

# **Income Levels And Household Spending Patterns: An Analytical Study Of Consumption Behavior In Bagalkot.**

Author

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## **Abstract**

*This study investigates the relationship between household income levels, price elasticity, and consumption dynamics in Bagalkot, a semi-urban district in Karnataka. Using a structured survey of 263 households, the research applies descriptive statistics, cross-tabulations, and regression models to examine spending patterns across income groups. The results reveal that nearly 79% of households fall within low-to-lower-middle income brackets, with food, education, rent, and healthcare comprising the largest expenditure categories. Consistent with Engel's Law, lower-income households allocate a higher proportion of income to essentials, while higher-income groups spend relatively less and demonstrate greater financial flexibility.*

*The analysis of price elasticity indicates that low-income households are highly price-sensitive, often reducing consumption or substituting with cheaper alternatives when essential goods become costlier. In contrast, higher-income groups are better insulated against inflationary shocks. These findings underscore the uneven impact of price volatility across income groups and highlight the fragility of household financial stability in the region.*

*The study contributes to the literature by providing localized, micro-level evidence of household consumption behavior in semi-urban India. Policy implications include the need for targeted subsidies, price stabilization measures, and affordable product strategies to safeguard consumer welfare. Future research should adopt longitudinal tracking to capture dynamic changes in consumption as households respond to income growth, inflation, and market shifts over time.*

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## **I. Introduction**

It has long been acknowledged that household consumption trends are a fundamental component of economic analysis, providing information on market demand, welfare, and policymaking. Household spending makes up almost 60% of GDP in India, highlighting its crucial role in determining both macroeconomic growth and microeconomic stability. In semi-urban areas, where market integration, urbanization, and economic shifts are changing consumer behavior, it is especially critical to comprehend how households divide their income between necessities and discretionary purchases.

Several theoretical frameworks serve as the basis for the analysis of consumption. While Engel's law contends that as income increases, the percentage spent on food decreases, Keynes' absolute income hypothesis highlights that household consumption is directly impacted by present income levels. Friedman's permanent income hypothesis also contends that consumption decisions are influenced by long-term income expectations rather than transient variations. Together, these models show the complex relationships between income and spending, but they need local validation to account for socioeconomic diversity in areas like Bagalkot.

Another crucial aspect of consumption analysis is price elasticity of demand. Different goods and income levels have different levels of demand adjustment by households in response to price changes. Essential commodities like food, healthcare, and education frequently exhibit high elasticity in low-income groups because even slight price changes can compel households to reduce consumption or reallocate budgets. On the other hand, because they have larger financial cushions, households with higher incomes are more resilient and show less sensitivity to price shocks. There is a gap in grassroots microeconomic knowledge because, despite the fact that many studies have examined price elasticity and income-consumption relationships in urban India, relatively few offer empirical data from semi-urban and district-level contexts.

Karnataka's Bagalkot district makes a strong case for this kind of inquiry. The district, which is defined by a combination of semi-urban growth, developing service sectors, and agricultural dependency, represents the hopes of urbanizing communities as well as the vulnerabilities of rural households. Household spending patterns and price sensitivity differ greatly among income groups due to factors like rising essential costs, exposure to inflationary pressures, and unequal income distribution. Systematic, micro-level empirical evidence is still lacking, though.

In light of this, the study aims to close the gap by measuring the price elasticity of demand for important commodities in Bagalkot and examining the ways in which household income levels affect consumer spending patterns. In particular, this paper's goals are:

1. To examine how income levels affect the spending patterns of households.
2. To investigate how demand changes in response to market conditions and price elasticity.

This study provides localized evidence to support current macroeconomic research by using a household survey dataset and statistical and econometric techniques. The results provide practical insights for businesses, development practitioners, and policymakers looking to improve consumer welfare through price stabilization, targeted subsidies, and inclusive growth strategies. They also validate traditional theories in the context of Bagalkot.

