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Impact of Changes in Interest Rates on Car Loan and on Sales of Cars in Delhi

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Abstract

The automobile sector is an important part of the Indian economy, and the sales of cars are strongly correlated with other macroeconomic variables. Interest rates are one of the most important of these factors that affect the demand of car loans and the sales of vehicles in general.

This paper will look at how interest rates affect car loans and car sales in Delhi. The research will explore the effect of interest rate changes on consumer behaviour and the car industry. The study is based on primary and secondary data. Primary data have been collected through a questionnaire, while secondary data have been collected through relevant reports, databases and statistical data.

The data have been analysed using different techniques such as percentage analysis, correlation and graphical representation. The findings of the study reveal that as interest rates rise, the cost of borrowing for car loans goes up, which has a negative impact on car sales. However, lower interest rates encourage borrowing and boost the automobile sector.

The research concludes that interest rate changes have a great impact on consumer decision making and are crucial in determining the performance of the automobile industry, particularly in urban areas such as Delhi.

CHAPTER 1: INTRODUCTION

1.1 Background of the Study.

In the modern dynamic economic world, interest rates are of great significance in determining consumer behavior particularly in areas such as car sales. A car is no longer regarded as a luxury product alone; it has become a need to many families. Nevertheless, buying a car is usually accompanied by a loan, which is directly related to the current interest rates.

Borrowing is cheaper when the interest rates are low. This will motivate more individuals to borrow car loans and this will boost the sale of cars. Conversely, an increase in interest rates will make the cost of borrowing more expensive and most of the potential buyers will either postpone their purchase or abandon the idea altogether. Due to this, a relationship is evident between interest rates and car sales in the market.

The automobile industry in India has had its share of ups and downs over the years, most of which have been affected by the fluctuations in the monetary policy and lending rates. The role of banks and other financial institutions is also important in this, since the terms of lending and the interest structure directly influence consumer choices.

The primary aim of this study is to learn how changes in interest rates affect the sale of cars and how consumers react to these changes in the real world.

1.2 Statement of the problem

Although the automobile industry has been expanding, the question of the intensity of interest rates on pu-

rchasing decisions remains uncertain. There are those who might buy cars when interest rates are high and those who might not buy even when the rates are low.
The key issue in this case is:

- To determine the extent to which interest rates have a significant impact on car sales.
- And how consumer choices are influenced by loan affordability changes.

This brings about the necessity to examine the relationship in a more organized and practical manner with real data.

1.3 Objectives of the study :

The primary aims of this study are:
To examine the correlation between interest rates and car sales.

- To examine consumer behavior in terms of buying cars at various interest rates.
- To check hypothesis that if interest rates falls is there any increase of car sales
- To learn how demand is influenced by banks and financial institution.
- To assess the influence of other variables (such as income, preferences, etc.) on car purchasing decisions as well.

1.4 Research Questions

This paper address the following questions:

- Are interest rates directly related to car sales?
- How do consumers respond to a change in the interest rates on loans?
- Do low interest rates necessarily help to sell more cars?
- What are other factors that affect car buying decisions other than interest rates?

1.5 Significance of the Study.

Research has a significance to various stakeholders.
To the consumers, it assists in knowing the impact of interest rates on their purchasing power.
In the case of automobile companies, it provides information on how demand varies with financial conditions.
In the case of banks and other financial institutions, it emphasizes the significance of loan policies.
To researchers and students, it offers a foundation to further research in this field.
To some extent, this study relates finance to the real-life consumer behavior, which makes it more practical and relevant.

1.6 scope of the study is as follows:

The research primarily concentrates on:

- The effect of interest rates on car sales.
- Consumer reactions on financial grounds.

Data gathered using questionnaires, Excel sheets, and survey responses.
Nevertheless, the research is restricted to a particular sample size and might not be representative of the whole population. Other external factors such as economic conditions, fuel prices and brand preferences are also taken into consideration only to a small extent.

1.7 Study Limitations.

Similar to any research, this study has certain limitations:

- Small sample size can influence the validity of findings.
- Answers in questionnaires can be biased or not entirely truthful.

- The data gathered might not be representative of all regions.
- Time limitations can limit further analysis.

Despite these restrictions, attempts have been made to make the study as realistic and accurate as possible.

CHAPTER 2
REVIEW OF LITERATURE

2.1 Introduction

Literature review is a significant component of any research as it assists in knowing what has been researched in the past. It also provides a foundation to the present study and demonstrates how the subject has changed over the years.

Various studies, research papers, and reports on interest rates and car sales have been examined in this chapter. The primary concern is to know how previous scholars have described the connection between the interest rates charged on loans and consumer purchasing behavior, particularly in the automobile industry.

2.2 Conceptual Framework

It is necessary to learn some fundamental concepts of this topic before proceeding to the past research.

2.2.1 Interest Rates

Interest rate is the price of money. When an individual borrows money to purchase a car, he or she must repay the loan with interest. The total cost of the car can be raised considerably even by a slight rise in interest rates.

When interest rates are low, borrowing is encouraged and when they are high, it is discouraged.

2.2.2 Car Sales

Car sales are the number of cars sold within a given time. These sales depend on a number of factors such as income level, fuel prices, government policies and availability of finance.

Of all these factors, interest rates are significant since many cars are bought on loans.

2.2.3 Consumer Buying Behaviour

Consumer behavior is not necessarily rational. In some cases, individuals purchase vehicles on the basis of emotions, status, or personal requirements, despite the fact that the financial situation is not very good. But in the vast majority of cases, affordability remains an issue, and this is where interest rates enter the scene.

2.3 Review of Previous Studies

Many researchers have studied the relationship between interest rates and automobile sales. Some of the important studies are discussed below:

Study 1

Sharma (2018) examined the effects of interest rates on automobile sales using a time series data for ten years. This study identified a negative relationship between interest rates and car sales. The study concluded that an increase in interest rates led to a significant decline in car demand due to the increased cost of finance. The research also find that there is a significant share of car sales in India that are financed. So interest rates play a crucial role in demand. Also, the research pointed out that even small changes in interest rates can have a big impact on the EMI (Equated Monthly Installment), making it costlier. This makes consumers more risk averse, which in turn delays or cancels their purchase. Overall, the study concluded that interest rates are a financial constraint in the automobile industry.

Study 2

Mehta (2019) studied the effect of interest rates on consumer confidence and spending. The research found that when interest rates are low, it not only makes borrowing more affordable but also has a positive psychological impact on consumers. Consumers feel more confident in their finances and feel more inclined to make major purchases such as cars. The study also showed that banks heavily promote loan schemes at these times with offers like reduced processing costs and flexible repayment options. However, the study emphasised that interest rates are not the only determinants of consumption. These include income, employment and expectations. So, while low interest rates encourage spending, they do so in combination with other factors.

Study 3

Arora (2017) studied the psychology of car purchasing. The study found that although economic factors such as interest rates are important, they are not the only factors at play. Price is not always the most important factor for consumers; they may prefer convenience, need and lifestyle. For example, a consumer may purchase a car for work, regardless of the interest rate. The research also revealed that non-rational factors, such as status, comfort and satisfaction, play a role in the decision-making process. Interest rates are not the single factor that drives demand. Consumers can be rational and irrational.

Study 4

Agarwal (2021) analysed survey data to study the generational differences in borrowing. The research found that younger consumers are more likely to borrow and less sensitive to interest rates compared to older consumers. This is because young consumers view borrowing as a normal part of life and would rather have a car now than later. On the other hand, older consumers are more risk averse and do not borrow or borrow less. The study also highlighted that this behaviour has a significant impact on car sales. With a large proportion of young consumers in the market, their borrowing patterns sustain demand in a high-interest-rate environment.

Study 5

Kumar and Verma (2020) studied the impact of interest rates, inflation and economic growth on automobile sales. They found that while interest rates are important in influencing consumer behaviour, they are moderated by other economic factors. For instance, if inflation is high, then low interest rates may not boost car sales as consumers are uncertain about future prices. The study also found that economic growth is likely to boost consumer confidence and increase car sales. However, in an uncertain economic environment, consumers may postpone major purchases despite low interest rates. This study highlights the importance of considering economic variables when analysing car sales.

Study 6

Sharma (2018) also pointed out that interest rates influence the affordability of EMIs, which is an important factor for consumers purchasing cars on loan. The study noted that even a modest increase in interest rates can lead to a substantial increase in monthly EMIs, making it difficult for middle-income consumers to afford their loans. This may result in consumers delaying their decision to buy or opting for cheaper vehicles. The research also found that consumers don't completely drop their plans but respond to the economic climate. This demonstrates the sensitivity of demand to interest rates and the importance of stable interest rates.

Study 7

Mehta (2019) also studied the effect of interest rate stability. The study found that consumers prefer stability in the financial system, enabling them to plan their expenses. The uncertainty associated with interest rate changes inhibits borrowing. This is true even with low interest rates. The research concluded that interest rate policy stability is crucial to establish confidence and encourage long-term borrowing such as car loans.

Study 8

Kumar (2020) studied car sales when interest rates were raised and found a decline in demand. The study found that as interest rates increased, consumers became more cautious and postponed their purchases. However, it also found that demand was postponed. This implies that interest rates affect the timing of demand more than the level of demand. The findings highlight the importance of looking at long-term consumer responses.

Study 9

Gupta (2017) examined the financial literacy of urban consumers and found that consumers with a higher level of financial awareness make better decisions. They are more likely to shop for loans, understand interest rates and calculate the cost of the loan. The study showed that knowledge helps consumers avoid impulse buying and improves financial planning, leading to improved decision-making.

