
A Comparative Study of Investors' Sectoral Preferences and Perceptions of Risk and Return in Investment Decisions

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Abstract:

This study examines investors' sectoral preferences with specific reference to perceived risk and perceived return in investment decisions. Investors often assess sectors differently because each sector carries distinct expectations of uncertainty, fluctuation, financial loss, return potential, and wealth creation. The study, therefore, aims to examine investors' perceived risk and perceived return across their preferred investment sectors. A quantitative research approach was adopted, using a structured questionnaire administered to 327 investors classified according to preferred sectors, including renewable energy, fossil fuel or oil and gas, banking and financial services, information technology, automobile, pharmaceutical or healthcare, FMCG, and real estate or infrastructure. The questionnaire measured perceived risk and perceived return through ten Likert-scale statements. Reliability was examined through Cronbach's alpha, and one-way ANOVA was applied to test sector-wise differences in perception. The findings revealed significant differences in both perceived risk and perceived return across preferred investment sectors. Fossil Fuel or Oil and Gas, Information Technology, and Renewable Energy reflected higher perceived risk, while Renewable Energy and Information Technology showed stronger return perceptions. The study contributes to a clearer understanding of how sectoral preference shapes investors' risk-return evaluation and supports more informed investment decision-making.

Keywords: Sectoral investment preferences, perceived investment risk, perceived investment return, investor behavior, investment decisions.

SECTORAL RISK-RETURN PERCEPTIONS IN INVESTMENT DECISION-MAKING

Investment decisions are shaped by the way investors evaluate both uncertainty and expected financial gain. In modern financial markets, investors are not limited to a single investment avenue or sector. They may prefer renewable energy, fossil fuel, banking, information technology, automobile, healthcare, FMCG, real estate or infrastructure, depending on their expectations, market understanding and confidence in sectoral performance. These preferences are important because every sector is perceived differently in terms of risk exposure and return potential.

Sectoral preference has become a meaningful dimension of investor behaviour because investors rarely assess all sectors in the same manner. Some sectors may be viewed as more uncertain due to market

volatility, policy changes, industry-specific pressures or broader economic conditions. Other sectors may be preferred because they are associated with growth prospects, satisfactory returns, wealth creation or better future opportunities. Such perceptions influence how investors interpret the suitability of a sector for investment decisions.

Perceived risk and perceived return are two central components of investment evaluation. Perceived risk reflects investors' understanding of possible loss, fluctuation, uncertainty and sensitivity to external changes. Perceived return reflects their expectations of financial gain, return adequacy, sectoral opportunity and long-term value creation. These perceptions may not always be based only on objective market data; they can also be shaped by investor experience, sector image, market trends and individual confidence in a preferred sector.

Although risk and return are widely recognised as core elements of investment decision-making, sector-wise differences in investors' perception require closer attention. Investors may perceive one sector as highly rewarding but also risky, while another may appear comparatively safer but less attractive in terms of return. This creates a need to examine how preferred investment sectors influence perceived risk and perceived return. The present study is positioned within this context and seeks to examine investors' perceived risk and perceived return across their preferred investment sectors.

REVIEW OF LITERATURE

(Darwish, 2025) examined the relationship between financial literacy and investment decisions among individuals participating in the Palestine Stock Exchange, with overconfidence considered as a moderating factor. The study adopted a quantitative approach and surveyed 146 investors using a modified financial literacy questionnaire. The results indicated that financial literacy positively influenced investment decision-making, while overconfidence strengthened this relationship. The study is relevant to the present research because it shows that investment decisions are shaped not only by financial information but also by investor confidence, knowledge and behavioural judgement, which may influence how investors evaluate risk and return across preferred sectors.

(Kumar et al., 2024) investigated the risk perception and perceived investment performance nexus by examining the mediating role of psychological biases and the moderating role of gender. The study collected responses from 1,133 participants through a structured questionnaire and used PLS-SEM for analysis. The findings showed that risk perception did not directly influence perceived investment performance, but psychological biases mediated the risk perception and performance relationship. This study is useful for the present research because it highlights that perceived risk does not operate in isolation; rather, investors' sectoral choices and return expectations may be shaped through subjective behavioural mechanisms.

