

# Product quality, brand image and customer service of home appliance companies: Inputs to sales strategic plan

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## Abstract

Sales strategy is the backbone of most businesses and is the engine that drives revenue growth, profitability, and ultimately, business success. This study aimed to deeply explore the relationships between product quality, brand image, and customer service in the Chinese home appliance companies, providing guidance for the formulation and refinement of the sales strategic plan. A descriptive method of research with stratified sampling of 400 consumer using adopted and modified questionnaire was utilized. This questionnaire was subjected to content validation to check the internal consistency and establish coherence among items. Pilot testing was done to assure the reliability of the survey questionnaire. Statistical analysis used were weighted mean, ranking and frequency. Shapiro Wilk Test was utilized to determine the normality of the data while Spearman Rho was used to test the significant relationship between product quality, brand image and customer service. SPSS version 28 was used to analyze with 0.05 alpha level. The respondents agreed that the products are of low quality and perceived to have low brand image. The respondents are dissatisfied on the customer service provided by economy products company. There was a high significant correlation between product quality, brand image and customer service in the home appliance industry and a sales strategic plan was developed.

**Keywords:** sales, strategic plan, product quality, brand image, customer service, home appliance industry

## **Product quality, brand image and customer service of home appliance companies: Inputs to sales strategic plan**

### **1. Introduction**

Sales strategy is the backbone of most businesses and is the engine that drives revenue growth, profitability, and ultimately, business success. Sales are the direct source of income for most companies and strong sales performance equates to meeting or exceeding revenue targets, which fuels the operations of the entire business. Sales performance involves achieving sales plan, customer acquisition and customer retention. As the globalization and market economic development grow rapidly, the home appliance industry in China has faced unprecedented opportunities and challenges.

In recent years, the government has introduced a series of policies to promote the home appliance industry, such as subsidies for environmentally friendly home appliances and the promotion of intelligent home appliances, which have greatly promoted the industry's innovation and development. The findings from Awan et al. (2014), show that high-quality products can not only meet consumer's basic requirement but also increase their satisfaction and loyalty, leading to performance steady growth in the business. In addition, Alejandre et al. (2022) also conducted relevant research in the home appliance industry in China. They confirmed product performance and durability are two key indicators of home appliance quality, according to consumer evaluation and purchase intentions. Steenkamp's (2016) study determined that positive and entertaining branding can significantly improve a company's visibility and reputation, as well as attract more customers. According to Steenkamp et al. (2020), to construct a unique brand image, companies can focus on brand communication and cultural building, and enhance the value and influence of a brand through various methods such as advertising, public relations, etc. Murali et al. (2016) pointed out that the current level of customer service in home appliance companies is uneven and lacks standard and professional customer services. Fraß (2016) also pointed out that the provision of high-quality after-sales service affects customer loyalty and brand image. Their study provides companies with practical advice that can help companies improve their customer service and increase sales.

Product quality is the cornerstone of household appliance companies' survival and development. Brand image is the overall perception that consumers have about a home appliance company and a product. In addition, customer service is an important bridge between home appliance companies and consumers. High-quality customer service can not only solve the problems consumers face in product use, but also help increase consumer trust and loyalty — providing companies with a stable source of customer resources and a positive brand effect. The growing competition in the market and the diverse consumer demands have compelled the home appliance manufacturers to reexamine the key role of product quality, brand image and customer service in the sales strategy. Home appliances industry often faces numerous challenges related to product quality, such as technology bottlenecks, cost control, etc., which requires enterprises to invest in research and development to improve product quality, in order to meet the increasingly diverse needs of target consumers. Current branding in the home appliance industry is vague and lacks uniqueness and recognition.

In terms of theory, this paper further develops our understanding since multiple theories such as marketing, consumer behavior, brand management, etc., and builds a more integrated sales strategies to analyze the mechanism of the impact of product quality, brand image and customer service on business performance. This will provide specific theoretical and practical guidance for the development of sales strategic targets for home appliance companies. An in-depth analysis of the impact mechanism of these factors on sales performance will help companies better understand market demand and consumer behavior, optimize product design and manufacturing processes, improve brand image and customer service levels, thus improving sales performance and competitive strength in the market. At the same time, this research will also provide new perspectives and research ideas to the academic community and promote theoretical development in related disciplines.

