

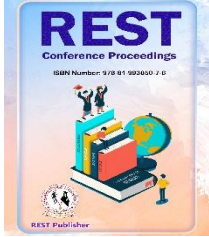


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# A Study of Use of Credit Cards for Purchasing Electronic Goods

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**Abstract:** In recent years, the use of credit cards has seen a significant rise, particularly in the purchase of high-value consumer durables such as electronic goods. This study aims to explore the behavioral patterns, preferences, and motivations of consumers who use credit cards for purchasing electronic items. The research investigates the factors influencing credit card usage, such as ease of payment, availability of EMI options, cashback offers, reward points, and promotional discounts. It also examines consumer demographics, spending habits, and the impact of digital banking infrastructure on credit card adoption in the electronics retail segment. A mixed-method approach, involving surveys and interviews, was used to collect data from a diverse set of respondents. The findings indicate that convenience and financial flexibility are primary drivers for credit card usage, while concerns related to overspending and high-interest rates remain as key deterrents. The study provides insights for retailers, banks, and credit card companies to tailor their offerings to better meet the needs of electronic goods consumers. Ultimately, this dissertation contributes to a deeper understanding of credit card usage trends in the consumer electronics market and offers recommendations for promoting responsible credit behavior.

**Keywords:** Online Platform, financial stress, Credit Card, Electronic Goods

## 1. INTRODUCTION

In today's technologically driven world, electronic goods such as smartphones, laptops, and smart appliances have become essential tools for communication, work, and entertainment. As the demand for these products increases, so does the need for flexible and convenient payment options. Credit cards have become a widely accepted method of financing high-value purchases, particularly electronic items. They offer features such as EMI (Equated Monthly Installment) options, cashback offers, reward points, and purchase protection, making them attractive to consumers who wish to spread out payments or take advantage of promotional deals. This study investigates the growing trend of using credit cards for purchasing electronic goods, focusing on consumer preferences, spending behavior, and satisfaction levels. It also examines the challenges associated with credit card usage, including high-interest rates, overspending tendencies, and limited awareness of terms and conditions. With a particular focus on urban consumers in Amravati city, this research aims to provide insights into how credit card features influence purchase decisions, especially among students and young professionals. The findings of this study will help banks, retailers, and policymakers understand consumer behavior better and design more effective financial products and promotional strategies in the electronic goods market.

## 2. REVIEW OF LITERATURE

The increasing adoption of credit cards for purchasing electronic goods has prompted several studies exploring consumer behavior, financial decision-making, and digital payment trends. Roberts and Jones (2001) highlighted how credit cards have become essential tools for consumer financing, often linked to compulsive buying tendencies. Gan et al. (2008) emphasized that age, income, and education significantly influence credit card ownership and usage, with younger individuals more inclined toward online purchases. Chakra arty (2014) and Kotler & Keller (2016) noted that credit cards increase the affordability of high-end electronics by allowing consumers to access flexible payment terms. Soman (2001) and Raghurir & Srivastava (2008) further argued that credit cards reduce the "pain of paying," which encourages higher spending. Recent studies such as Malik & Bansal (2021) and Agarwal et al. (2020) examined the influence of digital platforms and co-branded credit cards, showing a strong correlation between credit card promotions and increased electronics sales. The COVID-19 pandemic also accelerated this trend, as highlighted by Banerjee & Reddy (2021), with a surge in credit-based online purchases for work-from-home and entertainment needs.

**Research Problem:** With the rising popularity of electronic goods and the increasing accessibility of credit cards, consumers are now more inclined to finance their high-value purchases using credit facilities. The availability of EMI options, cashback offers, and digital convenience has made credit cards a preferred payment method, particularly for electronics. However, this shift in payment behavior brings challenges such as overspending, debt accumulation, and limited awareness about interest rates and hidden charges. While many studies have explored general credit card usage, there is limited research focused specifically on the purchase of electronic goods, especially in Tier-2 cities like Amravati. The unique purchasing behavior, income levels, and financial literacy of consumers in such regions require focused investigation. Therefore, this study seeks to understand the factors influencing credit card use for electronics purchases and to identify the risks, satisfaction levels, and decision-making patterns of consumers in the urban context of Amravati.

### 3. OBJECTIVES

To find out the types of credit cards used by people. To know the problems faced by credit card users. To analyze consumer preferences for using credit cards versus other payment methods when purchasing electronic goods. To examine the impact of promotional offers (such as cashback, discounts, and no-cost EMIs) on consumers' decisions to use credit cards for buying electronic products. To study the security concerns and risks associated with credit card transactions for electronic goods and how these concerns affect consumer behavior.