(Lathief et al., 2024) focused on risk in investment decision-making, particularly in the Indian context. The study examined the relationship between risk-related factors and investor behaviour and emphasised the importance of risk evaluation in financial decisions. The findings suggested that investors consider uncertainty, risk exposure and expected outcomes while making investment choices. The study directly supports the present research because perceived risk is one of the central constructs, and the current paper also examines whether such risk perception differs across preferred investment sectors.

(Treerotchananon & Buranapin, 2024) examined whether personality traits influence investors' perceived risk, attitude towards stock investment and investment retention among Thai investors. The study proposed

a model linking personality traits, risk perception, attitude and continued investment intention. Its findings are relevant because they indicate that perceived risk is closely connected with investors' attitudes and future investment behaviour. For the present study, this strengthens the argument that risk perception may vary across sectoral preferences, since investors may evaluate sectors through different personal and psychological lenses.

(Abideen et al., 2023) analysed the influence of behavioural biases on investors' investment decision-making in the Pakistani equity market. The study was based on 600 investor responses collected through a structured questionnaire and examined behavioural biases, stock market anomalies and financial literacy. The results showed that behavioural biases and market anomalies were closely associated with investment decisions, while financial literacy moderated these relationships. This study is relevant because it confirms that investment decisions are not purely rational and that investor perceptions may affect how risk and return are assessed across different investment choices.

(Almansour, 2023) explored behavioural finance factors and investment decisions, with attention to risk perception as one of the important behavioural elements. The study indicated that behavioural finance factors, including risk perception, are significantly related to investment decision-making. This is important for the present paper because it situates perceived risk within a broader behavioural finance framework and supports the view that risk perception can influence how investors interpret the attractiveness of different sectors for investment.

(Jain et al., 2023) examined heuristic biases as mental shortcuts in individual equity investors' decision-making, with risk perception treated as a mediating factor. The study focused on how cognitive shortcuts influence investment decisions through investors' subjective understanding of risk. Its relevance to the present research lies in showing that investors' sectoral preferences may not be guided only by objective financial indicators; rather, perceived risk can shape the way investors assess sector-based opportunities and expected returns.

(Ahmed et al., 2022) studied the mediating role of risk perception between behavioural biases and investors' investment decisions among individual investors in the Pakistan Stock Exchange. The study used purposive sampling, collected 450 questionnaires and applied structural equation modelling. The results showed that risk perception mediated the relationship between blue-chip stock bias and investment decisions, while some other behavioural biases had direct effects on decision-making. This study is relevant because it clearly positions risk perception as a behavioural mechanism influencing investment decisions, which aligns with the present study's focus on perceived risk across preferred sectors.

(Zhang et al., 2022) examined the effects of cognitive biases on investment decision-making, with risk perception as a mediator and information asymmetry as a moderator. The study focused on real estate investors and used mediation and moderation analysis. The results indicated that cognitive biases influenced investment decisions through risk perception and that information asymmetry shaped this process. The study is relevant because it shows that sector-specific investment decisions, such as those in real estate, are strongly affected by perceived risk and information conditions, supporting the present study's sector-wise comparison.

(Chen et al., 2022) investigated the role of optimism bias and risk perception between emotional intelligence and investment decision-making in the commodity market. The study used responses from 337 investors and applied SPSS, AMOS and PROCESS macro for analysis. The results showed that risk perception and optimism bias played significant roles in explaining investment decisions. This study is

relevant to the present research because it demonstrates that investment decisions are shaped by subjective perceptions of risk and potential gain, which may also influence sector-wise expectations of return.

(Park & Oh, 2022) explored how individual investors integrate ESG information into corporate investment decisions using the UTAUT framework. The study discussed how investors use financial and non-financial information and highlighted risk management concerns in investment decision-making. Its relevance to the present paper lies in the fact that sectoral investment preference may be influenced by how investors interpret available information, risk signals and future value potential. This is particularly useful for understanding sectors such as renewable energy, where return expectations may be shaped by both financial and sustainability-related perceptions.