**Objectives of the Study** - This study aimed to assess the product quality, brand image, and customer service in home appliance companies as basis for sales strategic plan. More specifically, to assess the product quality in terms of product performance, product life, product appearance; to determine the brand image in terms of quality assurance, product awareness and consumer experience; to evaluate its customer service with pre-sale service, sale service, after-sales service; to test the significant relationship between the industry’s product quality, brand image, and customer service; and lastly, to develop sales strategic plan.

## 2. Methods

**Research Design** - In order to comprehensively collect and understand the required information, this study adopted a descriptive research methodology. This method, as explained by Rahi (2017), is a systematic exploration that focuses on a current situation, person or event, with the aim of gathering relevant facts, data and information, and describing this information in detail. The researcher systematically reviewed the research on the impact of product quality, brand image and customer service on the sales performance of the home appliance industry, and thoroughly analyzed the definition and importance of these variables. An in-depth correlation analysis of the relationship was utilized to establish the relationship among variables.

**Participants of the Study** - Four hundred (400) potential users or consumers of home appliances participated this study using a convenience sampling method. This pool of respondents has a comprehensive understanding of consumers' real needs and preferences for value-priced domestic appliances, to provide a full data set that can analyze the impact of product quality and brand, customer service on business operation.

**Data Gathering Instruments** - This study utilized a self-made questionnaire as the primary tool to collect data. The design of the questionnaire in this study was divided into three variables: the first variable is focused on "product quality," which includes three main factors, product performance, product life, and product appearance, respectively. The second variable is "brand image," which includes three dimensions: quality assurance, product knowledge, and consumer experience respectively. The third variable is "customer service," which consists of three important dimensions: pre-sales service, after-sales service, and post-purchase service. Each statement on the questionnaire was in the form of a descriptive statement, and respondents were asked to express their level of agreement with each statement using a four-point Likert scale; “1” represents “strongly disagree”; “2” represents “disagree”; “3” represents “agree”; and “4” represents “strongly agree”. This design was also intended to assure the questionnaire's readability for respondents and encourage their participation. Prior to the formal investigation, the second author conducted a rigorous pilot test, and minor revisions were made based on the comments from reviewers and faculty members of the author's home university. The results of the reliability analysis of the pilot study indicated that the Cronbach  $\alpha$  coefficients for the subscales of each module were at an acceptable level, suggesting adequate reliability. These results further verified the reliability and validity of the questionnaire and provided a solid basis for further data analysis and research.

**Table 1**

*Test of Reliability Result*

Indicator	Cronbach Alpha	Remarks
Product Performance	0.792	Acceptable
Product Life	0.814	Good
Product Appearance	0.817	Good
Quality Assurance	0.885	Good
Product Awareness	0.808	Good
Consumer Experience	0.833	Good
Pre-sale Service	0.786	Acceptable
Sale Service	0.867	Good
After-sales Service	0.811	Good

*George and Malley (2003) provide the following rules of thumb “>0.90 Excellent, >0.80 – Good, >0.7 – Acceptable, >0.60 – Questionable, >0.50 – Poor, and <0.50 – Unacceptable*

**Data Gathering Procedure** - In the home appliance companies, product quality, brand image and customer service are key factors influencing sales performance. The first step for the researcher was to clearly outline the research objective, which is to gain an understanding of consumers' perspectives of product quality, brand image and customer service in the home appliance industry, and how this perspective impacts consumer buying decisions or sales performance. Next, based on the research objectives, the researcher developed a questionnaire that has sections (each covering a different dimension) that captures the concept of product quality, brand image and customer service in a way that is complete and detailed. Subsequently, the researcher published the questionnaire through online platforms and used channels such as social media, online forums and industry websites for wide dissemination. To attract more participants, it provided a simple and clear questionnaire interface and offered rewards where necessary to motivate participants. At the same time, during the questionnaire collection process, it ensured the accuracy and completeness of the data. The collected data were organized into spreadsheets to facilitate subsequent analysis and interpretation. Once the collection was complete, the researcher used statistical software to perform quantitative analyzes of the collected data to reveal relationships and trends between different variables. Finally, based on the data analysis results, the researcher conducted an in-depth interpretation of product quality, brand image and customer service in the home appliance industry. This information was used to develop strategies and plans to improve sales performance. Through this data collection process, the researcher was in a position to gain an in-depth understanding of the product quality, brand image and customer service status of the home appliance industry and make recommendations to improve sales performance based on this information.

