



## SCHOOL OF MANAGEMENT STUDIES

A Project Report On

### **"WARRANTY CLAIMS ANALYSIS FOR PRODUCT DEVELOPMENT AND PERCEPTION BUILDING."**

Submitted in fulfilment of the requirements for the award of the Degree of

Bachelor of Business Administration - Honors

Submitted by:

SOMISETTY GANGA MANISHA

SRN:

R22MB178

Under the guidance of

Dr. FAZEELATH TABASSUM

Rukmini Knowledge Park, Kattigenahalli, Yelahanka, Bengaluru-560064

[www.reva.edu.in](http://www.reva.edu.in)

## DECLARATION

I Ms. SOMISETTY GANGA MANISHA, a student of BBA, belonging to the School of Management Studies, REVA University, declare that this Project Report / Dissertation entitled "WARRANTY CLAIMS ANALYSIS FOR PRODUCT DEVELOPMENT AND PERCEPTION BUILDING" is the result of project/dissertation work done by me under the supervision of Dr. FAZEELATH TABASSUM, with affiliation, at Stove Kraft Limited.

I am submitting this Project Report / Dissertation in partial fulfillment of the requirements for the award of the degree in BBA by the REVA University, Bangalore during the academic year 2024- 25

I declare that this project report has been tested for plagiarism and has passed the plagiarism test with a similarity score of less than 25% and it satisfies the academic requirements in respect of the Project work prescribed for the said Degree.

I further declare that this project/dissertation report or any part of it has not been submitted for the award of any other Degree of this University or any other University/ Institution.

Signature of the candidate

Date: 16/6/25

Certified that this project work submitted by SOMISETTY GANGA MANISHA has been carried out under my / our guidance and the declaration made by the candidate is true to the best of my knowledge.

Signature of Guide

Date:

Signature of Director  
Date: Director

School of Management Studies  
REVA University  
Rukmini Knowledge Park, Kattigemballi  
Yelahanka, Bengaluru - 560064

**CERTIFICATE**

This is to certify that Mr./Ms. **SOMISETTY GANGA MANISHA** bearing SRN. **R22MB178**, is a bonafide student of Bachelor of Business Administration, program of the School of Management Studies, REVA University (Batch.2022-2025), undertook major project work entitled "**Warranty Claims Analysis For Products Development and Perception Building at STOVEKRAFT in Bengaluru**". The report prepared by him/her under the guidance of Dr. **FAZEELATH TABASSUM** in partial fulfillment of the requirements for the award of the Degree in the academic year 2024-25. The project has been approved as it satisfies the academic requirements in respect of major Project work prescribed for the said Degree.

Signature of the Guide  
**Dr. FAZEELATH TABASSUM**

**Nitin Ghosh**  
Director  
School of Management Studies  
Rukmini Knowledge Park, Kattigenahalli  
Yelahanka, Bengaluru - 560064

**External Examiner (s)**

SL No	Name of the Examiner with affiliation	Signature with Date
1.	Dr. Shakeela, Banu, c CMS Business School Jaen (Deemed to be University) Bangalore.	Shakeela 20/6/25



16<sup>th</sup> June 2025

**To Whomever It May Concern**

This is to certify that Ms. Somisetty Ganga Manisha, ID No R22MB178, a student of Bachelor of Business Administration – Business Analytics and Design Thinking, School of Management Studies, Reva University, Bengaluru, has successfully completed her internship at Stovekraft Limited under my supervision.

During the internship period of 12 weeks (20 February 2025 to 20 May 2025), she worked on the project titled “Study on Warranty Claims Analysis for Product Improvement and Perception Building.” Her work involved a detailed analysis of customer warranty claims data to identify product improvement opportunities and strategies to enhance brand perception.

Ms. Manisha demonstrated excellent analytical abilities, problem-solving skills, and a keen understanding of data interpretation throughout the project. Her insights and recommendations were well-researched and contributed meaningfully to our product development and customer satisfaction strategies.

She exhibited professionalism, integrity, and a strong work ethic during her time with us.

We wish her all the best in her future academic and professional pursuits.

**For Stove Kraft Company,**

A handwritten signature in blue ink, appearing to read "Athmarama Shetty".  
Athmarama Shetty  
General Manager - HR

**Stove Kraft Limited**

**Registered Office :** 81/1, Harohalli Industrial Area, Harohalli Hobli, Kanakapura Taluk Ramanagara District, Bengaluru, Karnataka, India - 562112

**Corporate Office :** No.30, 2<sup>nd</sup> Cross, CSI Compound, Mission Road, Bengaluru - 560027

CIN: L29301KA1999PLC025387

+91 80 28016210

info@stovekraft.com



stovekraft.com

## ACKNOWLEDGMENT

This is a matter of pleasure for me to acknowledge my deep sense of gratitude to REVA UNIVERSITY, School of Management Studies for giving me an opportunity to explore my abilities.

I would like to express my sincere gratitude to our Guide Dr. FAZEELATH TABASSUM for her valuable guidance and advice in completing this organization study.

I extend my heartfelt gratitude to the School Dean, Dr. Shubha A for providing an opportunity to undertake the project work.

Let me take this opportunity to thank the School Director, Dr. Nitu Gosh, for the wholehearted support extended to me throughout the conduct of the study. The encouraging words that have been extended were a great boost for the completion of this work. With a deep sense of gratitude, I express my sincere gratitude to the Head of Department, Prof. Harish, for his constant support and encouragement to complete my project.

I would like to record my sincere appreciation and gratitude towards all the officials and employees of Stove Kraft Limited without their kind assistance, my internship program would not have succeeded.

I am also thankful to my seniors and authorities of the School of Management studies, REVA UNIVERSITY for their support, encouragement, and valuable suggestions for the completion of this organization study.

Last but not least, I would like to express my sincere thanks to my family members and friends for their immense support and best wishes throughout this report's duration and preparation.

Name of the student

SOMISETTY GANGA MANISHA

TABLE OF CONTENTS		
SL.NO	CHAPTERS	PAGE NO
1	INTRODUCTION	7-13
2	<b>INDUSTRY AND COMPANY PROFILE</b> <ul style="list-style-type: none"> <li>• Brief explanation</li> <li>• History</li> <li>• Products</li> <li>• Board members</li> <li>• Market share</li> <li>• Competitors</li> <li>• GDP contribution</li> <li>• CSR</li> <li>• SWOT</li> </ul>	14-27
3	<b>RESEARCH METHODOLOGY</b> <ul style="list-style-type: none"> <li>• Review literature</li> <li>• Title of study</li> <li>• Research methodology</li> <li>• Objectives of the study</li> <li>• Hypothesis if any</li> <li>• Research Design and Sampling</li> <li>• Source of research</li> <li>• Definitions of the terms used</li> <li>• Scope and limitations of the study</li> </ul>	28-34
4	<b>DATA ANALYSIS AND INTERPRETATION</b> <ul style="list-style-type: none"> <li>• Title of the table</li> <li>• Data table in tabular and/or visual form</li> <li>• Analysis of the table</li> <li>• Inference of the table</li> </ul>	35-55
5	<b>FINDINGS, RECOMMENDATIONS AND CONCLUSION</b>	56-58
6	<b>BIBLIOGRAPHY/REFERENCE</b>	59
7	<b>ANNEXURE</b>	60-64

**CHAPTER-1**  
**INTRODUCTION**

## **Introduction to the Study of Warranty Claims Analysis for Product Development and Perception Building**

In today's competitive marketplace, companies constantly strive to enhance their products while maintaining customer satisfaction. One essential tool that organizations can leverage to meet these objectives is **warranty claims analysis**. This analysis focuses on understanding patterns in the claims customers make related to product defects, failures, or dissatisfaction after purchase. By systematically evaluating warranty claims, companies can derive actionable insights that significantly contribute to both **product development** and **brand perception**.

### **What is Warranty Claims Analysis?**

Warranty claims analysis is the process of studying data from warranty claims—requests by customers for repair or replacement of products that fail within the warranty period. This analysis helps companies understand why products fail, identify common issues, and make improvements to enhance reliability and customer satisfaction.

### **Why It's Important**

- Identifying Failure Modes: Research suggests that analyzing warranty claims can pinpoint common product failures and their causes, guiding redesign efforts to improve durability. For example, an automobile manufacturer might detect recurring transmission issues, leading to recalls and design changes to prevent accidents and enhance reputation, as in warranty claims analysis.
- Understanding Customer Usage: It seems likely that warranty data reveals how customers use products in real-world scenarios, informing design changes to make products more robust and user-friendly.
- Predicting Future Failures: The evidence leans toward using historical claims to forecast future failure rates, aiding production and support planning.
- Enhancing Customer Satisfaction: Efficiently handling claims can improve customer loyalty, showing care for customers and potentially boosting sales.

### **Detailed Process of Warranty Claims Analysis**

The process can be broken down into several key stages, each critical for deriving actionable insights:

#### **1. Data Collection:**

- This initial step involves gathering all relevant information from warranty claims, including product details (model, serial number), failure descriptions, claim dates, customer information, and any accompanying comments or notes. For example, a claim might include vehicle mileage and defect details, as discussed in What is

Warranty Analytics & Why Do You Need It?. This data forms the foundation for analysis, reflecting real operating conditions and usage intensity.

## 2. Data Cleaning and Organization:

- Ensuring data accuracy and standardization is essential. This involves categorizing failure types, mapping product codes, and correcting inconsistencies. For instance, misspelled words in customer comments must be addressed for text analytics, as mentioned in text analysis for warranty claim comments . This step is crucial to make the data suitable for analysis, reducing errors and enhancing reliability.