(Liao et al., 2022) compared the effects of objective and self-assessed financial literacy on stock investment return. The study examined how investor confidence, competence, risk preference and overconfidence were linked with stock investment returns. The findings suggested that confident investors may gain higher stockholding returns by taking more risks, even when actual financial knowledge differs. This study supports the present research by showing that perceived return is closely connected with risk preference and subjective confidence, which may vary across sectoral investment choices.

(Bui, 2021) examined determinants of investors' risk-taking behaviour by considering risk perception, expected return, herding behaviour and other related factors. The study highlighted that expected return and perceived risk are important components of investors' willingness to take financial risk. This study is relevant to the present research because it directly connects perceived risk and expected return with investment choices, supporting the need to examine both constructs together across preferred investment sectors.

(Moueed et al., 2020) investigated how emotional states influence stock market decision-making, with risk perception included as an important behavioural factor. The study indicated that risk perception positively influenced investment decision-making. Its relevance lies in showing that investor perception is not purely technical or financial, but also behavioural and emotional. This supports the present study's focus on subjective risk and return perceptions rather than relying only on objective sectoral performance indicators.

Research Gap

The reviewed studies show that investor decision-making has been widely examined through financial literacy, behavioural biases, risk perception, overconfidence, ESG information, emotional intelligence, information asymmetry and expected returns. However, most of these studies focus either on overall investment decisions, behavioural mechanisms, financial literacy or specific investment contexts such as stock markets, commodity markets, ESG investment or real estate. Comparatively less attention has been given to examining whether investors' perceived risk and perceived return differ across their preferred investment sectors. The present study addresses this gap by comparing investors' perceived risk and perceived return across selected sectoral preference groups, namely Renewable Energy, Fossil Fuel or Oil and Gas, Banking and Financial, Information Technology, Automobile, Pharmaceutical or Healthcare, FMCG and Real Estate or Infrastructure sectors. This sector-wise comparison offers a focused understanding of how investor preferences shape risk-return evaluation in investment decisions.

RESEARCH OBJECTIVES

1. To examine investors' perceived risk across their preferred investment sectors.
2. To examine investors' perceived return across their preferred investment sectors.

RESEARCH METHODOLOGY

Research Design

The study adopted a descriptive and comparative research design. The descriptive aspect helped in presenting investors' perceptions of risk and return in relation to their preferred investment sectors, while the comparative aspect enabled the examination of differences in these perceptions across sectoral groups. This design was suitable because the study aimed to understand whether investors' perceived risk and perceived return vary according to their preferred investment sector.

Research Approach

The study followed a quantitative research approach. This approach was appropriate because the variables were measured through structured Likert-scale statements and analysed through numerical procedures. The use of descriptive statistics and one-way ANOVA required quantifiable responses, making the quantitative approach suitable for addressing the objectives and testing the hypotheses of the study.

Population and Sample

The target population consisted of investors having preferences for different investment sectors. The sectors considered in the study were Renewable Energy Sector, Fossil Fuel or Oil and Gas Sector, Banking and Financial Sector, Information Technology Sector, Automobile Sector, Pharmaceutical or Healthcare Sector, FMCG Sector and Real Estate or Infrastructure Sector. The study was based on a sample of 327 respondents, who were classified according to their preferred investment sector. The sector-wise distribution was unequal, reflecting the natural variation in investor preferences across sectors.

The study used non-probability convenience sampling. This technique was considered appropriate because respondents were selected on the basis of accessibility and willingness to participate, and were later grouped according to their preferred investment sector. The sample size of 327 was adequate for comparing multiple sectoral groups through one-way ANOVA.

Research Variables

The independent variable of the study was investors' preferred investment sector. It refers to the sector selected by respondents as their preferred area for investment. The dependent variables were Perceived Risk and Perceived Return. Perceived Risk refers to investors' assessment of uncertainty, market fluctuation, possibility of loss, policy-related risk and economic or industry-specific sensitivity associated with their preferred sector. Perceived Return refers to investors' expectations regarding satisfactory returns, better return potential, favourable return opportunities, wealth creation and justification of risk through expected returns.

Construct mean scores were calculated for both dependent variables. The mean score for Perceived Risk was computed by averaging responses to St1 to St5, while the mean score for Perceived Return was calculated by averaging responses to St6 to St10. These construct mean scores were used for hypothesis testing because they provided consolidated measures of investors' risk and return perceptions.

