

A Comparative Study on Consumer Perception Towards Hitachi and LG Air Conditioners in Ahmedabad City

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ABSTRACT

This study explores consumer perception towards Hitachi and LG air conditioners in Ahmedabad city. With rising urbanization and climate change, air conditioners are now essential appliances. The research compares the two brands on key factors such as brand awareness, cooling performance, energy efficiency, technology, price, durability, and after-sales service. Primary data was collected from 250 respondents of various age groups using a structured questionnaire. Statistical tools like Chi-square and Pearson's correlation were used to analyze the association between age and perception. Results showed that most relationships between age and perception variables were statistically insignificant and very weak. However, a few elements, such as LG's cooling performance and advertisement recall, showed some significant but weak association with age. This suggests age may not be a major driver of brand perception in this context. The study provides practical insights for marketers and calls for further research into factors like income, lifestyle, and brand loyalty.

KEYWORDS

Consumer Perception, Air Conditioners, Hitachi, LG, Ahmedabad

I. INTRODUCTION

Air conditioning has evolved from being just a luxury into being a necessity particularly in India along with other heat-prone, rapidly urbanizing regions. Ahmedabad like cities exceed 45°C regularly during summer so these highlight more air conditioning (AC) dependence for comfort, health, and productivity. ACs once were seen as being optional. They are quite critical now, notably in urban homes and at jobs.

Efforts toward controlling indoor temperatures date back to ancient civilizations, and those civilizations included Greek fan systems and customary jaali architecture of India. Willis Carrier's 1902 invention began what is the modern AC era also transformed indoor climate control. Henry Galson along with brands such as General Electric helped air conditioners in the transition out from bulky industrial machines and to sleek, energy-efficient appliances for residential use over the 20th century.

In 2023, the global AC market had a value near USD 199 billion. The entire total should reach USD 315 billion in 2032. Factors such as a rise in urbanization, realities of climate change, along with smart appliance interest spur this growth. In India, the market is booming at present and is projected for growth of 20–25% in FY2025. Sales for AC units

are expected to exceed 12 million. Domestic manufacturing has been in fact increased, and import dependence also reduced, through the careful employment of government initiatives such as what is called the Production-Linked Incentive (PLI) scheme. Amidst rising demand, energy efficiency and eco-friendliness have become central. Consumers now prefer inverter-based and smart ACs, prompting brands to innovate within increasingly strict environmental regulations.

A. *LG vs. Hitachi: Competing for the Indian Consumer*

Brand image and customer satisfaction reign supreme in a competitive market. LG Electronics, a Korean behemoth, has its forte in dual inverter technology, AI-based features, and extensive distribution. Its design-centric, environmentally friendly models resonate with a wide base of consumers. Hitachi, a Japanese brand renowned for high-end engineering and long-lasting performance, identifies quality-driven purchasers seeking efficient cooling and lasting reliability.

While both companies focus on technology and sustainability, their appeal to customers differs on the aspects of service quality, price, and regional promotions. Both LG and Hitachi enjoy strong market presence in Ahmedabad, making it the best site for comparison. Why Ahmedabad?

Ahmedabad has the special combination of extreme temperatures, socio-economic heterogeneity, and fast-paced development—making it a thought-provoking place to research AC consumer behavior. Its technology-friendly and energy-aware citizens consider products not just for price, but for such aspects as energy consumption, brand reputation, and post-sales support.

B. *Hitachi: A Century of Innovation and Impact*

In 1910, Namihei Odaira founded Hitachi as a small electrical repair business catering to a Japanese copper mine. In 1910, Odaira constructed Japan's first locally manufactured 5-horsepower electric motor. The business formally began in 1912, taking the name "Hitachi," which translates to "rising sun."

It began by specializing in equipment for industry—motors, transformers, generators, and Japan's first large-scale DC locomotives. Government assistance during the 1930s enabled it to branch out into metallurgy and communications. Following World War II, Hitachi played a critical role in reconstructing Japan's industrial infrastructure, delivering mining equipment, trains, and power systems.