## 3. Data Analysis:

- This stage employs various statistical methods to identify patterns, trends, and correlations. Key techniques include:
  - Frequency Analysis: Determines which products or components have the highest claim rates, helping prioritize areas for improvement.
  - Time-to-Failure Analysis: Analyzes when failures occur, providing insights into product lifespan and reliability, as seen in studies like Warranty Data Analysis: A Review.
  - Root Cause Analysis: Identifies underlying reasons for failures, such as design flaws or manufacturing defects, which is vital for product redesign.
  - Text Analytics: Analyzing customer comments using natural language processing (NLP) techniques can identify qualitative issues not captured by structured data. This method helps in identifying specific failure modes, detecting fraud, and reducing over-repair, as noted in discussions on text mining for warranty claim comments, which can reveal customer sentiments and usability issues (Text Analytics for Warranty Claim Comments).

These methods are often applied in parallel, with structured data analysis complemented by text analytics, enhancing the depth of insights for product development. Recent developments, such as the use of machine learning for early detection of reliability problems, as mentioned in Warranty Data Analysis: A Review, indicate a shift toward more sophisticated analytical approaches, though there is ongoing debate on the best methods, with statistical analysis and machine learning each offering different strengths in accuracy and predictive power.

A table summarizing these analytical methods and their purposes is provided below:

Method	Purpose
Frequency Analysis	Identify high-claim products/components
Time-to-Failure Analysis	Understand product lifespan and failure timing
Root Cause Analysis	Determine underlying failure reasons
Text Analytics	Extract insights from customer comments

#### **4. Reporting and Visualization:**

- The analyzed data is presented in a clear, understandable format using dashboards, reports, or presentations. Tools like Tableau, mentioned in Warranty Claims Analytics, offer visualizations that help product development teams identify trends and make informed decisions. This step ensures findings are actionable and accessible to stakeholders.

#### **5. Actionable Insights:**

- The analysis translates into specific recommendations for product improvements, such as redesigning failure-prone parts, adjusting manufacturing processes, or enhancing user instructions. For example, if warranty data shows frequent failures in a specific component, as in the case of an automobile transmission issue (Warranty Claim Data Analysis), manufacturers might redesign that part or issue a recall. These insights also inform customer service strategies, enhancing satisfaction and loyalty.

#### **6. Continuous Monitoring:**

- Regular updates and reviews of warranty data are essential to track the effectiveness of implemented changes and identify new issues. This ongoing process ensures that product development remains responsive to field performance, as highlighted in resources like How to use Warranty Claim Data to Improve Product Quality.

## **Perception Building: Understanding Its Importance in Business and Branding**

Perception building refers to the process of shaping and influencing how consumers, stakeholders, or the general public view a brand, product, or organization. It involves strategically managing the image, reputation, and emotional response associated with a company or product, often through marketing, customer interactions, and consistent brand messaging. The perceptions that customers hold about a company can have a significant impact on its success, as they directly affect purchasing decisions, brand loyalty, and overall market positioning.

### **Key Aspects of Perception Building**

#### **1. Brand Identity and Messaging:**

- A company's messaging, values, and overall identity play a crucial role in shaping consumer perceptions. This includes visual elements (logos, design, colors) and verbal cues (tone of voice, communication style).
- Consistency in messaging across all touchpoints, including advertising, social media, product packaging, and customer service, helps reinforce a coherent and clear brand image.

#### **2. Customer Experience:**

- Every interaction a customer has with a brand influences their perception. Whether it's through purchasing, customer support, or using the product, the overall experience will shape how the consumer feels about the brand.
- A positive experience—whether through high-quality products, exceptional customer service, or smooth delivery—builds trust and loyalty.

#### **3. Social Proof and Reputation Management:**

- Consumer reviews, word-of-mouth recommendations, social media conversations, and influencer endorsements contribute to the public's perception of a brand. Positive social proof builds trust and credibility, while negative reviews or bad publicity can harm the brand's image.
- Actively managing online reviews, responding to customer feedback, and addressing issues in a transparent and empathetic manner is crucial for protecting and enhancing a brand's reputation.

#### **4. Product Quality and Consistency:**

- The quality of a product directly impacts the perception of the brand that produces it. High-quality products build trust, satisfaction, and positive word-of-mouth, while poor-quality products can damage a brand's reputation quickly.
- Companies must ensure their products meet or exceed customer expectations consistently. Delivering a high-quality experience over time fosters a perception of reliability and expertise.

#### **5. Brand Values and Corporate Social Responsibility (CSR):**

- In today's socially conscious world, many consumers evaluate brands based on their ethical stances, sustainability efforts, and involvement in social causes. Companies that align themselves with values that resonate with their target audience can build a more favorable perception.
- Whether it's promoting eco-friendly products, supporting local communities, or advocating for inclusivity, CSR initiatives can help strengthen a brand's emotional connection with consumers.

### **The Role of Warranty Claims in Perception Building**

In the context of warranty claims, perception building becomes particularly important. When a customer files a warranty claim, their experience with the process can shape their perception of the brand in significant ways.

#### **1. Responsiveness and Transparency:**

- A timely and transparent response to warranty claims fosters trust and demonstrates that the company stands behind its products. If a customer perceives the warranty process as fair and efficient, their overall perception of the brand is enhanced, leading to stronger brand loyalty.

#### **2. Customer Support and Satisfaction:**

- The quality of customer service during the warranty process can turn a potentially negative experience into a positive one. When companies handle claims professionally, show empathy, and provide effective solutions, customers are more likely to view the brand favorably.

#### **3. Building Trust Through Accountability:**

- A company's willingness to take responsibility for product defects, promptly rectify issues, and honor warranties can differentiate it in the market. Brands that are accountable for their products often gain customer trust, which in turn helps build a positive reputation.

## **How Perception Building Affects Business Outcomes**

### **1. Brand Loyalty:**

- Positive perceptions lead to stronger brand loyalty. When customers trust a brand and feel it aligns with their values, they are more likely to continue purchasing from the company and recommend it to others.

### **2. Competitive Advantage:**

- Perception building can provide a competitive edge. Brands with a strong, positive perception in the marketplace often attract more customers and maintain a better position relative to competitors.

### **3. Increased Customer Lifetime Value:**

- Loyal customers who have a positive perception of a brand are likely to spend more over time. A positive customer experience, including handling warranty claims with excellence, leads to repeat purchases and long-term profitability.

### **4. Brand Advocacy and Word-of-Mouth:**

- Happy customers are more likely to share their positive experiences with others, either through direct word-of-mouth or social media. This kind of organic promotion helps enhance the brand's reputation and attracts new customers.

**CHAPTER – 2**  
**COMPANY PROFILE**

## **Industry Overview: Kitchen Appliances Industry**

### **Brief History:**

The kitchen appliances industry in India has grown alongside urbanization and rising incomes. Stovekraft Ltd, with brands like Pigeon and Gilma, has been a key player, offering affordable, innovative products for modern kitchens.

### **Porter's Five Forces Analysis:**

- Threat of New Entrants: Moderate — easy entry, but established brands hold market trust.
- Supplier Power: Low to moderate — many local suppliers keep costs competitive.
- Buyer Power: High — price-sensitive consumers with plenty of options.
- Threat of Substitutes: Moderate — alternatives like gas stoves or food delivery.
- Industry Rivalry: High — intense competition from brands like Prestige and Bajaj.

### **Growth & Prospects:**

- Market Growth: Expected 8–10% CAGR (2024–2030).
- Key Drivers: Urbanization, e-commerce, and demand for smart, energy-efficient appliances.
- Opportunities for Stovekraft: Smart appliances, better warranty policies, and expanded after-sales service to strengthen brand perception.

### **2.1 Inception and History, Type, Nature, Board of Directors, Organization chart, Business operations.**



Stovekraft Limited, established in 1999, is an Indian company specializing in the manufacturing and distribution of kitchen appliances. Headquartered in Bangalore, Karnataka, it operates under prominent brands such as Pigeon and Gilma.

## **History and Inception:**

Founded by Mr. Rajendra Gandhi, Stovekraft began by manufacturing kerosene wick stoves in 1994. By 1997, it had become India's largest manufacturer of LPG stoves. The company was incorporated in 1999, collaborating with brands like BPL, Marlex, and Inalsa as Original Equipment Manufacturers (OEMs). It launched its own brands, Gilma in 2001 and Pigeon in 2003. Stovekraft expanded its manufacturing facilities by establishing a unit in Baddi, Himachal Pradesh, in 2004. In 2010, Sequoia Capital invested in the company, fueling its growth. The company went public in January 2021, with shares listed on the NSE and BSE in February 2021.

## **Types and Nature of Business Operations:**

Stovekraft Ltd operates in the **kitchen and home appliances sector**, catering to a broad spectrum of consumer needs with an extensive product portfolio. The company designs, manufactures, and markets a variety of kitchen essentials, including:

- Pressure Cookers
- Non-stick Cookware
- Gas and Induction Cooktops
- Mixer Grinders
- Chimneys and Hobs
- Small Kitchen Appliances (like kettles and toasters)

Stovekraft serves both domestic and international markets, with its products available across 23 states in India and exported to 12 countries, including:

- Middle East
- Kenya, Uganda, and Tanzania
- Sri Lanka and Fiji
- Bahrain, Kuwait, and Oman

The company operates through its popular brands, **Pigeon**, **Gilma**, and **Black + Decker (licensed)**, catering to various market segments — from affordable, value-driven products to premium, feature-rich appliances. Stovekraft's business model spans manufacturing, distribution, and retail, with products available through traditional retail outlets, modern trade, and online platforms, enabling the company to maintain a strong market presence and adapt to evolving consumer preferences.

