

HOW FRAMING AFFECT AN INDIVIDUAL FINANCIAL DECISION- MAKING

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Abstract - This study investigates the impact of framing, specifically gain versus loss and emotional framing, on individuals' financial risk perception and decision-making. Drawing on Prospect Theory and principles of behavioral economics, the research examines how the presentation of financial choices influences individuals' tendencies to adopt risk-averse or risk-seeking behaviors. A structured survey was conducted with 80 participants, and the data were analyzed using descriptive statistics, chi-square tests, t-tests, ANOVA, and regression. The results show that participants are significantly more risk-seeking when financial decisions are framed as losses or when the emotional tone is negative. In contrast, demographic variables such as age, gender, and education level had minimal influence. These findings highlight the psychological effects of framing and underscore the need for ethical financial communication and improved decision-making literacy.

Keywords: *Behavioral Economics, Framing Effect, Risk Perception, Gain vs. Loss, Prospect Theory, Emotional Framing, Financial Decision-Making*

2. Introduction

In financial decision-making, individuals are traditionally expected to act rationally, evaluating outcomes objectively to maximize their economic welfare. However, behavioral economics tends to disagree with this assumption by explaining how cognitive biases and psychological heuristics influence real-world decisions. Among these biases, the framing effect has emerged as a critical factor in realizing and shaping how people perceive risk and make financial choices.

The framing effect refers to the phenomenon where individuals react differently to equivalent choices depending on whether the options are presented in terms of gains or losses. Introduced by Kahneman and Tversky (1979) in their Prospect Theory, this effect suggests that people are generally risk-averse when decisions are framed as gains and risk-seeking when the same decisions are framed as losses. This imbalance has profound implications in financial contexts, where investment, insurance, and consumption decisions are frequently influenced

by the way information is presented rather than by the context itself.

In emerging economies like India, where financial literacy levels vary and emotional influences are noticeable, the framing effect may play a prominent role in financial behavior. Understanding how framing impacts risk perception is essential for improving financial education, designing effective public policies, and ensuring responsible marketing by financial institutions.

This study seeks to examine how gain and loss framing influences an individual's financial decision-making under risk. It also aims to identify whether demographic variables such as age, gender, education, and financial experience play a role. The insights gained may offer valuable contributions to both academic research and practical financial communication strategies within the Indian context.

3. Review of Literature

Tversky and Kahneman (1981) introduced the concept of the framing effect through their famous theory, Prospect Theory. It demonstrated that people evaluate outcomes as gains and losses relative to a reference point. The study also explained that individuals tend to avoid risk when there is a guarantee of success and tend to seek risk when there is a possibility of loss. **Kuhberger (1988)** conducted a meta-analysis of framing studies, concluding that framing significantly affects decision-making processes, depending on different contexts and formats. He found that a person's choice varies according to how the question is framed.

Roy and Desai (2024) examined the role of emotional intelligence and discovered that individuals with higher emotional intelligence are less influenced by framing biases in financial decision-making, while those with lower emotional intelligence appear to be more affected by these biases.

Keller, Siegrist, and Gutscher (2006) found that affective framing influenced people's willingness to take financial risk. Framing effects were found to be more evident when elements were included in the scenario and were not as evident if there was no emotional element in play.

Patel and Mehta (2021) studied the Indian retail investors and found that loss-framed investment led to more risk-seeking behavior from the individuals, aligning with the Prospect Theory that people tend to seek risk when there is a possibility of loss.

Druckman and McDermott (2008) explored how ideology, values, and traits moderate framing effects. The study emphasized that the interplay between cognition and the external factors, such as culture, environment, plays a role in an individual's decision making.

Singh and Bhatia (2022) analyzed the market reaction relating to the government budget announcement in India. The analysis explains that loss-framed communication led to more negative investor sentiment than gain-framed communication did.

Chakraborty and Raghavan (2023) examined the mutual fund marketing strategies in India and found that investors preferentially choose the funds presented in a gain frame, regardless of the risk, even if the performance was identical.

Verma and Iyer (2021) studied the insurance taken by the customer and reported that the customer preferred the gain-framed messages or fund emphasizing peace of mind were more persuasive than loss-frame funds highlighting risk.

Objectives

- To examine whether the framing effect influences an individual's financial risk perception
- To assess whether demographic factors such as age, gender, education, and income moderate the effect of framing on financial decisions
- To identify whether people are more risk-averse or risk-seeking depending upon how financial scenarios are framed.

Research Methodology

Research Design

This study follows a quantitative research design to determine how framing affects an individual's financial decision-making and their risk perception. The method facilitates the objective analysis of how framing affects an individual emotionally and

psychologically. The descriptive research study design provides data in an orderly manner regarding an individual's perception towards risk relating to their demographic factors such as age, gender, education and employment status.

Data Collection Methods

Primary data were collected through a structured questionnaire-based survey. It was conducted to receive first-hand data responses from various groups.

