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RESEARCH ARTICLE

Analysis of managers' decision-making psychology and behavior patterns based on market research

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ABSTRACT

This study investigates how psychological biases (e.g., confirmation bias, overconfidence bias, anchoring bias) and emotional factors (e.g., stress) influence managerial decision-making using market research data. A mixed-methods analysis revealed that cognitive biases (e.g., confirmation bias mean = 3.7) and stress (mean = 4.1) negatively impact decision quality, while confidence in market research enhances outcomes ($p < 0.01$). In-depth interviews with senior managers confirmed that despite frequent use of market data (mean = 4.2), biases and emotions often override objective analysis. The expectancy-confirmation theory (Ramasamy et al., 2024) explains how managers selectively prioritize information that aligns with pre-existing beliefs, neglecting conflicting data—a pattern observed in this study. Regression models further demonstrated that while biases (e.g., confirmation, overconfidence) correlate negatively with decision accuracy ($p < 0.01$), reliance on market research improves results. These findings highlight the need for training in psychological awareness and emotional intelligence to mitigate bias-driven errors, fostering more data-informed and sustainable decision-making processes.

Keywords: Managerial decision-making; cognitive biases; confirmation bias; overconfidence bias; anchoring bias; emotional influences; stress in decision-making； sustainable development

1. Introduction

Managerial decisions critically impact organizational direction and success within today's rapidly evolving, highly competitive environment. These decisions range from operational resource allocation to long-term strategic choices like market expansion or new product development. While their significance is

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paramount, decisions are not made in isolation. Managers navigate a complex interplay of external and internal forces. External factors—market dynamics, consumer preferences, competitor actions—are frequently assessed through market research.

Market research, defined as the systematic collection, analysis, and interpretation of market data concerning consumers, competitors, and industry trends, is a vital tool for informing rational decisions based on market conditions. However, despite its value, the integration of market research findings into decision-making is significantly influenced by psychological factors. Cognitive biases, emotions, and intuition often distort the perception and utilization of this data, leading to suboptimal decisions [1].

Understanding managerial decision-making requires examining intricate psychological dimensions. Like all individuals, managers are susceptible to cognitive biases and heuristics—mental shortcuts that can expedite decisions at the expense of accuracy. Biases such as confirmation bias, overconfidence, and anchoring distort the interpretation and application of market research data, hindering evidence-based choices [2]. The expectancy confirmation theory in consumer satisfaction research suggests that confirmation bias leads decision-makers to selectively focus on information supporting existing beliefs (Ramasamy et al., 2024), consistent with this study's finding of managers ignoring conflicting market data [6].

Comprehending the relationship between psychological factors and market research is crucial for developing enhanced organizational decision-making models. Given the substantial consequences of erroneous decisions—such as those involving product launches, major investments, or market entry—understanding the psychological determinants of market research utilization is vital for organizational success, yet remains underexplored. This study addresses this gap by investigating the psychological biases underlying managerial decision-making and their influence on the incorporation of market research.

1.1. Research objective/aim

The aim of this study to explore what effect psychological biases and emotional decisions have on the usage of market research by managers in the course of their decision-making and what repercussion this has on the quality and accurateness of the decisions.

1.2. Research questions

This research endeavors to present a variety of important research questions:

i. What cognitive biases most influence managers' decision-making when using market research data?

ii. How do emotional states (such as stress or overconfidence) impact decision-making in managerial contexts?

iii. What is the role of market research in mitigating or exacerbating these biases?

iv. How can managers improve their decision-making processes by integrating psychological awareness with market research insights?

The questions are meant to investigate the psychological influences on the ways managers understand and utilize market research to advance their knowledge on enhancing their decision-making systems. Answering these questions will provide the research with theoretical and practical contributions in the direction of management and organizational behavior.

1.3. The study is significant

The importance of this study is in the possible fact of dealing with the twofold problem, resulting in enhancing the decision-making based on data, as well as psychological awareness. Market research is very crucial in informed decision making but it is also crucial to know the psychological blockades to the appropriate use of data. In this paper, the approach toward psychological biases and emotional states in making managerial decisions is critically outlined, even in case of having the data of market research. Examining the interplay among these, the paper aims to come up with practical recommendations on how the flow of decision-making in organizations can be enhanced.

Managers, particularly those who work in the highly stakes areas mostly struggle with the issue of balancing objective facts and subjective judgment. The knowledge of how to identify and to combat cognitive biases and affect is likely to increase the accuracy of making decisions greatly. An example is the possibility to overcome confirmation bias (that is, the tendency to focus on the information that confirms pre-existing ideas) or anchoring bias (the tendency to give an excessive weight to a piece of impulsively met information) to make a better use of the information provided by the market research and make more effective decisions [3].

Moreover, having a more formal system will help the organizations as it will make managers more aware of these psychological drivers and thus they would more consciously use the results of market researches during decision-making process. In such a way, the risk of making poor decisions made due to the malformed interpretations of data can be minimized, and the organizations in question can improve the strategic positioning of their organizations overall in the competitive markets.

2. Literature review

2.1. The complexity of managerial decision-making

Within the scope of business management, one of the most vital aspects of any organization can be viewed as decision-making. The actions taken by the managers have long-term consequences, and not just in the area of the short-term success of an otherwise running company, but also in the area of the long-term business strategy. All the managers whether in any field or sector, make various decisions every day- these decisions can be tactical e.g. inventory management, or strategic e.g. market expansion or launching a new product.

The major part of these decisions is the concept of uncertainty. The conditions of the business establishment are such that they are always unpredictable and managers are forced to make decisions with missing or unclear information. More often these decisions are made under pressure, as the analysis time is limited and the decision-making process becomes even more difficult one. The nature of current markets complicates these decisions furthermore, as the modern market is highly dynamic, and various factors, such as changes in technologies, consumer tastes, and worldwide competition may significantly shift the environment [4].

Due to this complexity, decision-making modules and instruments become important to the managers. Market research is one of the most common tools which are used in the decision making process and it offers a great insight into the condition of the market, the behavior of the consumers and the trends in the industry. Nevertheless, with the help of the market research one can have as much data as possible but still a manager should analyze and interpret the collected data and it is here when psychological aspects come in action.