## **II. Literature Review**

Keynes' Absolute Income Hypothesis is supported by the substantial, positive correlation between household income and consumption expenditure. Although the marginal propensity to consume (MPC) varies by population and context, consumption typically rises as income rises (Bakri et al., 2017) (K, 2023) (Dönmez & Güneş, 2021). Ernst Engel first proposed Engel's Law in 1857, which states that while the total amount spent on food may still increase, the percentage of income allotted to food declines as household income rises (Chakrabarty & Hildenbrand, 2015). Based on Friedman's Permanent Income Hypothesis (PIH), households make decisions about their consumption based on their projected long-term (permanent) income rather than just their current income, which eventually results in more consistent consumption patterns (Meghir, 2004). Referring to the LCH, which was created by Modigliani and Brumberg, people plan their lifetime savings and consumption patterns in order to maintain a steady standard of living. In order to balance consumption despite variations in income at different ages, people save during their working years and dissave (spend savings) during retirement (Kurz, 1987). Based on empirical data from India, households with lower incomes devote a disproportionately larger portion of their budgets to necessities, whereas households with higher incomes spend more on entertainment, durable goods, and services, among other non-essentials (Chakrabarty & Mandi, 2019). Although these researches support the relationship between income and consumption, they also point to regional and socioeconomic strata-specific differences. The sensitivity of household consumption to price fluctuations is reflected in price elasticity of demand. Elasticity is crucial to the welfare of consumers in developing nations when necessities account for the majority of expenditures. The demand for food grains, vegetables, and fuel is typically price inelastic, but it is nevertheless strong among low-income groups, according to studies conducted in both rural and urban India. Even little price increases lower consumption levels (Liddle et al., 2020) (Mikayilov et al., 2020). Luxury products and discretionary spending have higher price elasticity than essentials, which means that demand for them is more susceptible to fluctuations in price. Since luxury products are not necessary for day-to-day living, households can more readily cut back on or postpone purchases of them when prices rise or earnings decline (Tarantilis et al., 2015). Additionally, there is evidence of socioeconomic group heterogeneity: whereas poorer households tend to reduce their expenditures on healthcare, education, and nutrition when prices increase, wealthier households are better equipped to withstand price shocks (Rolim & Marins, 2024) (Gong et al., 2021). Although national policy discussions on price stabilization, taxes, and subsidies have benefited from the use of macro-level elasticity studies, the evidence is frequently aggregated, hiding micro-level differences at the district or local levels. As a result, there is a research deficit in the knowledge of elasticity in semi-urban and rural environments, where price sensitivity is heightened by income restrictions.

### **Research Gaps**

Even though there is a wealth of research on consumption and elasticity, the majority of studies conducted in India concentrate on either big cities or national datasets like the NSSO and IHDS. Particularly in areas like Bagalkot, which combine characteristics of agrarian dependence, rural–urban transition, and increased susceptibility to market swings, district-level research are still very rare. Two factors make localized micro-level research essential. First, they provide insights into the true vulnerabilities faced by households by capturing the variety of household behavior that larger datasets often average out. Second, these studies give state governments and local organizations evidence that is useful to policy when they are creating focused interventions like income-based support, necessities subsidies, or regional price stability mechanisms. In order to fill this vacuum, this research examines price elasticity and income-consumption dynamics at the district level in Bagalkot. The work adds to scholarly literature and useful policymaking by establishing theoretical models in a regional empirical setting.

## **III. Methodology**

This study uses a quantitative survey-based methodology to investigate household consumption trends and price elasticity of 263 households in the Bagalkot district. The study focuses on how customers' responses to pricing changes and spending allocations are impacted by changes in income. Data was collected from homes in the urban, semi-urban, and rural parts of Bagalkot using a standardized online questionnaire. The study's independent variables include demographic characteristics, price elasticity response, income, consumption

spending, and shopping preferences. Descriptive statistics were used to assemble the primary consumption categories, preferred purchasing methods, and spending patterns. Cross-tabulations were used to look for relationships between significant variables. The study ensures confidentiality and informed consent despite its limitations, which include recall bias, a cross-sectional snapshot, and specialization to Bagalkot.