**Scope of The Study:** This study is geographically focused on a specific urban region, with a detailed examination of credit card usage for purchasing electronic goods. It also considers potential contrasts between urban and rural consumer behaviors. The research covers diverse consumer demographics, including age, income, gender, education level, and occupation, to assess how these variables influence the use of credit cards for high-value electronic purchases. The study emphasizes products such as smartphones, laptops, televisions, and similar consumer electronics, which are commonly financed through credit cards due to their substantial cost. Additionally, the research explores consumer payment preferences, comparing credit card usage with alternative modes like debit cards, digital wallets, and cash to understand the underlying motivations for selecting credit cards. A defined time frame is considered to analyze trends and seasonal spikes, such as festive periods and promotional sales. Financial aspects including interest rates, rewards, and associated fees are examined to understand their effect on consumer purchasing behavior. Finally, the study investigates the role of merchants and retailers in promoting credit card usage through discounts, cashback offers, and EMI schemes, assessing how these incentives shape consumer decisions.

### 4. RESEARCH METHODOLOGY

The study used a descriptive and explanatory research design with a cross-sectional approach to understand the use of credit cards for buying electronic goods in Amravati city. Data was collected mainly through structured questionnaires from 100 respondents aged 21–60, including students, professionals, and self-employed individuals. A simple random sampling technique was applied to ensure fair representation. To add depth, a few semi-structured interviews with retail managers and banking professionals were also conducted. This mixed-methods approach helped capture usage patterns, preferences, satisfaction levels, and risks, providing useful insights for financial institutions and electronic retailers.

**Limitations of The Study:** Geographical Limitation: The study is restricted to Amravati city, and the findings may not be fully generalizable to other urban, rural, or metropolitan regions with different consumer behaviors and economic conditions. Sample Bias: The sample primarily includes younger, tech-savvy individuals and students, which may not accurately represent the behavior of older or less digitally-inclined consumers. Self-Reported Data: The study relies on self-reported responses, which may be subject to social desirability bias or inaccuracies in recalling past credit card usage or purchase behavior. Time Constraint: The cross-sectional nature of the study captures

Consumer behavior during a limited period, potentially overlooking long-term trends or seasonal variations in credit card usage for electronic purchases.

## 5. DATA ANALYSIS AND INTERPRETATION

### Average monthly income of the respondent

TABLE 1. Average monthly income of the respondent

| Sr. No | Average Monthly Income | No. of Respondents | Percentage |
|--------|------------------------|--------------------|------------|
| 1      | Below ₹10,000          | 57                 | 57         |
| 2      | ₹25,001–₹50,000        | 24                 | 24         |
| 3      | ₹10,001–₹25,000        | 13                 | 13         |
| 4      | ₹50,001–₹75,000        | 2                  | 2          |
| 5      | Above ₹75,000          | 4                  | 4          |
|        | Total                  | 100                | 100        |

The data showed that most respondents had modest financial status, with 57% earning below ₹10,000 per month. About 13% earned ₹10,001–₹25,000, while 24% fell in the ₹25,001–₹50,000 range. Only a small share earned higher incomes, with 2% in ₹50,001–₹75,000 and 4% above ₹75,000. This indicated that the majority of respondents belonged to the lower-income bracket, affecting their purchasing power and lifestyle choices.

### Frequency of credit card usage for purchases

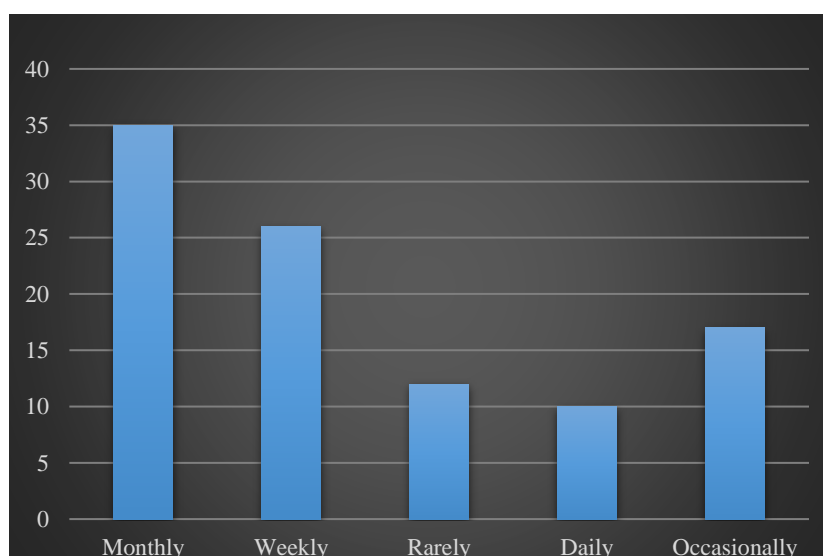


FIGURE 2. Frequency of credit card usage for purchases

The results showed that most respondents engaged in the activity on a monthly (35%) or weekly (26%) basis, while fewer did so occasionally (17%) or rarely (12%). Only 10% participated daily, indicating that involvement was generally moderate rather than frequent, with scope to encourage more regular participation.

### Hypothesis

H0: 1. there is no significant relationship between credit card usage and the frequency of electronic goods purchases.

H0: 2. there is no significance relation between monthly income and monthly amount usage of credit card

**Chi square test:** The Chi-square test is a statistical method used in hypothesis testing to determine whether there is a significant association between categorical variables. It compares the observed frequencies of data in different categories with the expected frequencies that would occur if there were no relationship between the variables. If the p-value is smaller than a chosen significance level (typically 0.05), the null hypothesis is rejected, indicating a significant relationship between the variables.