In the 1960s, Hitachi diversified into consumer electronics with the introduction of home appliances and transistor radios. It expanded into the American market in 1959 with the establishment of Hitachi America, Ltd. In computing, Hitachi built its first transistor computer in 1959 and produced its first supercomputer in 1982.

Despite a setback in 1982 involving a corporate espionage case with IBM, Hitachi expanded globally, partnering with Texas Instruments and acquiring U.S.-based National Advanced Systems. In 2002, Hitachi and IBM formed a joint hard disk drive company, Hitachi Global Storage Technologies, later fully acquired by Hitachi.

Hitachi started air conditioning innovations in 1932, introducing Japan's first domestic AC in 1952 and the globe's first window unit in 1958. It brought many industry-firsts across the decades: silicon chip controls (1977), scroll compressors (1983), and indoor-only VRF systems (2010). It introduced air Cloud Go, a smart HVAC platform, in 2023.

In 2015, Hitachi established a joint venture with Johnson Controls, the formation of Johnson Controls–Hitachi Air Conditioning, bringing together more than 200 years of know-how to provide sophisticated, energy-efficient HVAC solutions globally.

LG's history started in 1947 with Lucky Chemical Co., which was established by In-hwoi Koo. Its initial great success was "Lucky Cream," Korea's first cosmetic cream. This led the company to venture into consumer goods like toothpaste. In 1974, the company changed its name to Lucky Co., Ltd.

In 1958, Goldstar was established as the first electronics company in Korea, with the manufacture of radios, TVs, and home appliances. The two firms subsequently consolidated into the Lucky-Goldstar Group. In the 1980s, the group diversified into petrochemicals, semiconductors, building construction, and finance.

In 1995, the company rebranded under LG, introducing a new corporate identity with the now-iconic red smiling logo—the sign of the company's devotion to humanity, technology, and the future. LG became a global brand in electronics, chemicals, and energy in no time.

Now, LG Electronics makes everything from TVs and refrigerators to air conditioners and auto parts. In 2023, LG updated its brand image with a more assertive visual identity and a more compelling presentation of its "Life's Good" slogan, affirming its focus on customer-oriented innovation and worldwide connection.

Hitachi and LG are still industry leaders by incorporating sustainability, smart technology, and human-centered design into their worldwide operations.

II. RESEARCH OBJECTIVES

1. To assess the level of brand awareness and reputation of Hitachi and LG air conditioners among consumers in Ahmedabad.
2. To compare consumer perceptions regarding product features and performance (cooling efficiency, energy saving, durability) of Hitachi and LG air conditioners.
3. To evaluate consumer satisfaction with pricing, value for money, and after-sales service offered by Hitachi and LG.
4. To analyze the impact of product attributes on consumers' purchase intentions for Hitachi and LG air conditioners.
5. To determine which brand (Hitachi or LG) is more preferred by consumers in Ahmedabad and the reasons behind their choice.

III. LITERATURE REVIEW

Begum, A. (2025). A Study on Consumer-Based Brand Equity for Air Conditioners in Hyderabad. INTERANTIONAL JOURNAL OF SCIENTIFIC RESEARCH IN ENGINEERING AND MANAGEMENT

The market for air conditioners in India has expanded significantly on account of rising urbanization, disposable incomes, and global warming. Consequently, the air conditioner has turned into a necessity, rather than a luxury product. In relation to this, Hyderabad, a fast-growing metro city, is catering to an enormous market of loyal customers that operate brand equity drivers such as price, energy efficiency, and other features that extend up to loyalty. This study aims to recognize the effect of equity brands on the decision of customers among the available air conditioner brands in Hyderabad. A systematic questionnaire was prepared, and responses were gathered using an online survey from 151 respondents obtained from a diversified population. The study used Chi-square tests, ANOVA, and regression methods for testing and measuring the contribution of brand image, quality assessment, and loyalty to consumer choice. With this, it was determined that brand awareness and brand trust do influence consumer purchasing decisions most prominently and regarding this, LG emerged as a winner.

Kumar, B. (2025). Understanding Air Conditioner Consumers: A Study on Purchase Intention in Hyderabad City. INTERANTIONAL JOURNAL OF SCIENTIFIC RESEARCH IN ENGINEERING AND MANAGEMENT.