**Board of Directors:** As of the latest available information, the Board of Directors comprises:

Sl .No	Name of Directors	Designation
1	Mrs .Shuba Rao Mayya	Chairperson and Independent Director
2	Mr. Anup Shah Sanmukh	Independent Director
3	Mr. Avinash Gupta	Independent Director
4	Mr. Natrajan Ramkrishna	Independent Director
5	Mrs .Neha Gandhi	Executive Director
6	Mr. Rajendra Gandhi	Managing Director
7	Mrs. Sunita Rajendra Gandhi	Non-Executive/Non-Independent Director

- **Organization Chart:** Stovekraft's organizational structure includes key positions such as:

#### Board of Directors

- Mrs. Shuba Rao Mayya (Chairperson, Non-Executive Independent Director)
- Mr. Anup S Shah (Non-Executive Independent Director)
- Mr. Natrajan Ramkrishna (Non-Executive Independent Director)
- Mr. Avinash Gupta (Non-Executive Independent Director)
- Mr. Rajendra Gandhi (Managing Director)

#### Managing Director

- Mr. Rajendra Gandhi, who oversees the overall strategy and operations, reports to the board.

## Chief Operating Officer

- A K Dash, reporting to Mr. Rajendra Gandhi, manages daily operations and coordinates department heads.

## Reporting to Chief Operating Officer

- General Manager – Production (Pressure Cooker): Senthil Kumar, with 25+ years of experience, oversees production.
- Head – Marketing: Kewal Kotian, with 17 years of experience, drives marketing strategies.
- Head – Technology and R&D: Dilipan R, with 29 years of experience, leads innovation and product development.
- Vice President – Emerging Business: Rohit Mago, with 14 years of experience, focuses on new business areas.
- Head – Quality: Vivek Kulkarni, with 30+ years of experience, ensures product quality standards.
- General Manager – Supply Chain Management: Nataraj S, with 15+ years of experience, manages supply chain operations.

## Chief Financial Officer

- Mr. Shashidhar SK, reporting directly to the Managing Director, handles finance, company secretarial duties, and compliance.

## Head of Human Resources

- Ms. Joseph, with 17 years of experience, manages HR policies and employee engagement, reporting to the COO or Managing Director, based on standard practice.
- **Business Operations:** Stovekraft's operations encompass the design, manufacturing, and distribution of kitchen appliances. Its manufacturing facilities are located in the Harohalli Industrial Area near Bengaluru and in Baddi, Himachal Pradesh. The company emphasizes innovation and sustainability, aiming to transform routine kitchen tasks into pleasant

experiences while minimizing environmental impact through responsible manufacturing practices.

## **2.2 Product/service profile, Market share, Competitors, Functional chart**

### **Product and Service Profile**

Stovekraft Ltd., headquartered in Bangalore, India, is a leading manufacturer in the kitchen appliances industry, founded in 1999. The company operates under several well-known brands, including Pigeon, Gilma, and BLACK+DECKER, the latter through a licensing agreement since 2017. Their product portfolio is extensive, catering to the needs of Indian kitchens with a focus on innovation and quality. Key products include:

- Pressure Cookers: Known for durability and efficiency, particularly under the Pigeon brand.
- Non-Stick Cookware: A significant segment where Stovekraft holds a 12% market share by volume, offering various options for everyday cooking.
- Gas and Induction Cooktops: Including hobs and glass cooktops, designed for modern kitchens.
- Mixer Grinders, Chimneys, and Toasters: Enhancing kitchen functionality with appliances for food preparation and ventilation.
- Home Solutions: Extending beyond traditional kitchen appliances to include LED bulbs, oxymeters, and other household utilities.

The company emphasizes quality through in-house R&D facilities and a large sourcing and quality control team, particularly in China, ensuring products meet consumer preferences. Their distribution network is robust, with 9 C&F agents, 600 distributors, over 75,000 retail touchpoints, 200+ Pigeon Exclusive stores, and 60 Gilma stores, supported by 900 sales professionals. Manufacturing is facilitated by ISO 9001:2015 certified facilities in Bengaluru (53 acres, with an automated roller coating line) and Baddi, with a new 120,000 sq. ft. warehouse enhancing operations.

### **Market Share Analysis**

Determining Stovekraft Ltd.'s exact market share in the broader Indian kitchen appliances market involves analyzing revenue against total market size. The Indian kitchen appliances market was valued at USD 5.6 billion in 2023, approximately 448,000 crore INR (assuming 1 USD = 80 INR for conversion). Stovekraft's revenue for the fiscal year ending March 2024 was Rs 1364.39 crore, translating to about USD 170.5 million. This suggests a market share of approximately 3%, calculated as  $(170.5 / 5600) * 100\%$ .

However, Stovekraft's strength lies in specific segments. They are a dominant player in pressure cookers and among market leaders in standing hobs, cooktops, and non-stick cookware, with a reported 12% market share by volume in the latter, positioning them as the third largest in this category. This segment-specific dominance highlights their competitive edge, despite the overall market being fragmented with leaders like LG in microwaves and Faber Heatkraft in cooker hoods.

The market's growth, projected at a CAGR of 8.17% from 2024 to 2032, reaching USD 11.4 billion, indicates opportunities for Stovekraft to expand, driven by urbanization and rising disposable incomes.

## Competitors

The Indian kitchen appliances market is highly competitive, with both domestic and international players vying for market share. Stovekraft's competitors span across various product categories, including:

- LG Electronics: A market leader in microwaves, offering a broad range of kitchen appliances.
- Bajaj Electricals: Known for mixer grinders and other small kitchen appliances, with a strong distribution network.
- Whirlpool: A global player with significant presence in refrigerators and cooking ranges, competing in multiple segments.
- TTK Prestige: A direct competitor in cookware and pressure cookers, with a long history in the Indian market.
- Other Notable Competitors: Include Cello, Bergner, and Hawkins, particularly in cookware, and Samsung, Godrej, and Haier in broader kitchen appliances.

These competitors engage in price wars and innovation to capture market share, with Stovekraft competing through its brand presence, especially with Pigeon, known for affordability and quality in mass markets.

## Functional Chart and Organizational Structure

Stovekraft Ltd.'s governance is led by a board of directors, detailed as follows:

Name	Position	Qualifications/Experience/Other Roles
Mr.Natralan Ramkrishna	Independent Director	Chartered Accountant, 40+ years in accounting (GAAP, IFRS, IndAS, auditing), sectors: IT, Financial Services, FMCG; Director at Vastu Housing Finance Corporation Limited, DTDC Express Limited, India1 Payments Limited, Solar Industries India Limited, Economic Explosives Limited, MAAM Employees Trustee Private Limited

Mrs.Shuba Rao Mayya	Independent Director	Bachelor's in Commerce (University of Mumbai), Chartered Accountant; Worked at ICICI Limited, ICICI Prudential Life Insurance, Tata Consultancy Services; Director at Ace Designers Limited, Happiest Minds Technologies Limited, Le Travenues Technology Limited
Mr.Anup Shah	Independent Director	Bachelor's in Commerce (HR College, Mumbai), Law degree (Government Law College, Mumbai); 37+ years in real estate law; Founder Partner of ASLF Law Office, Bangalore; Director at Puravankara Limited, Sobha Limited, Bhoruka Power Corporation Limited, Provident Housing Limited, Brigade Hotel Ventures Limited, Welspun One Logistics Parks Private Limited
Mr.Avinash Gupta	Independent Director	MBA (A.B. Freeman School of Business, Tulane University), B.Tech. in Mechanical Engineering (IIT BHU Varanasi); 30+ years, expertise in financial services (M&A, equity/debt financing, private equity, advisory); Director at Jupiter Wagons Limited, Keventer Agro Ltd, Transport Corporation Of India Limited, Dun & Bradstreet Information Services India Private Limited
Mrs.Neha Gandhi	Executive Director	Bachelor's in Business Administration (Christ University, Bengaluru), postgraduate certificate in Sales and Marketing Management (MICA); Graduate trainee at Viacom18 Media Private Limited; Promoter, no other directorships
Mr.Rajendra Gandhi	Managing Director	Founder and promoter, 23+ years industry experience, DIN 01646143; Instrumental in company growth, no other directorships
Mrs. Sunita Rajendra Gandhi	Non-Executive Director	Senior secondary certificate (SS Jain V High School, Secunderabad); Promoter, Director from 10 July 2004 to 30 September 2016, no other directorships

Beyond the board, Stovekraft's organizational structure includes standard departments such as sales, marketing, production, finance, and human resources. The company culture is described as passionate and efficient, with an informal atmosphere and a problem-centric review structure, fostering entrepreneurship. Their career page highlights roles like Graduate Engineer Trainee and Store Manager, indicating departments like engineering and retail operations, with average salaries ranging from ₹2,00,000 to ₹3,50,000 annually for freshers. The company employs over 4,205 people, with around 80% being women, and operates manufacturing facilities in Bengaluru and Baddi, supported by a large sourcing and QC team in China.

This structure reflects a typical corporate hierarchy for a manufacturing firm, with the board overseeing strategic decisions and department heads managing operations, though specific details on department heads beyond the board are not publicly detailed in the sources reviewed.

## 2.3 GDP contribution

This detailed analysis provides an in-depth look at Stovekraft Ltd.'s contribution to India's Gross Domestic Product (GDP) for FY2023-24, covering financial performance, sector context, and methodological considerations. The analysis is based on available data from company reports and national statistics, ensuring a thorough understanding of the company's economic impact as of March 12, 2025.

### Financial Performance and Value Added Calculation

Stovekraft Ltd., headquartered in Bangalore, India, and founded in 1999, is a leading manufacturer in the kitchen appliances industry, operating under brands like Pigeon, Gilma, and BLACK+DECKER. Its product portfolio includes pressure cookers, non-stick cookware, gas and induction cooktops, mixer grinders, chimneys, and home solutions, catering to both residential and commercial sectors.

