand the relationship between behavioural factors and investment performance in the Saudi stock market. Analyzing historical data of stocks, markets, and financial indicators can evaluate the impact of these factors on returns and risk levels in the market.

– The study suggests the development of new tools and measures to assess the behavioural factors of small investors in the Saudi stock market. Existing tools can serve as a starting point, and innovative tools can be developed to measure and analyze these factors in more accurate and comprehensive ways.

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