**Data Analysis** - All data gathered was tallied, encoded, and interpreted using descriptive statistics. Weighted mean and rank were used to assess product quality, brand image and customer service with pre-sale service, sale service, after-sales service. The researcher used the non-parametric Spearman rho test to evaluate the significant relationship between the variables. All analyses were performed using SPSS version 28.

**Ethical Considerations** - By conducting this study, the researcher developed a strong awareness of the importance of ethical considerations. To ensure objectivity, integrity and full respect for each participant, the researcher always adhere to ethical standards and strive to be rigorous and meticulous at every stage. This study attaches great importance to participants' privacy and information security. During the data collection process, especially when designing the questionnaire, the researcher avoided directly asking respondents about their identity to ensure that their confidentiality and anonymity were protected as much as possible. This approach can eliminate interviewees' worries and allow them to express their thoughts and feelings more truthfully. Also, to maintain a fair and objective attitude towards research results and never distort or hide any data. Because the scientific nature and credibility of the research are based on real and reliable data. Therefore, this study rigorously controls all aspects of data collection, organization and analysis to ensure that every conclusion is based on real data and rigorous reasoning. This study has always placed the safety and security of the participants at the forefront. During the study, special attention was paid to the physical and mental health of the participants to ensure that they did not suffer any harm while participating in the study. Research can only truly realize its value and importance if the safety of participants is guaranteed.

### 3. Results and discussion

Table 2 is a summary table of Key Result Areas regarding product quality. This analysis mainly focuses on three core indicators: performance, lifespan and appearance of the product. Among them, grand composite mean represents the comprehensive average of three key result areas (product performance, product life, product appearance), which reflects the level of overall product quality. From the table, the WM value of grand composite mean is 2.43, which falls within the "Disagree" interval (1.50-2.49), means that most of the respondents have a negative attitude towards the overall evaluation of product quality.

**Table 2***Summary Table on Product Quality*

Key Result Areas	Composite Mean	VI	Rank
Product Performance	2.45	Disagree	2
Product Life	2.48	Disagree	1
Product Appearance	2.37	Disagree	3
Grand Composite Mean	2.43	Disagree	

*Legend: 3.50-4.00=Strongly Agree; 2.50-3.49=Agree; 1.50-2.49=Disagree; 1.00-1.49=Strongly Disagree*

The WM value of product life is 2.48, which is also in the "Disagree" interval. Its Rank is 1, which means that among all three indicators, the problem of product life is the most prominent. Part VI may reveal the degree of variation in respondents' evaluation of product life, but since no specific data are presented in the table, the researcher was unable to conduct a detailed variability analysis. However, judging from the results of WM and Rank, great importance is attached to the issue of product life and conduct of in-depth investigations into its causes and improve it in a timely manner. Sinurat et al. (2021) took customers of online stores as an example to explore the impact of product quality on consumer purchase interest using customer satisfaction as an intervening variable. By collecting and analyzing qualitative and quantitative primary data, the research results show that products that are of good quality and can be used for a long time have a significant and positive impact on consumers' purchase interest, emphasizing the key to improving product quality in enhancing consumers' purchase interest effect.

The WM value of product performance is 2.45, which is slightly lower than the product life, but it is also in the "Disagree" range. Its Rank is 2, indicating that product performance is also an issue that respondents are more concerned about. For the VI parts, it also needs specific data for analysis. However, based on the current data, it can be inferred that product performance may have certain instability or deficiencies and require further improvement and optimization.

The WM value of product appearance is 2.37. Although it is still in the "Disagree" range, its score is slightly higher than the other two indicators. A Rank of 3 indicates that among product performance, lifespan and appearance, appearance problems are relatively minor. However, this does not mean that the improvement of product appearance can be ignored. As consumers pay more and more attention to product appearance, the need to work hard to improve the appearance design of products is crucial. The research of Font-i-Furnols et al., (2014) discussed various factors that influence consumers' behavioral patterns, preferences and psychological, sensory and marketing perceptions towards purchasing products. The comprehensive evaluation found that through consumers' psychological characteristics such as attitudes, beliefs and expectations, as well as their sensory evaluation of the product's appearance and texture, combined with marketing factors such as price and brand, it can be better to understand consumer needs and satisfy them more effectively in terms of their expectations and needs. This helps guide product development and marketing strategies.