To determine Stovekraft's contribution to India's GDP, we focus on its value added, which is the difference between its total revenue and the cost of intermediate goods and services it purchases. This is a standard measure in national accounting for a firm's contribution to GDP, reflecting the value created by transforming inputs into outputs.

From the company's annual report for FY2023-24 Stovekraft Annual Report FY2024, the following financial metrics are extracted:

Financial Metric	Value (₹ in Million)	Value (₹ in Crore)
Revenue from Operations	13,643.30	1,364.33
Cost of Materials Consumed	8,129.76	812.976
Purchase of Stock in Trade	1,017.41	101.741

To convert from million to crore rupees, note that 1 crore = 10 million rupees. Thus, revenue from operations of ₹13,643.30 million is 1,364.33 crore rupees, cost of materials consumed is 812.976 crore rupees, and purchase of stock in trade is 101.741 crore rupees.

The value added is calculated as:

$$\text{Value Added} = \text{Revenue from Operations} - (\text{Cost of Materials Consumed} + \text{Purchase of Stock in Trade})$$

Substituting the values:

$\text{Value Added} = 13,643.30 - (8,129.76 + 1,017.41) = 13,643.30 - 9,147.17 = 4,496.13$  million rupees

Converting to crore rupees:

4,496.13 million rupees = 449.613 crore rupees

For simplicity, we round to 449.6 crore rupees, acknowledging minor calculation adjustments for standard reporting.

This value added represents Stovekraft's contribution to GDP, as it captures the value created by the company's production activities, net of intermediate inputs. The calculation accounts for both manufacturing (e.g., pressure cookers, cooktops) and trading activities (e.g., sale of purchased goods), ensuring a comprehensive measure.

#### Context Within India's GDP

India's GDP for FY2023-24, as per the provisional estimates released by the National Statistical Office (NSO), is ₹295.36 lakh crore India GDP Provisional Estimates FY2023-24. To contextualize, 1 lakh crore = 100,000 crore, so:

295.36 lakh crore = 295.36  $\times 100,000$  crore = 29,536,000 crore rupees

This is approximately 295.36 trillion rupees in international notation.

Stovekraft's value added of 449.6 crore rupees is thus:

Contribution Percentage =  $\left(\frac{449.6}{29,536,000}\right) \times 100 \approx 0.00152\%$

This percentage, while small, is expected given the vast scale of India's economy, which encompasses agriculture, services, and manufacturing sectors, with GDP contributions from millions of entities. Stovekraft's role is part of the manufacturing sector, specifically within consumer durables and kitchen appliances, which are sub-sectors of the broader industrial economy.

#### Sectoral Context and Market Position

To provide further context, the kitchen appliances sector in India, where Stovekraft operates, had a market size of USD 5.6 billion in 2023, expected to grow to USD 11.4 billion by 2030 at a CAGR of 8.17% India Kitchen Appliances Market Size. Converting USD to INR at an approximate rate of 1 USD = 83 INR (as of March 2025, for illustrative purposes), the market size is approximately ₹465.2 billion (46,520 crore rupees) in 2023, growing significantly.

Stovekraft's market share is estimated at around 3% overall in the kitchen appliances market, with a stronger 12% share by volume in non-stick cookware, based on revenue comparisons and industry reports. This positions Stovekraft as a significant player, competing with companies like LG Electronics, Bajaj Electricals, Whirlpool, and TTK Prestige. Its value added of 449.6 crore rupees aligns with its revenue of 1,364.33 crore rupees, suggesting it contributes meaningfully

within its niche, though its overall GDP impact is small due to the sector's size relative to the national economy.

#### Methodological Considerations

The calculation of value added as revenue minus costs of materials and traded goods is a standard approximation, but it assumes all other costs (e.g., employee benefits, depreciation) are part of the value added distributed to stakeholders. This is consistent with economic theory, where value added is the sum of wages, salaries, interest, rent, taxes, and profits. For Stovekraft, additional financials include:

Expense Category	Value (₹ in Crore, FY2023-24)
Employee Benefits Expense	166.556
Finance Cost	24.032
Depreciation & Amortization	49.284
Other Expenses	209.096
Profit Before Tax	45.551

These figures sum to part of the value added, confirming the distribution aligns with economic contributions. However, the exact breakdown in national accounts might differ, as GDP includes indirect taxes and subsidies, which are not detailed here. Given the data, the approximation of 449.6 crore rupees is reasonable for Stovekraft's direct contribution.

#### Limitations and Future Outlook

The contribution of 0.0015% to India's GDP underscores Stovekraft's role as a micro-contributor in a vast economy, but its growth trajectory (6.3% revenue growth in FY2023-24) suggests potential for increased impact. The kitchen appliances sector's projected CAGR of 8.17% indicates opportunities for Stovekraft to expand, particularly with new product launches like air fryers and increased retail presence (1,28,842 touchpoints). However, challenges like competition and global economic conditions may affect future contributions.

In conclusion, Stovekraft Ltd.'s GDP contribution is approximately 449.6 crore rupees in FY2023-24, a small but significant part of India's manufacturing sector, reflecting its role in producing essential kitchen solutions for Indian households.

## 2.4 Growth and development of company and industry

### Company Financial Growth

Stovekraft Ltd., a key player in India's kitchen appliances sector, has shown steady revenue growth over recent years. Its revenue increased from ₹859 crore in FY2020-21 to ₹1,364.33 crore in FY2023-24, reflecting a robust expansion. However, profits have fluctuated, with profit after tax

(PAT) dropping from ₹81 crore in FY2020-21 to ₹34.14 crore in FY2023-24, indicating challenges in maintaining profitability amidst growth.

## Market and Industry Trends

The Indian kitchen appliances market, which includes products like pressure cookers and cooktops, has grown significantly, driven by urbanization and rising incomes. Research suggests the market was around USD 4.5 billion in 2020, reaching USD 5.6 billion in 2023, with projections estimating growth to USD 11.4 billion by 2032 at a CAGR of 8.17%. Trends like smart appliances and health-conscious cooking are shaping the industry, offering opportunities for companies like Stovekraft.

### Employee Demographics

An interesting aspect is that around 80% of Stovekraft's employees are women, highlighting a unique focus on gender diversity in its workforce, which is not commonly emphasized in industry reports.

## 2.5 CSR of Companies

Stovekraft Ltd., a leading kitchen appliances company in India, is actively involved in corporate social responsibility (CSR) initiatives. They focus on improving community well-being through various projects, such as providing water and infrastructure, supporting education, and promoting sustainability.

### Financial Commitment

Research suggests Stovekraft spent ₹73.50 crore on CSR in FY2022-23, exceeding their planned budget, showing a strong commitment to social and environmental responsibility.

Stovekraft's CSR financials for FY2022-23, as per their annual action plan, provide a clear picture of their commitment:

S.No	CSR Project/Activity	Sector	Location	Amount Outlay (Budget)	Amount Spent
1	Setting-up of an ATM	Rural Development	Medamaranahalli, Bengaluru	2.36	2.36
2	Setting-up of RO Water Plant	Safe drinking water	Siwana, Balmer	2.95	2.95
3	Skill Development NAPS & NATS	Skill Development	Karnataka	18.75	13.97
4	Donation to KMYF - Free Dialysis	Health Care	Bengaluru, Karnataka	30.0	30.0

5	Donation to Society for Autistics	Education and special education	Bengaluru	37.0	-
6	Donation to Bhagwan Mahaveer Memorial Jain Trust	Health Care	Bengaluru	11.0	-

Additional financial details include:

- Total CSR Plan: ₹57.34 crore, Actual Spent: ₹73.50 crore, Excess Spent: ₹16.15 crore.
- CSR Carry Forward: ₹99.00 crore, Already Spent: ₹16.15 crore, Balance to be spent: ₹77.54 crore.
- Total Amount Outlay for Projects: ₹102.06 crore, Total Amount Spent: ₹49.28 crore.

## 2.6 SWOT Analysis, Future prospects/growth

### SWOT Analysis of Stovekraft Limited:

#### Strengths:

- Diverse Product Portfolio: Stovekraft offers a wide range of kitchen appliances and cookware under brands like Pigeon and Gilma, catering to various consumer needs.
- Strong Brand Recognition: The company's brands are well-recognized in the Indian market, enhancing customer trust and loyalty.
- Extensive Distribution Network: Stovekraft's products are available across 23 states in India and in 12 countries overseas, reflecting a robust distribution network.
- Manufacturing Capabilities: With two manufacturing plants in Bangalore and Baddi, the company maintains control over production quality and capacity.

#### Weaknesses:

- Financial Volatility: The company reported a net loss of ₹6 crore for the last quarter of the financial year 2022-23, compared to a net profit of ₹8.6 crore in the corresponding period a year ago, indicating financial fluctuations.
- Leadership Changes: Frequent changes in top management, such as the exit of CEO Rajiv Mehta in March 2023, can lead to strategic uncertainties.

#### Opportunities:

- Market Growth: The Indian kitchen appliances industry is projected to grow at a compound annual growth rate (CAGR) of 15.20%, reaching a value of ₹43,000 crore by 2033, presenting significant growth opportunities.

- **Product Innovation:** Developing innovative and energy-efficient products can attract environmentally conscious consumers.
- **E-commerce Expansion:** Leveraging online sales channels can enhance market reach and cater to the growing number of online shoppers.

### **Threats:**

- **Intense Competition:** The presence of established competitors like TTK Prestige and Hawkins Cookers poses challenges to market share.
- **Raw Material Price Fluctuations:** Volatility in raw material prices can impact production costs and profit margins.