This research analyzes the influence of Price, Quality, Brand Image, and Advertisement Effectiveness on Purchase Intention for Hyderabad's air conditioner market. Employing a quantitative method, data were gathered from 318 respondents and analyzed with SPSS and Smart PLS 4. The findings reveal that Advertisement Effectiveness is the strongest in determining purchase intention, followed by Quality and Price, whereas Brand Image contributes the least. The R^2 coefficient (0.243) indicates a moderate explanatory power of the variables. The results highlight strategic advertising, product quality, and competitive pricing as critical influences of consumer choice.

Kaur, N., Bedi, S., & Singh, J. (2023). Factors influencing purchase intention towards energy efficient air conditioners: a study of Indian households. International Journal of Energy Sector Management

The aim of this research is to investigate the purchase intention antecedents toward energy efficient air conditioners by integrating the theory of planned behavior (TPB) with two other constructs, i.e. environmental concern and personal norms. TPB is one of the most applied theoretical frameworks to investigate consumer behavior. The research employed a quantitative method with a survey approach by administering self-filled questionnaires to the Indian consumers who have bought energy efficient air conditioners within the last six months or had inquired to do so. The research gathered information from three chosen locations: Delhi and NCR, Punjab and Tri-city. Data of 424 respondents collected are analyzed through confirmatory factor analysis and structural equation modeling. The research assumes normative elements like subjective norms and personal norms to have a comparatively more significant impact on the intention of purchase. Even though there is considerable presence of environmental concern, there is no direct effect

of environmental concern on purchase intention, as per the research. The sample size of the research is very limited and relates to targeted areas. Therefore, it may obstruct generalizability. There exist a few researches in the Indian context examining consumer's purchase intention towards energy efficient air conditioners to which this study contributes. The paper offers significant input to marketers in framing strategies for enhancing purchase intention towards energy efficient air conditioners in consideration of their position in the product life cycle, product diffusion and normative influence.

Adriansyah, A., Leni, D., & Sumiati, R. (2023). Comparative analysis of energy-efficient air conditioner based on brand. Jurnal Polimesin.

The presence of many air conditioners in the market with different brands and types tends to make customers unaware that the air conditioner bought might be inefficient regarding energy consumption. This study will identify the most efficient air conditioner considering the available air conditioner brands in the market. The research process includes four phases: data collection, preprocessing of data, data analysis, and interpretation of findings and conclusions. The data for this research was collected from the Directorate General of New, Renewable, and Energy Conservation (EBETKE) database, which comprises 11 AC brands available in the marketplace. Data analysis was carried out through data distribution analysis methods, standard deviation, and correlation analysis of variables, e.g., the Pearson's correlation coefficient. The findings of this research indicate that the AC brand with the highest average value of efficiency is Mitsubishi Electric, with a value of 16.36 Energy Efficiency Ratio (EER), and the lowest average value of efficiency is GREE, with a value of 5.640 (EER). Every AC brand possesses a different value of average efficiency, with enormous differences. From the correlation heatmap output, the power of the AC does not seem to significantly impact the AC efficiency value such that, for instance, AC with lower power has higher values of efficiency, yet there are also AC with high power and high efficiency values. Moreover, the cooling capacity value also seems to have a slight influence on the AC efficiency value, such that AC with lower cooling capacity has higher efficiency values.

Vu, V., Nguyen, T., Nguyen, T., & Le, T. (2024). Examination of Online Purchase Intention towards Air-conditioner. Asian Journal of Economics, Business and Accounting.

E-commerce enables companies to extend their business scope and offers consumers a hassle-free way to buy at any moment, from anywhere. Vietnam's online business sector has grown strongly in the past few years, but the air conditioner market remains behind. Understanding what affects consumer purchase intention of air conditioners online is crucial for air-conditioner (AC) industry companies. Methodology: Regression analysis was done from data gathered from 412 end-users in Vietnam to determine the main factors that affect the online purchase intention of AC consumers using SPSS version 22. Results: Ranked according to importance, results show that perceived utility (PU), E-shopping quality (ESP), and sales policy (SP) have positive impacts on online purchase intention. The last two variables Price sensitivity (PS) and Perceived risk (PR) exert a significant negative influence on AC consumers' online purchasing intent. Conclusion: These findings give useful advice to retailers and AC brands as they develop a plan to boost AC's online sales in Vietnam plan to grow Internet sales for AC in Vietnam.