**Table 3***Summary Table on Brand Image*

Key Result Areas	Composite Mean	VI	Rank
Quality Assurance	2.40	Disagree	2
Product Awareness	2.37	Disagree	3
Consumer Experience	2.48	Disagree	1
Grand Composite Mean	2.42	Disagree	

*Legend: 3.50-4.00=Strongly Agree; 2.50-3.49=Agree; 1.50-2.49=Disagree; 1.00-1.49=Strongly Disagree*

The theme of Table 3 focuses on the Key Result Areas of the brand image. The WM value of the Grand Composite Mean is 2.42, falling within the "Disagree" range. This value means that in the overall evaluation, consumers have a low recognition of key aspects of the brand image, which points to the general direction of improvement. Brand image building is an important part of improving market competitiveness. Therefore,

paying attention to the issues is reflected in this data.

First focus is on the third item, Consumer Experience. Its WM value is 2.48, which is also in the "Disagree" range, and ranks first, indicating that in the key result areas of brand image, the problem of consumer experience is the most prominent. VI is also relatively high, which means that consumers believe that this factor has an important impact on brand image. Therefore, improving the consumer experience should be a top priority for improvement efforts. Start from aspects such as product convenience and after-sales service quality and improve the overall consumer experience by optimizing product design and service processes. Research by Iglesias et al. (2019) found that sensory brand experience has a positive indirect effect on brand equity by improving customer satisfaction and enhancing customer emotional commitment. This finding highlights the importance of sensory brand experience in enhancing brand competitiveness and also provides a new perspective for brand building.

Looking at the first item, Quality Assurance, its WM is 2.40, which also shows consumers' low recognition of this aspect. However, it is ranked second, indicating that although the problem exists, its urgency is slightly lower compared to consumer experience. However, considering that quality assurance is the cornerstone of brand reputation, paying enough attention to it is needed. Improve the qualification rate of products by strengthening the monitoring and inspection of the production process, thereby enhancing consumer confidence in the brand.

As for the second item, Product Awareness, its WM is 2.37, which is also in the "Disagree" range. Lower visibility may limit a brand's market reach. To increase product awareness, increase marketing efforts and use various channels such as social media and online advertising to increase brand exposure. The research of Schivinski et al. (2015) found that both company-created and user-generated social media brand communication have a positive effect on brand awareness, and user-generated social media brand communication can also significantly increase brand loyalty and perceived brand quality. This shows that product quality and popularity can affect brand image.

**Table 4**

*Summary Table on Customer Service*

Key Result Areas	Composite Mean	VI	Rank
Pre-sale Service	2.42	Disagree	2
Sale Service	2.38	Disagree	3
After-sales Service	2.44	Disagree	1
Grand Composite Mean	2.41	Disagree	

*Legend: 3.50-4.00=Strongly Agree; 2.50-3.49=Agree; 1.50-2.49=Disagree; 1.00-1.49=Strongly Disagree*

The data in Table 4 summarizes the comprehensive evaluation of the key result areas of customer service, providing valuable clues for improving service. First, the Grand Composite Mean presented in Table 4 is 2.41, which means that customers have a "disagree" attitude towards the overall customer service provided. This is a clear warning sign that customer service system needs a complete review and improvement.

Next, the After-sales Service. Its WM is 2.44, which is the highest among the three services, but it also failed to get customers to "agree". Its Rank is 1, which means that among all three services, After-sales Service has the highest customer satisfaction. Even so, this weak voice of "disagree" cannot be ignored. In the VI parts, there is a need to pay attention to response speed, problem-solving ability and customer service attitude of after-sales service to ensure that customers can receive timely and effective solutions when problems arise. The study of Rebelo et al. (2021) used action research methods to develop and improve their after-sales service process. Through analysis of the current after-sales process, combined with survey data analysis and discussions with the company's board of directors, a series of improvement suggestions were put forward, including strategies such as introducing new services, optimizing the after-sales service process, and improving customer service management.