#### IV. Results

##### Household Income Distribution

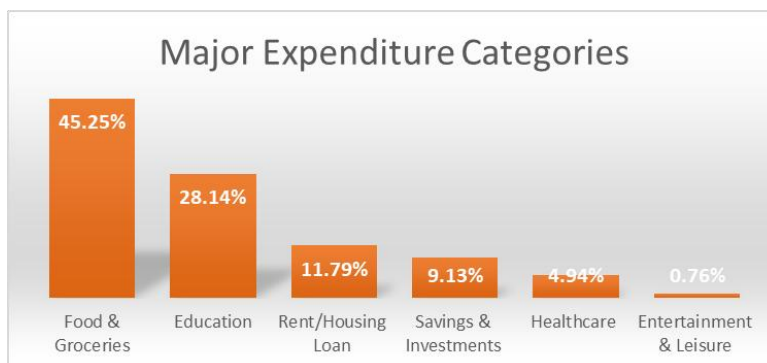
Income Group (₹)	Frequency	Percentage (%)
Below ₹10,000	101	38.40%
₹10,000 – ₹30,000	107	40.68%
₹30,000 – ₹50,000	27	10.27%
₹50,000 – ₹1,00,000	20	7.60%
Above ₹1,00,000	8	3.05%
<b>Total</b>	<b>263</b>	<b>100%</b>



The income distribution of surveyed families in Bagalkot shows a predominance of low- and lower-middle-income groups. Table 1 shows that 79% of households earn less than ₹30,000 per month, with only 3% earning more than ₹1,00,000. This skewed distribution suggests a mostly price-sensitive consumer base, with a small upper-income sector that can withstand price variations without significant modifications.

##### Major Expenditure Categories

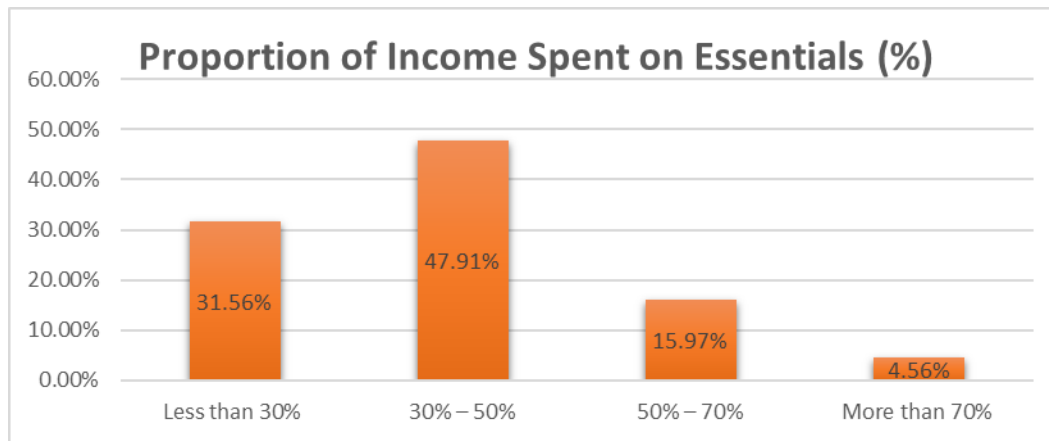
Expense Category	Frequency	Percentage (%)
Food & Groceries	119	45.25%
Education	74	28.14%
Rent/Housing Loan	31	11.79%
Savings & Investments	24	9.13%
Healthcare	13	4.94%
Entertainment & Leisure	2	0.76%
<b>Total</b>	<b>263</b>	<b>100%</b>



The analysis of expenditure patterns reveals that essential goods and services dominate household budgets. Food and groceries constitute the largest share, accounting for over 45% of households' primary expense category (Table 2). Education ranks second (28%), reflecting both the demographic structure of the sample and the prioritization of educational investment by households. Other categories such as rent and healthcare also appear significant, while entertainment remains a minor expenditure area, underscoring the focus on necessities.

## Proportion of Income Spent on Essentials

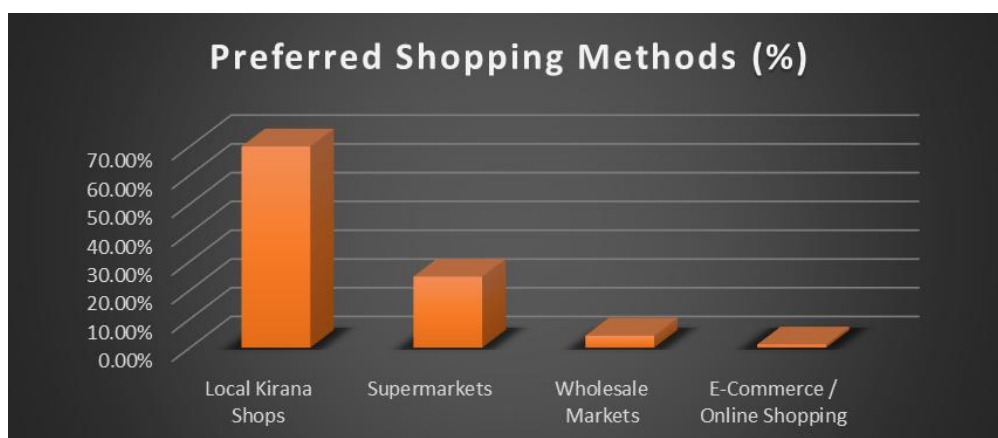
Spending Percentage on Essentials	Frequency	Percentage (%)
Less than 30%	83	31.56%
30% – 50%	126	47.91%
50% – 70%	42	15.97%
More than 70%	12	4.56%
<b>Total</b>	<b>263</b>	<b>100%</b>