IV. RESEARCH GAP

Numerous researcher has examined the way consumers select air conditioners, with emphasis placed on aspects such as price, energy rating, brand reputation, and internet-based shopping. Little research, however, compares customers' attitudes toward Hitachi and LG air conditioners in Ahmedabad city. Existing research tends to examine wider locations or alternate brands. Also, existing research does not deeply analyze local drivers such as customer service, product performance, or brand trust in each city like Ahmedabad, where there is its own climate and market pattern. This research attempts to answer that gap by comparing what customers in Ahmedabad have to say about Hitachi and LG air conditioners.

HYPOTHESIS (Only list)

H1 There is a significant association between age and awareness of both Hitachi and LG as air conditioner brands.

H2 There is a significant association between age and the perception that LG has a better brand reputation in Ahmedabad than Hitachi.

H3 There is a significant association between age and the perception that Hitachi is known for advanced technology and cooling efficiency.

H4 There is a significant association between age and the likelihood of having recently seen advertisements or promotions for both Hitachi and LG.

H5 There is a significant association between age and the perception that LG offers better cooling performance than Hitachi.

H6 There is a significant association between age and the perception that Hitachi provides more energy-efficient air conditioners than LG.

H7 There is a significant association between age and the perception that LG air conditioners have superior durability and build quality.

H8 There is a significant association between age and the perception that Hitachi air conditioners are equipped with the latest technology and smart features.

H9 There is a significant association between age and the perception that LG air conditioners are reasonably priced for the features offered.

H10 There is a significant association between age and the perception that Hitachi provides better value for money than LG.

H11 There is a significant association between age and the perception that LG offers better after-sales service and support in Ahmedabad.

H12 There is a significant association between age and the perception that Hitachi's customer service is responsive and satisfactory.

Table 1: Validation of Questionnaire

Statements	Citations
Brand Awareness & Reputation 1.I am aware of both Hitachi and LG as air conditioner brands. 2.LG has a better brand reputation in Ahmedabad than Hitachi. 3.Hitachi is known for its advanced technology and cooling efficiency. 4.I have seen advertisements or promotions of both brands recently.	(Vidani & Solanki, 2015)
Product Features & Performance 1.LG offers better cooling performance than Hitachi. 2.Hitachi provides more energy-efficient air conditioners compared to LG. 3.The durability and build quality of LG air conditioners are superior. 4.Hitachi air conditioners are equipped with the latest technology and smart features.	(Solanki & Vidani, 2016)
Price, Value & After-Sales Service 1.LG air conditioners are reasonably priced for the features offered. 2.Hitachi provides better value for money than LG. 3.LG offers better after-sales service and support in Ahmedabad. 4.Hitachi's customer service is responsive and satisfactory.	(Bhatt, Patel, & Vidani, 2017)

*Source: Author's compilation

V. RESEARCH METHODOLOGY

Table 2: Research Methodology

Research Design	Descriptive
Sample Method	Non-Probability - Convenient Sampling method
Data Collection Method	Primary method
Data Collection Method	Structured Questionnaire
Type of Questions	Close ended
Data Collection mode	Online through Google Form
Data Analysis methods	Tables

Data Analysis Tools	SPSS and Excel
Sampling Size	250
Survey Area	Ahmedabad
Sampling Unit	Students, Private and government Job employees, Businessmen, Home maker, Professionals like CA, Doctor etc.

