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# A Study on Consumer Buying behaviour on Air Conditioner

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**ABSTRACT:**

This study examines consumer buying behavior for air conditioners, focusing on the factors influencing their purchase decisions. The primary objective is to understand consumer preferences, while secondary objectives explore awareness of energy-efficient models and the impact of brand reputation. Data collected through a questionnaire provides insights into key influences such as brand reputation, energy efficiency, price, and product features, offering valuable information for manufacturers and marketers to align their offerings with consumer expectations. Statistical analyses, including chi-square, correlation, sample t-test, and ANOVA, reveal significant relationships between factors like income, brand loyalty, and satisfaction with energy-efficient models. The findings serve as a guide for businesses aiming to better meet consumer needs and preferences, particularly in promoting energy-efficient technologies.

Keywords: Consumer Buying Behavior, Air Conditioners, Purchase Decisions , Consumer Preferences, Energy-efficient Models, Brand Reputation, Price Sensitivity

## Introduction:

In the market for air conditioners, sociodemographic factors also influence consumer behavior. For example, whereas older consumers may value simplicity and ease of use, younger consumers may favor products that incorporate smart technology and mobile connectivity. Income levels also have an impact on buying decisions; consumers with higher incomes are frequently more prepared to spend money on luxury models with cutting-edge features, while those who are budget conscious might prioritize reasonably priced but dependable products.

The purpose of this study is to investigate the several aspects that impact customer purchasing decisions about air conditioners, with a focus on how brand reputation and knowledge of energy-efficient models impact choices. The study employs a quantitative methodology, gathering information via surveys to examine the priorities and preferences of various customer segments. The knowledge gained from this study can help marketers and producers create goods that better suit the wants and needs of consumers, increasing client loyalty and happiness.

Gaining a comprehensive understanding of customer purchasing behavior is crucial for preserving a competitive edge in an industry marked by constant innovation and fluctuating consumer priorities. By offering practical insights that might assist companies in adjusting to changing trends and producing energy-efficient and customer-expected products, this study seeks to advance our understanding of consumer preferences in the air conditioner market.

Consumer buying behaviour refers to the decision-making process and actions of individuals when they purchase, use, and dispose of products or services. This behavior is influenced by a variety of psychological, social, and economic factors, and it plays a critical role in shaping the strategies of businesses as they seek to understand what drives consumers' preferences and choices. Understanding consumer buying behavior is essential for companies to develop products that align with market demand, create targeted marketing strategies, and foster customer loyalty.

Assessing how well consumers understand the advantages of energy-efficient models requires an understanding of their awareness and adoption levels. It entails evaluating their understanding of long-term financial advantages, government certifications, and energy-saving features. Since customers are more inclined to give energy efficiency top priority when making selections about what to buy, higher knowledge usually results in higher adoption. A number of factors are important, including education, information accessibility, and incentives or rebates. The success of advertising campaigns and legislative initiatives meant to encourage energy-efficient decisions can also be determined by adoption rates. In the end, knowing this aids in developing tactics to increase the market share of energy-efficient goods.

## FACTOR INFLUENCING CONSUMER BUYING BEHAVIOUR :

**Psychological Factors:**

Consumers have a wide range of requirements, from basic ones like comfort and safety to more complicated ones like self-expression and prestige. The products that buyers prioritize are determined in large part by their motivation.

Customers' purchasing decisions can be greatly influenced by their perceptions of a brand or product. Perception includes how customers understand advertisements, product details, and customer feedback. For instance, a brand of air conditioner that is seen favorably may be more likely to be selected. Purchase behavior in the future is influenced by past experiences. For example, customers are more inclined to repurchase a brand if they had a good experience with it.

Preferences can be influenced by preexisting attitudes and opinions about particular brands, goods, or categories. Customers who think energy-efficient air conditioners are better for the environment, for instance, could be more inclined to purchase such products.

**Social Factors:**

Family members often influence decisions, especially for high-involvement purchases like air conditioners. The preferences and recommendations of family members can significantly impact the final choice.

- **Reference Groups:** Friends, colleagues, and social circles act as reference groups that can influence consumer behavior through shared opinions and experiences. For instance, if peers recommend a particular brand of air conditioner, a consumer may be more inclined to purchase it.
- **Social Status:** The desire to maintain or enhance social status can drive the purchase of premium products or brands. Consumers may choose a higher-end air conditioner model to reflect a certain standard of living.

## Methodology:

The research methodology outlines a systematic plan for achieving reliable and valid results. A descriptive research design is used in this study, employing surveys to gather data, with a google form used for direct data collection. A non-probability convenience sampling sampling method is applied, selecting participants based on ease of access. The sample design focuses on convenience sampling to choose respondents, with a sample size of 115 individuals. Data is gathered through a structured questionnaire, covering demographics, awareness of energy efficiency, and factors like brand loyalty. Secondary data is obtained from relevant literature, industry reports, and market analyses to provide additional insights.

***Objective:***

- A study on Consumer Buying Behaviour on Air Conditioner
- Understanding the level of awareness and adoption of energy-efficient models
- Assessing the influence of brand reputation and loyalty on purchasing decisions.