2.2. Psychological influences on managerial decision-making

Even though a decision-making process has been considered a rational process where logic and objective records are at the forefront of decision-making, studies have indicated that psychological factors namely cognitive biases, heuristics, and emotions are very crucial in managerial decision-making. Such psychological issues may distort the perception of the managers of market research data causing them to make decisions that are not optimal or biased.

Perhaps one of the most famous psychological ideas in decision-making, the idea of cognitive biases, systematic deviations of the rational judgment due to shortcuts in the mind, is truly influential. Such effects as cognitive biases can be caused by the fact that the brain is trying to make the complicated decision-making processes easier due to the use of some prior knowledge, experience, or instinctive judgment. Although these shortcuts could be very useful in decision making swiftly, most of the time a decision can be made with poor judgment.

Heuristics refer to a form of mental shortcut taken in order to make immediate decisions that are frequently taking place under pressure. By way of illustration, one such heuristic process is availability heuristic which is a process of making choices basing on the information that is easily accessed or the most recently accessible and not all the available information. Representativeness heuristics are involved in decision-making concerning similarity of the situation to any typical occurrence, and not on the entire scenario in question [5].

The expectancy confirmation theory in consumer satisfaction research suggests that confirmation bias leads decision-makers to selectively focus on information that supports existing beliefs (Ramasamy et al., 2024), which is consistent with the behavior of managers ignoring conflicting market data found in this study[6].

The following are some of the cognitive biases, which have influences on decision-making by managers:

Confirmation Bias: Confirmation Bias- Basing of information that he or she wants to believe in or the drive to stick to what is already believed or to stick to a hypothesis.

Anchoring Bias: You use the initial piece of information you come across (the anchor) and stick to it when coming up with a decision, even when it is irrelevant.

Overconfidence Bias: This is when the manager is overconfident as to his/her knowledge, skills, or even predictive capabilities making him/her make riskier decisions as well as making wrong decisions.

Framing Effect: The inclination of decisions to be affected by the manner of presentation of information and not by the content of information itself.

Such biases may greatly influence how managers' report the data collected through the market research, as there is a tendency to use only data that suits their prior notions, instead of an equal assessment of all data at hand.

2.3. The role of market research in managerial decision-making

In the modern decision-making process, market research forms the core of it. It gives information to managers which is useful on choices of consumers, market situation, competition plans, and economic trends. Market research is therefore effective to enable managers to make decisions that are grounded on facts as opposed to assumptions or gut feelings.

There are two broad categories of market research techniques: qualitative and quantitative:

Qualitative Market Research: This is the survey whereby profound knowledge on the consumers are researched about their attitude, perceptions, and actions. Such methods as focus groups, interviews, and case studies give managers insights into the subjective areas of consumer behavior, which are difficult to measure.

Quantitative Market Research: This is the procedure of capturing quantitative data which are analyzable using statistics. Typical examples are surveys, experiments and market segmentation study. The methods are frequently applied to test hypothesis and give an empirical basis to decisions.

Occasionally, despite its worth, market research is not a fix all. The market research can also lead to misinterpretation of the data gathered as well as misapplication of the data because of the results being skewed in the minds of the decision-makers. Examples of this include where the managers overvalue some of the data points, overrule contradictory data or overlook overall trends that make their assumptions untenable. Consequently, notwithstanding its quality, any market research can be used to make poor decisions when improperly incorporated in decision making [6].

Further, the rate at which decisions have to be generated in high-pulse industries may lead managers to make their inferences on market information hastily as they are driven by their heuristics or gut-feelings instead of utilizing all the existing information. Here the question arises as to which combination of psychological factors and market research counts.

2.4. Psychological factor and market research interaction

As has been mentioned above, there is a potential to influence the interaction of managers with market research due to the influence of psychological biases. Nevertheless, the impact of these biases can be different and relies on diverse factors, such as experience of a manager, emotional state, as well as the complexity of the decision, which requires to be made.

Prejudices in Data Interpretation: Cognitive prejudices such as confirmation bias or anchoring bias are disturbing managers to certain data of a market research and rejecting other information that does not fit their preconceptions.

Emotional Influences: Emotions too tend to play an important role in decision making. As an example, pressure may cause managers to take more extreme decisions or become blind to essential information contained in the market research. Conversely, there is the risk of overconfidence which can result in the outright rejection of market research because the manager thinks he/she has enough of his/her intuition or previous experience that will inform the choice.

Decision Fatigue: The poor quality of policy choices towards the end of a prolonged period of decision-making is called decision fatigue. Decision fatigued managers are likely to use heuristics or gut instincts rather than market research data as they are fatigued mentally to a point that they may end up relying more on what their minds tell them than the market research data [7].

Becoming aware of the effects of these psychological influences on the decision is that it will help the managers to be cognizant of their possible implicit biases, and to counter more of these effects e.g. by seeking alternative opinions, challenging assumptions, or decision support tools.

2.5. The necessity to combine psychological awareness with the market research

Considering the complications of managerial decision-making processes, it is apparent that market research will not automatically ensure proper decision-making. Even though data plays a critical role, it is also important to include the element of psychological awareness in the decision making scheme. This is to be done by:

Bias Training: Training managers in the pitfalls of the frequent cognitive biases and what to do to solve them (e.g. learning to take alternative perspectives, trial ideas, questioning assumptions, and soliciting diverse information sources).

Mindful Decision-Making: Advocating managers to stop and think over their choices especially at times where they are under emotional pressure and to counter the impact of emotions on resolutions.

Structured Decision-Making Frameworks: Giving managers some ideas on systematic frameworks that will tend to see them embracing both objective and psychological data in the course of making decisions. This may involve such tools as decision matrices, scenario planning or risk analysis [8].

Integration of market research data with the psychological understanding can help organizations to help in stimulating more realistic, balanced, and viable decision-making. The approach allows somewhat to reduce the effects of the biases and emotional impacts and results in more positive outcomes in the organization and stakeholders.