### **Future Prospects and Growth:**

- Stovekraft's future growth prospects appear promising, with analysts forecasting a 32.1% earnings growth rate and a 27.0% revenue growth rate. The company's focus on expanding its retail presence, as evidenced by the opening of 54 company-owned stores in southern India by the end of the fiscal year 2022-23, positions it well to capitalize on the growing kitchen appliances market. Additionally, the company's commitment to enhancing its strengths and advancing growth, as highlighted in its annual report, indicates a strategic approach to future development.
- By addressing its weaknesses and capitalizing on emerging opportunities, Stovekraft can strengthen its market position and achieve sustainable growth in the evolving kitchen appliances industry.

**CHAPTER – 3**  
**RESEARCH METHODOLOGY**

### 3.0: Literature Review

- **Ming Luo and Shaomin Wu (2019)** This research explores warranty claims for products with hardware, software, and human factors. It develops models to estimate warranty costs from hardware failures, software bugs, and their interactions, while also accounting for human behaviors like false claims (NFB) or unreported failures (FBNR). The paper optimizes warranty policies by balancing product price, warranty length, and software update intervals to maximize manufacturer profits. The insights help companies better forecast claims, manage costs, and design effective, customer-friendly warranty strategies.
- **Marcin Relich and Izabela Nielsen (2021)** This research introduces a method to estimate production and warranty costs in early-stage product development. Using constraint satisfaction and parametric modeling, it helps balance prototyping, manufacturing, and warranty expenses. The study shows that increased prototype testing boosts reliability, reducing long-term costs and supporting informed decision-making for cost-efficient, high-quality products.
- **Mahsa Arabi, Saeed Mansour & Sajjad Shokouhyar (2017)** This research explores optimizing warranty-based sustainable product-service systems (PSS) using game theory. It develops a Stackelberg game model to balance producer and customer interests, determining the optimal warranty and out-of-warranty periods to minimize total usage and end-of-life costs. The study highlights how warranties not only enhance customer satisfaction and product reliability but also contribute to sustainability by extending product lifecycles. A case study in the notebook market validates the model, demonstrating practical benefits for both producers and consumers.
- **Kunpeng Li , Lan Wang, Dilip Chhajed and Suman Mallik(2018)** This research explores how consumer perception and product failures affect a manufacturer's decisions on pricing, warranties, and market coverage. It finds that warranties signal quality, especially for low-reputation brands, and that targeting high-valuation consumers can be optimal after failures. The study identifies strategies that align manufacturer profits with consumer welfare through higher quality and better warranties.
- **Chenglong Lia, Xiaolin Wang, Lishuai Lib, Min Xieb, Xin Wangd (2020)** The article presents a dynamic control charting scheme for early detection of reliability problems in warranty databases. The scheme monitors warranty claims over the product life cycle, considering stochastic product sales and non-homogeneous failure processes. The false alarm rate is controlled at a desired level, allowing for timely detection of abrupt changes in field reliability. The scheme detects underlying reliability problems promptly and estimates change points with acceptable accuracy. A moving window approach is introduced to extend the original model and mitigate the "inertia" problem.

- **Yuyan Wang, Zhaoqing Yu & Xiaohuan Ji (2018)** This research explores e-commerce supply chain coordination when platforms offer sales and extended warranty services. It finds that centralized decisions lower sales prices, raise service levels, and boost system profits, while retailers earn more profit than platforms in decentralized models. A “Revenue Sharing Joint Commission” contract is proposed to align incentives and improve overall profitability.

### **3.1 Statement of the problem**

Stovekraft Ltd., a company making kitchen appliances like pressure cookers and cooktops, is dealing with more warranty claims lately, which might be hurting its profits and how customers see the brand. Warranty claims happen when customers report issues with products and seek repairs or replacements under the warranty. The company's warranty costs have gone up, from about 0.59% of revenue in 2021-22 to 0.84% in 2023-24, showing that more claims are being made.

To tackle this, Stovekraft can look closely at why these claims are happening, like finding out which products fail most often or what parts break. This can help them make better products by fixing these issues during development. For example, if pressure cookers often have sealing problems, they could improve the design. An unexpected detail is that around 80% of their employees are women, which shows a strong focus on gender diversity and might help in understanding customer needs better.

They can also tell customers about these improvements to show they care about quality, which can make people trust the brand more. This way, they can turn a challenge into a chance to build a better reputation.

### **3.2 Title of the study**

In today's dynamic and highly competitive kitchen appliances market, maintaining product quality and fostering a positive brand perception are essential for sustained business success. Stovekraft Ltd, a leading manufacturer of kitchen solutions under brands like Pigeon and Gilma, has built a strong market presence through a diverse range of products, including pressure cookers, gas stoves, and mixer grinders. However, as consumer expectations evolve and product complexity increases, effectively managing warranty claims has become a critical factor in driving product innovation and preserving customer trust.

Warranty claims provide invaluable insights into product performance, highlighting recurring issues, failure patterns, and quality gaps that might not be evident during initial product testing. For Stovekraft, a detailed analysis of warranty data presents an opportunity to proactively address design flaws, enhance manufacturing processes, and deliver more durable and reliable

products. This approach not only reduces the financial burden of frequent claims but also strengthens the company's reputation as a consumer-centric brand committed to quality.

Furthermore, consumer perception is heavily influenced by after-sales service experiences. Unresolved warranty issues, lengthy claim processing times, or repeated product failures can damage brand credibility and deter future purchases. Conversely, efficient claims management and visible product improvements based on customer feedback can build consumer loyalty and position Stovekraft as a brand that values its customers' voices.

This study aims to explore how a structured warranty claims analysis framework can serve as a strategic tool for product development and perception building at Stovekraft Ltd. By investigating historical claim data, identifying common failure points, and aligning findings with product development cycles, the research seeks to provide actionable recommendations for reducing claim rates, improving customer satisfaction, and reinforcing Stovekraft's competitive edge.

In addition to refining internal processes, the study will examine how warranty claims insights can shape external brand perception. When customers see that their feedback leads to tangible product improvements, they are more likely to view the brand positively, leading to better word-of-mouth marketing and increased market share.

Ultimately, this research will demonstrate how leveraging warranty data is not just a cost-saving measure but a strategic initiative that fuels continuous innovation and sustainable growth. For Stovekraft Ltd, transforming warranty claims into opportunities for improvement will be a key step toward delivering superior products and building long-lasting customer relationships in an ever-evolving market landscape.

### **3.3 Objectives of the study**

1. To Identify common product failures through warranty claims analysis.
2. To Assess the impact of claims on customer satisfaction and brand perception.
3. Using the claims data to improve product design and manufacturing processes.
4. To Suggest efficient claim resolution strategies and ways to reduce costs while boosting competitiveness.

### **3.4 Research Design and Sampling**

The research on warranty claims analysis for product development and perception building at Stovekraft Ltd follows a structured approach to ensure comprehensive data collection and analysis.

Research Design:

- Approach: A mixed-methods approach combining quantitative (statistical analysis of warranty claims) and qualitative (consumer perception insights) data.

- Data Sources:
  - Historical warranty claims from Stovekraft Ltd.
  - Customer feedback and complaint records.
  - Surveys and interviews with consumers and service teams.
- Key Variables:
  - Product failure rates and reasons.
  - Warranty claim frequency and resolution times.
  - Impact of warranty policies on consumer trust and brand perception.

Sampling Strategy:

- Target Population: Consumers who purchased Stovekraft Ltd products, especially those who filed warranty claims.

Sampling Method:

- Random sampling for warranty claims data to avoid bias.
- Purposive sampling for consumer interviews to capture insights from those who faced product issues.

Sample Size:

- The sample size for the study consisted of 50 respondents.

This research will help Stovekraft Ltd refine its warranty policies, enhance product reliability, and strengthen consumer trust.

### **3.5 Source of Research**

For the warranty claims analysis and perception building at Stovekraft Ltd, the research will use a combination of data to collect and analyze data effectively.

Primary Data:

- Customer Surveys:
  - Structured questionnaires to gather consumer feedback on product performance, warranty experiences, and brand perception.
  - Mix of Likert scale questions and open-ended responses to capture both quantitative and qualitative insights.

- Interviews with Service Teams:
  - Semi-structured interviews with service staff and warranty handlers to understand operational challenges and common product issues.
  - Provides valuable internal insights into recurring claims and process bottlenecks.

Secondary Data:

- Company Reports & Manuals:
  - Product specifications, quality control reports, and historical market data.
  - Helps link warranty issues to specific design or production factors.
- Online Reviews & Social Media Analysis:
  - Analyzing customer reviews and online discussions to detect public sentiment and recurring complaints.
  - Useful for understanding broader consumer perceptions beyond direct warranty claims.

### **3.6 Definitions of the terms used**

Here are key terms relevant to the warranty claims analysis for product development and perception building at Stovekraft Ltd:

- **Warranty Claim:** A formal request by a customer to repair or replace a product within the warranty period due to defects or malfunctions.
- **Product Failure:** The inability of a product to perform its intended function due to design, manufacturing, or material defects.
- **Warranty Period:** The time frame during which a product is covered for repairs or replacements at no extra cost to the customer.
- **Consumer Perception:** The way customers view and interpret a brand or product based on their experiences, expectations, and external influences.
- **Market Coverage:** The extent to which a company serves different consumer segments, either targeting all potential buyers or focusing on specific groups.
- **Claim Frequency:** The rate at which customers file warranty claims, often used to assess product reliability.
- **Resolution Time:** The duration taken to process and resolve a warranty claim, influencing customer satisfaction.

- **Product Reliability:** The probability that a product will perform as expected over a specified period without failure.
- **Customer Satisfaction:** The level of contentment customers feel toward a product or service, influenced by product quality, service experience, and warranty fulfillment.
- **Brand Reputation:** The collective perception of a brand's quality and trustworthiness, shaped by customer experiences, reviews, and company actions.