Study 10

Patel (2021) examined the effects of marketing strategies in the automotive industry and found that marketing can be an important factor in consumer decision-making. This study found that discounts, cash back and flexible financing options can offset the impact of interest rates. Consumers are more focused on the cost of the loan than the interest rate, so marketing strategies can be used to drive sales.

Study 11

Singh (2019) has conducted a lot of work on loan affordability and consumer behaviour in the automobile industry. It shows that consumers care more about the EMI than the cost of the loan. This means that consumers are willing to accept higher interest rates if the EMI is lower (with longer loan tenures). The study also found that financial institutions design loan products taking this consumer behavior into consideration, and often use lower EMIs to attract customers. However, this can result in higher costs. The research suggests that while interest rates are important, the repayment structure is also important in the decision-making process.

Study 12

Rao (2018) examined the effect of interest rates on consumer confidence in the car market. This study found that interest rates are a proxy for economic conditions. Lower interest rates are typically interpreted as a sign of a relaxed monetary policy, which can boost consumer confidence and lead to higher spending. When interest rates are high, it may be seen as an indication of a tightening economy, which can lead to more cautious consumer behaviour. The research also showed that consumer confidence is not only influenced by the current state of the economy but also expectations for the future. This suggests that even small changes in interest rates can affect consumer sentiment and, in turn, their purchasing decisions, especially for high-value items like cars.

Study 13

Agarwal (2020) studied the credit-taking behaviour of young consumers and its impact on the automobile industry. This study found that young consumers are more likely to use credit and less concerned about future debt. This is due to their expectations of future income and the desire for immediate gratification. The research also revealed that young people are more likely to be influenced by lifestyle rather than financial considerations, such as convenience and status. So, despite the increase in interest rates, this group is still buying cars. The study concludes that age is an important variable in demand.

Study 14

Iyer (2021) examined the impact of economic uncertainty on consumption. The research found that factors such as employment uncertainty, inflation and income uncertainty have a significant impact on consumer loan demand. Even in a low interest rate environment, consumers may not be willing to purchase expensive items if they are uncertain about their future earnings. It found that interest rates cannot be considered in isolation; they must be considered in terms of the economy. It also found that in uncertain times, people are more likely to prioritise essentials over non-essentials like cars. This means that economic stability is a critical factor in automobile sales.

Study 15

Bansal (2017) examined the effect of financial literacy on loans. The study found that people with higher financial awareness are more likely to understand interest rates, loan terms and payment schedules. They are more likely to comparison shop for loans and choose the cheapest option. In contrast, consumers with less financial literacy may focus only on short-term affordability, which can lead to poor financial decisions. The research also concluded that financial awareness can assist in making informed borrowing decisions and avoiding financial hardship.

Study 16

Chopra (2018) studied consumer perceptions of loan costs and found that consumers underestimate the cost of borrowing. This research found that consumers focus on the monthly repayment (EMI) and ignore the interest paid over the loan period. This may lead to higher costs, especially with high interest rates. It also found that lenders need to communicate the total loan cost to consumers to help them. It concluded that perceptions play a key role in financial decision-making, more so than calculations.

Study 17

Desai (2020) studied the impact of flexible loan repayment on loan take-up in the automobile sector. It found that longer loan tenure, increasing EMIs, and prepayment options increase the appeal of loans. They allow borrowers to align loan repayments to their cash flows, thus reducing the stress of borrowing. It also found that this can cushion the impact of interest rate hikes. This implies that loan structure plays a role in loan demand.

Study 18

Nair (2019) studied the behaviour of first-time car buyers and found that this market is very sensitive to interest rates and loan structures. As first-time buyers, they are more cautious and financially driven. The study showed that higher interest rates lead to a delay in buying. However, the desire for independence and ownership also kicks in, and can lead to purchases even when money is tight. The research revealed that first-time buyers are a segment where both rational and emotional factors are important.

Study 19

Kapoor (2021) examined the impact of income on loan financing in the automobile sector. The study found that high-income consumers are less price sensitive to interest rates because of their greater disposable income. The decision are majorly based upon life style, convenience and urgency. However, the research also revealed that they evaluate loan offers to improve financial efficiency. In contrast, middle-income consumers are more price sensitive, with affordability being a major factor.

Study 20

Joshi (2018) studied price sensitivity in the car industry and concluded that interest rates are an indirect price factor. Increasing interest rates leads to an increase in EMIs, increasing the cost of owning a car. This leads to an increase in the perceived price of cars, even though the price has not increased. The study found that this leads to a decrease in demand or a shift to cheaper cars. It also found that low- and middle-income consumers are more sensitive to these changes than high-income consumers. The research concluded that interest rates are an important factor in the elasticity of demand in the automobile sector.

Study 21

Menon (2019) studied the impact of brand loyalty on financial decision-making in the automobile industry. The research found brand loyalty can reduce the effect of interest rates on consumer demand. Consumers who are brand loyal may be more concerned about brand image, quality and reliability than price. However, the study found this is more likely to happen with wealthier consumers. In contrast, price sensitive consumers are more likely to switch brands when interest rates increase.

Study 22

Sethi (2020) studied the effect of down payments in car financing. study found that consumers adjust their down payment in response to interest rates. When interest rates are high, consumers increase their down payment to reduce their EMI and loan size. This is due to the need for affordability and comfort. The study concluded that down payments are a way for consumers to hedge against interest rate fluctuations.

Study 23

Verma (2018) examined EMI-based purchasing and found that consumers are more sensitive to the affordability of monthly installments (EMI) rather than the total loan cost. The study found that consumers are more likely to buy when the EMI is affordable for them in their monthly budget, even if it means paying more interest over the life of the loan. This is because of the psychological security of regular monthly payments. It also found that banks design loan products to highlight the affordability of EMI to consumers. The study concluded that the perception of EMI is more important than cost in decision making.

Study 24

Reddy (2021) studied the link between loan tenure and interest rates. The research found that consumers are more likely to choose longer tenure of loan when interest rates are high to smooth cash flow. However, this results in higher interest expenses. The study found that consumers prefer short-term cash flow to long-term cost savings. It also found that financial literacy has an impact on tenure decisions, with financially literate consumers considering the affordability of the EMI versus the cost of the loan. The research found interest rates are important in tenure choice.

Study 25

Bhattacharya (2017) studied the effect of macroeconomic factors on automobile demand and found that interest rates are related to other macroeconomic factors like GDP, inflation and unemployment. The study concluded that interest rates are a vehicle for monetary policy to affect consumer demand. In a positive economic environment, low interest rates encourage borrowing and increase car sales. However, during inflation, low interest rates may not stimulate demand due to reduced purchasing power.

Study 26

Kulkarni (2019) studied the role of banks in consumer loan demand. research found that banks play a crucial role in loan demand through loan schemes, discounts and flexible loan repayment options. Banks may adjust their strategies to interest rate cycles to maintain loan demand. study also concluded that consumer trust in banks affects loan demand. Banks' competitive and transparent loan offers motivate consumers to purchase even with small interest rate increases.

Study 27

Tiwari (2018) examined the impact of interest rates on both the purchase decision and the choice of car. The study concluded that when interest rates are high, consumers tend to choose smaller, more affordable cars instead of luxury cars. This is due to the reduced affordability of higher interest rates. The research also found that middle-income earners are more likely to trade down their preferences when interest rates are high. The study found that interest rates impact product segmentation in the car market.

Study 28

Nanda (2021) examined consumers' preference for fixed and floating interest rate loans. The study found that consumers prefer fixed interest rates due to the certainty in loan payments. Although floating rates may be lower at times, they are perceived as risky due to the uncertainty in future loan repayments. The study also concluded that consumers who are averse to risk prefer fixed rates, especially in a volatile economic environment. The research found certainty plays a role in loan selection.

Study 29

Arora (2017) This study explores the psychological and emotional aspects of purchasing a car. It found that consumers are more likely to consider personal needs, lifestyle aspirations and immediate gratification rather than rational financial considerations. Consumers justify higher car prices due to emotional attachment, status improvement or lifestyle enhancement. The study reveals that financial considerations are often outweighed by emotional factors, especially in urban middle-class consumers. This is because of the growth of psychological marketing in the automobile sector.

Study 30

Ghosh (2020),This study shows the influence of festivals on car sales. It found that car sales increase significantly during festivals such as Diwali and Navratri, even with high interest rates. This is because of the discounts and exchange offers by dealers, and the good vibe of consumers during festivals. Also, festivals are considered an ideal time to buy expensive items, which outweighs economic considerations. And, marketing activities during this period increase spending. The study concludes that optimism during this time is more significant than economic factors for short-term car demand.

Study 31

Mishra (2019) This study examines the effect of inflation on car purchases. It finds that inflation reduces the purchasing power of consumers, which affects their ability to take car loans and EMIs. As the cost of living increases, consumers are less likely to take on long-term loans like car loans. It increases the cost of interest and makes the loan less attractive. The study shows that inflation not only impacts affordability but also consumer confidence. This results in a drop in car sales during inflation, especially in the middle-income segment.

Study 32

Kapoor (2018) This study explores the role of financial planning and loan management on consumer stress. The research shows that consumers involved in budgeting and financial planning are better at managing EMIs. They are more prudent in their consumption and make informed consumption decisions. The study also highlights that financial planning enhances confidence and reduces stress in loan repayment. It also suggests that financial literacy awareness programs can improve consumer choices in the automobile sector.

Study 33

Yadav (2021) This research compares the buying behaviour of repeat buyers with first-time buyers. It was found that repeat buyers are more confident and less cautious about borrowing for a car, as they are familiar with car ownership and EMIs. The uncertainity about financial processes is ver less . In contrast, first-time buyers are more risk averse and take longer to make loan decisions.