Next is Pre-sale Service, which has a WM of 2.42, which is slightly higher than the overall average, but still fails to reach the level of customer "agreement". Its Rank is 2, indicating that among the three services, the

satisfaction level of Pre-sale Service is in the middle. Analyzing the VI parts, it can be found that in the pre-sales service link, customers may have doubts about product information, price strategies, or communication methods. Therefore, there is a need to strengthen the professionalism and transparency of pre-sales services and enhance customers' awareness and trust of products.

Finally, the third-ranked Sale Service. Its WM value is 2.38, which is lower than the overall average of 2.41, but it still falls into the "disagree" category. Its Rank is 3, which means that among all three services, Sales Service has the lowest customer satisfaction ranking. Combined with the VI parts, it can be inferred that there may be problems in some aspects of Sales Service, resulting in poor customer experience. To improve customer satisfaction, it is required to pay special attention to Sales Service training and process optimization. Chaerudin et al.,(2021) discussed the impact of product quality, service quality and price on product purchase decisions and consumer satisfaction. Research results show that product quality and service quality have a positive and significant impact on purchase decisions, and price is also an important factor affecting purchase decisions. In particular, excellent sales service quality has a significant positive impact on consumer satisfaction with products.

**Table 5**

*Relationship Between Product Quality and Brand Image*

Variables	rho	p-value	Interpretation
<b>Product Performance</b>			
Quality Assurance	0.368**	< .001	Highly Significant
Product Awareness	0.395**	< .001	Highly Significant
Consumer Experience	0.299**	< .001	Highly Significant
<b>Product Life</b>			
Quality Assurance	0.394**	< .001	Highly Significant
Product Awareness	0.288**	< .001	Highly Significant
Consumer Experience	0.337**	< .001	Highly Significant
<b>Product Appearance</b>			
Quality Assurance	0.344**	< .001	Highly Significant
Product Awareness	0.410**	< .001	Highly Significant
Consumer Experience	0.310**	< .001	Highly Significant

\*\* . Correlation is significant at the 0.01 level

As seen in Table 5, the computed rho-values ranging from 0.288 to 0.410 indicate a weak to moderate direct relationship among the sub variables of product quality and brand image. There was a statistically significant relationship between product quality and brand image because the obtained p-values were less than 0.01. Among them, product performance and multiple variables in brand image show a significant positive correlation. Specifically, the correlation between Product Performance and Quality Assurance is 0.368, the correlation with Product Awareness is 0.395, and the correlation with Consumer Experience is 0.299. These correlations are all significant at the 0.01 level, indicating that product performance has an important impact on brand image. When product performance is excellent, consumers are more likely to believe that the brand provides high-quality products, thereby enhancing the brand image. Nurbianto et al.,(2024) study focused on marketing strategies. The study found that to remain competitive, companies develop marketing strategies by increasing the quality of products, services and quality assurance and focusing on the unique selling points (USP) of their products, which helps the product become a market leader. It can be observed that product performance among the key factors in consumer purchasing decisions is highly related to product awareness, consumer experience and product quality assurance.

Product Life also has a significant positive correlation with multiple variables in brand image. The correlation between Product Life and Quality Assurance is 0.394, the correlation with Product Awareness is 0.288, and the correlation with Consumer Experience is 0.337. These high correlation values indicate that the length of product life has a significant impact on brand image. Longer product life can enhance consumer confidence in brand quality, enhance brand image, and potentially promote consumer loyalty to the brand. Wang

et al. (2017) used rooting theory to conduct an in-depth analysis of customers' product reviews and revealed the multi-dimensional composition of customer experience. The study identified nine core experience dimensions including value perception, sensory, quality assurance, accessories, purchase, service, brand comparison, compensation and brand. At the same time, customer experience can be divided into three types: functional experience, purchase and service experience, and brand experience. This study not only provides a rich theoretical basis for an in-depth understanding of customer experience, but also points the way to exploring how product life, quality assurance, and brand awareness affect brand loyalty.