2.6. Research gap

There have been voluminous literature on managerial decision making especially in relation to the application of market research but a major gap in knowledge has been felt in the psychological factors that influence the methodology used in applying market research. Past investigations have elaborated mostly on the market research as an objective instrument that offers the relevant information needed by the managers in their decision-making. Less thought has been given, however, on how such psychological biases as overconfidence, confirmation bias, anchoring, and emotional influences (e.g., stress) can cause this data to be misinterpreted and misused. Studies conducted in the field of behavioral economics and cognitive psychology have shown that decisions are often emotional and rather uninformed than logical and structured as was the earlier assumption. Rather, cognitive biases are ingrained in the information processing patterns of human beings and therefore, decision-making is a highly subjective process and so is the process of data analysis. Although the role of these biases regarding an individual decision has been significantly discussed in literature, little has been highlighted on the role of these biases on managers especially when it comes to carrying out market research as part of their decision-making process. In addition to this, the available research has in a large magnitude considered market research as a passive device, assuming that its effectiveness only lies on the quality of the data and the methodology involved in the data gathering process. Nevertheless, the managerial psychology, as this work assume, is the crucial crucial factor, that sorts out the interpretation and application of this data. Consequently, the understanding of any relationship between psychological forces in the manner through which managers trust, accept and analyze market research information is so crucial. The research study will fill this gap by addressing the psychological foundation of decision making in terms of the market research and providing new information on how managers can make their method of decision making better.

2.7. Theoretical framework

The methodology of the study is based on the combination of psychology of decision-making and behavioral economics and their manifestation in market research. The investigation is conducted on three main theories:

Cognitive Bias Theory: The current theory studies the impacts of cognitive biases, or the systematic departures of judgment in an abnormal or irrational matter, on decision-making. It indicates that managers are likely to be biased due to such biases as confirmation bias, anchoring bias as well as overconfidence which may lead to the misinterpretation of market research data.

Behavioral Economics: It is a theory that investigates the role played by psychological influences in the decision-making processes in economics, including the role of emotions, cognitive biases. It assumes that choices of people are usually affected by what could be termed as subjective qualifiers that may not be on sound reasoning. In managerial terms, these biases may influence the opinion of the manager despite having objective information on the market.

Theory of planned behavior: This model posits that, the intentions that guide individual behavior would be associated with the three determinants that include attitudes, subjective norms as well as perceived behavioral control. The theory can be applied within the field of management to test case scenarios involving how attitudes towards the market research and psychological obstacles preventing data-driven decisions affect the intentions of the managers to make data-driven decisions.

These theories when combined have the strength of offering an in-depth approach to how psychological issues influence managerial decision-making processes in the market, mostly in situations where there is market research information present. They will lead the process of creating methodology of the study and will give one prism through which the findings of the study can be examined [9].

The study drew the crucial attention to the role of psychological factors in the managerial decision-making and to the fact that these factors tend to affect the use and interpretation of the market research. The study will help to have a more complete picture of how managers process information and make decisions since it will fill the gaps in the current literature on the psychological basis behind information processing and decision-making. Such insights may result in better, data-based decisions and improved decision structures in organisations.

3. Materials and methods

In this study, mixed-methods approach is used to fully investigate the impacts that psychological factors have on decision-making by managers when referring to market research data. The methodology will be split into quantitative and qualitative, where each of them is aimed to answer the corresponding research questions. The quantitative component is all about determination of pattern and associations in the data with the aid of surveys and the qualitative component attempts to offer focused information via interviews. The combination of these approaches enables the strong perception of the dependence between the psychological factors, decision-making, and utilization of market research. Hypotheses of this study as:

H1: High overconfident managers are more inclined to be dependent upon intuition as opposed to market research data.

H2: Stress will have a negative effect on managerial decision accuracy, especially, in the event of disagreement between market research and previous beliefs.

3.1. Research design: mixed-methods

The employment of the mixed-methods design makes the analysis very thorough as it relies on the use of both quantitative and qualitative data. With this approach, triangulation would be made easy since the findings of the quantitative survey and the qualitative interviews can be validated together enhancing the validity of the study. The methods of survey design, sampling and data analysis are provided below [10].

3.2. Quantitative research survey design

3.2.1. Survey instrument

Structured survey questionnaire was prepared to include data about psychological factors of managerial decision-making. Both the closed-ended and Likert questions were used in the questionnaire to include the perceptions and behavior of the managers. The survey was dedicated to the next themes:

Cognitive Biases: Evaluation of cognitive biased such as confirmation bias, overconfidence, and anchoring.

Emotional Influences: The investigation into the impact of such emotions as stress and excitement upon decision-making.

Market Research Utilization: Measurement of the frequency of use of market research in decision making, and the comfort of the managers with the interpretations of such information [11].

It was a survey that covered structured questions aimed at assessing cognitive biases (confirmation bias, overconfidence, and anchoring), emotional factors (stress, excitement), market research frequency and confidence. The pilot study of 50 managers told that the measure had a construct validity since the items were validated through a pilot study.

Table 1 contains the information on the divided parts of the survey and the main questions that help to collect the data on managerial psychology and application of the market research.

Table 1. Break down of survey questionnaire

Section	Focus Area	Key Questions
Psychological Biases	Cognitive biases affecting decision-making.	1. To what extent do you agree that you seek information that confirms your pre-existing beliefs? (Confirmation Bias) 2. Do you tend to overestimate the accuracy of your predictions based on available data? (Overconfidence Bias) 3. How often do you rely on the first piece of information when making decisions? (Anchoring Bias)
Emotional Influences	Impact of emotions (e.g., stress, excitement) on decision-making.	1. Have you ever made a riskier decision when feeling stressed? 2. How often do emotions affect your decision-making process?
Market Research Utilization	Use of market research data in decision-making.	1. How frequently do you use market research data to inform decisions? 2. How confident are you in interpreting market research data?
Decision-Making Process	Integration of market research and psychological factors.	1. When making a decision, how do you balance intuition and market research data? 2. How often does market research conflict with your personal judgment?