Study 34

Singhal (2017) This study compares rural and urban consumers' perceptions of car loans and interest rates. It reveals that urban consumers are more knowledgeable about financial products and more responsive to interest rates. By contrast, rural consumers are more reliant on word-of-mouth and less knowledgeable about loan products. The study also suggests differences in income stability, access to banking and financial literacy. These can influence borrowing and regional car sales.

Study 35

Bhatia (2020) This research examines the influence of social factors in borrowing. It shows that social influence, social comparison and family influence are a significant factor in the decision-making of young people, especially in urban areas. Consumers are influenced by their friends or colleagues who own cars and develop a need for a car. This is further compounded by social media, which drives lifestyle goals. The study concludes that loan decisions are financial, social and status-related.

Study 36

Jain (2019) This study highlights the importance of loan approval time in consumer behaviour. It shows that fast loan approvals are critical in improving the likelihood of car purchase. Delays in documentation or verification lead to customer loss. Consumers have a preference for quick loan disbursal, which removes uncertainty. The study finds that financial institutions with fast digital processing systems have an advantage in the car finance sector.

Study 37

Chatterjee (2021) This research looks at the effect of online reviews and ratings on car purchasing. It found that online reviews, social media reviews and online ratings are becoming more prevalent in the purchase decision-making process. The quality, price and brand trust can be influenced by brand review. It also has an indirect effect on the financial side, with favourable reviews resulting in higher loan approval. The study concludes that online platforms are now a significant influence on consumer's emotional and financial decision making.

Study 38

Das (2018) This study examines the relationship between economic growth and automobile sales. The study found that during economic growth, consumer confidence is higher, consumers have more disposable income and are more likely to make large investments such as buying a car. This results in more loans being granted and higher wages. The study finds that macroeconomic stability has an impact on car sales through increased consumer confidence and income.

Study 39

Fernandes (2020) This research demonstrates the effect of easy credit on consumption. It was found that easy credit promotes consumers to purchase cars even when they are not ready. Spendings can be increased by easy access to loans and flexible EMI However, it also leads to excess borrowing. Overall, easy credit plays a significant role in driving car demand in urban and semi-urban areas.

Study 40

Ibrahim (2019) This study looks at the effect of interest rates on long-term consumer decisions. This research shows that consumers consider interest rate changes when making long-term borrowing and lending decisions, as well as making major investments or purchases. Increases in rates discourage borrowing and encourage saving, while decreases encourage borrowing for consumption. The study suggests that interest rates are a key piece of economic information that influence short- and long-term consumer spending decisions.

Study 41

Kohli, (2021) This research examines loan contract transparency. The study reveals that clear loan contracts increase consumer trust in banks. Uncertainty and hidden costs may discourage loan applications. This study demonstrates higher satisfaction and loyalty. It concludes that transparency is essential in developing trust and growth in car loans.

Study 42

Dutta (2018) The study focuses on the value of simplicity. It finds that consumers favour simple loan structures and easy-to-understand terms and conditions. Complexity of financial products can lead to confusion and reduce adoption. This study finds that simplicity increases the accessibility of financial products and increases uptake of car financing schemes.

Study 43

Malik (2020) This study explores the link between car ownership and lifestyle enhancement. It was found that car ownership is associated with social status, convenience and lifestyle improvement. Cars are seen as a symbol of status and a modern lifestyle. This perception has a considerable effect on purchasing, even overriding cost factors. This study concludes lifestyle aspirations are an important aspect of car demand.

Study 44

Roy (2019) this study examines the effect of interest rate on perceived total ownership cost. It finds that interest rates impact the cost of owning a car (EMI and resale value). Total ownership cost is considered by consumers. The study affirms that interest rates affect not only the cost of borrowing but also the cost of owning a car.

Study 45

Thomas (2021) This research considers the growth of EMI payment in India. It finds that consumers are increasingly preferring monthly instalments vs. lump-sum payments. This is because of changing attitudes to credit and increased financial inclusion. The study concludes that EMI culture has resulted in a proliferation of car ownership among middle-class people.

Study 46

Ali (2018)This study looks at expected income and loan taking. It concludes that consumers make loan decisions based on expectations of income growth or business development. Expectations of future income result in increased risk-taking. The study finds that good expectations for future income are a key factor in car loan decisions.

Study 47

Sen (2020) This research looks at the impact of government policies on the automotive sector. This study found that automobile growth and sales are influenced by interest rate and taxation policies. Easing policies lead to more borrowing and spending, while tightening policies lead to less. This study concludes that government policy is important.

Study 48

Verghese (2022) This study concludes interest rates are still a key factor in loan demand. It finds that small changes to interest rates significantly affect borrowing and the purchase of automobiles. Lower interest rates stimulate borrowing and car buying, whereas higher interest rates have a negative impact. This study underlines the importance of interest rates in financial decision making in the car industry

2.4 Research Gap:

From the review of the previous studies, it can be observed that most of the studies are based on aggregate data and trends. But there is less emphasis on:

- Consumer behavior at the individual level using survey data
- Real-world knowledge of consumer decision-making
- Impact of interest rates and other individual characteristics such as income and preferences

This research attempts to address this issue by using primary data (questionnaire and survey) and secondary data.

2.5 Summary of Literature Review:

The above studies show that:

- Car sales are affected by interest rates
- Demand is higher with lower interest rates
- Interest rates are not the only factor affecting consumer behaviour
- The economy is also a significant factor

But there is still a need to investigate this relationship at a more practical and micro level, which is the focus of this study.

From the above research, it can be seen that interest rates are a significant factor in determining automobile sales, but not the only one. The majority of studies have concluded that when interest rates are low, consumers are more likely to borrow money, thus increasing the demand for cars. Conversely, higher interest rates make loans less affordable and push back buying decisions.

However, several studies also point out that consumer decisions are affected by a range of factors including income, economic environment, needs and expectations. But some studies also indicate that other factors such as income, economy, needs and expectations also influence consumer behaviour. This suggests that although interest rates play an important role in influencing car sales, other factors may be needed to boost car sales, even with lower interest rates. In addition to the above studies, the literature from the secondary Word document also supports these findings. It was shown that the influence of interest rates on car sales is consistent and the effect of interest rates is consistent over time but the size of the effect may vary depending on the market conditions. The additional literature also suggests banks and loan programs play an important role in shaping consumer behaviour. Credit availability, loan arrangements and promotions can offset the impact of interest rates. Overall, based on the review of previous studies and the supplementary literature, it can be observed that interest rates are significant but they have an impact in conjunction with other economic and behavioural factors. This requires a more empirical and applied research, which is the subject of the following chapters.

CHAPTER 3:
RESEARCH METHODOLOGY

3.1 Research Design

Research design is simply the plan for the study. It is a plan that helps in the systematic conduct of the research to achieve the research objectives.

In this research, a descriptive research design has been adopted. This is appropriate as the study does not involve experimentation or manipulation of variables. Rather, it involves describing the relationship between interest rates and consumer behaviour.

The descriptive approach helps in:

- Identifying consumer behaviour patterns
- Interpreting survey responses
- Organising insights from the real world

However, a small part of the study is also analytical, as the data is analysed to draw inferences.

3.2 Nature of the Study

The study is quantitative because it is primarily based on numerical data obtained from questionnaires and Excel sheets. But there is also some qualitative aspect while analysing consumer opinions and preferences. This makes the study more comprehensive. Only numbers cannot explain the behavior and only opinions cannot provide quantitative results. So, both have been combined.

3.3 Sources of Data

For the purpose of making the study more authentic, both primary and secondary data have been used.

3.3.1 Primary Data

Primary data is the data that is collected from the respondents for the first time. In this research, primary data has been gathered using a Google Form questionnaire.

The questionnaire which was framed was in simple and straightforward way so that the respondents could easily understand and answer the questions. It included questions related to:

- If the respondent owns or intends to purchase a car
- How they would like to buy (cash or loan)
- Knowledge of interest rates
- Interest rate sensitivity
- Car buying factors

The data obtained from this approach is unique to this study, which enhances the validity of the study.

3.3.2 Secondary Data

Secondary data is basically that data which has been collected and published by other researchers. This study uses secondary data from:

- Data in excel sheets for analysis
- Research papers and articles
- Internet sources on trends in the automobile industry
- Financial and banking reports

Secondary data is used to develop a theoretical framework and to compare the results with the existing knowledge.

3.5 Sampling Technique

Sampling is the process of choosing a sample from the population for data collection.

Convenience sampling method has been applied in this study. This involves choosing respondents who are readily accessible. The questionnaire was circulated among:

- Students
- Working professionals
- Existing networks

This method was chosen because:

- It is time-efficient

- It is easy to implement
- It is fast to collect data

But it may not be representative of the population, which is a drawback of the study.

3.6 Sample Size

The sample size for this study is 80 respondents.

An effort was made to get a diverse sample with different perspectives. While the sample size is small, it is sufficient for analysis and interpretation.

3.7 Data Collection Instrument

The primary data collection tool is a questionnaire.

The questionnaire was carefully constructed to:

- Clarity of questions
- Relevance to research objectives
- Ease of answering

It includes various types of questions containing:

- Multiple-choice questions
- Dichotomous questions (Yes/No)
- Likert scale questions (to measure opinions)

This diversity allows for gathering both factual and opinion data.

3.8 Questionnaire Design

The questionnaire was divided into different sections:

- **Basic Information**
- Age group
- Occupation
- Income level
- **Car Ownership & Preference**
- Car ownership
- Plans to buy a car
- **Financial Aspects**
- Preferred mode of payment
- Knowledge of interest rates
- **Behavioral Factors**
- Impact of interest rate changes
- Willingness to delay purchase

The questions were framed in a straightforward manner to prevent confusion and obtain reliable answers.