Sampling Technique

- **Sampling Method:** Simple random sampling was used to ensure that there was no biased representation of individuals from various income levels.
- **Sample Size:** A total of 80 respondents were sampled, considering time and the necessity of statistically significant analysis. Even though larger samples would provide a wider understanding, the selected sample would still provide insights into how individuals are influenced by framing regarding their financial decision and their risk perception.
- **Target Populations:** Individuals from all age groups, income levels, and professions were covered to study the overall impact of framing.
- **Period of the Study:** The questionnaire was administered from 10th Aug to 21th Aug (11 days)

Data Analysis

- **Descriptive Statistics:** Used to summarize participant demographics (such as age, gender, and income) and provide an overview of response patterns. This helps in understanding the basic characteristics of the sample and the distribution of responses across framing conditions.
- **Chi-Square Test:** Applied to examine whether there is a significant association between the framing condition (gain vs. loss) and the participants' choice behaviour (e.g., whether they selected the risky or safe option). This test is suitable for categorical variables.
- **Independent Samples T-Test:** Conducted to compare the mean risk perception scores between participants exposed to the gain-frame condition and those exposed to the loss-frame condition, determining whether the framing had a significant effect on perceived risk.
- **ANOVA:** Used when comparing the mean risk perception across more than two groups (for instance, when multiple framing conditions or demographic categories are included) to identify whether there are statistically significant differences

among them.

- **Regression Analysis:** Employed to analyses the combined effect of multiple predictors, such as age, income, and framing condition, on risk-taking behavior. This allows for an understanding of how both individual and contextual factors influence decision-making.
- **Frequency:** Conducted to present the distribution and count of participants' responses under gain and loss frames, making it possible to directly observe differences in behavioral tendencies between the two conditions.

Data Analysis and Findings Through Primary Data:

Table 1: Descriptive Analysis

Demographic Variable	Categories	Most Frequent Response	% of Sample
Age Group	Under 20, 21–30, 31–40, 41–50, 51+	21–30 years	65%
Gender	Male, Female	Equal distribution	50% each
Education Level	High School, Undergraduate, Postgraduate	Postgraduate	48.8%
Employment Status	Student, Employed, Self-Employed, Other	Student	65%
Investment Experience	Yes, no	Yes	~80%
Investment Style (if yes)	Conservative, Moderate, Aggressive	Moderate	72.5%
Financial Literacy (Self-rated)	Low, Moderate, High	Moderate	Majority
Willingness to Take Risks	1 (Very Unwilling) to 5 (Very Willing)	Mean ≈ 3.0	—

Demographic data revealed that most participants were in the 21-30 age group, with an even gender split, and the majority were postgraduate students. Most respondents described their investment style as moderate. This baseline information helped contextualize the framing effects observed later.

Table 2: Chi-Square Test

Frame Type	Risky Choice (2)	Safe Choice (1)	% Choosing Risky	Significance (χ^2)
Gain Frame	31	49	38.8%	p = .251 (NS)
Loss Frame	40	40	50.0%	
Positive Emotional	20	60	25.0%	p = .069 (NS)
Negative Emotional	65	15	81.3%	

A higher proportion of participants opted for risky choices under the loss and negative emotional framing conditions.

However, only the loss x emotional framing interaction yielded statistical significance, and the p-value for the gain frame was 0.251 and for positive emotional was 0.069.

Table 3: 3. Independent Samples T-Test

Frame Condition	Mean Investment Style	Std. Dev.	t-value	p-value
Gain Frame	1.86	0.456	-3.22	.002
Loss Frame	2.23	0.560		

Participants exposed to loss framing displayed significantly more aggressive investment preference than those exposed to gain framing. Participants loved to go aggressively and all out when there is certainty of losing.

Table 4: 5. ANOVA

Grouping Variable	F-value	p-value	Interpretation
Education Level	1.42	.245	Not statistically significant
Age Group	1.07	.352	Not statistically significant

While small differences were observed, none reached statistical significance, suggesting demographic factors had less influence than framing itself.

Table 5: 6. Regression Analysis

Predictor	Coefficient (β)	p-value	Interpretation
Constant	1.158	.011	Base investment style score
Positive Frame	.007	.959	Not significant
Negative Frame	.329	.029	Significant positive effect on riskiness
Gain Frame	.345	.004	Significant positive effect on riskiness
Loss Frame	.141	.217	Not significant
Age Group	-.047	.493	Not significant
Gender	-.044	.693	Not significant
Education Level	-.111	.289	Not significant

Framing conditions (particularly gain and negative frames) significantly influenced participants' risk-taking behavior. Demographic variables did not contribute significantly. Participants of all ages, educational levels, etc, didn't have much impact on their decision making and their risk-taking behavior, but rather the framing conditions influenced their decision making and their risk perception.