A more detailed analysis of expenditure patterns reveals different levels of reliance on necessities. 16% of households spend between 50 and 70 percent of their income on necessities, compared to about 48 percent that spend between 30 and 50 percent. A vulnerable group with very little discretionary income is indicated by the lesser percentage (4.5%) that spends more than 70%. On the other hand, roughly 31.5% of people spend less than 30% of their income on necessities, indicating that they have more financial flexibility or have access to subsidized goods. As income rises, both the mean and median essential expenditure shares decrease gradually, stabilizing at about 25% for households making more than ₹30,000 (Table 3).

## Preferred Shopping Methods

Shopping Mode	Frequency	Percentage (%)
Local Kirana Shops	184	69.96%
Supermarkets	65	24.71%
Wholesale Markets	11	4.18%
E-Commerce / Online Shopping	3	1.14%
<b>Total</b>	<b>263</b>	<b>100%</b>



Preferences for shopping reveal a dependence on conventional retail systems. Local kirana shops continue to dominate semi-urban Bagalkot, as evidenced by the 70% of households that favor them (Table 4). Supermarkets get about 25% of customers, especially those with higher incomes, whereas e-commerce is still very small (1.1%), indicating obstacles such as poor digital penetration, problems with trust, and logistical limitations.

## Income and Expenditure Linkages

## Income vs. Major Expense

Income Group (₹)	Food & Groceries	Education	Rent/ Housing Loan	Healthcare	Entertainment	Savings & Investments	Total
Below ₹10,000	66	22	5	4	0	4	101
₹10,000 – ₹30,000	42	35	15	5	0	10	107
₹30,000 – ₹50,000	6	10	5	2	1	3	27
₹50,000 – ₹1,00,000	3	5	4	1	1	6	20
Above ₹1,00,000	2	2	2	1	0	1	8
<b>Total</b>	<b>119</b>	<b>74</b>	<b>31</b>	<b>13</b>	<b>2</b>	<b>24</b>	<b>263</b>