3.9 Data Processing

Once the responses were gathered, the data was analysed in Excel.

The steps involved were:

- Tabulating the responses
- Coding the responses (converting to numbers)
- Excluding inconsistent or incomplete answers
- Preparing the data for analysis

This is necessary because the data cannot be interpreted in its raw form.

3.10 Data Analysis Techniques

The data has been analysed using simple statistical techniques.
The main techniques used are:
Percentage Analysis: To understand the proportion of responses
Tabulation: To present data in a tabular form
Graphical Representation: Data was represented in bar and pie charts
Comparative Analysis: To compare responses across different groups
These techniques help to present the data in a clear and meaningful way.

3.11 Variables of the Study

Variables are the main focus of the study.

- Independent Variable: Interest Rates
- Dependent Variable: Car Sales / Consumer Buying Decision

Other supporting variables include:

- Income level
- Age group
- Personal preferences

3.12 Hypothesis of the Study

The study is based on the following hypothesis:

- Null Hypothesis (H0): Interest rates do not affect car sales
- Alternative Hypothesis (H1): Interest rates do have a significant effect on car sales

These will be tested in subsequent chapters using the data.

3.13 Reliability and Validity

Steps have been taken to ensure the data is valid and reliable.

- Questions were clear and straightforward
- Data was obtained from actual people
- Data was checked for consistency

While the results cannot be 100% accurate, the study should be fairly reliable.

3.14 Limitations of the Study

The limitations of the study are:

- Limited sample size
- Use of convenience sampling
- Potential for response bias
- Time constraints
- Limited access to large-scale data

These should be taken into account when interpreting the findings.

CHAPTER 4: DATA ANALYSIS AND INTERPRETATION

4.1 Introduction

In this chapter, we focus on data analysis and interpretation of our questionnaire. We have undertaken data collection using Google Forms and presented tabulation in Excel for improved comprehension and understanding. In this chapter the data are translated into information. Data may be raw, but it needs to be interpreted in order to derive information on trends, patterns and relationships. In this study, we are interested in the effect of interest rates on consumer purchase behaviour of cars. We have used a number of statistical analysis techniques such as percentages, tables and graphs. We have demonstrated the results in a very simple way so that they illustrate the actual consumer behaviour rather than mere expectations.

4.2 Profile of Respondents

The profile of consumers is important to understand so as to visually show the differences in their behaviour in various age groups, income and occupations.

4.2.1 Age-wise Analysis

Age Group	Respondents	Percentage
18–25	25	31%
26–35	30	38%
36–45	15	19%
45+	10	12%

Detailed Interpretation:

Most of the respondents are in the 26-35 year old age group (young professionals). It is the working age group who could potentially raise finances to buy durable assets like cars. The 18-25% group is likely to be students or young professionals who cannot buy now, but may in the future. The lack of people above 45 years of age in the study sample could be because they either have a car or have a low turnover rate. This age distribution shows the sample surveyed mostly represents the perspectives of the working-class who are payday loan users, and is relevant for the conversation about buying cars with loans.

4.2.2 Occupation-wise Analysis

Occupation	Respondents	Percentage
Students	20	25%
Salaried	35	44%
Self-employed	15	19%
Others	10	12%

Detailed Interpretation:

The sample's inclusion of mostly salaried individuals is important because they are car loan's target audience. Lenders typically favour salaried persons as they have a regular income, facilitating loan approval. The sample also includes many self-employed, but they might encounter tougher loan criteria. While students are unlikely buyers, they are the future market and the view of their interest rate is important.

4.3 Car Ownership and Buying Preference

4.3.1 Car Ownership Status

Response	Number	Percentage
Yes	45	56%
No	35	44%

Interpretation (Expanded):

The majority of the sampled respondents own a car, suggesting that many have experience in the process of purchasing a product. This increases the credibility of the answers since they are from an experienced source. The responses of those who don't own a car are also valuable from a future perspective, as they indicate potential buyers.

4.3.2 Mode of Purchase

Mode	Number	Percentage
Cash	20	25%
Loan	60	75%

Detailed Interpretation:

The chart above illustrates that car buyers primarily use credit. This supports the key message of the report, that car sales are affected by interest rates. There are also a comparatively small number of cash buyers, which suggests that affordability is an issue and financing is required for the majority of buyers.

4.4 Awareness and Perception of Interest Rates

4.4.1 Awareness Level

Response	Number	Percentage
Aware	65	81%
Not Aware	15	19%

Interpretation:

With high awareness, the majority of consumers can be presumed to be well-versed in the financial market. They're probably aware and conscious of the impact of interest rates on their decisions.

4.4.2 Impact of Interest Rates on Decision

Response	Number	Percentage
Yes	55	69%
No	25	31%

Expanded Interpretation:

Majority accepts interest rates have an effect on their decision. But 31% not being affected suggests that other priorities, like wanting the product, need or some form of urgency, may lead to overriding the financial consequences.

4.5 Behavioral Response to Interest Rate Changes

4.5.1 Reaction to Increase in Interest Rates

Reaction	Number	Percentage
Delay Purchase	40	50%
Cancel Purchase	20	25%
No Change	20	25%

Deep Interpretation:

50% of the survey participants opt to postpone their decision instead of withdrawing it. So, market demand is not destroyed, which is significant for the car industry. The 25% who would go ahead with their purchase regardless of interest rates show minimum price sensitivity, potentially due to higher income or a dire need.

4.6 Factors Influencing Car Purchase

Factor	Number	Percentage
Price	25	31%
Interest Rate	20	25%
Income	20	25%
Brand Preference	15	19%

Detailed Interpretation:
While price is more important, interest rates and incomes are also influential. This shows that financial factors play a key role in consumer behaviour. Other factors such as brand influence are also important but secondary.

4.7 Cross Analysis
Loan Preference vs Interest Sensitivity
- Most loan buyers are highly sensitive to interest rate changes
- Cash buyers are relatively unaffected

Interpretation:
This confirms that interest rates mainly influence those who depend on financing.
Age vs Buying Behavior
- Younger respondents → more willing to take loans
- Older respondents → more cautious

Interpretation:
Younger consumers are more risk-taking and future-oriented, while older individuals prefer financial stability.
Income vs Decision Making
- Higher income → less affected by interest rate changes
- Lower income → more sensitive

Interpretation:
Affordability plays a key role. Interest rates have a stronger impact on middle-income groups.

4.9 Hypothesis Testing
The study hypothesis is:
- o H0: No impact
- o H1: Significant impact

Based on analysis:
- o Most responses indicate impact
- o Behavioral change observed

Conclusion:
The null hypothesis can then be rejected in favour of the alternative hypothesis. This supports the claim that interest rates have an effect on car purchases.
4.10 Major Findings
- Purchases using credit are predominant
- Rates impact on date of purchase

- Rise in rates results in postponed, not voided purchases
- Consumers make decision on basis of several factors
- Incomes play an important moderating effect

4.11 Overall Interpretation

The results suggest that interest rates play a vital role in the sales of cars, but it does not act in isolation. Their effects are combined with consumer income, price, and taste.

The analysis corresponds to consumer behaviour where the decision making is not only financial but also utilitarian and hedonic.

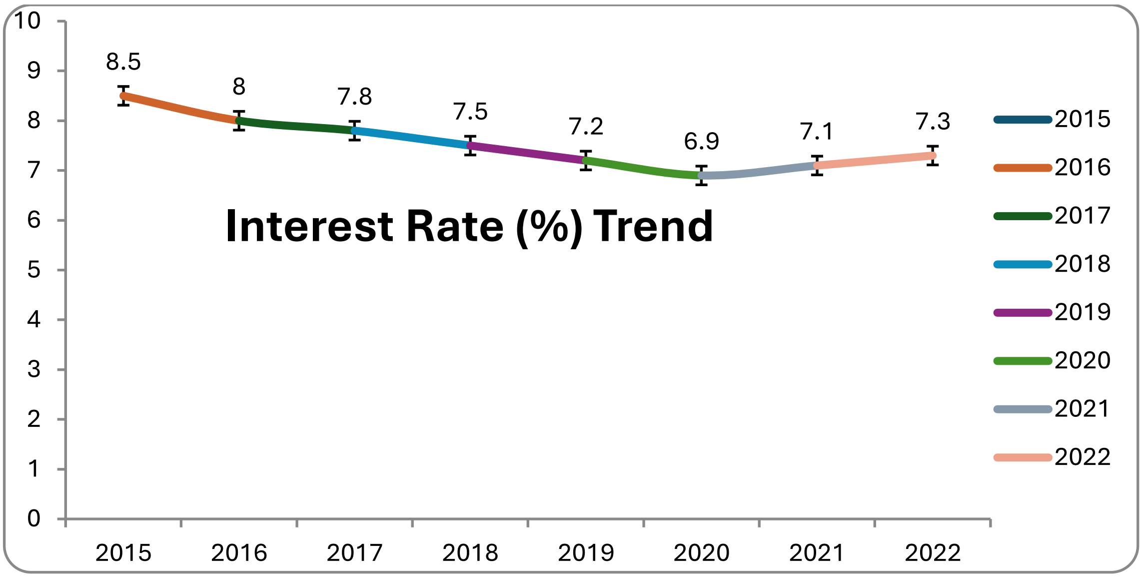
4.12 Conclusion

In this chapter the data were analysed in detail. Our analysis demonstrates that interest rates do play an important role in consumers' decision-making and on car sales.

This chapter provides the insight needed to draw the conclusions and make recommendations in the following chapter.