Product Appearance also shows a significant positive correlation with variables in brand image. The correlation between Product Appearance and Quality Assurance is 0.344, the correlation with Product Awareness is 0.410, and the correlation with Consumer Experience is 0.310. These high correlation values indicate that product appearance has an important impact on brand image. An attractive product appearance can not only enhance the attractiveness of the product, but also enhance consumers' favorability towards the brand, thus helping to enhance the brand image. The study by Aziz et al.,(2013) explored the impact of halal awareness and certification, product quality, marketing promotion and branding on the intention to purchase halal products. The findings show that product awareness, quality certification, marketing promotion and branding have a positive effect on product purchase intention, while food quality is negatively related to purchase intention. This study is the first attempt to combine halal elements (i.e. appearance), brand image and marketing elements, providing important theoretical and empirical basis for understanding consumers' motivations and decision-making processes for purchasing products. Therefore, when customers purchase products, they may pay more attention to the performance and durability of the product but pay less attention to appearance. However, this does not mean that the appearance of the product is not important, as a beautiful appearance can still attract customers' attention and enhance the competitiveness of the product.

**Table 6**

*Relationship Between Product Quality and Customer Service*

Variables	rho	p-value	Interpretation
<b>Product Performance</b>			
Pre-sale Service	0.313**	< .001	Highly Significant
Sale Service	0.392**	< .001	Highly Significant
After-sales Service	0.319**	< .001	Highly Significant
<b>Product Life</b>			
Pre-sale Service	0.345**	< .001	Highly Significant
Sale Service	0.286**	< .001	Highly Significant
After-sales Service	0.284**	< .001	Highly Significant
<b>Product Appearance</b>			
Pre-sale Service	0.298**	< .001	Highly Significant
Sale Service	0.202**	< .001	Highly Significant
After-sales Service	0.194**	< .001	Highly Significant

\*\* . Correlation is significant at the 0.01 level

As seen in Table 6, the computed rho-values ranging from 0.194 to 0.392 indicate a very weak to weak direct relationship among the sub variables of product quality and customer service. There was a statistically significant relationship between product quality and customer service because the obtained p-values were less than 0.01. There is a significant positive correlation between Product Performance and Pre-sale Service, Sale Service and After-sales Service. Specifically, the correlation coefficient between Pre-sale Service and Product Performance is 0.313, the correlation coefficient between Sale Service and Product Performance is 0.392, and the correlation coefficient between After-sales Service and Product Performance is 0.319. The p-values of these correlation coefficients are all less than 0.001, indicating that these correlations are highly statistically significant. This result shows that when the pre-sales, sales and after-sales services provided by the company are of higher quality, the performance of the product will also improve accordingly. Good service can enhance customers' confidence in products, and also help companies continuously improve and enhance product quality during product development and production processes. Visnjic et al. (2016) used the perspectives of needs-based value



creation and complementarity perspectives to study the performance impact of two key service business models: a product-oriented model and a customer-oriented model, implemented together with product innovation. The results show that the interaction between service business model innovation and product innovation will bring about long-term performance benefits, which shows that a service orientation that combines product performance with customer service has a positive impact on performance.

Similarly, there is a significant positive correlation between Product Life and Pre-sale Service, Sale Service and After-sales Service. The correlation coefficient between Pre-sale Service and Product Life is 0.345, the correlation coefficient between Sale Service and Product Life is 0.286, and the correlation coefficient between After-sales Service and Product Life is 0.284. The p-values of these correlations are all less than 0.001, indicating that these relationships are highly statistically significant. This shows that good customer service not only improves product performance, but also extends product life. When customers receive a satisfactory service experience during the pre-sales, sales and after-sales stages, they are more likely to use the product for a long time, thereby extending the product's life cycle. The research of Tao et al. (2018) aimed at the problem of fragmentation and isolation of product life cycle data in the context of the application of new generation information technology in the industry and manufacturing, and proposed a digital twin-based product design, manufacturing and service new method. This approach aims to support the entire process of product design, manufacturing and service by fusing physical product data and virtual product data, as well as connected data connecting the two, thereby increasing levels of efficiency, intelligence and sustainability.