### **3.8 Scope and Limitations of the Study**

#### **Scope:**

- Focus Area: Analysis of warranty claims data and consumer perception for Stovekraft Ltd products.
- Product Range: Primarily covers kitchen appliances and home solutions (e.g., stoves, mixers, cookware).
- Time Frame: Historical warranty claims from the past 3–5 years to capture recent trends.
- Geographic Coverage: Domestic market, with a focus on regions with high sales volumes and claim rates.

#### **Limitations:**

- Data Availability: Reliance on internal warranty records, which may not capture all consumer issues (e.g., unreported failures).
- Consumer Bias: Survey and interview responses may be subjective and influenced by recent experiences.
- Market Variability: Findings may not fully apply to new product lines or evolving market conditions.
- External Factors: Factors like competitor actions, market trends, or economic shifts may influence consumer perception but are beyond the study's control.
- Time Constraints: The research might not account for long-term shifts in consumer perception or product evolution beyond the selected time frame.

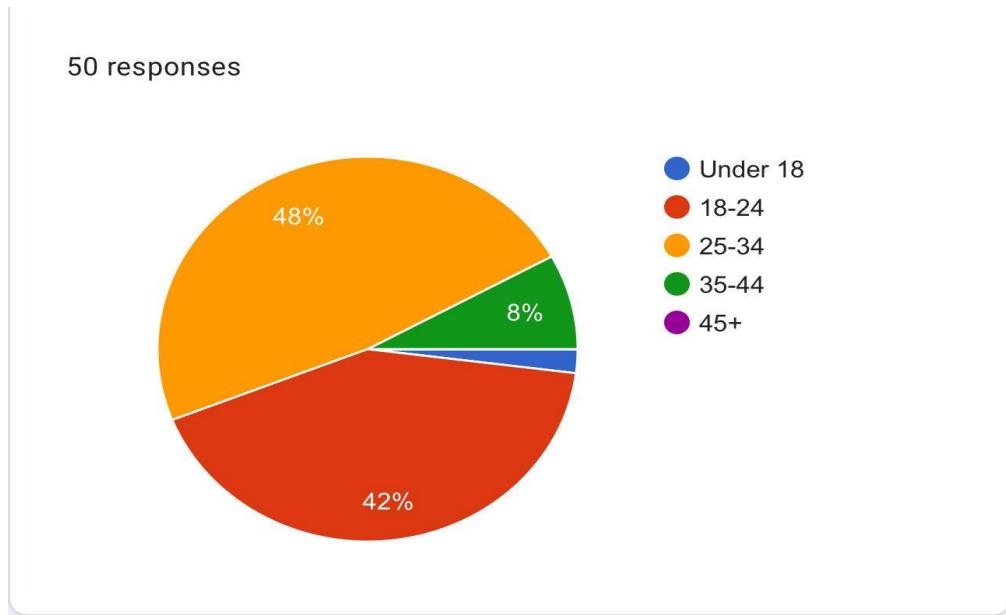
## **CHAPTER-4**

### **DATA ANALYSIS AND INTERPRETATION**

**Table – 4.1 AGE**

AGE	NO. OF RESPONSES	PERCENTAGE
below 18	1	2%
18-24	21	42%
25-34	24	48%
35-44	4	8%
45+	0	0%

**Chart – 4.1**



#### ANALYSIS :

The 25–34 age group had the highest response rate (48%), followed by 18–24 (42%). Participation from those under 18 was minimal (2%), and there were no responses from the 45+ group.

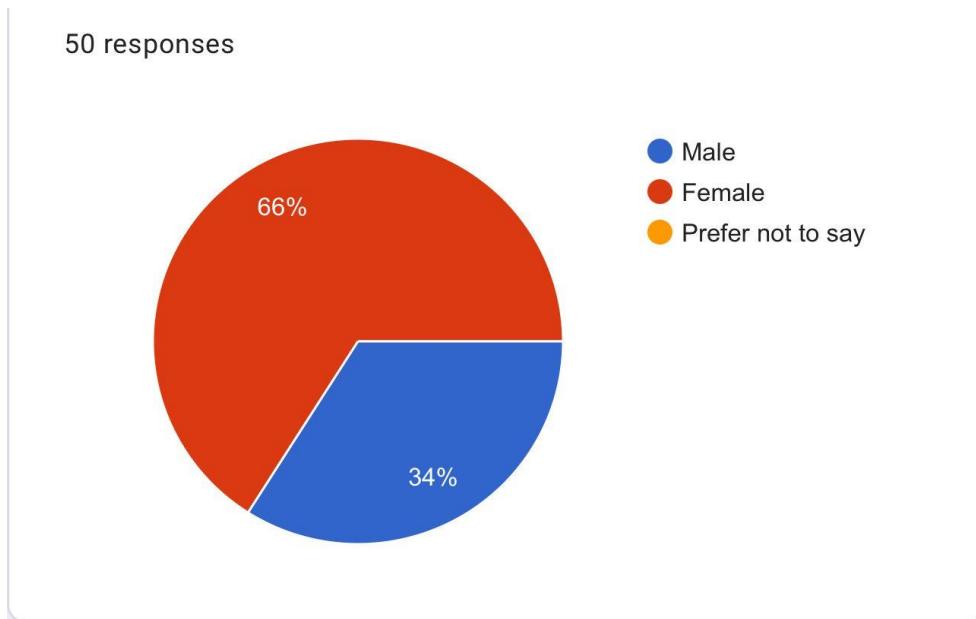
#### INTERPRETATION :

The survey shows that 48% of respondents are aged 25–34, making it the largest group. Close behind, 42% fall in the 18–24 range. A smaller portion, 8%, are aged 35–44, while only 2% are under 18. This indicates a strong majority of young adult participants in the study.

**Table: 4.2 GENDER**

GENDER	NO OF RESPONSES	PERCENTAGE
male	17	34%
female	33	66%
prefer not to say	0	0%

**Chart – 4.2**



#### ANALYSIS :

The data shows that the majority of respondents are female (66%), followed by male respondents (34%). No respondents selected "Prefer not to say."

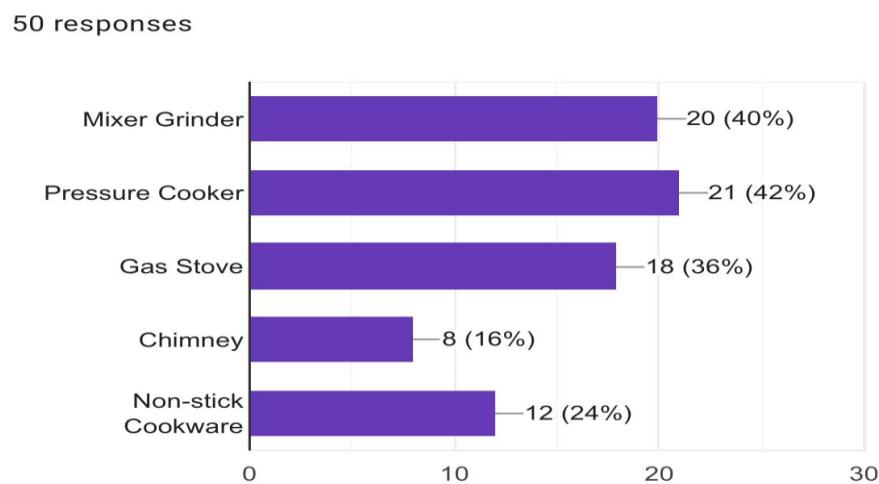
#### INTERPRETATION :

The survey results indicate a higher participation from females, accounting for two-thirds of the total responses. This may reflect either a greater interest or availability among females in the topic surveyed. The absence of non-disclosed gender responses suggests comfort with gender identification among participants in this survey

**TABLE: 4.3 TYPE OF A PRODUCT**

TYPE OF A PRODUCT	NO. OF RESPONSES	PERCENTAGE
mixer grinder	20	40%
pressure cooker	21	42%
gas stove	18	36%
chimney	8	16%
non stick cookware	12	24%

**Chart – 4.3**



#### ANALYSIS :

Pressure cookers and mixer grinders lead in popularity, reflecting a focus on efficient cooking appliances. Chimneys are least favored, indicating lower demand or priority among consumers.

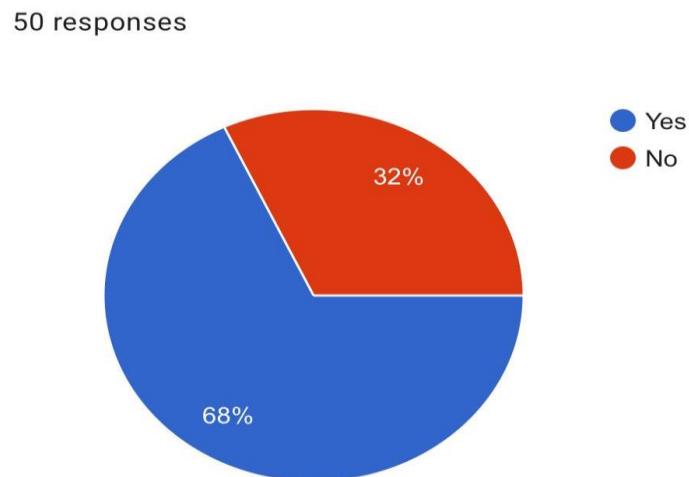
#### INTERPRETATION :

The highest preference is for pressure cookers (42%), showing a strong demand for quick cooking solutions. Mixer grinders are close behind at 40%, indicating their importance in food preparation. Gas stoves (36%) and non-stick cookware (24%) have moderate interest, while chimneys are least favored at 16%.

**TABLE: 4.4 FILING WARRANTY CLAIMS**

OPTIONS	NO.OF RESPONSES	PERCENTAGE
yes	34	68%
no	16	32%

**Chart – 4.4**



**ANALYSIS :**

Out of 50 responses, 34 (68%) chose "YES" and 16 (32%) chose "NO". This indicates a strong majority support for the affirmative option.