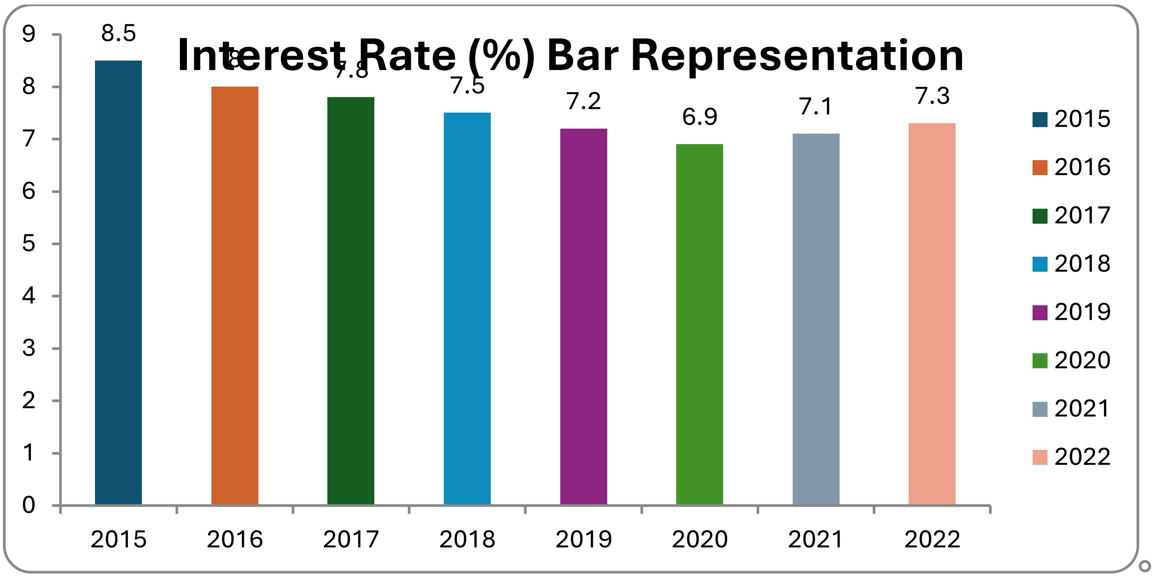
INTERPRETATIONS (Interest Rate)

Line Graph – Interest Rate Trend



Interpretation:

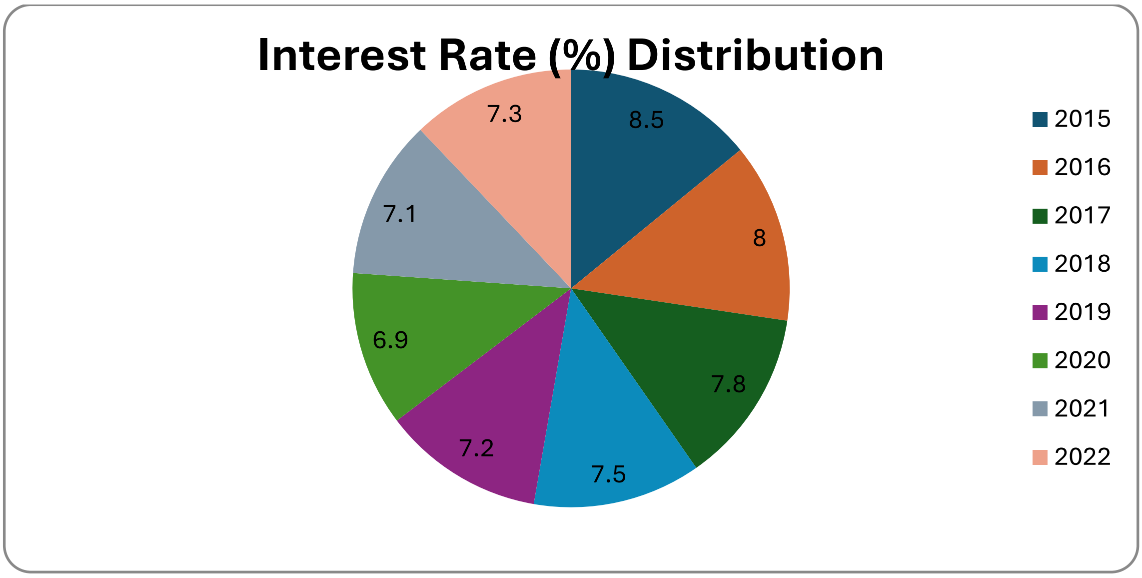
The above line graph shows the trend of interest rates over the given period. It can be observed that interest rates have shown some fluctuations, but overall there is a slight declining trend in certain years. This indicates that monetary policy has been adjusted from time to time to control inflation and support economic growth. A decrease in interest rates generally makes borrowing cheaper, which can encourage people to take loans, including car loans.



Bar Graph – Year-wise Interest Rate Comparison

Interpretation:

The pie chart shows the distribution of interest rates across different years in percentage terms. It highlights how each year contributes to the overall interest rate pattern. Although the differences are not extremely large, slight variations can be seen in the proportion of each year. This helps in visually understanding which years had relatively higher or lower interest rates.



Pie Chart – Distribution of Interest Rates

CHAPTER 5: FINDINGS, SUGGESTIONS AND CONCLUSION

5.1 Introduction

This chapter is the final outcome of the research in a detailed manner. It is divided into three main sections, i.e. findings, recommendations and conclusion in such a way that the whole process of the research project can be understood clearly.

This chapter is not only a presentation of the findings of the study but also an explanation of these findings.

While the previous chapter was dedicated to data analysis, this chapter is more about the interpretation of the findings of the data analysis.
The study was conducted to understand the relationship between the interest rate and car sales volume, and also to understand the behaviour of consumers to for each change in the cost of credit during the loan. Based on the responses collected and the analysis, several key observations have been made, which are outlined below.

5.2 Study Detailed Results.
In this section we explore the key findings. An explanation for each statement is provided to show why it is relevant.
5.2.1 Increasing Usage of Buy on Loan.
The strong reliance on loans to purchase a car is a key finding of this study. A majority of the respondents indicated that they prefer to buy cars on loan rather than paying the total amount.
This is reflective of the bigger shift in consumer behaviour where borrowing money makes items more affordable. People are no longer prepared to accumulate capital for a longer period in order to buy such goods but prefer to pay them using equal monthly instalments (EMIs).
This also explains the importance of interest rates. Any changes in interest rates have a substantial impact on monthly repayments and affordability when consumers are using loan facilities.
5.2.2 Strong Influence of Interest Rates.
The second major finding that interest rates affect car buying. A large number of the respondents confirmed that they consider interest rates when buying a car.
Lower interest rates mean people will be willing to borrow money since the opportunity cost will be low. But they are more wary when the interest rates are high.
This shows that interest rates are a regulating factor in the market, and have an impact on demand and timing of purchases.
5.2.3 Transactions are not Cancelled, Only Postponed.
A findings of the study is that the most of the people do not cancel their demands when interest rates rise. Instead they would prefer to delay.
It means that there is a demand for cars in the time of high interest rates. But they keep waiting in order to make their purchase when the market conditions become more suitable.
This is an important finding in business terms as it means that the demand is not decreased but it's postponed.
5.2.4 Income levels affect sensitivity to changes in interest rates
The study shows that the rate of income is an important element of sensitivity to interest rates.
The rich are not as sensitive to the cost of borrowing because they do not have a high degree of financial stress. However, the middle-income class people are rather prudent and highly sensitive to the rate of interest.
This suggests the differential impact of economic policies across income classes.
5.2.5 Consumers are financially literate.
The second bit of good news is that majority of the respondents know about interest rates and how it affects loan repayments.
This is an indicator of the awareness and cost consciousness of the consumers. They do not take impulsive loan but take into account various factors.

This is reflected in more structured decision making.

5.2.6 There are Multiple Factors that influence the purchase of cars.

While interest rates are important, they are not the only consideration. Other causes like:

- Price of the car
- Income level
- Brand preference
- Personal needs

also play a significant part.

This suggests that consumer behaviour is multidimensional. It is influenced by economic as well as personal factors.

5.2.7 Young People are More Credit Friendly.

The study shows that younger people are more willing to take a loan.

They are more comfortable with the concept of EMI and perceive loans as an integral part of their life.

This shift is shaping the future of the car industry.

5.2.8 It's Both Emotional and Rational

Money is important, but not all decisions are rational. Sometimes, consumers are able to buy a car due to urgency, lifestyle needs or personal preference even with the high interest rates.

This shows that there are other factors such as emotional and practical needs.

5.2.9 Banks and the Demand.

Banks and financial institutions are significant as they offer loan schemes, interest rates and payment options.

Good offers may encourage borrowing even if the terms are not favourable.

5.2.10 Shifting Consumer Attitude to Ownership.

Car ownership is no longer a matter of need but also associated with comfort, convenience, and social status.

This evolving attitude also leads to long-term demand in the market.

5.3 Suggestions and Recommendations

Based on the findings, the following suggestions are made:

5.3.1 Introduction to Suggestions

The suggestions are aimed at improving financial institution, user and producer decisions. Recommendations are practical and based on evidence of the research.

5.3.2 Suggestions for Financial Institutions.

- Provide variable interest rates.
- Reduce processing charges
- Provide transparent loans.
- Offer customised loan schemes.

These can also make for a more attractive loan.

5.3.3 Suggestions for Car Manufacturers.

- Negotiate with banks for better offers.

- Lower rates when interest rates are high.
- Mind value and price.

This will help maintain sales despite negative situations.

5.3.4 Suggestions for Consumers

- Shop for the best loan.
- Consider the long term effects.
- Only borrow what you can afford.

These can help consumers to make better choices.

5.3.5 Target Middle-Income Groups.

Middle-income earners should be provided with special schemes since they are most vulnerable to interest rate changes.