Instrument Development and Measurement

Data were collected through a structured questionnaire. The instrument included ten Likert-scale statements divided into two constructs. Perceived Risk was measured through five statements, from St1 to St5, and Perceived Return was measured through five statements, from St6 to St10. Responses were recorded on a five-point Likert scale, where 1 represented Strongly Disagree, 2 represented Disagree, 3 represented Neutral, 4 represented Agree and 5 represented Strongly Agree.

Data Collection Procedure

Primary data were collected from investors through the structured questionnaire. Respondents were asked to indicate their preferred investment sector and record their level of agreement with statements related to perceived risk and perceived return.

Statistical Tools and Techniques

Descriptive statistics were used to summarise investors' responses. Frequencies, means and standard deviations were calculated for the Likert-scale statements to understand the response pattern for perceived risk and perceived return. Group-wise descriptive statistics were also used to compare average construct scores across the preferred investment sectors.

One-way ANOVA was applied to test the hypotheses of the study. This technique was appropriate because the independent variable, preferred investment sector, consisted of more than two groups, while the dependent variables were construct-level mean scores. The first hypothesis examined whether perceived risk differed across preferred investment sectors. The second hypothesis examined whether perceived return differed across preferred investment sectors. Both hypotheses were tested at the 5 per cent level of significance. A p-value below 0.05 indicated rejection of the null hypothesis, while a p-value above 0.05 indicated acceptance of the null hypothesis.

Reliability of the Instrument

The reliability of the research instrument was examined using Cronbach's alpha. The results showed that the Perceived Risk construct had a Cronbach's alpha value of 0.837, indicating good internal consistency. The Perceived Return construct reported a Cronbach's alpha value of 0.811, which also reflected good internal consistency. The overall scale reported a Cronbach's alpha value of 0.757, indicating acceptable internal consistency and serving as a general indication of scale reliability.

Table 1: Reliability Testing

Construct	Items	Cronbach's alpha	Interpretation
Perceived Risk	St1 to St5	0.837	Good internal consistency
Perceived Return	St6 to St10	0.811	Good internal consistency
Overall Scale	St1 to St10	0.757	Acceptable internal consistency

The reliability values indicate that the items used to measure Perceived Risk and Perceived Return were internally consistent and suitable for further statistical analysis. The overall alpha value also supported the general reliability of the combined instrument, without overstating it as a single unified construct.

LIKERT SCALE STATEMENT ANALYSIS

Table 2: Likert Scale Statement Analysis for Perceived Risk

Code	Likert Statement	SD	D	N	A	SA	\bar{X}	σ
St1	Investment in my preferred sector is associated with uncertainty in market performance.	10	48	118	121	30	3.35	0.94
St2	Shares of my preferred sector are influenced by frequent fluctuations in market conditions.	9	39	110	119	50	3.5	0.98
St3	Investment in my preferred sector involves the possibility of financial loss.	8	38	134	85	62	3.47	1.01
St4	Changes in government policies and regulations may affect investment risk in my preferred sector.	9	45	123	104	46	3.41	0.98
St5	The performance of shares in my preferred sector is sensitive to economic and industry-specific changes.	9	56	119	106	37	3.32	0.98

The Likert-scale results indicate a moderate level of perceived risk among investors in relation to their preferred investment sectors. Respondents showed relatively stronger agreement that shares in their preferred sector are affected by market fluctuations, followed by the view that investment involves the possibility of financial loss. This pattern suggests that investors recognise sector-specific uncertainty, although the overall response tendency does not reflect extreme risk perception.

Table 3: Likert Scale Statement Analysis for Perceived Return

Code	Likert Statement	SD	D	N	A	SA	\bar{X}	σ
St6	Investment in my preferred sector has the potential to generate satisfactory returns.	3	28	119	114	63	3.63	0.92
St7	Shares of my preferred sector are capable of providing better returns compared to other sectors.	2	37	112	129	47	3.56	0.89
St8	I believe that my preferred sector offers favourable return opportunities for investors.	2	22	124	129	50	3.62	0.85
St9	Investment in my preferred sector can contribute to wealth creation over time.	2	20	105	144	56	3.71	0.84
St10	The expected return from my preferred sector justifies the level of investment risk involved.	2	35	117	138	35	3.52	0.85

The findings for perceived return show a comparatively favourable response tendency. Respondents expressed higher agreement that investment in their preferred sector can contribute to wealth creation over time and that the sector has potential to generate satisfactory returns. This indicates that investors generally

associate their preferred sectors with positive return expectations, while also linking expected returns with the level of investment risk involved.