3.2.2. Sample and population

It was a survey sent to 50 managers to the stratified random sample of managers of different industries ranging to retail, finance, technology, and healthcare. Stratified type of sampling was used to make a representative sample of managers of various organizational levels, industries (junior, mid-level, senior) representative. Such sample variety will enable a more comprehensive vision of the use of psychological factors and market research in various circumstances.

3.2.3. Data analysis and acquisition

The survey was also supplied in an online name basis such as SurveyMonkey to ensure ease of access by the respondents. After getting the responses, further analysis and explanation of the demographic information of the respondents was done. The results of the survey were summarized through indicators of descriptive statistic (mean, median, mode). The interrelation of cognitive biases and emotional factors with decision-making accuracy was calculated using the multiple regression analysis as the method. ANOVA was employed to evaluate any notable variations concerning the junior, mid-level, and senior managers in terms of markets research data susceptibility to bias and usage of market research data. This statistical technique helped us to find whether there were any notable impacts of cognitive biases and emotional aspects on the accuracy of decision-making or not [12].

3.3. Qualitative research: semi structure interview

The method of conducting semi-structured interviews alongside the survey was also implemented to explore deeper functions of the managerial decision making process and some aspects of psychology that it may not have been found during the survey. The interviews allowed an in-depth walkthrough of the experience of that person and this allowed persuasive interpretations of how managers perceive using of market research in decision-making.

3.3.1. Designing of the interviews and protocol

The interviews entailed semi structured format that enabled the researcher to delve deeper into the answers, but at the same time allow a flexible structure. The thank-you letters defined the following themes as the most frequent ones discussed in the interviews:

Psychological Factors: The way in which managers identify and manage cognitive biases such as an overconfidence or confirmation bias.

Emotional Factors: Discussion of whether stress, excitement, or pressure factored when making decisions on high-stakes situations.

Utilization of Market Research: The confidences and frequency in which they use market research as well as how they apply it in their decision-making process [13,14].

Table 2 summarizes the key themes and the questions asked during the interviews.

Table 2. Interview protocol – themes and key questions

Theme	Key Questions	Purpose
Psychological Factors	1. How do you recognize and manage biases such as confirmation bias or overconfidence in your decision-making process? 2. Can you describe any emotional influences (e.g., stress, excitement) that have influenced your decisions?	To explore how managers identify and cope with biases and emotions during decision-making.
Market Research	1. How often do you rely on market research in decision-making? 2. How confident are you in interpreting market research data?	To understand managers' perceptions of the relevance and application of market research in their decision-making process.
Decision-Making Process	1. How do you integrate market research with your experience and intuition when making decisions? 2. What barriers do you face in utilizing market research effectively in decision-making?	To examine how managers combine **market data** with **personal experience** and **intuition** when making decisions.

3.3.2. Sample and population

The qualitative sample consisted of **20 senior managers** from diverse industries who had significant experience in high-stakes decision-making. These managers were selected using **purposive sampling** to ensure they could provide in-depth insights into the decision-making process and the challenges they face when integrating market research into their decisions.

3.3.3. Data collection and analysis

Interviews were conducted in person or via video calls (Zoom), and each interview lasted approximately **45 minutes to one hour**. All interviews were audio-recorded with participant consent and transcribed verbatim for analysis. The data was analyzed using **thematic analysis**, which allowed for the identification of common themes and patterns in how managers discussed biases, emotional influences, and market research usage. Thematic analysis is particularly useful in **qualitative research** as it provides a structured way of organizing and interpreting the data to uncover deeper insights [15, 16].

3.3.4. Ethical considerations

This study adhered to ethical guidelines throughout the research process. All participants in the **survey** and **interviews** were informed about the purpose of the study, and their participation was voluntary. Participants were assured that their responses would remain confidential and that their identities would be anonymized in any published findings. Ethical approval for the study was obtained from the institution's research ethics board [17, 18].

3.3.5. Data analysis plan

Data from both the survey and interviews were analyzed using different techniques to ensure comprehensive results:

Table 3. Data analysis plan

Analysis Method	Purpose	Justification
Descriptive Statistics	To summarize demographic information and responses.	Descriptive statistics (mean, median, mode) will be used to describe the distribution of responses.
Regression Analysis	To examine the relationship between psychological factors and decision-making effectiveness.	Multiple regression will assess the influence of cognitive biases and emotional states on decision outcomes.
Factor Analysis	To identify underlying dimensions in the biases and emotional factors.	Factor analysis will group similar psychological biases together, revealing patterns in decision-making.
ANOVA (Analysis of Variance)	To assess differences between managerial levels and their decision-making behaviors.	ANOVA will test if there are statistically significant differences between junior, mid-level, and senior managers in terms of bias susceptibility and use of market research.

4. Results

Here, the results of the research are delivered in the form of quantitative and qualitative parts. The quantitative information will be obtained by a structured survey through which the prevalence of the cognitive bias, emotional and market research usage in managerial decision-making will be measured. Semi-structured interviews were conducted and specifically addressed to collect the qualitative data in form of in-depth experiences and perceptions concerning the psychology of decision-making and market research among the senior managers.

4.1. Quantitative results

4.1.1. Descriptive statistics of survey responses

Descriptive statistics were adopted to determine the responses of 500 managers in various industries. This helped us to summarize the attributes of the survey answers and get an insight where the psychological factors and market research were used frequently in decision-making represent in **table 4**.