**Source: Author's compilation*

A. Demographic Summary

The questionnaire had 250 respondents, all from Ahmedabad. The biggest proportion (61.2%) was in the age group 18–25 years, followed by 23.6% in the age group 26–35 years, indicating that the sample was predominantly youngsters. Females constituted a greater proportion of the sample with 59.6%, followed by males at 40.4%. Occupationally, students were the largest proportion (39.6%), followed by working professionals (26.4%), businesspersons (13.2%), homemakers (11.2%), and others (9.6%). In terms of household monthly income, 40% of respondents made ₹30,000–₹60,000, and 29.6% made below ₹30,000. Another 22.4% made ₹60,001–₹1,00,000, and 8% made above ₹1,00,000. An impressive 88% of respondents already possessed an air conditioner. They were asked if they would buy a new air conditioner within the next 12 months. 24.4% answered yes, 32% answered no, and 43.6% didn't know.

Table 3: Cronbach Alpha

Cronbach Alpha Value	No. of items
.846	12

**Source: SPSS Software*

The reliability of the survey was tested using Cronbach's Alpha, which came out to be 0.846 for 12 items. This indicates that the questionnaire has strong internal consistency, meaning that the questions are closely related and measure the same concept effectively. Such a high value shows that the responses are stable and dependable, making the data reliable for further statistical analysis and interpretation.

Table 4: Results of Hypothesis Testing

Sr. No	Alternate Hypothesis	Result p =	>/< 0.05	Accept/ Reject Null hypothesis	R value	Relationship
H1	There is a significant association between age and awareness of both Hitachi and LG as air conditioner brands.	0.161	>	H01 Rejected (Null hypothesis Accepted)	0.004	Very Weak
H2	There is a significant association between age and the perception that LG has a better brand reputation in Ahmedabad than Hitachi.	0.051	>	H02 Accepted (Null Hypothesis Accepted)	0.144	Very Weak

H3	There is a significant association between age and the perception that Hitachi is known for advanced technology and cooling efficiency.	0.256	>	H03 Accepted (Null Hypothesis Accepted)	0.046	Very Weak
H4	There is a significant association between age and the likelihood of having recently seen advertisements or promotions for both Hitachi and LG.	0.032	<	H04 Accepted (Null Hypothesis Rejected)	0.050	Very Weak
H5	There is a significant association between age and the perception that LG offers better cooling performance than Hitachi.	0.006	<	H05 Accepted (Null Hypothesis Rejected)	0.005	Very Weak
H6	There is a significant association between age and the perception that Hitachi provides more energy-efficient air conditioners than LG.	0.087	>	H06 Accepted (Null Hypothesis Accepted)	0.019	Very Weak
H7	There is a significant association between age and the perception that LG air conditioners have superior durability and build quality.	0.091	>	H07 Accepted (Null Hypothesis Accepted)	0.021	Very Weak
H8	There is a significant association between age and the perception that Hitachi air conditioners are equipped with the latest technology and smart features.	0.271	>	H08 Accepted (Null Hypothesis Accepted)	0.030	Very Weak
H9	There is a significant association between age and the perception that LG air conditioners are reasonably priced for the features offered.	0.104	>	H09 Accepted (Null Hypothesis Accepted)	0.119	Very Weak
H10	There is a significant association between age and the perception that Hitachi provides better value for money than LG.	0.608	>	H10 Accepted (Null Hypothesis Accepted)	0.050	Very Weak
H11	There is a significant association between age and the perception that	0.095	>	H11 Accepted (Null	0.271	Weak

	LG offers better after-sales service and support in Ahmedabad.			Hypothesis Accepted)		
H12	There is a significant association between age and the perception that Hitachi's customer service is responsive and satisfactory.	0.538	>	H12 Accepted (Null Hypothesis Accepted)	0.076	Very Weak

**Source: Author's compilation*

VI. DISCUSSION

The main goal of this research was to examine and compare consumer attitude towards Hitachi and LG air conditioners in Ahmedabad, with age being an important demographic factor. From hypothesis test outcomes, it is observed that most of the relationship between age and different consumer attitudes on the two brands are statistically insignificant except for a few.

Among the twelve alternative hypotheses (H1 to H12), two were found to be statistically significant ($p < 0.05$), which are H4 and H5. H4 tested whether there is any association between age and the probability of having recently viewed advertisements or promotions for both brands. The null hypothesis is rejected ($p = 0.032$), which suggests a significant, but extremely weak ($r = 0.050$), relationship. This indicates that younger or older people might be different in terms of their exposure or responsiveness to brand advertising. Likewise, H5, investigating the correlation between age and the belief that LG provides superior cooling capacity compared to Hitachi, also revealed a significant result ($p = 0.006$), but with an extremely weak correlation ($r = 0.005$). While significant statistically, the strength of these relationships is extremely low, and this suggests very little practical effect.