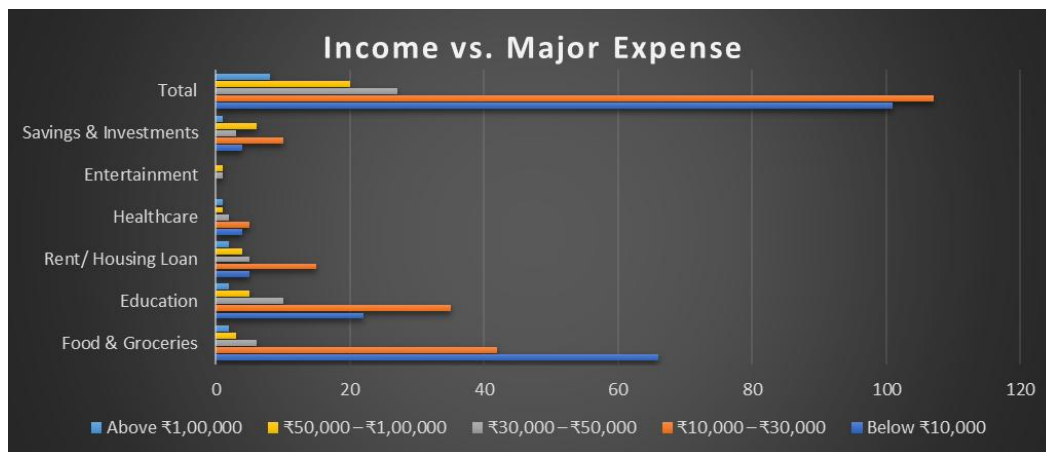
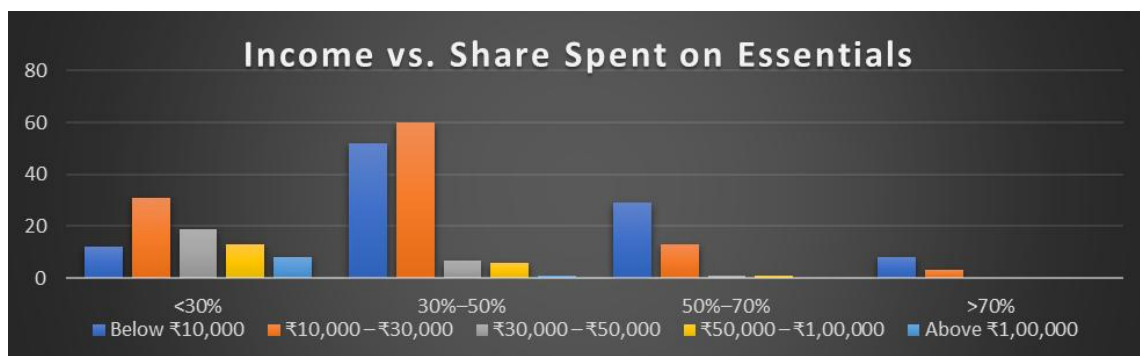


Table 5's cross-tabulation shows distinct variations by income category. Food and groceries are the top priorities for low-income households (those making less than ₹10,000), with education coming in second. While higher-income households devote larger percentages to savings, investments, and home loans, middle-income households (₹10,000–30,000) diversify their spending to include rent and healthcare. Engel's Law, according to which the percentage of income spent on food decreases as income increases, is supported by this pattern.

## Income vs. Share Spent on Essentials

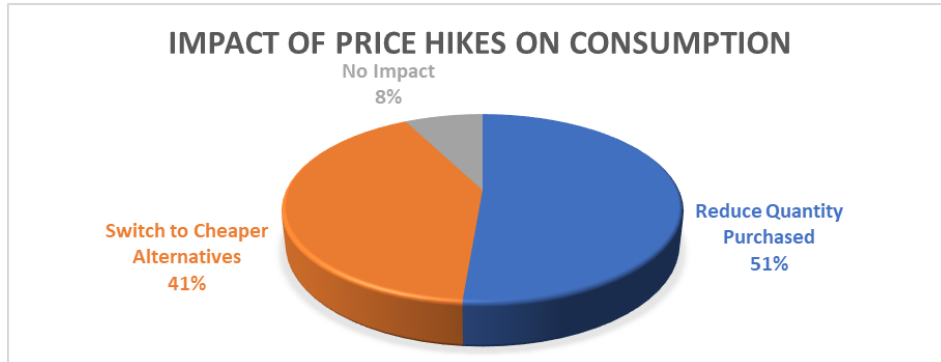
Income Group (₹)	<30%	30%–50%	50%–70%	>70%	Total
Below ₹10,000	12	52	29	8	101
₹10,000 – ₹30,000	31	60	13	3	107
₹30,000 – ₹50,000	19	7	1	0	27
₹50,000 – ₹1,00,000	13	6	1	0	20
Above ₹1,00,000	8	1	0	0	8
<b>Total</b>	<b>83</b>	<b>126</b>	<b>44</b>	<b>11</b>	<b>263</b>



Analyzing the percentage of revenue spent on necessities reveals a similar pattern (Table 6). More than 36% of households in the lowest income band spend more than half of their income on necessities. On the other hand, more than 90% of households with incomes over ₹50,000 are able to keep basic expenses below 50% of their income. This result emphasizes how lower-income families bear a disproportionate amount of the burden while wealthier households have more purchasing power.

## Responses to Price Hikes

Response Option	Frequency	Percentage (%)
Reduce Quantity Purchased	135	51.33%
Switch to Cheaper Alternatives	108	41.06%
No Impact	20	7.61%
<b>Total</b>	<b>263</b>	<b>100%</b>



The survey also looked at how households would respond if the cost of necessities increased. Table 7 shows that cutting back on purchases is the most popular solution (51%), followed by switching to less expensive options (41%). Just 8% of households, who are mostly in higher income levels, say they have no impact. Price sensitivity declines with income, according to elasticity estimates, with low-income populations exhibiting the greatest vulnerability.