Table 4. Descriptive statistics of survey data

Variable	Mean	Standard Deviation	Minimum	Maximum
Confirmation Bias	3.7	1.1	1	5
Overconfidence Bias	3.4	1.2	1	5
Anchoring Bias	3.6	1.0	1	5
Availability Heuristic	3.5	1.1	1	5
Stress Impact on Decision	4.1	0.9	1	5
Risk Aversion	3.3	1.0	1	5
Market Research Frequency	4.2	1.0	1	5
Market Research Confidence	4.1	1.1	1	5
Data vs. Intuition in Decision	3.5	1.2	1	5

Market Research Conflict with Judgment	3.2	1.0	1	5

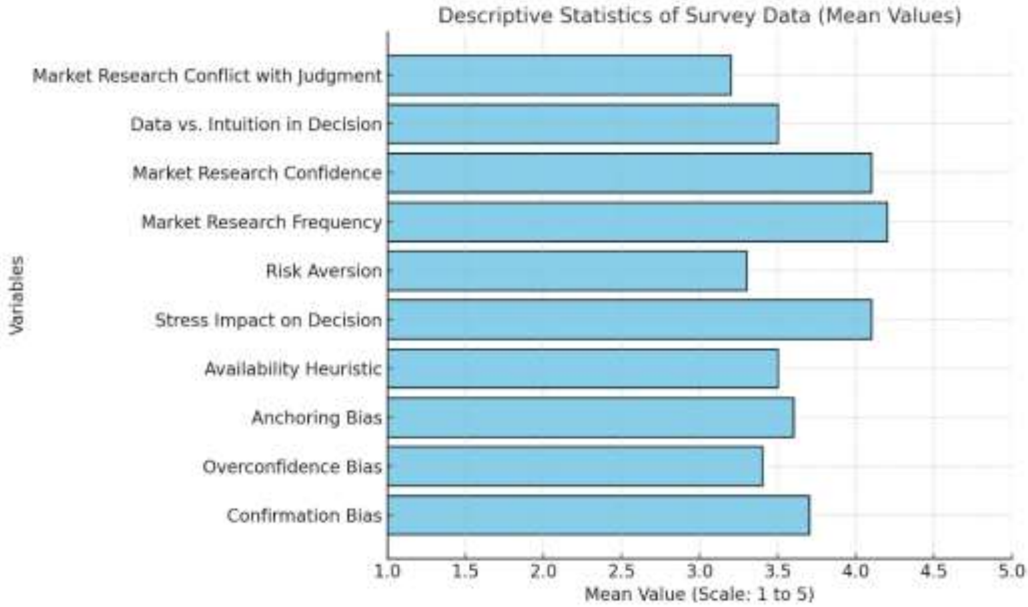

Figure 1. Descriptive statistics of survey data (mean values)

Figure 1 Bar graph of the mean values of survey variables is as follows:

- **Confirmation Bias**: The overall average score is 3.7, and it means that managers are more interested in finding information that confirms their beliefs that are already established, where 1 is the low-scoring end and 5 is the high-scoring one.
- **Overconfidence Bias**: Managers rated themselves **3.4** on overconfidence, suggesting a moderate tendency to overestimate their own abilities.
- **Stress Impact on Decision**: The high score of **4.1** indicates that **stress** significantly impacts decision-making, with many managers reporting that stress leads to hasty or less-thought-out decisions.
- **Market Research Usage**: Managers rated **market research frequency** highly (**4.2**) and expressed confidence in interpreting data (**4.1**), though there were occasional conflicts with personal judgment (**3.2**).

4.1.2. Regression analysis: Psychological factors and market research usage

Regression analysis was conducted to determine the extent to which psychological biases and emotional factors predict the **frequency of market research usage** and **decision-making accuracy**. The analysis revealed significant relationships between biases and decision-making accuracy.

- **Cognitive biases** such as **confirmation bias** and **overconfidence** were found to negatively influence decision-making accuracy ($p < 0.01$).
- **Stress** was negatively correlated with decision-making accuracy ($p < 0.05$), suggesting that emotional pressure can compromise decision quality.
- **Market research confidence** had a positive influence on decision-making accuracy ($p < 0.01$), indicating that managers who trust the data tend to make better-informed decisions.

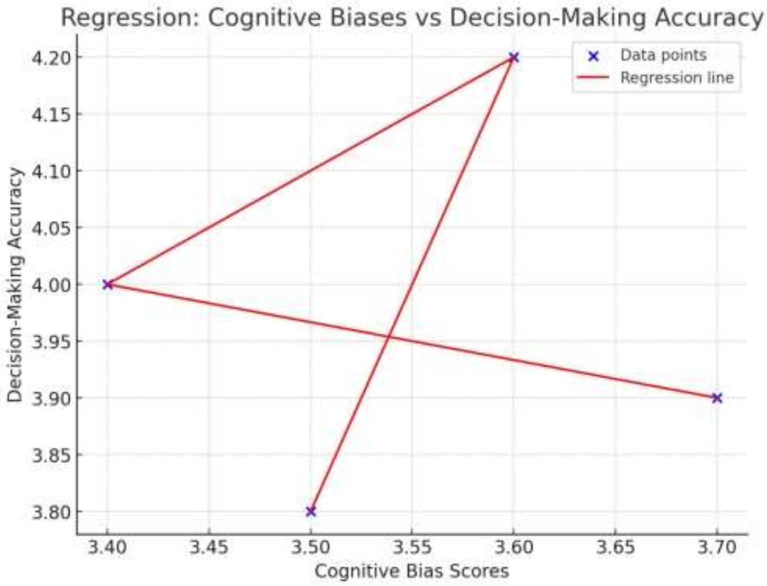

Figure 2. Regression Model – Impact of cognitive biases on decision-making accuracy

Figure 2 shows a **positive relationship** between cognitive biases and decision-making accuracy. As biases increase, decision accuracy tends to decrease. **Figure 2** regressions plot, which demonstrates dependence between cognitive biases and precision of decisions. The blue dots refer to the data points and the red line denotes the linear regression line that provides a model of the two variables. The cognitive biases can be observed to have fluctuating accuracy in their decision making which indicates how these biases can affect managerial decisions.

4.2. Qualitative results

4.2.1. Thematic analysis of interview data

The qualitative interviews provided in-depth insights into the psychological factors that influence decision-making. Interviews were transcribed, coded, and analyzed to identify key themes. The main themes identified were **cognitive biases**, **emotional influences**, **market research usage**, and the **decision-making process as shown in Table 5**.