5.3.6 Financial Literacy

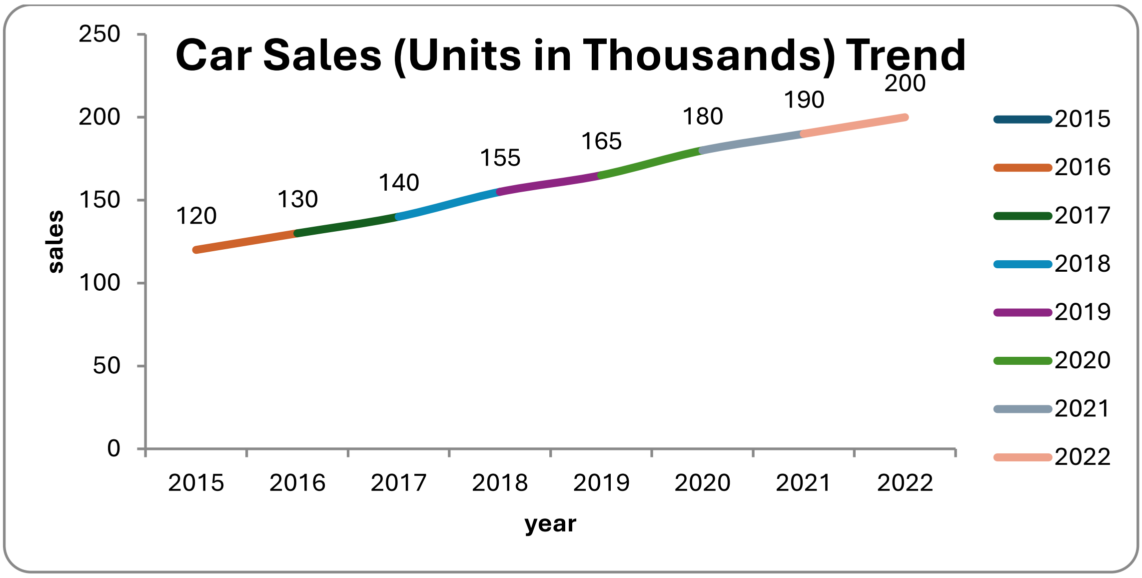
There should be more educational programs on how loans work and financial planning.

5.4 Conclusion

The aim of this paper was to investigate the impact that interest rates have on car sales and demand.
The paper showed that interest rates in fact do have a significant impact on car sales. They increase borrowing and spending when low and they become wary and defer purchases when they are high.
Interest rates aren't the only factor however. We earn, we like and we also respond to economic factors.
This study reveals that consumer decisions involve both financial and individual judgement. Managers and government officials need to recognise this equilibrium.
Overall, the research demonstrates that there is a strong relationship between interest rates and car sales but with many interrelated factors.

INTERPRETATIONS (Car Sales)

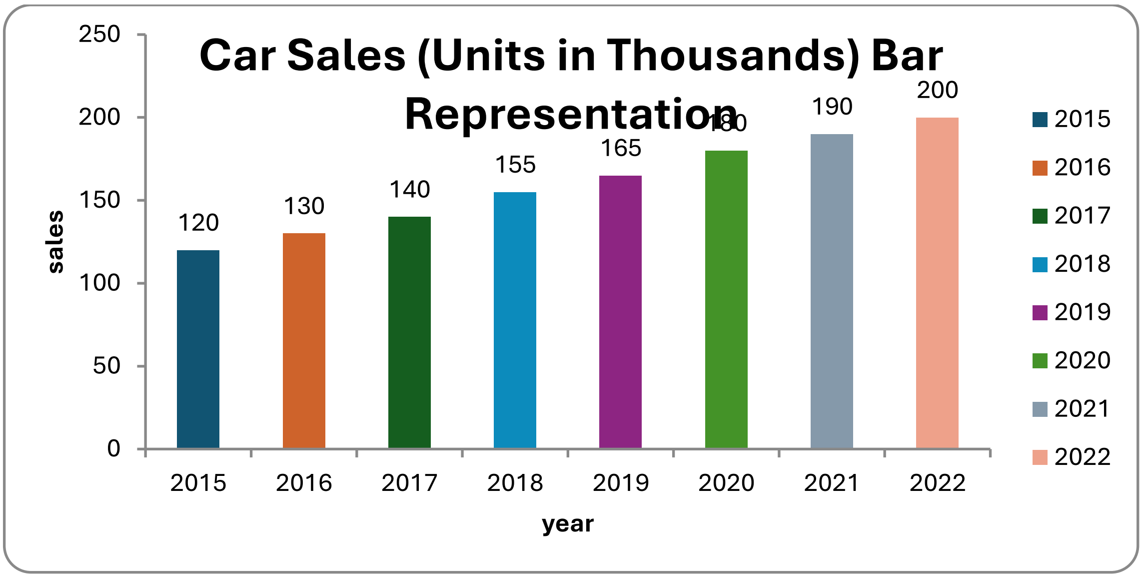
Line Graph - Sales Trend of cars.



Interpretation:

The line graph above shows the trend of the car sales over the years. As the graph above illustrates, there is an increasing trend observed in the car sales, however it can vary in some years. This is due to the rise in demand of cars, which could have been stimulated by an increase in the standard of living, availability of credit facilities and change in tastes and preferences of consumers. The difference is increasing, which shows an overall growth in the car industry.

Bar Graph Year-wise Comparison of Car Sales.



Interpretation:

The bar graph gives a comparison of car sales over the years. It is clear that sales have been steadily increasing in most years with fluctuation in between. This can be due to reasons such as changes in interest rates, fuel prices or economic downturn. The graph helps to establish which year was a better year for sales and which a lower year.

Interest Rate vs Car Sales.

The joint graph shows that interest rates and car sales are related. We can see that when the interest rates are low car sales tend to grow and when the rates are high it is likely that the car sales will decline or grow at lower rates. This indicates there is a negative relationship. The low interest rates make car loans cheaper to the consumers and this increases demand. Hence, interest rates play an important part in the sale of cars in Delhi.

CHAPTER 6: DISCUSSION, IMPLICATIONS AND FUTURE INSIGHTS

6.1 Introduction

This chapter is dedicated to the discussion of the study's results. The previous chapters have focused on presenting the data and the results, but this chapter aims to interpret these findings in a more comprehensive way.

This chapter aims to interpret the results and their implications for consumers, businesses and the economy. It also looks at how the link between interest rates and car sales may change in the future.

6.2 Discussion of Key Findings

The study demonstrates the importance of interest rates in affecting consumer behaviour in the car market. But this effect varies among consumers.

Some consumers, especially those with middle incomes, are sensitive to interest rates. Delay or cancella-

tion can be caused by small increase in interest rate.
However, consumers with higher incomes are less affected by these changes because they are more affordable.
The second take-out is that consumers do not cancel their plans to buy. Instead they delay their buying decision. This suggests that the car market is relatively stable but interest rate sensitive.

6.3 Interest Rates and Consumer Psychology

A most important aspect of this research is interest rate psychology.
Consumers do not precise calculations all the time. They are reactive to emotions. For example: a small increase in interest rates may lead to create a feeling that loans are expensive, leading to delay in purchases or increased caution.
Similarly, a fall in interest rates gives a perception that it is a good time to act, and people rush into action. This shows that psychology matters as well as finance.

6.4 Implications for Consumers

This research has several implications for consumers.
Firstly, consumers should be aware of the effect of interest rates on the loan cost. Consumers tend to ignore the total cost and pay attention to EMI.
Secondly, consumers need to plan their finances before taking a loan. They should take into account their income, expenses and future needs.
Finally, shop around for the best loan.

6.5 Implications for Financial Institutions

Consumer behaviour is heavily influenced by financial institutions.
They influence demand through interest rates, flexible repayment options and information.
The study suggests that financial institutions should:

- Customer-friendly policies
- Clear communication
- Competitive interest rates

This can build confidence and lead to more borrowers.

6.6 Impact on Auto Industry

The car industry is affected by interest rates.
When rates are low, sales can increase. Higher rates can result in lower sales.
To offset this, car companies can:

- Offer discounts and promotions
- Offer financing through banks
- Emphasise low cost models

These strategies can help maintain demand in a crisis.

6.7 Role of Government and Policy Makers

Car sales are also affected by interest rate and inflation policies.
Stable interest rate policies can help maintain market equilibrium.
The government can also promote financial education and offer policy incentives to the car industry.

6.8 Study Limitations

The study has some limitations.
The sample is small and the results may not be generalisable.
The use of convenience sampling may also affect the results.

Also, the study mainly concentrates on interest rates and does not delve into other aspects such as fuel prices and inflation.

6.9 Future of Car Purchasing

Based on the trends, it is expected that:

- Financing will be more common
- Internet will be more prevalent
  - Consumers will be more financially savvy

New technologies and electric cars may also play a role in future purchasing.

6.10 Future Research

This study can be extended in future research:

- Using larger and more representative samples
- Comparing urban and rural behavior
- Examining the effects of other economic factors
- Conducting international comparisons

6.11 Overall Reflection

This study demonstrates that financial decisions are not just mathematical. They involve economic, preference and psychological elements.
Interest rates are a trigger, but not the only trigger.
This combination is important for all parties.

6.12 Conclusion of Chapter

This chapter provided a summary of the findings. It related the results to practice and future work.
The study shows that interest rates are important for car sales, but they are affected by many factors.
The findings can be used to guide consumer, business and policy.