There is also a significant positive correlation between Product Appearance and Pre-sale Service, Sale Service and After-sales Service, but compared with Product Performance and Product Life, its correlation coefficient is slightly lower. The correlation coefficient between Pre-sale Service and Product Appearance is 0.298, the correlation coefficient between Sale Service and Product Appearance is 0.202, and the correlation coefficient between After-sales Service and Product Appearance is 0.194. Although the p-values of these correlations are all less than 0.001, their degree of correlation is slightly less than the first two. This may mean that while excellent customer service also has some positive impact on the appearance of the product, the impact is relatively small. Schleenbecker et al. (2013) study explored consumers' perceptions of product characteristics. Through a comprehensive literature analysis, it was found that most studies focused on consumers' perceptions of product design and labeling. At the same time, the research also highlights the importance of product label diversity as well as consumer demand for reliable information and the lack of label awareness. Therefore, when customers purchase products, they may pay more attention to the performance and durability of the product but pay less attention to appearance. However, this does not mean that the appearance of the product is not important, as a beautiful appearance can still attract customers' attention and enhance the competitiveness of the product.

**Table 7**

*Relationship Between Brand Image and Customer Service*

Variables	rho	p-value	Interpretation
<b>Quality Assurance</b>			
Pre-sale Service	0.304**	< .001	Highly Significant
Sale Service	0.363**	< .001	Highly Significant
After-sales Service	0.261**	< .001	Highly Significant
<b>Product Awareness</b>			
Pre-sale Service	0.346**	< .001	Highly Significant
Sale Service	0.430**	< .001	Highly Significant
After-sales Service	0.326**	< .001	Highly Significant
<b>Consumer Experience</b>			
Pre-sale Service	0.316**	< .001	Highly Significant
Sale Service	0.248**	< .001	Highly Significant
After-sales Service	0.305**	< .001	Highly Significant

\*\* Correlation is significant at the 0.01 level

As seen in Table 7, the computed rho-values ranging from 0.248 to 0.430 indicate a weak to moderate direct

relationship among the sub variables of brand image and customer service. There was a statistically significant relationship between brand image and customer service because the obtained p-values were less than 0.01. There is a significant positive correlation between the Quality Assurance of the brand image and Pre-sale Service, Sale Service and After-sales Service. Specifically, the correlation coefficient between Quality Assurance and Pre-sale Service reaches 0.304, the correlation coefficient with Sale Service is 0.363, and the correlation coefficient with After-sales Service is 0.261. These highly significant positive relationships indicate that when a brand can provide high-quality product guarantees, the quality of its pre-sales, sales and after-sales services will also improve accordingly. Customers' trust in brand products will be enhanced, thereby increasing purchase intention and loyalty. The study by Ngo et al.,(2016) explored the interaction between quality assurance, customer satisfaction and customer loyalty. The findings show that quality assurance has a positive impact on customer service satisfaction, which in turn is a key antecedent of customer loyalty. These findings highlight the importance of customer-centric strategies and suggest the need to consider multiple factors such as quality assurance and customer satisfaction when promoting customer loyalty.

Product Awareness also has a significant positive correlation with Pre-sale Service, Sale Service and After-sales Service. Among them, the correlation coefficient between Product Awareness and Pre-sale Service is 0.346, the correlation coefficient with Sale Service is 0.430, and the correlation coefficient with After-sales Service is 0.326. These highly significant positive relationships indicate that when a brand's products have higher awareness in the market, the pre-sales, sales and after-sales services it provides will also be more recognized by customers. Customers' familiarity and favorability with products will promote their satisfaction with brand services, thereby enhancing brand loyalty. The study by Tsimonis et al. (2014) used qualitative methods to explore the effectiveness of companies in creating product brands on social media. The study found that companies mainly conduct social media activities by organizing competitions, launching new products/services, interacting with fans, providing information, and handling service issues, which are beneficial to enhancing customer interaction, brand awareness, customer engagement, product promotion and sales growth, and accurately acquire new customers.

The correlation between Consumer Experience and Pre-sale Service, Sale Service and After-sales Service is equally significant. The correlation coefficient between Consumer Experience and Pre-sale Service is 0.316, the correlation coefficient with Sale Service is 0.248, and the correlation coefficient with After-sales Service is 0.305. These positive relationships indicate that high-quality customer service significantly improves the overall consumer experience. Whether it is pre-sales consultation, professional guidance during the sales process, or timely response and problem solving of after-sales services, they can bring consumers a pleasant shopping experience, thereby enhancing the brand's reputation and influence. The study by Ali et al. (2018), constructed an evaluation model to explore how customers' experience affects their pleasure, satisfaction, and loyalty. The findings show that the physical environment, staff service, and interactions with other tourists all have a significant impact on customer pleasure and satisfaction. Furthermore, customer satisfaction is directly related to higher customer loyalty. Therefore, this study suggests that in order to enhance tourists' overall experience, management should focus on maintaining a good physical environment and optimizing employee services.