## Data Analysis and Interpretation

1. PERCENTAGE ANALYSIS FOR AGE

| Age | Frequency | Percentage |
|---|---|---|
| Below 18 | 6 | 5.2 |
| 18 - 25 | 94 | 81.7 |
| 26 - 33 | 10 | 8.7 |
| 34 - 40 | 2 | 1.7 |
| Above 40 | 3 | 2.6 |
| Total | 115 | 100 |

INFERENCE

Majority (94%)of the respondent are in the age category of 19-25 years

2. PERCENTAGE ANALYSIS FOR GENDER

| Gender | frequency | percentage |
|---|---|---|
| Male | 68 | 59.1% |
| Female | 47 | 40.9% |
| Gender | frequency | percentage |

INFERENCE

Majority (59.1%) of the respondent are in the Gender category of Male

3. PERCENTAGE ANALYSIS FOR EDUCATIONAL QUALIFICATION

| Educational Qualification | Frequency | Percentage |
|---|---|---|
| High school | 7 | 6.1% |
| Under graduate | 56 | 48.7% |
| Post graduate | 52 | 45.2% |
| Diploma | NA | NA |
| total | 115 | 100 |

INFERENCE

Majority (48.7%) of the respondent are in the educational category of under graduate.

4.PERCENTAGE ANALYSIS OF DO YOU OWN AN AIR CONDITIONER OF CONSUMER

| Do you own an air conditioner | Frequency | PERCENTAGE |
|---|---|---|
| Yes | 80 | 69.6% |
| No | 35 | 30.4% |
| Total | 115 | 100 |

INFERENCE

Majority (69.6%) of respondent are in the category of NO.

5. PERCENTAGE ANALYSIS OF HOW IMPORTANT IS ENERGY EFFICIENCY WHEN PURCHASING AN AIR CONDITIONER OF CONSUMER.

| IMPORTANT | FREQUENCY | PERCENTAGE |
|---|---|---|
| 5 | 49 | 42.6% |
| 4 | 27 | 23.5% |
| 3 | 27 | 23.5% |
| 2 | 3 | 2.6% |
| 1 | 9 | 7.8% |
| Total | 115 | 100 |

INFERENCE

Majority ( 42.6%) of respondent are in the category of energy efficiency when purchasing an air conditioner of consumer of 5..

6. PERCENTAGE ANALYSIS OF HOW SATISFIED ARE YOU WITH THE PERFORMANCE OF ENERGY EFFICIENCY MODELS YOU HAVE USED

| How satisfied are you with the performance of energy efficiency model you have saved | Frequency | Percentage |
|---|---|---|
| Very dissatisfied | 4 | 3.8% |
| Dissatisfied | 4 | 3.5% |
| Neutral | 49 | 42.6% |
| Satisfied | 47 | 40.9% |
| Very dissatisfied | 11 | 9.6% |
| total | 115 | 100 |

INFERENCE

Majority (42.6%) of respondent are in the category of how satisfied are you with the performance of energy efficient model you have used of neutral.

7. CHI SQUARE TEST

**H0-**There is no significant relationship between monthly income and purchase decision based on energy efficiency.

**H1-**There is a significant relationship between monthly income and purchase decision based on energy efficiency

| Chi-Square Tests | | | |
|---|---|---|---|
| | Value | df | Asymp. Sig. (2-sided) |
| Pearson Chi-Square | 376.775[a] | 64 | .000 |
| Likelihood Ratio | 65.106 | 64 | .438 |
| N of Valid Cases | 119 | | |
| a. 75 cells (92.6%) have expected count less than 5. The minimum expected count is .01. | | | |

INFERENCE:

**Hypothesis 1**:Relationship between Monthly Income and Purchase Decision based on Energy Efficiency

The chi-square test found a significant link between income and buying energy-efficient air conditioners, with higher-income individuals more likely to buy them. Marketers should focus on higher-income groups by emphasizing long-term savings and environmental benefits, and consider financing options or subsidies to encourage adoption by lower-income groups.

CORRELATION TEST

To Find out the relationship between brand loyalty and satisfaction with energy-efficient air conditioners.

**H0-**There is no significant relationship between brand loyalty and satisfaction with energy-efficient air conditioners.

**H1-**There is a significant relationship between brand loyalty and satisfaction with energy-efficient air conditioners.

| CORRELATIONS | | | |
|---|---|---|---|
| | | BRAND LOYALTY | SATISFACTION WITH ENERGY-EFFICIENT |
| BRAND LOYALTY | Pearson Correlation | 1 | .091** |
| | Sig. (2-tailed) | .000 | .000 |
| | N | 115 | 115 |
| SATISFACTION WITH ENERGY-EFFICIENT | Pearson Correlation | .091** | 1 |
| | Sig. (2-tailed) | .000 | .000 |
| | N | 115 | 115 |
| **. Correlation is significant at the 0.01 level (2-tailed). | | | |

INFERENCE**:**

Hypothesis 2: Relationship between Brand Loyalty and Satisfaction with Energy-Efficient Air Conditioners.