For the other hypotheses (H1–H3, H6–H12), the null hypotheses were supported, implying no statistically significant correlation existed between age and perceptions of brand reputation, technological features, energy efficiency, price, after-sales service, or customer support for Hitachi or LG. The R values for correlation coefficients for all hypotheses were, in general, quite weak except for H11, which registered a weak correlation ($r = 0.271$) of age with the impression that LG provides improved after-sales service. This may indicate some more positive perception of LG's service quality by a specific age group but not sufficiently strongly to make a conclusion.

The general pattern of extremely weak correlations for all hypotheses indicates that age might not be a determinant of consumer opinion in the case of air conditioner brands in Ahmedabad. Even though Hitachi and LG offer a diversity of claims and product variances during marketing, customers of all ages seem to have generally similar opinions about brand performance, value, and features.

Notably, while LG was more commonly linked with good qualities such as improved cooling

capability and post-purchase service (H5 and H11), the absence of significant statistical backing implies these impressions are most likely age-independent, not age-dependent. The minimal R values also imply other demographic or psychographic variables, such as economic class, profession, or brand allegiance, could be more determined in influencing consumer views.

Overall, though LG has a slight advantage in promotional exposure and perceptual cooling performance, age does not seem to be a determining factor to guide consumer perception towards either Hitachi or LG. These findings imply that marketers need to investigate targeting customers based on behavioral or psychographic segmentation more than age. Subsequent studies can also investigate other factors like previous brand experience, energy efficiency awareness, or environmental consciousness to further understand brand perception in the AC market.

A. *Theoretical Implications*

- This research adds to the literature on consumer behavior by investigating the impact of demographic factors, namely age, on consumer perception of air conditioner brands in a burgeoning urban market. The research indicates that age plays a limited role in conditioning consumer attitudes toward attributes like brand reputation, technology, price, and quality of service for LG and Hitachi.
- The research underlines the theory used in previous theory, for instance, the Theory of Planned Behavior (TPB), that personal norms, past experience, and subjective beliefs can be more significant than demographic factors such as age in determining purchase intentions for home appliances. Even if prior research has considered environmental concern, product quality, and price sensitivity, this research contributes to novel insights through a comparison of two particular brands within a local market setting.
- Moreover, the extremely low correlation values in the majority of hypothesis findings show that consumer attitude could be more homogeneous between different age groups than traditionally expected. This discredits traditional segmentation models that base much of their emphasis on demographic variations and justifies newer theories propounding psychographic as well as behavior-based segmentation.
- Additionally, the study indicates the necessity of rethinking the manner in which businesses target advertising and brand communication, as conventional hypotheses regarding generational preference are not necessarily strong players in this category. These findings reinforce the increasing theoretical prevalence that product category involvement, perceived utility, and brand awareness might overpower demographic factors in high-involvement product choices such as air conditioner purchases.

In conclusion, the study contributes to theoretical consumer perception models by proposing that brand-specific characteristics and exposure to promotion, as opposed to age segmentation, can be better predictors of consumers' attitudes in the air conditioner industry.

B. Practical Implications

The results of this research provide a number of implications for practitioners, producers, and retailers of air conditioners, particularly for companies such as Hitachi and LG targeting urban markets such as Ahmedabad.