## Use of Discounts and Promotional Offers

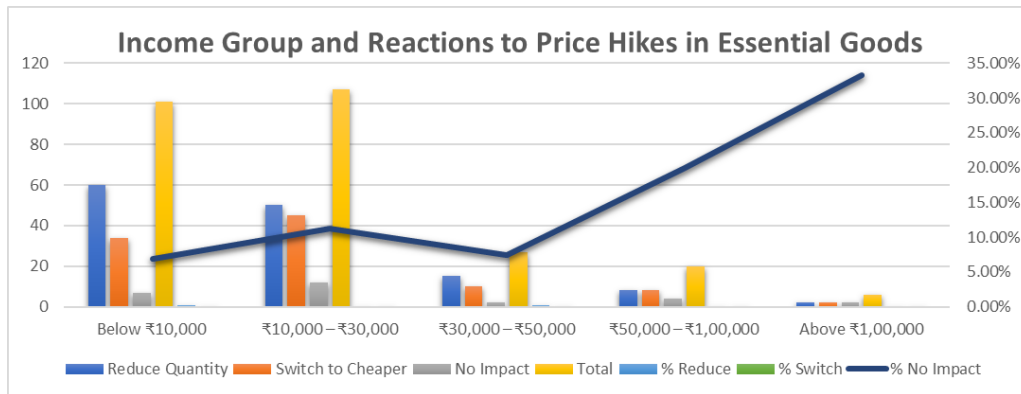
Response Option	Frequency	Percentage (%)
Always	30	11.41%
Often	20	7.60%
Sometimes	206	78.33%
Never	7	2.66%
<b>Total</b>	<b>263</b>	<b>100%</b>



Most households (78.3%) say they occasionally purchase things that are on sale or discounted (Table 8). Just 2.7% of people never use discounts, while a smaller percentage (11.4%) regularly looks for products with promotions. Different tendencies are shown by occupation-based cross-tabulations: business owners utilize promotional offers the most frequently, which is probably a reflection of their desire for value efficiency, whereas paid employees and students use them less frequently.

## Income Group and Reactions to Price Hikes in Essential Goods

Income Group	Reduce Quantity	Switch to Cheaper	No Impact	Total	% Reduce	% Switch	% No Impact
Below ₹10,000	60	34	7	101	59.40%	33.70%	6.90%
₹10,000 – ₹30,000	50	45	12	107	46.70%	42.10%	11.20%
₹30,000 – ₹50,000	15	10	2	27	55.60%	37.00%	7.40%
₹50,000 – ₹1,00,000	8	8	4	20	40.00%	40.00%	20.00%
Above ₹1,00,000	2	2	2	6	33.30%	33.30%	33.30%



The analysis of household income groups' responses to price hikes in essential commodities reveals distinct behavioral patterns that indicate both economic vulnerabilities and resilience.

For **low-income households (earning below ₹10,000 per month)**, the data shows a pronounced sensitivity to price fluctuations. A majority, constituting **59.4% of this group**, reported reducing the quantity of essential goods purchased in response to price increases. An additional **33.7% adopted substitution strategies**, shifting towards cheaper alternatives to manage their consumption needs. Only **6.9% of households** in this income bracket indicated that price hikes had no effect on their consumption. The study reveals that even modest increases in essential goods prices can lead to households cutting back or downgrading their consumption, affecting their nutritional security and welfare.

Among **lower-middle income households (₹10,000–₹30,000 per month)**, responses indicate a slightly improved but still constrained financial capacity. Here, **46.7% reduced consumption quantities**, while **42.1% reported substituting products with cheaper alternatives**. A comparatively higher proportion, **11.2%**, stated that price hikes did not significantly affect their household consumption. The group with higher incomes exhibits adaptive behavior, utilizing substitution as a coping mechanism to maintain consumption levels by altering quality rather than quantity.

For the **middle-income segment (₹30,000–₹50,000)**, the pattern resembles that of the lower-income groups, though with subtle differences. In this category, **55.6% reduced quantities**, while **37.0% resorted to cheaper substitutes**, and **7.4% reported no impact**. Households reducing consumption are high, but reliance on substitution persists across income brackets, indicating cautiousness and sensitivity to price volatility even in modestly better-off households.