CHAPTER 7
CASE STUDIES ON INTEREST RATES AND CAR SALES

7.1 Introduction

Case studies has played an important role in research as they help in bridging the gap between theory and real world application. While Chapter 6 has focused into the collection of data, analysing and interpretation. This chapter has aim to present practical scenario which shows how interest rates has influenced the car sales in real life situations.
There was no straight forward relationship between interest rates and car sales. It get changed depending upon factors like

- income level
- personal preferences
- economic conditions
- and psychological factors

An attempt is made to understand how different types of consumers react under different financial conditions using these case studies
These case studies are a mix of realistic scenarios and observed market behaviour, which together provide a deeper understanding of the topic.

7.2 Case Study 1: Low Interest Rate Environment and Increased Car Sales

Borrowing becomes more affordable for consumers in some situations where interest rates are relatively low. Low interest rate means low cost for loans and that has directly lowered the monthly EMI burden This type of environment increases the confident of the consumer who were previously hesitates to take loan.

Many individuals who had postponed their car purchase decisions due to financial constraints now find it easier to proceed

In these situations banks and financial institution also promote loans more aggressively. Some of the factors that attract customers are

- reduced processing fees
- flexible payment options

This results in increased demand for cars from a market perspective,. Automobile companies also benefit as sales volumes increase.

However, it is important to note that this increase in demand is not only due to affordability but also due to the psychological effect of "favourable conditions." Consumers perceive low interest rates as a good opportunity and tend to act quickly.

Insight:

Low interest rates create both financial and psychological motivation, leading to a rise in car sales.

7.3 Case Study 2: High Interest Rates and Delayed Purchase Decisions

Conversely, high interest rates imply higher cost of borrowing. This leads to a higher EMIs and loan costs. When something like this happens, a lot of people don't completely give up on their plans, they just put them on hold for a while. This is really about saying no, not yes.

For example, if a person is working and he/she plans to buy a car, they may postpone buying the car for a few months in anticipation of a lower interest rate. Meanwhile the consumer may also choose to:

- Buying a cheaper car
- Increasing down payment
- Comparing different lenders

This results in car sales slowing down, but not coming to a complete halt.

Insight:

Higher interest rates lead to a slowdown rather than halt in demand.

7.4 Case Study 3: Middle-Income Group Sensitivity

The middle-income group is an important car market segment. They are generally careful in their financial decisions.

For example, consider a middle-income salaried individual. This person plans to purchase a car on loan. The decision to buy a car is determined by affordability of EMI.

If the interest rate is low, the EMI will be low, and the car will be bought. However, if there is an increase in the interest rate, then there will be a huge increase in the EMI, which becomes unaffordable.

Therefore, the person might:

- Delay the purchase
- Opt for a more affordable option
- Reconsider the necessity

This example looks at how small changes can make a big difference for people with average incomes.

Insight:

Interest rates have the biggest impact on middle-income consumers.

7.5 Case study 4: High-income consumers

High-income consumers are not as sensitive to interest rates. They have comparatively more disposable income and don't need loans.

If they do borrow, they are not much affected by interest rates. They may be more interested in comfort, brand and urgency.

For example, a rich buyer may decide to buy a car regardless of interest rates. The loan is considered a luxury.

But this does not mean interest rates don't matter. They can determine the duration of the loan or the lender.

Insight:

Consumers with higher incomes are less interest-rate sensitive but care about efficiency.

7.6 Case Study 5: Effect of Promotions

Automobile makers may run promotions in periods of high interest rates.

These offers may include:

- Cashback
- Zero down payment
- Exchange bonuses
- Discounted pricing

These can reduce the price of the product. This makes the product more attractive, despite the high rates.

For instance, a consumer who may not have been interested in the purchase due to high interest rates may be tempted by a discount or promotion.

This shows how marketing can influence consumer behaviour in these market conditions.

Insight:

Marketing measures can counter the impact of high interest rates.

7.7 Case Study 6: Psychadelic interest rates

Sometimes, consumers don't act rationally. Perception is often more important.

For example:

- The rise in interest rates may create the perception of high cost of borrowing
- A small decrease may cause a feeling of urgency

This can lead to irrational behaviour.

The customer may not always calculate the difference in EMI but be influenced by the "feel" of the rates.

Insight:

It's not what you say, it's what you feel.

7.8 Case Study 7: First-Time Car Buyers

First-time car buyers are risk averse. They are more likely to:

- Compare multiple options
- Ask others for advice
- Read loan terms and conditions

They are also driven by lifestyle aspirations. A car is a freedom and mobility.

This gives rise to a mix of rational and irrational factors.

Low rates encourage first home buyers. If rates are high they might delay but not necessarily cancel.

Insight:

First home buyers are romantic and rational

7.9 Case Study 8: Urban vs Semi-Urban Behaviour

Urban consumers have more access to financial service providers. They are familiar with interest rates and loans.

Semi-urban consumers may ask local dealers

This affects their decision-making:

- Urban consumers shop around
- Semi-urban consumers may decide based on convenience

Awareness affects sensitivity.

Insight:

Sensitivity is affected by awareness.

7.10 Case study 9: Loan Tenure

Consumers often choose between:

- Short-term loans (higher EMI, lower interest)
- Longer-term loans (lower EMI, higher interest)

Higher interest rates lead consumers to opt for longer tenure loans to keep EMI manageable.

But this leads to higher interest costs.

This example illustrates that interest rates impact not only the "to buy or not to buy" decision but also the loan tenure.

Insight:

Interest rates affect both "go" and "go" decisions.

7.11 Case Study 10: Economic Uncertainty

Consumers become cautious during uncertain economic conditions such as job instability or inflation

Due to fear of future financial stress people may avoid taking loans even if interest rates are low

In such situations:

- Necessity-based purchases continue
- Luxury or optional purchases are delayed

This shows that interest rates alone cannot drive demand.

7.12 Case Study 11: Repeat Buyers vs New Buyers

Repeat buyers like those who already own cars will behave differently from new buyers.

- Repeat buyers may upgrade based on lifestyle
- New buyers focus more on affordability

Interest rates affect both, but in different ways.

7.13 Overall Comparative Analysis

From all case studies, it is clear that:

- Interest rates significantly influence car sales
- Impact varies across income groups
- Psychological factors play a key role
- Economic conditions also matter

7.14 Final Conclusion of Case Studies

The case studies clearly demonstrate that interest rates are a powerful factor influencing consumer decisions. However, their impact is not uniform.

Different individuals react differently based on:

- Income level
- Awareness
- Personal preferences
- Economic conditions

This chapter strengthens the overall research by connecting theoretical findings with practical scenarios. It shows that understanding consumer behavior requires looking beyond numbers and considering real-life situations.

CHAPTER 8 SECTOR ANALYSIS: AUTOMOBILE AND FINANCIAL SECTOR

8.1 Introduction

Automobile industry is recognised as one of the main drivers of economic a nation. It is not only engaged in car manufacturing but also has an impact linkages to many other industries including steel, rubber, electronics, glass, oil and infrastructure. This makes the growth of the automobile industry a multiplier for the economy. In recent decades, the automobile industry in India has evolved in the past few decades. It's grown from a protected and small-scale sector before 1990s to a world-class industry with high domestic and export opportunities. The 1991 reforms enabled foreign direct investments, technology imports and competition, which have been crucial for the growth of the industry. The growing financial sector is another significant contributor to the growth of the automobile industry. In the past, owning a car was a luxury and required significant savings. But with the growth of the banking sector, easy access to credit and flexible financing options, owning a car has become more affordable. Interest rates are a key factor here. Given that most car purchases in India are made on credit, interest rates play a significant role in determining affordability and demand. Thus, it is important to understand the relationship between the automobile industry and the financial sector to understand the market.

8.2 Indian Automobile Industry

India's automobile industry is one of the world's largest and has been among the largest markets in terms of production and sales.

It can be broadly divided into four segments:

1. Passenger Vehicles
   This includes passenger cars, SUVs, and vans. This is the fastest-growing segment because of increasing disposable income and changing lifestyles.
2. Commercial Vehicles
   This includes trucks, buses and other vehicles used for transporting goods and people. This sector is tied to industrialisation and economic development.
3. Two-Wheelers
   India is the world's biggest two-wheeler market. Bikes and scooters are preferred for their cost-effectiveness, efficiency, and ease of manoeuvrability in traffic.
4. Electric Vehicles (EVs)
   EVs are a new but fast-growing segment because of environmental awareness, government support, and improvements in battery technology.

Key Drivers of Growth The growth of the automobile sector in India can be traced to a number of factors:

8.3 Car Sales in India

Car sales in India keep going up, but the pace isn’t always smooth. There’s a lot riding on what’s happening in the economy.

What Drives This Growth?
Economic Expansion
When the economy grows, people earn more—and that makes it easier for them to buy durable goods like cars.
Consumer Confidence
If people feel secure about their jobs and future salaries, they're far more likely to splurge on big purchases, cars included.
Interest Rate Shifts
Interest rates have a big impact here.
So, when rates are low, loans get cheaper. Monthly payments shrink and more folks can afford to buy cars.
But when rates jump, those EMIs go up—and cars suddenly feel out of reach for a lot of buyers.
External Shocks
Events like recessions, pandemics , or spikes in oil prices can really shake up car demand.

8.4 Role of Financial Institutions

Financial institutions are the middlemen between car makers and buyers. Honestly, without them, the car industry wouldn't be nearly as big.
What Are the Main Players?
Banks
Big names like State Bank of India or HDFC Bank hand out car loans with solid interest rates and flexible terms.
NBFCs (Non-Banking Financial Companies)
These folks cater to buyers who might not qualify at a bank—offering flexible credit, though sometimes at a higher cost.
What Do They Actually Do?
Car Loans
They cover most of the car's price—usually 80-90%. That keeps the upfront expense low.
EMIs (Equated Monthly Installments)
Borrowers pay back loans month by month, which makes buying a car way more manageable.
Flexible Repayment Options
You can choose your loan tenure, down payment, and EMI amounts to fit your budget.
Digital Loan Processing
With fintech in the mix, a loan can be approved in minutes, speeding up the whole buying process.