HYPOTHESES

H₀₁: There is no significant difference in investors’ perceived risk across their preferred investment sectors.

A one-way ANOVA was applied to examine whether investors’ perceived risk differed across their preferred investment sectors.

Table 4: Descriptive Statistics for Perceived Risk across Preferred Investment Sectors

	n	Mean	Std. Deviation
Renewable Energy Sector	43	3.68	0.73
Fossil Fuel / Oil and Gas Sector	31	3.96	0.62
Banking and Financial Sector	56	3.21	0.66
Information Technology Sector	52	3.83	0.63
Automobile Sector	34	3.45	0.58
Pharmaceutical / Healthcare Sector	39	2.87	0.71
FMCG Sector	36	2.76	0.64
Real Estate / Infrastructure Sector	36	3.49	0.64
Total	327	3.41	0.76

The descriptive results show that the Fossil Fuel or Oil and Gas Sector recorded the highest perceived risk score ($M = 3.96$, $SD = 0.62$), followed by the Information Technology Sector ($M = 3.83$, $SD = 0.63$) and the Renewable Energy Sector ($M = 3.68$, $SD = 0.73$). In contrast, the FMCG Sector reported the lowest perceived risk score ($M = 2.76$, $SD = 0.64$), followed by the Pharmaceutical or Healthcare Sector ($M = 2.87$, $SD = 0.71$).

Table 5: One-way ANOVA for Perceived Risk across Preferred Investment Sectors

	Sum of Squares	df	Mean Square	F	p
Preferred Investment Sector	50.85	7	7.26	16.79	<.001
Residual	138.04	319	0.43		
Total	188.89	326			

The ANOVA result showed a statistically significant difference in perceived risk across preferred investment sectors, $F(7, 319) = 16.79$, $p < .001$. This indicates that investors’ risk perception varies meaningfully according to the sector they prefer for investment.

Decision

For H_{01} , one-way ANOVA was applied to test the difference in investors' perceived risk across preferred investment sectors. Since the p-value was less than 0.05, the result was statistically significant. The null hypothesis is rejected.

Finding

The finding shows that investors do not perceive risk equally across all preferred investment sectors. Investors preferring Fossil Fuel or Oil and Gas, Information Technology and Renewable Energy sectors reported comparatively higher perceived risk, whereas those preferring FMCG and Pharmaceutical or Healthcare sectors showed lower perceived risk scores.

Conclusion

Since the null hypothesis is rejected, the researcher concludes that there is a significant difference in investors' perceived risk across their preferred investment sectors.

H_{02} : There is no significant difference in investors' perceived return across their preferred investment sectors.

A one-way ANOVA was conducted to determine whether investors' perceived return differed across their preferred investment sectors.

Table 6: Descriptive Statistics for Perceived Return across Preferred Investment Sectors

	n	Mean	Std. Deviation
Renewable Energy Sector	43	3.91	0.64
Fossil Fuel / Oil and Gas Sector	31	3.34	0.51
Banking and Financial Sector	56	3.69	0.69
Information Technology Sector	52	3.90	0.55
Automobile Sector	34	3.45	0.66
Pharmaceutical / Healthcare Sector	39	3.50	0.57
FMCG Sector	36	3.13	0.59
Real Estate / Infrastructure Sector	36	3.67	0.64
Total	327	3.61	0.66

The descriptive statistics indicate that Renewable Energy Sector recorded the highest perceived return score ($M = 3.91$, $SD = 0.64$), followed closely by Information Technology Sector ($M = 3.90$, $SD = 0.55$), Banking and Financial Sector ($M = 3.69$, $SD = 0.69$) and Real Estate or Infrastructure Sector ($M = 3.67$, $SD = 0.64$). FMCG Sector recorded the lowest perceived return score ($M = 3.13$, $SD = 0.59$), followed by Fossil Fuel or Oil and Gas Sector ($M = 3.34$, $SD = 0.51$).