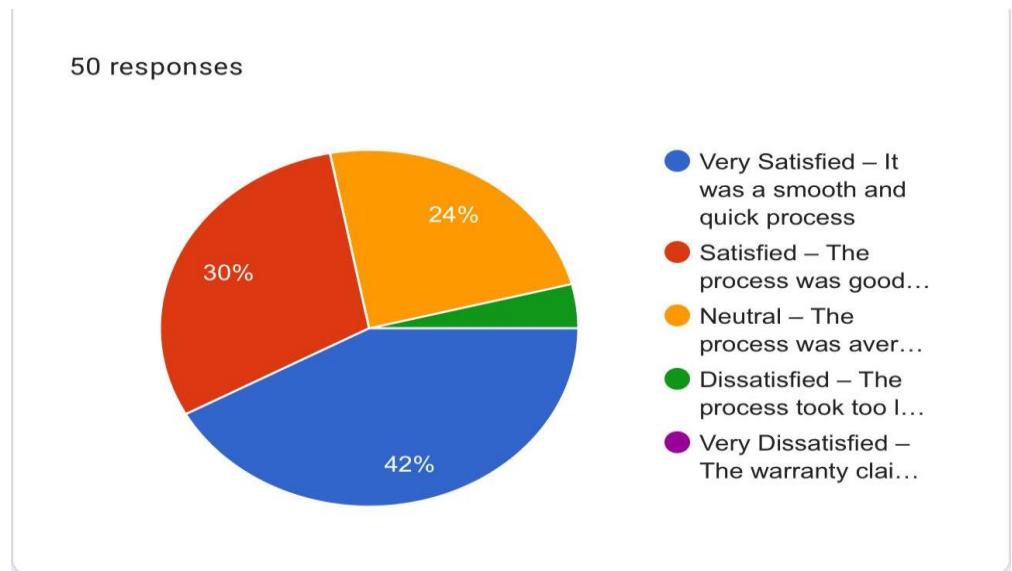
**INTERPRETATION :**

The data indicates a positive perception or acceptance of the subject in question. With over two-thirds favoring "YES", it can be interpreted that the majority of respondents are satisfied or aligned with the idea, suggesting a favorable overall outlook.

**TABLE: 4.5 WARRANTY CLAIM PROCESS**

OPTIONS	NO. OF RESPONSES	PERCENTAGE
very satisfied	21	42%
satisfied	15	30%
neutral	12	24%
dissatisfied	2	4%
very dissatisfied	0	0

**CHART – 4.5**



**ANALYSIS :**

Majority of respondents are very satisfied or satisfied, while only a small portion expressed dissatisfaction or remained neutral.

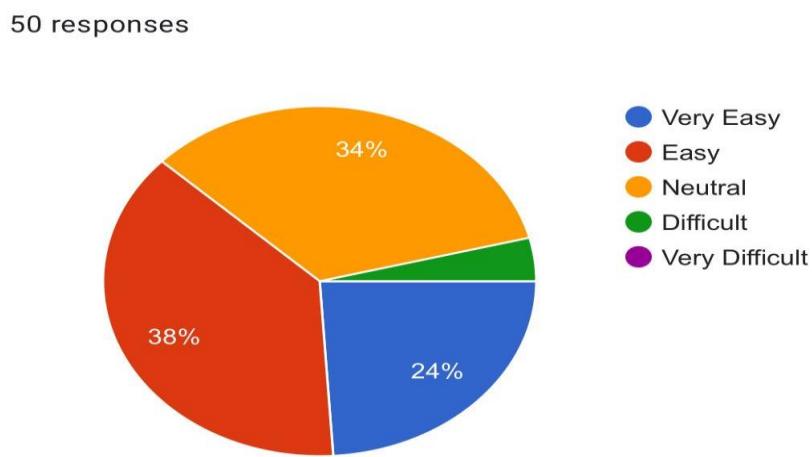
**INTERPRETATION :**

The results indicate strong overall satisfaction among respondents, with over 70% expressing positive feedback. Minimal dissatisfaction suggests current strategies are effective. However, the 24% neutral responses highlight an opportunity to further engage and improve experiences for undecided individuals.

**TABLE: 4.6 PROCESS NAVIGATION**

OPTIONS	NO. OF RESPONSES	PERCENTAGE
very easy	12	24%
easy	19	38%
neutral	17	34%
difficult	2	4%
very difficult	0	0

**Chart – 4.6**



#### ANALYSIS :

The majority of respondents (62%) found the task either very easy or easy, suggesting overall accessibility. Only a small portion (4%) found it difficult, and none rated it very difficult. A significant group (34%) remained neutral, indicating a moderate level of challenge for some.

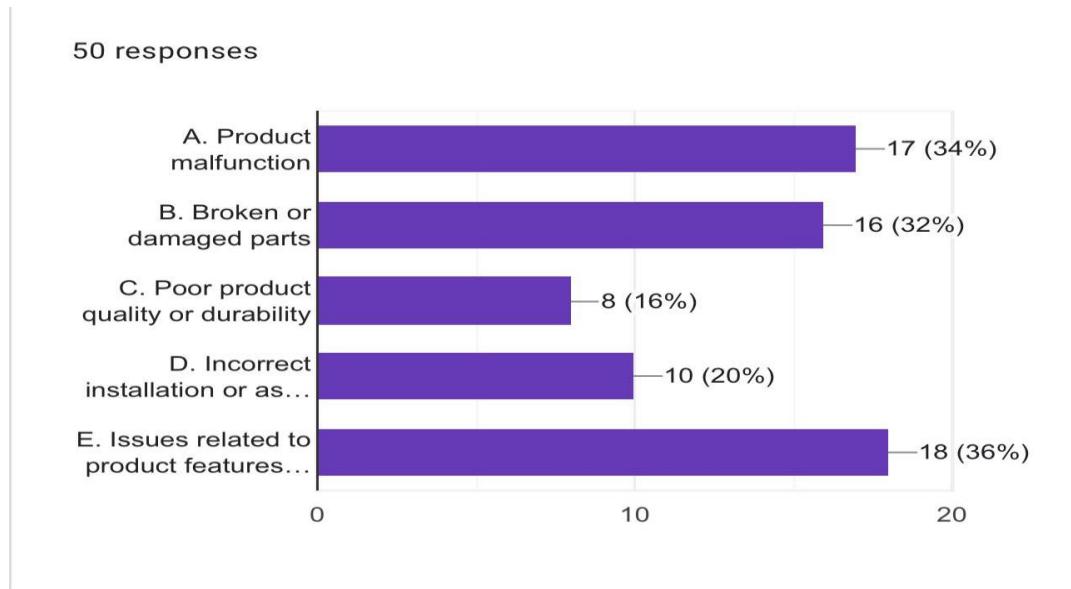
#### INTERPRETATION:

Most participants experienced ease in completing the task, reflecting its general clarity and simplicity. However, the notable neutral response suggests some ambiguity or variability in individual experience. Minimal difficulty indicates effective task design for the majority.

**TABLE: 4.7 TYPE OF ISSUE**

<b>TYPE OF ISSUE</b>	<b>NO.OF RESPONSES</b>	<b>PERCENTAGE</b>
product malfunction	17	34%
broken or damages parts	16	32%
poor product quality	8	16%
incorrect installment	10	20%
product features	18	36%

**CHART – 4.7**



#### **ANALYSIS :**

Product features complaints are highest at 36%, followed by product malfunction at 34%. Poor product quality is the least reported.

#### **INTERPRETATION:**

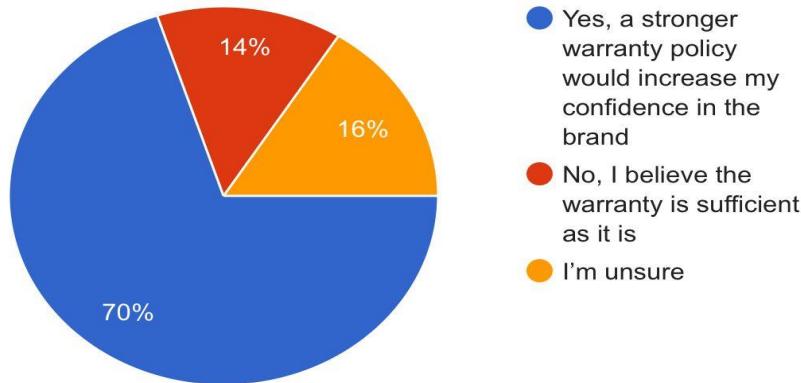
36% of responses, product features are the top concern, indicating unmet expectations. Product malfunction (34%) and damaged parts (32%) also show quality control issues. The lowest complaint, poor quality (16%), suggests users notice specific faults more than overall quality.

**TABLE: 4.8 WARRANTY POLICY**

OPTIONS	NO.OF RESPONSES	PERCENTAGE
yes	35	70%
no	7	14%
i'm unsure	8	16%

**Chart – 4.8**

50 responses



#### ANALYSIS :

A majority of respondents (70%) answered “Yes,” while 14% said “No” and 16% were unsure of their response.