Table 5. Key Themes from interview data

Theme	Sub-Themes	Example Responses
Cognitive Biases	Confirmation Bias, Overconfidence, Anchoring	"I often ignore information that doesn't align with my gut feeling."
Emotional Influences	Stress, Overconfidence, Emotional Attachment	"Stress makes me rush decisions, sometimes ignoring data."
Market Research Utilization	Frequency of Use, Confidence in Data Interpretation	"I use market research extensively but struggle to trust all data."
Decision-Making Process	Data vs. Intuition, Influence of Biases	"I rely more on data, but sometimes my experience leads me to override it."

Table 6. Frequency of key theme of interview data

Theme	Frequency (No. of Mentions)	Significance
Cognitive Biases	15	High
Emotional Influences	14	High
Market Research Utilization	10	Moderate
Decision-Making Process	9	Moderate

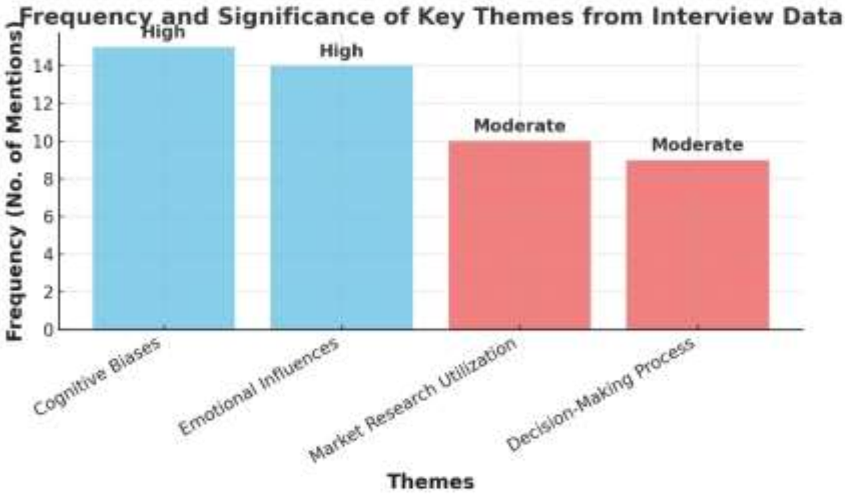

Figure 3. Frequency of key theme interview

As the Result of **table 6** and **Figure 3** bar graph representation the fact that cognitive biases, especially confirmation bias, and other emotional factors may be influential in managerial decision-making processes as well, in a manner that deters effective application of market research. Managers may tend to make decisions based on intuition by mixing it with research despite frequent usage of market data, which may produce the suboptimal decision.

4.2.2. Cognitive biases and emotional influences

Confirmation Bias: Managers frequently acknowledged that they tend to seek out information that supports their pre-existing beliefs, leading to **confirmation bias**. For instance, one manager noted, "I often look for data that supports the strategy I already have in mind."

Overconfidence Bias: The other general bias identified was overconfidence whereby many managers indicated that they tend to overestimate their capability of making valid predictions using the information available.

Stress: Many of the managers spoke of how stress especially under the high pressure environment causes impulsive decision making which may conflict with the more logical strategies that market research normally incorporates.

4.2.3. A use of market research and decision-making process

Usage of Market research: Majority of the managers recognized the significance of market research but most of them did fail to show confidence in the data when it did not seem to conform to their own experience. One manager has been quoted as saying, market research is relevant but it conflicts at times with what I have known has worked in the past.

Data vs. Intuition: A number of managers talked about the complementary effect between market research and intuition. Some of them said that they even made use of their own experience in the market more frequently than the data provided by the market research.

4.2.4. Institutional problems of decision-making

During the interviews, it was found out that some biases like confirmation bias and overconfidence have tended to work against market research. Numerous managers have confessed that they are willing to take into consideration the available related data and still adopt their propensity or instinct to make judgments.

Findings of this study establish the importance of having to deal with the psychological factors that influence the way managers utilize market research in making decisions. The quantitative results coupled with the qualitative understanding proposes that the mental biases such as confirmation and overconfidence bias, as well as the mood drivers such as stress and emotions, deter managers to incorporate market research completely in making their decision. By increasing the degree of the psychological awarenessness and faith of the market the market information managers can improve on the system of making their decisions and can make accurate and good decisions to their companies.

5. Discussion

The results of the given research provide the important observation of how the psychological conditions influence the stage of making the managerial decision concerning the element of the market study. The cognitive bias, the emotional leverage and how the nature of the market research which managers accept and process to form their conclusions has been illustrated through the quantitative data on survey as well as the qualitative data of the interview [19].

The implications that this has on improving the managerial decision making frameworks and the role psychological biases, emotions and market research can play in the decision making capabilities of managers in various industries shall also be discussed in this discussion in further detail based on the main findings of the study as presented in the results portion. The interview consists of several critical notes:

1. Influence of Cognitive Biases in Decision-Making
2. Emotional factors and Stress in Decision-making
3. Market Research and their Rout in Managerial Decisions
4. The dynamics between the Market Research and Intuition
5. Decision-making Frameworks Implications
6. Future Research Suggestions

5.1. Effect of cognitive bias in decision-making

The results of the survey and interviews highlight the high degree of the effect of the cognitive bias on the decision-making in a managerial dimension. As the results of the survey indicate, confirmation bias, and overconfidence, and anchoring bias were some of the cognitive biases in which managers were attracted. In particular, average scores on confirmation bias (mean = 3.7) and anchoring bias (mean = 3.6) indicate that managers tend to either believe in their previous ideas or follow available original data by using them in decision making instead of minds upon the new information that contradicts [20].

Confirmation Bias:

Confirmation bias, which is presented in the findings as one of them, is the inclination of managers to give preference to information that confirms their current assumptions or hypotheses and ignore or discredit the information that challenge their assumptions. It was emphasized in both the survey results and interview responses with managers saying they usually look at data that support the strategy they already planned or look away at data that do not line up with what they initially thought.

Such bias may have very adverse impact on decision-making: the range of information taken into account is narrowed, and this situation predisposes certain decisions, which are reinforced by the same decisions. Emerging competition or consumer behavior changes are viewed as the significant market indicators that might be seen as market opportunities as well as a potential risk by managers. The confirmation bias is quite high and this implies that managers do not always remain objective when assessing market research hence their skills towards making well-strategic decisions are impaired.