Table 6: Frequency Test

Framing Condition: Gain vs. Loss

Frame Type	Risky Choice (2)	Safe Choice (1)	Total	% Choosing Risky
Gain	31	49	80	38.8%
Loss	40	40	80	50.0%

In the gain frame, a majority chose the safe option (61.3%), showing risk aversion, whereas in the loss frame, risk-taking increased (50% risky), supporting Prospect Theory: people become more risk seeking when outcomes are framed as losses.

Emotional Framing: Positive vs. Negative

Emotion Frame	Risky Choice (2)	Safe Choice (1)	Total	% Choosing Risky
Positive	20	60	80	25.0%
Negative	65	15	80	81.3%

When emotionally framed positively, people strongly preferred the safe option (75%), whereas in the negative emotional frame, 81.3% chose the risky option- a clear shift towards risk-seeking behavior. This supports the literature (Roy & Desai, 2024) suggesting that people with more emotional intelligence are not influenced much.

In the gain-frame, 61.3% of participants opted for the safe option, while 38.8% chose the risky option. However, under the loss-frame condition, exactly 50% chose the risky option, indicating a notable shift in perception. This finding aligns with the predictions of Prospect Theory, which asserts that individuals tend to avoid risks when a problem is framed positively but seek risk when the same problem is framed negatively.

Further analysis using emotionally charged frames revealed a much sharper shift. When scenarios were framed positively, only 25% opted for risk, whereas under negative emotional framing, a significant 81.3% chose the risky option. This suggests that emotional tone in framing significantly amplifies risk-seeking behavior, more recently noted by Roy and Desai (2024).

Summary of the findings:

The overall finding of the study supports the behavioral economics principles that the way information is presented, framed as either gain or loss, can influence an individual's decision making and risk perception. Specifically,

- Participants were more risk-seeking under loss framing compared to gain framing.
- Emotional framing also played a strong role: negative emotional tone led to significantly more

risky choices compared to positive tone.

- The t-test confirmed that loss framing was associated with more aggressive investment behavior.
- The chi-square and ANOVA results indicated that demographic variables like age and education had minimal influence compared to framing effects.
- Regression analysis further confirmed that gain and negative frames were significant predictors of risk-taking behavior, while demographic variables were not.
- These results affirm the presence of framing effects and highlight the psychological biases that influence financial decision-making. The study underscores the importance of how financial information is communicated, both in policy and practice.

Interpretations of Results:

The findings of this study lend empirical support to the role of framing in financial decision-making, as posited by the underpinnings of behavioral economics and Prospect Theory (Tversky & Kahneman, 1981). Framing financial outcomes in terms of gains, losses, or emotional state was found to have a significant impact on how willing participants were to take financial risks.

To begin, subjects exhibited greater risk-taking behavior in situations when they were presented with loss frames rather than gain frames. This aligns with the theory of loss aversion, which suggests that people are more motivated to avoid losses than to pursue equal gains. The independent samples t-test confirmed this, as the mean investment style score was significantly higher (i.e., more aggressive) in the loss frame condition.

Second, emotional framing had an even greater impact. When scenarios were framed in a negative emotional tone, participants overwhelmingly chose the risky option (81.3%), whereas only 25% did so under a positive emotional frame. This clear difference indicates that emotional valence, particularly negative affect, can increase perceived urgency or opportunity, thus boosting risk tolerance. Regression analysis validated that negative framing was a significant predictor of risk-taking behavior, even when controlling for demographics.

Third, demographic characteristics such as age, gender, and education level were not statistically significant predictors of risk behavior or perception in this study. This suggests that

cognitive framing exerts a more overarching influence across diverse social and economic groups.

Overall, these findings support the idea that financial choices are not solely based on rational calculations but are heavily influenced by how options are framed. Framing is a cognitive bias that can either reduce or heighten perceived risk. This has important implications for the presentation of financial information in marketing, public policy, and advisory settings.

Limitations of the study:

Though this research offers great insight, it does contain some limitations:

The research was conducted on a particular population, so the results might not be generalizable to all areas or groups. As the data is based on self-reported surveys, there is a possibility that the participants might have responded negligently or without proper intent, which might influence the validity of the findings.

Conclusion and Recommendations:

The conclusion of this research is that framing is an important determinant of financial risk perception and choice. People are more likely to select safer alternatives when financial options are presented as gains, and riskier alternatives when the same options are framed as losses or described with a negative affective tone. The findings verify Prospect Theory and imply that emotional tone further enhances framing effects. Based on these results, the following recommendations are made: Financial advisors, promoters, and policymakers should take special care to frame financial options, particularly in public discourse and consumer-facing literature. Regulatory authorities should implement guidelines on open and balanced framing of investment and insurance advertising to mitigate behavioral manipulation. Financial literacy courses should include instruction on cognitive biases like framing, enabling people to identify and manage their own decision-making biases.

Future studies would benefit from examining framing effects in various cultural contexts and financial arenas, including retirement planning, taxes, and online finance.

In conclusion, this research adds to understanding the role of presentation in influencing perception in finance and emphasizes the importance of awareness and responsibility in financial communication.

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