The **upper-middle income households (₹50,000–₹1,00,000)** exhibit a more balanced distribution of responses. Here, **40.0% reported reducing quantities**, **40.0% substituted with cheaper alternatives**, and a notable **20.0% indicated no impact**. As disposable income increases, households' capacity to absorb price shocks improves, but many still actively manage their budgets despite the equal division between reduction and substitution responses.

Finally, in the **highest-income category (above ₹1,00,000)**, the distribution of responses is evenly spread: **33.3% reduced quantities**, **33.3% substituted products**, and **33.3% reported no effect**. Wealthier households show financial resilience and low price elasticity, demonstrating greater heterogeneity in their responses to price hikes, indicating their ability to absorb or adjust consumption with minimal welfare implications.

The study shows that price sensitivity decreases with household income, with low-income households being more affected and middle-income households relying more on substitution strategies. Higher-income households show resilience, suggesting targeted subsidies, food security measures, and price stabilization policies should be focused on these groups.

## V. Finding, Suggestions And Conclusion

This study provides micro-level empirical evidence on household consumption behavior in Bagalkot, emphasizing the role of income, expenditure priorities, and responses to price fluctuations. By aligning the survey findings with established economic theories, the analysis offers both academic insights and practical recommendations.

### Income Levels and Spending Priorities

According to the data, 79% of households are in the low-to-lower-middle income range (less than ₹30,000), and only 3% are in the high-income range (more than ₹1,00,000). This unequal distribution highlights a customer base that is mostly price-sensitive.

Engel's Law governs spending preferences; low-income groups spend primarily on food and groceries (65%), whereas higher-income groups devote more funds to housing, savings, and education. This change represents the shift from necessity-driven to diverse spending patterns as well as increased financial flexibility.

#### Price Elasticity and Consumer Adjustments

The study attests to the strong price elasticity of low-income households. When prices increase, almost half of respondents cut back on their consumption, and 41% go to less expensive alternatives. Only those with greater incomes exhibit relative inelasticity, with one-third remaining unaffected by price increases.

This supports microeconomic consumption models of substitution and limited demand by showing that inflation disproportionately affects lower-income families. The results emphasize the significance of targeted subsidies and price stabilization methods, particularly in key categories like rent, food, and healthcare.

#### Essential Spending Shares and Budgeting

Spending trends reveal that although higher-income households stable at about 25–30% of their income, lower-income households spend over half of their income on necessities. The Keynesian consumption function, which holds that increasing disposable incomes lessen the burden of requirements, is seen in both mean and median values, which support this decrease in proportionate essential spending with rising income. Adaptive financial techniques are further revealed by budgeting procedures. While households with larger earnings exhibit greater flexibility, those with tighter budgets organize their expenses more methodically. These trends highlight how important financial literacy initiatives are in assisting low-income people in maintaining budget balance in the face of inflation.

#### Market Preferences and Retail Behavior

Household purchasing choices are dominated by traditional kirana stores (~70%), suggesting a substantial dependence on localized retail. Supermarkets (25%) are slowly gaining ground, but e-commerce penetration is still very low (1.1%), which is indicative of Bagalkot's semi-urban infrastructural deficiencies and digital divide.

Value-seeking is widespread but selective, as seen by responses to sales and promotions. While company owners engage more frequently, the majority of families only sometimes buy cheap goods. This is consistent with behavioral economics' findings that households modify their purchase timing and product selections without radically changing their consumption structure by weighing perceived value against financial restrictions.

#### Policy and Business Implications

The results imply that market conditions and income levels have a significant impact on Bagalkot consumers' well-being.

#### **Policy Recommendations:**

- To protect low-income households from rising food and healthcare costs, implement tailored subsidies.
- To lessen volatility, put in place price stabilization systems for necessities.
- Increase budgeting awareness and financial literacy initiatives to strengthen vulnerable populations' resilience.

#### **Business Recommendations:**

- To accommodate home sensitivities, retailers should implement customized promotions and competitive pricing.
- Lower pack sizes and cheaper product bundling can satisfy consumer demand in low-income markets.
- For e-commerce to be integrated gradually, trust-building strategies and digital access must be strengthened.