**TABLE 2.** Observed Frequency

| Income Range      | Daily | Weekly | Monthly | Rarely | Total |
|-------------------|-------|--------|---------|--------|-------|
| Below ₹10,000     | 2     | 5      | 10      | 3      | 20    |
| ₹10,000–₹25,000   | 4     | 8      | 12      | 6      | 30    |
| ₹25,001–₹50,000   | 5     | 7      | 8       | 5      | 25    |
| ₹50,001–₹1,00,000 | 3     | 5      | 6       | 1      | 15    |
| Above ₹1,00,000   | 2     | 3      | 3       | 2      | 10    |
| Total             | 16    | 28     | 39      | 17     | 100   |

The expected frequencies were computed using the formula:

$$E = (\text{Row Total}) \times (\text{Column Total}) / \text{Grand Total}$$

**TABLE 3.** Expected Frequency

| Income Range      | Daily | Weekly | Monthly | Rarely | Total |
|-------------------|-------|--------|---------|--------|-------|
| Below ₹10,000     | 3.2   | 5.6    | 7.8     | 3.4    | 20    |
| ₹10,000–₹25,000   | 4.8   | 8.4    | 11.7    | 5.1    | 30    |
| ₹25,001–₹50,000   | 4.0   | 7.0    | 9.75    | 4.25   | 25    |
| ₹50,001–₹1,00,000 | 2.4   | 4.2    | 5.85    | 2.55   | 15    |
| Above ₹1,00,000   | 1.6   | 2.8    | 3.9     | 1.7    | 10    |
| Total             | 16    | 28     | 39      | 17     | 100   |

Let us apply Chi Square Test, to test the hypothesis and assume the significance level would be 0.05%.

### Chi-Square Test

The Chi-square statistic is calculated using the formula:

$$\chi^2 = \sum (O-E)^2$$

**TABLE 4.**

| Income Range      | Daily | Weekly | Monthly | Rarely | Total |
|-------------------|-------|--------|---------|--------|-------|
| Below ₹10,000     | 0.450 | 0.064  | 0.621   | 0.047  | 1.182 |
| ₹10,000–₹25,000   | 0.133 | 0.019  | 0.008   | 0.159  | 0.319 |
| ₹25,001–₹50,000   | 0.250 | 0.000  | 0.314   | 0.132  | 0.696 |
| ₹50,001–₹1,00,000 | 0.150 | 0.152  | 0.004   | 0.942  | 1.248 |
| Above ₹1,00,000   | 0.100 | 0.014  | 0.208   | 0.053  | 0.375 |
| Total             | 1.083 | 0.250  | 1.154   | 1.333  | 3.821 |

Total Chi-Square Value:  $\chi^2=3.82$

Chi-Square Test Statistics

Chi-Square Value ( $\chi^2$ ): 3.82

Degrees of Freedom (df): 12

P-value: 0.986

Since the p-value = 0.986 > 0.05, we fail to reject the null hypothesis.

Conclusion: There is no significant relationship between monthly income and frequency of credit card usage among the respondents in this sample.

**Findings:** The study revealed that 68% of respondents owned a credit card, indicating significant adoption of credit cards among the sample population. A majority, 54% of respondents, owned only one card, while 28% reported holding three or more cards, reflecting different levels of usage intensity and financial engagement. Among issuers, Axis Bank emerged as the most preferred credit card provider with 40% users, followed by other private banks such as Kotak and IDBI with 32% combined preference, showing a strong inclination towards private banking services. In terms of usage, 35% of respondents used their credit cards on a monthly basis, while 26% used them weekly, suggesting a structured yet moderate frequency of usage. Only a smaller percentage used them daily, indicating that cards were mainly employed for planned or periodic purchases rather than everyday transactions. With respect to spending patterns, the most common frequency of electronic goods purchases was once every three months (35%), highlighting that respondents primarily used credit cards for occasional, high-value transactions like smartphones, laptops, or appliances. These findings suggested that while credit card adoption was widespread, usage intensity and frequency varied significantly across the population.

**Suggestions:** The study suggested that banks and retailers should have increased awareness of EMI options by conducting targeted campaigns, particularly for students and first-time buyers, to educate them about EMI terms and benefits. It also recommended that

reward programs should have been simplified, as many users misunderstood reward systems. By making reward structures clearer and communicating redemption methods effectively, usage and satisfaction could have been improved. Additionally, the study advised organizing financial literacy workshops and webinars for young cardholders to promote responsible credit usage and help them avoid debt accumulation.

## 6. CONCLUSIONS

The study concluded that credit cards played a significant role in facilitating the purchase of electronic goods, particularly among young and tech-savvy consumers. It was found that EMI options were a major driver influencing consumer preference for using credit cards in high-value electronics purchases. While price sensitivity remained the top priority, factors such as brand reputation and product features also significantly impacted buying decisions. Moreover, online platforms like Amazon and Flipchart dominated the electronics retail space, largely due to attractive credit card-based offers and the ease of payment they provided.

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