8.6 Interest Rates and Automobile Industry

The car industry is highly dependent on credit. Many purchases by the consumer are financed.
Why Interest Rates Matter
EMI Sensitivity
A small increase in interest rates may lead to huge increase in EMIs, impacting consumer behaviour.
Demand Fluctuation
Demand is affected by the increase in interest rates in the car market.
Illustration
For instance, a modest increase in interest rate from 8% to 10% can add up to the cost of car loan over time. This may put off price-sensitive consumers.

8.7 Impact of Economic Conditions

There are more other economic factors that can affect car demand other than interest rate
Living cost has been increased which gradually reduces the spending power
Employment Levels
Employment stability boosts consumer confidence and increases car demand.
Income Growth
Increased income increases affordability and allows consumers to buy more expensive cars.
Fuel Prices
Increased fuel prices may deter car buying particularly for cars having low fuel efficiency.

8.8 Competitive Landscape

The Indian car market is fiercely competitive, with both local and global players.
Major Players of Indian market are:

1. 1 Maruti Suzuki
2. 2 Hyundai Motor India
3. 3 Tata Motors

These are the market leaders.
Areas of Competition
Price
Discount and competitive prices are provided by manufacturer.
Features
Multiple features are offered by the car companies like infotainment, safety and connectivity.
Financing Options
Partnerships with banks and NBFCs enable companies to provide attractive financing options.
Brand Value
Brand image is a major factor in consumer decision-making.

8.9 Emerging Trends

There is a rapid transformation in automobile industry due to technological advancements and changing consumer preferences.
Electric Vehicles (EVs)
There is a shift toward EV's because of environmental concern and government incentives.
Digital Loan Approvals
Fintech platforms has simplified the loan process and reduced the paperwork and also reduced the approval time
Online Car Buying
The process has become so convenient that customer can now compare, select , even purchase car online

8.10 Conclusion

There is a strong and a interdependent relationship between auto mobile industry and financial sector. Vehicle ownership become more accessible to wider population because of the availability of credit. Interest rate also plays a decisive role in shaping demand
Increase in the borrowing costs because of rise in the interest rate can slow down the automobiles sales. Whereas a decline interest rate can stimulate or increase demand by improving affordability. Along with interest rates, broader economic conditions such as inflation, employment, and income levels also influence consumer behaviour.

For policymakers, businesses, and researchers it is important to understand the relationship. It helps in predicting

- market trends
- planning strategies
- and making informed financial decisions.

As the industry evolves with new technologies and financial innovations, this connection will continue to play a vital role in shaping the future of the automobile market.

CHAPTER 9 THEORETICAL FRAMEWORK AND CONCEPTUAL ANALYSIS

9.1 Introduction

Theory is an important part of any research project as it helps to understand the practical results in a better way. Without theory, the research is not complete because there is no proper explanation behind the observations. In this chapter, the emphasis is on the fundamental ideas of interest rates and consumer behaviour, particularly in the case of car purchases. In India, few people purchase cars in cash. They rely on loans from banks and financial institutions. As a result, interest rates play a significant role in whether someone will buy a car or not. Even a slight change in interest rate can will change the monthly EMI, which in turn will affect the decision. This chapter links theory to behaviour. It attempts to answer the question behave differently in response to rising and falling interest rates. Along with economic concepts, some psychological factors are also covered because not all decisions are rational. Many times, expectations and emotions play a role.

9.2 Interest Rate

Interest rate is simply the price of borrowing money. When a person takes a loan from a bank, they have to return the money borrowed plus some additional loan plus some additional amount, known as interest. This is generally a percentage. In real life, interest rate is not a theoretical concept. It has an impact on people's expenses and financial decisions. For instance, when interest rates are low, borrowing money cheaper and more people are willing to borrow money. Conversely, when interest rates are high, fewer people are willing to borrow. Impact on Borrowing Decisions Interest rates affect borrowing decisions. Let's say someone wants to buy a car. They will first look at the monthly EMI they will need to pay. If the interest rate is low, the EMI will also be low, and the purchase will feel more affordable. But if the interest rate is high, the EMI increases. Even if the person can afford it, they may think it is too much of a strain. So, many people either delay their decision or choose a more affordable car. This is even more pronounced in middle-class families as budgeting is very important. Higher EMI can upset the household budget. Effect on Savings Interest rates affect the savings decision. If banks offer a high interest on deposits, then it is better to save more. For example, if fixed deposits are paying high interest, then they may choose to delay buying a car and save the money. But with low interest rates, there is less incentive to save. They believe that it is not worth saving money but spending it or making an investment such as buying a car. So, interest rates indirectly impact the savings and consumption decision. Impact on Consumer Spending Spending is related to the availability of loans. In the modern economy, many purchases are financed. For example, not many cars are bought paid for in cash. When interest rates are low, people are more likely to take risks because they are worried less about the financial burden. This boosts demand in the car industry. But, when interest rates go up, people become more cautious. They begin to reduce their consumption and make only necessary purchases. So, car sales decline down.

9.3 Demand and Supply

\Demand and supply is a very fundamental concept in economics, but it is crucial for understanding market behaviour. The law of demand states that as the price of a good falls, the demand for it rises. Likewise, when the price rises, demand falls. This is a general behaviour observed in most markets. In the case of cars, it is a bit different because the price is not only the showroom price. For many consumers, the price is the cost of the loan. When Price Decreases → Demand Increases Lower interest rates mean that the cost of borrowing is lower. This reduces the overall cost of buying a car. This makes it more affordable and demand rises. For instance, someone who could not afford to buy a car because of high EMI might now might now be able to afford it due to lower EMI. This is why car sales tend to go up when banks or the central bank cuts interest rates. When Price Increases → Demand Decreases When interest rates rise, the cost of borrowing rises. This increases the EMI and makes makes the car more expensive in the long run. As a result, many buyers either postpone or cancel their purchase. This leads to a decrease in demand. This is more pronounced in low and medium priced cars as consumers in this market are more sensitive to price changes. Interest Rate as the "Price of Borrowing" Interest rate can be thought of as the price of borrowing money. Just like when prices go up, demand goes down, when interest rates go up, borrowing goes down. So, even if the price of the car does not change, a change in interest rate can still impact demand significantly.

9.4 Consumer Behaviour Theory

Consumer behaviour is how we decide to purchase products. It is not always not always a straightforward process. It is affected by many things, and sometimes it is based on feelings as well.

Income

Income is one of the most important factors. Those with higher income have more money power and can afford better cars. They can also afford to borrow money because repayment is easier for them. But people with low incomes are more cautious. They think a lot before making big purchases and often look for cheaper options. Preferences People have different preferences. Some like cars that look good, others like cars that are economical. mileage or maintenance cost. This is based on personal preference, family size and lifestyle. Even with low interest rates, a person will only purchase a car if it is preferred.

Price

Price is always important. Consumers shop around for different brands and models decision. If they need to finance their purchase, the price also includes interest. So, the decision depends on both the price of the car and the interest rate.

Expectations

Expectations also play a role. If people expect their income to grow, they are more willing to take loans. But if they are unsure about their employment or earnings, they might refrain borrowing. Or, if they think interest rates will be lower in the future, they may wait.

9.5 Loan Affordability Concept

Affordability of a loan is the ability to meet the loan obligations without financial stress. Income People can borrow based on their income. Banks also check income before approving loans. The higher the income, the more loan you can get. EMI (Equated Monthly Installment) EMI is the monthly payment by the borrower. It is the sum of interest and principal. EMIs are generally preferred to be affordable. If the EMI is too high, it can financial pressure. Interest Rate EMI is affected by interest rate. A slight rise in interest rate will raise EMI noticeably. So, many borrowers shop for interest rates before taking a loan.

Overall Impact An increase in interest rates leads to an increase in EMI. This makes it less affordable and people able to take loans. This leads to lower car sales.

9.6 Time Value of Money

The time value of money means that a dollar today is worth more than a dollar future. This is because you can use it or invest it. Put simply, it's better to have ₹1 lakh today than ₹1 lakh in 5 years. This is crucial to the concept of interest rates. Banks charge interest because they are giving up the opportunity to use that money elsewhere. For borrowers, this means that loans are always more expensive. They are paying more in the future for borrowing money now.

9.7 Psychological Factors

Decisions are not always financial. Often psychological factors are involved behaviour. Perception Perception is people's view of a situation. If interest rates are perceived to be too high, people be reluctant to borrow money. Risk Risk plays a big role. If someone is uncertain about their future earnings, they may not wish to loan. Confidence Consumer confidence is a measure of people's optimism about the economy. When confidence is high, people spend more. When it is low, they become cautious.

9.8 Decision-Making Process

Purchasing a car is not an impulsive act. It involves several steps.

1. Need Recognition It begins with the recognition of a need for a car. This could be due to convenience, family needs, or lifestyle improvement.
2. Information Search Once the need is identified, the consumer begins to search for information on cars and options.
3. Evaluation of Alternatives Various options are evaluated in terms of price, features and EMI.
4. Purchase Decision Lastly, the consumer makes a decision to purchase or not. Interest rate plays an important role here.
5. Post-Purchase Behaviour Once the purchase is made, the individual assesses the purchase. If EMI is too high, they may regret it.

9.9 Conclusion

This chapter discussed the key theoretical ideas about interest rates and consumer behaviour. It demonstrates that interest rates are not only financial concepts, but they influence people think and make decisions. From supply and demand to psychology, all these concepts explain how car sales go up or down with interest rates. In conclusion, this theoretical knowledge helps in complementing the empirical results of the research and makes the analysis more meaningful.

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