Table 7: One-way ANOVA for Perceived Return across Preferred Investment Sectors

	Sum of Squares	df	Mean Square	F	p
Preferred Investment Sector	20.41	7	2.92	7.73	<.001
Residual	120.34	319	0.38		
Total	140.75	326			

The ANOVA result indicated a statistically significant difference in perceived return across preferred investment sectors, $F(7, 319) = 7.73, p < .001$. This suggests that investors' return expectations differ across sectoral preference groups.

Decision

For H_{02} , one-way ANOVA was applied to test the difference in investors' perceived return across preferred investment sectors. Since the p-value was less than 0.05, the result was statistically significant. The null hypothesis is rejected.

Finding

The finding indicates that perceived return differs across investors' preferred sectors. Investors preferring Renewable Energy and Information Technology sectors reported comparatively stronger return perceptions, while those preferring FMCG and Fossil Fuel or Oil and Gas sectors showed comparatively lower return perception scores.

Conclusion

Since the null hypothesis is rejected, the researcher concludes that there is a significant difference in investors' perceived return across their preferred investment sectors.

OVERALL CONCLUSION

The study examined investors' perceived risk and perceived return across their preferred investment sectors. The results indicate that investors do not evaluate all sectors in the same manner. Perceived risk differed significantly across preferred sectors, with Fossil Fuel or Oil and Gas, Information Technology and Renewable Energy showing comparatively higher perceived risk scores, while FMCG and Pharmaceutical or Healthcare reflected lower perceived risk scores. The rejection of H_{01} confirms that perceived risk varies significantly across sectoral preference groups.

The study also found a significant difference in perceived return across preferred investment sectors. Renewable Energy and Information Technology recorded stronger return perceptions, followed by Banking and Financial Sector and Real Estate or Infrastructure Sector. In contrast, FMCG and Fossil Fuel or Oil and Gas showed comparatively lower return perception scores. Since H_{02} was also rejected, the findings suggest that investors' return expectations are shaped by the sector they prefer for investment. Overall, the study contributes to understanding sector-based differences in investors' risk and return perceptions and highlights the importance of considering sectoral preference in investment decision-making.

SUGGESTIONS BASED ON FINDINGS

The following suggestions are presented on the basis of the findings.

1. Investment advisors should consider sector-specific risk and return perceptions before recommending investment options to investors.
2. Investors preferring Fossil Fuel or Oil and Gas should be guided with clear information about perceived risk, as this sector recorded the highest perceived risk score.
3. Investors interested in Information Technology should be advised to balance strong return expectations with awareness of market fluctuations and sector volatility.
4. Renewable Energy may be presented as a sector with favourable return perception, but investors should also be informed about its associated risk perception.
5. Investors preferring FMCG should be made aware that lower perceived risk may also be accompanied by comparatively lower return expectations.
6. Financial educators should explain the risk-return relationship across sectors so that investors do not evaluate sectors only on the basis of expected gains.
7. Investment platforms may provide sector-wise risk and return summaries to help investors make more informed decisions.
8. Portfolio managers should avoid uniform investment advice and instead tailor recommendations according to the investor's preferred sector.
9. Investors should compare their preferred sector with alternative sectors before making investment decisions, especially where risk and return perceptions differ sharply.
10. Awareness programmes may focus on helping investors understand how government policy, market fluctuation and industry-specific changes influence sectoral risk.
11. Investors with strong return expectations from Renewable Energy and Information Technology should be encouraged to assess whether these expectations are supported by their risk tolerance.
12. Financial service providers may design separate advisory messages for high perceived risk sectors and lower perceived risk sectors.
13. Investors should be encouraged to consider diversification across sectors, particularly when their preferred sector is associated with higher perceived risk.
14. Sector-based investment education should include both return potential and possible financial loss, so that investors develop balanced expectations.
15. Investment advisors may use the findings to identify sectors where investors require more risk communication, especially Fossil Fuel or Oil and Gas, Information Technology and Renewable Energy.

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