The correlation showed no significant link between brand loyalty and satisfaction with energy-efficient air conditioners. Companies should focus on factors like after-sales service, product durability, and overall brand experience to build loyalty. Loyalty programs and enhancing brand value could also be effective.

SAMPLE T TEST

To Find out the Gender influences the importance of energy efficiency when purchasing an air conditioner.

H0-Gender does not influence the importance of energy efficiency when purchasing an air conditioner.

H1-Gender influences the importance of energy efficiency when purchasing an air conditioner.

| The Importance Of Energy Efficiency When Purchasing An Air Conditioner. | G | N | MEAN | SD | t value | P value |
|---|---|---|---|---|---|---|
| VERY IMPORTANT | M | 30 | 7.89 | 7.013 | 3.399 | 0.000** |
| | F | 20 | 7.16 | | | |
| IMPORTANT | M | 24 | 8.58 | 6.302 | 3.416 | 0.000** |
| | F | 12 | 7.12 | | | |
| NEUTRAL | M | 5 | 8.17 | 7.768 | 2.613 | 0.000** |
| | F | 5 | 8.25 | | | |
| LESS IMPORTANT | M | 8 | 7.16 | 8.993 | 2.816 | 0.000** |
| | F | 7 | 7.49 | | | |
| NOT IMPORTANT | M | 2 | 8.20 | 7.568 | 2.993 | 0.000** |
| | F | 2 | 8.56 | | | |

INFERENCE:

Hypothesis-3:Gender and Importance of Energy Efficiency in Purchase Decisions

With $p < 0.05$, the null hypothesis was rejected, indicating a significant relationship between gender and the importance of energy efficiency. Marketers should use gender-specific messaging, such as highlighting environmental impact and cost savings for women, and focusing on technological features and innovations for men.

ANOVA

To Find out the relationship between educational qualification and the number of air conditioner brands purchased from in the past year

H0-There is no significant relationship between educational qualification and the number of air conditioner brands purchased from in the past year.

H1-There is a significant relationship between educational qualification and the number of air conditioner brands purchased from in the past year.

| Sl.No. | Variables | Sources of Variation | Sum of Squares | D.F | Mean score | 'F' | P | Significance |
|---|---|---|---|---|---|---|---|---|
| 1 | Educational Qualification | Between Groups | 12.5 | 3 | 4.17 | | | |
| | | Within Groups | 245.8 | 112 | 0.71 | | | |
| | | Total | 258.3 | 115 | | 5.82 | 0.001 | Significant |
| 2. | Different No Of Brands | Between Groups | 10.2 | 3 | 3.40 | | | |
| | | Within Groups | 248.1 | 112 | 0.72 | | | |
| | | Total | 258.3 | 115 | | 4.80 | 0.002 | Significant |

INFERENCE:

Hypothesis 4: Educational Qualification and the Number of Air Conditioner Brands Purchased

With $p < 0.05$, the null hypothesis was rejected, showing that higher education is linked to purchasing more brands. Educated consumers tend to explore more options and value detailed information. Brands should provide product comparisons, customer reviews, and sustainability certifications, and engage in educational content to attract well-educated customers**.**

## Results

The study explored factors influencing consumer decisions in purchasing energy-efficient air conditioners, focusing on relationships between income, brand loyalty, gender, and education. The chi-square test ($\chi^2$, $p < 0.05$) found a significant link between income and purchasing energy-efficient models, with higher-income consumers more likely to buy these products. Marketers should target this group with messages on long-term savings while offering financing options for lower-income consumers. The correlation analysis ($p > 0.05$) showed no significant link between brand loyalty and satisfaction, suggesting companies should prioritize after-sales service, durability, and brand experience to build loyalty.The analysis of gender ($p < 0.05$) and energy efficiency importance revealed a significant relationship, recommending gender-specific messaging, such as cost savings for women

and tech features for men. educational qualification ($p < 0.05$) was linked to purchasing more brands, suggesting brands should offer detailed comparisons and reviews to attract educated buyers.

## Conclusion

The study on consumer buying behaviour for air conditioners reveals important trends and preferences among consumers. The analysis indicates that the majority of buyers are young, with a significant proportion being students. This demographic's inclination toward energy efficiency suggests growing environmental awareness, but price sensitivity remains a critical factor. While 69.6% of respondents already own air conditioners, many prioritize energy efficiency and are influenced by factors such as brand reputation, price, and product features.

Despite the positive attitude towards energy efficiency, the high cost and scepticism about the claims of energy savings are barriers to broader adoption. Additionally, consumers' loyalty to their existing brands is moderate, indicating opportunities for competitors to attract new customers with innovative features or better pricing. Improving after-sales service, product availability, and offering incentives for energy-efficient models can significantly enhance consumer satisfaction and loyalty.

By focusing on these areas, manufacturers and marketers can better align their strategies with consumer preferences, ultimately driving growth in the air conditioner market while promoting energy-efficient technologies. This approach not only addresses the needs of the current market but also positions brands favourably in an increasingly eco-conscious and value-driven consumer landscape.

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List all the material used from various sources for making this project proposal

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