- Firstly, as most of the connections found between age and brand perceptions were extremely weak or insignificant, this implies that targeting by age may not be very effective in air conditioner marketing campaigns. Rather than focusing on demographic segmentation, marketers should pay greater attention to behavioral and psychographic segmentation, including purchase intent, consumption behavior, and brand allegiance.
- Second, the findings suggest that exposure to advertising (H4) and perceived LG cooling effectiveness (H5) are statistically significant with age, although they are weakly related. This, therefore, suggests that persistent brand presence through ads can still affect consumer perception to some extent, particularly among some age groups. Hitachi can hence gain from enhancing its advertising coverage, especially targeting the younger age group that constitutes a vast majority of potential customers.
- Third, whereas LG is seen as providing superior cooling performance and after-sales service, evidence does not point to customers strongly linking Hitachi with superior energy efficiency or superior features. To enhance market positioning, Hitachi has to make its technological superiority and energy efficiency features more prominent in marketing communications and product demonstrations.
- In addition, brands need to focus on establishing customer trust based on service quality since after-sales service is an underhanded but important determinant of perception. Although the connections are weak, a good service experience can be the source of long-term brand loyalty, particularly in high-involvement products such as air conditioners.
- Lastly, the research also recommends that value perceptions and pricing are not associated with age. This again emphasizes that competitive pricing models should place greater emphasis on the perceived value provided in terms of features, warranty, and energy savings, instead of targeting age-related affordability levels.

In summary, firms such as LG and Hitachi must go beyond demographic segmentation and adopt consistent branding, performance communication of the product, enhanced service experience, and value marketing to shape consumer perceptions and generate sales in Ahmedabad's emerging AC market.

VII. CONCLUSION

This study was designed to compare the consumer perception of Hitachi and LG air conditioners in Ahmedabad City with special reference to how age affects awareness, brand image, product features, service quality, and overall value. Based on the analysis of the responses of 250 respondents, the study concluded that most of the relationships between age and other perceptions of consumers were statistically insignificant and had very weak correlations.

Just two hypotheses (H4 and H5) were found significantly related—implying that age plays some role towards making advertisements seen and perceived cooling performance of LG. But even those were extremely weak in strength. This points towards the fact that age is not an influential determining factor towards consumer perception of air conditioner brands in Ahmedabad. Hitachi and LG are both typically well-known, but LG is slightly better on the perceptions of cooling performance as well as after-sales service.

The evidence indicates that consumer preferences are most probably influenced by product quality, advertising efficiency, service experience, and perceived value instead of demographic variables such as age. Both brands should thus focus on improving these areas to enhance consumer trust and market position.

In brief, although LG seems to enjoy a more robust market image in certain segments, there is quite a lot of room for improvement by Hitachi, as it could communicate its technological prowess and quality of customer service more effectively. Overall, this research offers pertinent insights for AC brands seeking to customize their marketing approaches to address consumer aspirations in Ahmedabad more effectively.

VIII. FUTURE RESEARCH/ FUTURE SCOPE OF THE STUDY

- *Wider Demographic Reach:* Age was the primary demographic variable in this research. Other demographic variables including income, education, family size, and locality within Ahmedabad should be studied in forthcoming research to uncover more penetrating consumer perception patterns.
- *Larger and More Varied Sample Size:* Increasing the sample size to more than 250 participants and adding subjects from other regions or cities will strengthen the generalizability of results and facilitate comparison between urban and semi-urban settings.
- *Longitudinal Studies:* Subsequent research can employ a longitudinal approach to see how perceptions among consumers shift over time, particularly with the introduction of new models, technological changes, or shifts in market forces.
- *Brand-Specific Attributes:* In-depth investigation into certain product features, e.g., noise level, remote control, energy consumption statistics, and warranty durations—can provide a finer picture of how consumers differentiate between brands.
- *Addition of Behavioral Aspects:* This research considered perception, but future work could also examine real buying behavior, brand switching patterns, and satisfaction with the purchase to present a complete picture.
- *Comparative Research with More Brands:* Future studies could involve more brands such as Voltas, Daikin, Blue Star, and Samsung to know where Hitachi and LG position themselves in the wider Indian air conditioner market.
- *Digital and E-commerce Influence:* With increasing online shopping behavior, it would be highly relevant to study how online reviews, digital ads, and e-commerce websites affect perception and purchase behavior.
- *Impact of Environmental Awareness:* As energy efficiency and sustainability become consumer concerns, subsequent research may determine the influence of environmental issues on preferences for certain brands or models.

- *After-Sales Service and Brand Loyalty*: Subsequent research can investigate how after-sales service quality enhances brand loyalty and purchase intentions, particularly in highly competitive markets such as Ahmedabad.

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