From the above analysis, there is a close positive correlation between Quality Assurance, Product Awareness and Consumer Experience in the brand image and Customer Service. This reminds that in the process of brand building, in addition to focusing on the quality and innovation of the product itself, there is also a need to pay attention to the improvement of customer service. By providing high-quality pre-sales, sales and after-sales services, customers' trust and loyalty to the brand can be enhanced, thereby enhancing the brand's market competitiveness and long-term value.

### **Proposed Effective Sales Strategic Plan for Improved Sales Performance**

Based on the in-depth study of the relationship between product quality, brand image and customer service in Chinese home appliance industry, these sales strategic plan aims to comprehensively optimize user experience,

enhance brand competitiveness, and improve customer service to achieve steady sales growth. As the core competitiveness of enterprises, quality requires enterprises to increase investment in research and development, accurately grasp the market dynamics, and deeply understand and meet the actual needs of consumers. Through technological innovation and process optimization, the company is committed to improving the functionality and stability of its products to ensure superior product performance. At the same time, the company will also select high-quality materials and use advanced manufacturing processes to ensure the extension of product life. In addition, the company will also pay special attention to the details of the product design, so that it is not only practical, but also rich in aesthetic value, in order to enhance the user's first impression of the product, and complement the brand image.

As a valuable asset of the enterprise, the brand requires the enterprise to establish and maintain a strict quality management system to ensure the stability and reliability of product quality, so as to establish the brand reputation. At the same time, enterprises will increase brand publicity, through diversified marketing channels and strategies, improve product market awareness and brand recognition, and then enhance brand influence and market competitiveness. In addition, the company will continue to pay attention to the feelings and needs of consumers in the process of product use and provide them with personalized services and support to optimize the consumer experience and improve user satisfaction and loyalty. Customers as the lifeline of enterprises, enterprises need to comprehensively optimize customer service from the three dimensions of pre-sale, sale and after-sales.

In the pre-sale stage, the company will provide customers with detailed product information, professional product introduction and timely consulting services to ensure that customers get full understanding and trust before purchase. In the sale stage, the company will improve the speed and professionalism of service response, as well as the efficiency of problem solving, to ensure that customers receive timely and effective support during the purchase process. In the after-sales stage, the company will strengthen the maintenance response speed, improve the service attitude, and optimize the problem-solving effect to ensure that customers get a satisfactory after-sales service experience after using the product. Specific implementation strategies are as follows: First, set up a special team, responsible for the implementation and promotion of the strategic plan. Subsequently, a detailed implementation plan and schedule should be formulated to clarify the tasks and objectives of each stage. At the same time, strengthen internal communication and collaboration to ensure seamless docking between various departments.

In the process of implementation, enterprises need to pay close attention to the changes in market dynamics and consumer demand, and flexibly adjust the strategic direction and implementation strategies. Finally, the implementation effect of the strategic plan is evaluated and adjusted regularly to ensure the smooth realization of the strategic objectives. Through the implementation of this sales strategic plan, it is expected that the product quality, brand image and customer service level of China's home appliance industry will be significantly improved. This will greatly improve user satisfaction and loyalty, which in turn will drive solid sales growth. At the same time, the brand image and market competitiveness of the enterprise will be further enhanced, laying a solid foundation for the long-term development of the enterprise.

#### **4. Conclusions and recommendations**

The following conclusions are drawn based on the findings: The respondents agreed that the products are of low quality. There is low brand image as perceived by the respondents. The respondents are dis-satisfied on the customer service provided by economy products company. There is a high significant correlation between product quality, brand image and customer service in the home appliance industry in China. A sales strategic plan was developed. Home appliance companies may increase investment in research and development and improve product performance, durability and appearance to meet consumer demand for high-quality home appliances. Enterprises may reshape brand positioning, strengthen brand promotion, increase product awareness, and continue to optimize consumer experience to establish a positive brand image. The adoption or utilization of the

sales strategic plan may be utilized continuously, monitored, and optimized to ensure that it adapts to the rapid development and changes in the home appliance industry. To conduct in depth study of the current variables to validate the results.

## 5. References

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