Overconfidence Bias:

It has also been revealed as a result that overconfidence bias (mean = 3.4) is also very influential in the context of managerial decision-making. Overconfidence: This is the trait in managers to overvalue their capacities, knowledge or predictive excellence which result in risk greedier choices and ignorance of a lack of confidence.

During the interviews, some managers adopted the view that their previous successes and the experience they have gained placed them at a certain level of knowledge that usually made them take decisions without attaching a good deal of thought on the data presented in the market research survey. A manager made a reply, saying that he or she trusts his judgment and experience rather than data, which indicates the overconfidence effect that dominates decision-making. Although experience is indeed advisable, it is also noted that it may cause overconfidence due to inability of the managers to judge the risks or opportunities that are offered as a result of market research. The problem of overconfidence in making decisions can be especially critical under the circumstances of high uncertainty when reaching a correct view of the outside world can only be achieved through research of that market.

Anchoring Bias:

Anchoring bias (mean = 3.6) is being induced by first introduction of an information or being affected by this information, although irrelevant or not up-to-date. This was a common reply during the survey and interviews as the managers acknowledged that they relied on the first set of data in making their decisions, although subsequent market research proved otherwise. According to one manager, when I obtain a first impression in the market research I have the tendency to fix the decisions to that even when new facts indicate otherwise.

The anchoring bias also implies that decisions made by managers frequently rely on the primary perception or the first data, and the decisions are not updated based on new data. This may cause poor decision-making choices because first-hand data may not be the most reliable and it may have nothing to do with the present context. Managers might miss the significant shifts within the market, new trends or consumer preferences and use the obsolete assumptions [21].

5.2. Stress and emotion influences in the judgment process

Findings of the given research also suggest that emotional factors, especially stress play a major role in managerial decision-making. The mean score of stress in the survey was high with a figure of 4.1 which reveals that most of the managers respond to the fact of making decisions under stressful situations. The interviews showed that emotions and stress had an effect of making rushing or risking decisions.

Stress and Discussion-Making:

According to survey evidence and substantiated by the qualitative interviews, stress undermines the cognitive process and decision-making. Stressed managers have higher chances of coming up with rushed decisions, which might be poor. According to one of the interviewees, when under pressure, she too makes decisions quicker, sometimes without wanting to think it through by examining all the information.

Narrowed focus is another direction of stress which means that managers only focus on the short term problems but do not pay attention to long-term outcomes or other possible solution. Such an emotional factor can negatively affect the success of market research because managers may hurry to get through the analysis of the data or lose an important information in favor of prompt decision-making [22].

Emotional Decision-Making:

In addition to stress, other emotional elements were cited as becoming influential in the process of a decision, like excitement and confidence. Other things that made managers ignore bad results of the market research included emotional attachment to the previous decisions or what have previously been invested in. Managers were usually emotionally attached to their original ideas or strategies, thus it was hard to turn on the go in the case of market data that presented a change of direction.

The findings indicate that emotional intelligence which is the skill of controlling the feelings and perception of the emotional state of another person, may be an imperative in enhancing decision making. Highly emotionally intelligent managers can better cope with stress and emotion demands, and thus they tend to make data-based decisions even in difficult circumstances [23].

5.3. Market research and decision making in management

The majority of the survey respondents confirmed that market research is rather popular among managers, whose mean score was 4.2 regarding frequency of application and 4.1 regarding data interpretation confidence. These high ratings notwithstanding, however, great difficulties were experienced in the balancing of market research findings and personal intuition.

Market Research Role:

Market research will furnish managers with valuable information on respondent preference, market trends as well as competition and this gives more objective and complete picture of the business environment. Nonetheless, most managers remained unconvinced of the validity and relevance of market research as a source of decisions. Survey also showed an incompatibility between the market research and personal judgment (mean = 3.2) which means that managers more frequently rely on their experience and intuition than on the data presented.

Conflicts in Market Research:

It was found out through interviews that there was often a tendency of managing teams to ignore contradictory market data to give their ideas precedence. According to one interviewee, when it comes to market research you may be told one thing but your gut may be telling you something different, it makes sense to follow the gut. This brings out the contradiction between data-driven decision-making and intuition. The results indicate that market research is significant but the strength of the same may be eroded by prejudices and emotions of managers; thus, data is overshadowed by this factor [24].

5.4. Interplay of market research and intuitions

The interactions between the intuition and the market research in making decisions of managers are among the most interesting results of this study. The findings reveal that market research is often applied but managers are in most cases guided by their gut feelings in decision-making particularly when insights are not in line with previous experiences with respect to research data.

Data and Intuition Integration:

The findings indicate that managers are not strictly-data-oriented in making their decisions but rather they employ a mixture of intuition and market research. One manager we interviewed admitted that he puts market research to use but the experience and his gut feeling should be equally considered when making the final decision. This is a fact that decision making in the context of managers tends to be an amalgamated process where quantitative and qualitative combine.

Market research presents a logical model when making decisions whereas managers usually base the decisions subjectively based on experience. The combination of the two dependencies may be beneficial as well as troublesome. On the one hand, managers are in a position to judge complex situation by experience. Conversely, working exclusively through intuition may cause the decision-maker to make biased or not well-informed decisions, particularly when psychological biases, or emotional ties are in the picture [25].

5.5. Implications for decision-making frameworks

The results of the present study have significant implications as far as designing and applying managerial decision-making structures is concerned. According to the findings, it is important to note that market research plays a critical role in decision-making but another element, the psychological side of research, has a substantial impact on the interpretation and utilization of data due to cognitive biases, emotions, and intuition.

Suggestions on how Decision-making can be improved:

Recognition and Management of Bias: Managers are supposed to be sensitized to recognize and manage such cognitive biases that are likely to distort decision-making. This involves raising the awareness of such biases as confirmation bias and overconfidence.

Emotional Regulation: Emotional intelligence training can also be included in decision making frameworks in order to aid the managers in regulating the emotional influences that might cause them to make decisions that are either reckless or impulsive.

Raw data and gut decisions: Companies are advised to embrace a more balanced approach towards decision-making and to strike a balance between data-driven and experience-based decision-making. Precaution should however be taken not to overly use either of them at the expense of the other.

The qualitative findings of the research give much importance to the psychological aspects influencing the manager level decision-making. Another theme that gained a lot of attention, consisting of 15 mentions, was the theme of cognitive biases, especially confirmation bias. This preexisting tendency makes managers look at information that will help them in their belief rather than looking at the information that conflicts, which may result in lesser objectivity in decision-making. Stress is one of the key emotional factors that were found with an impressive number of mentions (14 times as well). It was also mentioned that managers made rushed or impulsive decisions when stressed, which makes them not optimal. Market research is frequently mentioned in the article (10 times) but these biases and emotional factors are limiting the usage of market research. The managers recognized the worth of the market research but still failed most of the time to totally believe or implement it whenever it did not tally to their own intuitions or past experiences. The decision-making, the mix of data and intuition, was of moderate importance to show the complexity of decision-making. On the whole, the research highlights the significance of psychological awareness in the improvement of data-informed decisions, because the bias and emotional conditions tend to make the decisions not fully objective with regard to practical investigations into the market situation.

Our results are in line with those of researcher as he reckoned that confirmation bias was one of the determinants in making a decision. Besides, our findings do not contradict with those that were published recently regarding the detrimental effects of overconfidence on quality of decision making. Nevertheless, irrespective of the prior studies, which are limited in terms of the discussions of emotional effects on managerial decisions, or absence of them at all, our study also implies the significant role of emotions when making managerial decisions.

5.6. Recommendations of future research

This paper has given good information about the psychological aspects of decision making among the managers. There are, however, a number of critical areas that are not delved upon and ought to be investigated. To begin with, organizational culture would be highly instrumental in managerial use of market research. Research in the future can focus on clarifying how various organizational cultures facilitate or detriment the application of market research in decision making, more of eliminating the biases and emotional factors. Second, longitudinal research has the potential of establishing how the psychology changes as time goes by and how it affects managerial decision-making in various economic regions. Such work would provide information on the overall impacts of biases and emotions on decision-making more so in an industry that is characterized by changing market demands. Furthermore, one can discuss cross-cultural differences to define the difference in understanding and application of market research information between managers of different cultures. The insights of cross-cultural interpretations and handling of psychological factors may be very instructive to organizations that may have multinational affiliations. The other area that should be explored in the future would be the effect of a digital change on decision-making, specifically the interface of the cognitive bias and the new technology such as the AI-driven platforms in the management setting. Lastly, a chance to specialize in intervention work can be realized, and examples of training programs aimed at reducing the incidence of mental bias and building emotional intelligence can be developed and tested. These are strategies that may be appraised on the capacity to enhance decision-making within organizations. The studies in these fields should be expanded to further enhance the knowledge about the role of psychological factors and decision-making and how the decisions made by organizations can be streamlined.

6. Conclusion

This study demonstrates that cognitive biases and emotional factors significantly shape managerial decision-making processes. Our findings reveal that biases—particularly confirmation bias, overconfidence, and anchoring bias—substantially impede the effective utilization of market research data. The expectancy confirmation theory in consumer satisfaction research suggests that confirmation bias leads decision-makers to selectively focus on information supporting existing beliefs (Ramasamy et al., 2024), which aligns precisely with this study's observation of managers disregarding conflicting market data [6]. Furthermore, emotional influences, especially stress, frequently precipitate impulsive and suboptimal decisions. Crucially, however, managerial confidence in market research data positively correlates with enhanced decision quality, underscoring its inherent value.

To mitigate bias and enhance decision outcomes, organizations should proactively invest in dual-focused interventions: 1) Cognitive bias awareness training to help managers identify and counter effects like confirmation bias and overconfidence, and 2) Emotional intelligence (EI) development to improve stress management and foster data-oriented reasoning. Embedding these within a systematic decision-making framework that strategically integrates analytical data with managerial intuition is essential. Cultivating an organizational culture that values both rigorous market research and psychological awareness is paramount for improving decision accuracy and managerial performance. This approach also supports Sustainable Development by promoting resilient, evidence-based organizational practices.

Future research should explore the interplay of these psychological factors with organizational culture, digital transformation dynamics, and cross-cultural contexts to develop more nuanced, adaptable models for managerial decision-making across diverse environments.

Conflict of interest

The authors declare no conflict of interest.

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Appendix

Table 7. Interview participant overview

Interview No.	Gender	Age Range	Industry	Managerial Level	Interview Duration
1	Male	45–50	Finance	Senior Manager	50 minutes
2	Female	38–43	Healthcare	Senior Manager	55 minutes
3	Male	40–45	Retail	Senior Manager	47 minutes
4	Female	50–55	Technology	Senior Manager	60 minutes
5	Male	35–40	Manufacturing	Senior Manager	53 minutes
6	Female	42–47	Logistics	Senior Manager	45 minutes
7	Male	48–53	Education	Senior Manager	58 minutes
8	Female	36–41	Telecommunications	Senior Manager	52 minutes
9	Male	44–49	Banking	Senior Manager	49 minutes
10	Female	39–44	Insurance	Senior Manager	51 minutes
11	Male	41–46	Consulting	Senior Manager	55 minutes
12	Female	46–51	Pharmaceuticals	Senior Manager	50 minutes
13	Male	37–42	Automotive	Senior Manager	47 minutes
14	Female	43–48	Food & Beverage	Senior Manager	56 minutes
15	Male	50–55	Oil & Gas	Senior Manager	48 minutes
16	Female	45–50	Media	Senior Manager	54 minutes
17	Male	36–41	Real Estate	Senior Manager	46 minutes
18	Female	40–45	Construction	Senior Manager	57 minutes
19	Male	44–49	Public Sector	Senior Manager	59 minutes
20	Female	47–52	Aviation	Senior Manager	55 minutes