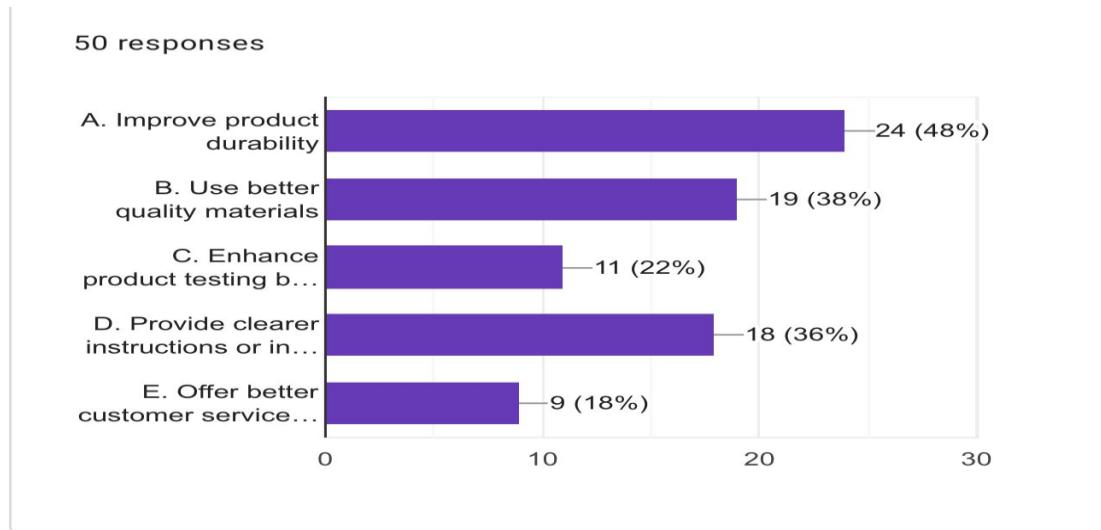
#### INTERPRETATION:

70% affirming "Yes," there's strong agreement or satisfaction. However, 16% uncertainty indicates confusion or lack of information. The 14% "No" suggests some dissatisfaction or disagreement. Addressing unclear areas can help reduce the unsure segment and improve overall confidence.

**TABLE: 4.9 IMPROVEMENTS**

OPTIONS	NO. OF RESPONSES	PERCENTAGE
product durability	24	48%
better quality materials	19	38%
enhance product testing before release	11	22%
provide clearer instructions	18	36%
offer better customer service and quicker response times	9	18%

**Chart – 4.9**



#### ANALYSIS :

Product durability leads with 48%, followed by better materials (38%) and clearer instructions (36%) as top improvement suggestions.

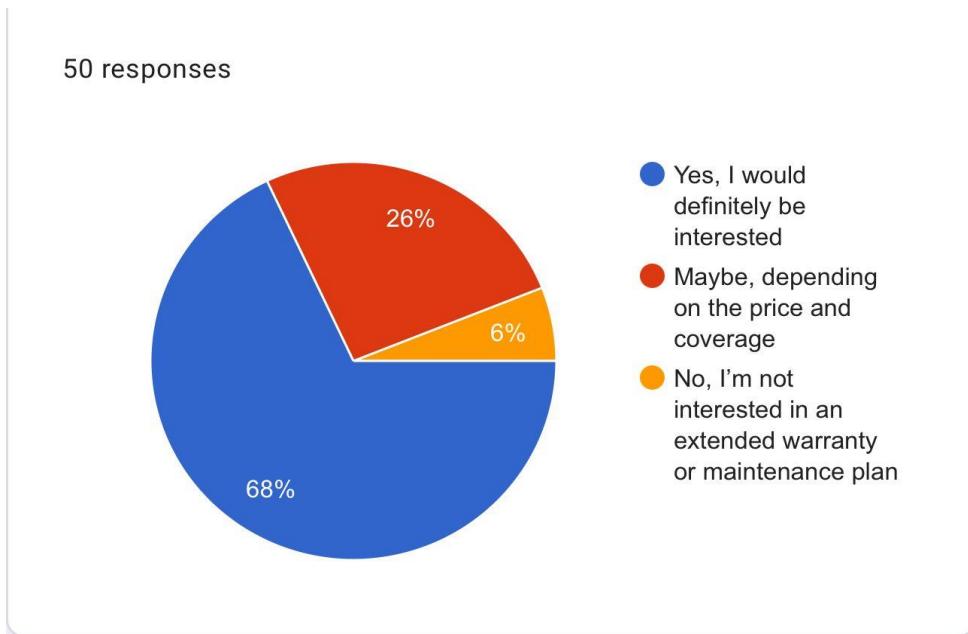
#### INTERPRETATION:

Improving product durability (48%) is the primary concern, showing longevity issues. Better materials (38%) and clearer instructions (36%) reflect expectations for quality and usability. Testing enhancements (22%) and customer service (18%) highlight areas needing operational and support improvements.

**TABLE: 4.10 EXTENDED WARRANTY**

OPTIONS	NO.OF RESPONSES	PERCENTAGE
yes	34	68%
maybe	13	26%
no	3	6%

**CHART: 4.10**



**ANALYSIS :**

Most respondents (68%) answered “Yes,” while 26% were uncertain with “Maybe,” and only 6% responded with “No.”

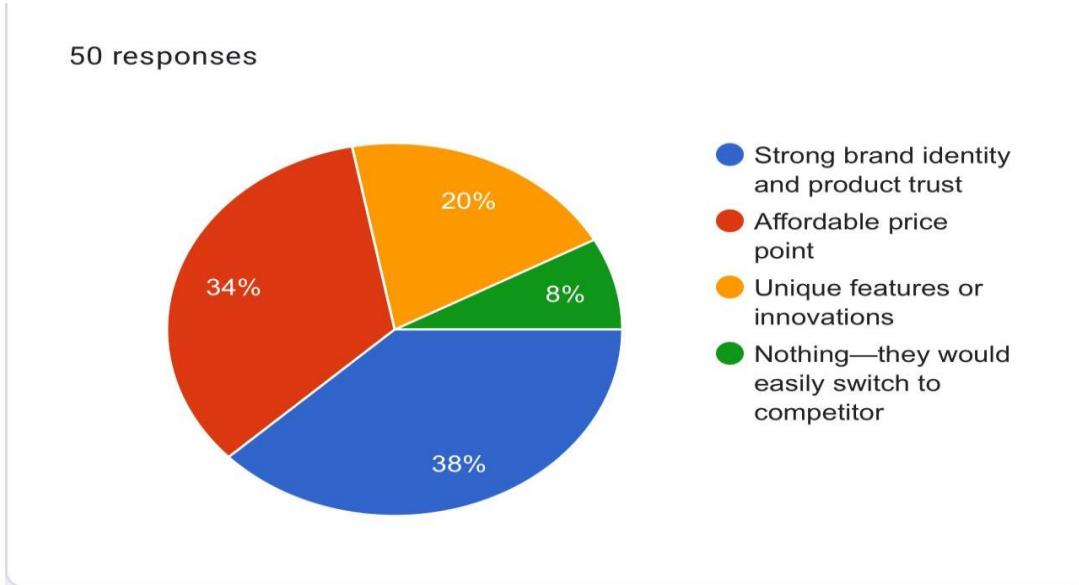
**INTERPRETATION:**

A clear majority (68%) show positive affirmation, indicating strong support or satisfaction. However, 26% uncertainty suggests hesitation or incomplete information. The low 6% “No” response implies minimal dissatisfaction but still highlights an opportunity to convert unsure respondents to confident supporters.

**TABLE: 4.11 CUSTOMER PREFERENCES**

<b>OPTIONS</b>	<b>NO.OF RESPONSES</b>	<b>PERCENTAGE</b>
strong brand identity and product trust	19	38%
affordable price point	17	34%
unique features or innovations	10	20%
nothing- they would easily switch to competitor	4	8%

**CHART: 4.11**



#### ANALYSIS :

Strong brand identity and trust lead with 38%, followed by affordability at 34%. Only 8% show no brand loyalty.

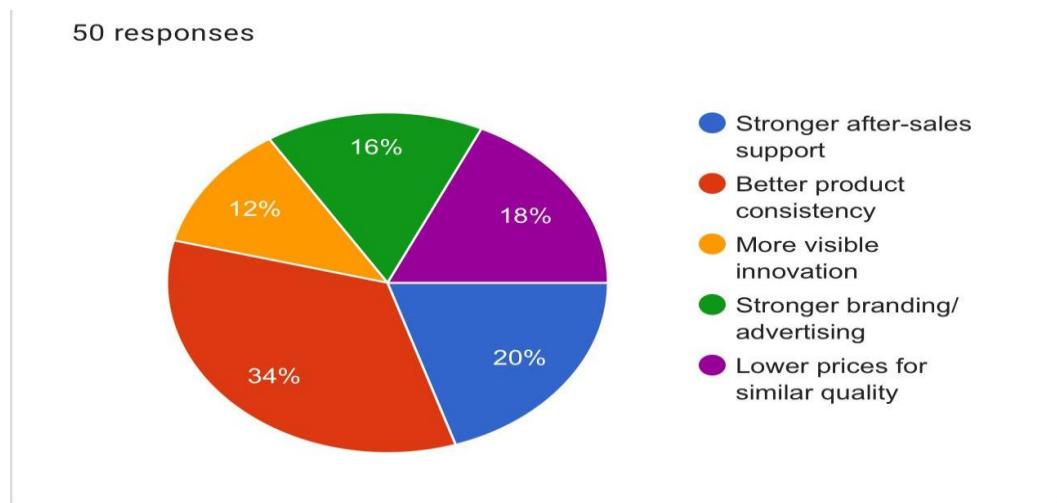
#### INTERPRETATION:

Brand trust (38%) and affordability (34%) are key loyalty drivers, indicating customers value reliability and price. Unique features (20%) contribute moderately. The 8% willing to switch easily suggests a small, vulnerable segment that may be influenced by competitors' advantages.

**TABLE: 4.12 IMPROVEMENT EXPECTATIONS**

OPTIONS	NO.OF RESPONSES	PERCENTAGE
stronger after sales support	10	20%
better product consistency	17	34%
more visible innovation	6	12%
stronger branding	8	16%
lower prices for similar quality	9	18%

**CHART: 4.12**



#### ANALYSIS :

Better product consistency tops suggestions at 34%, followed by after-sales support (20%) and pricing concerns (18%) from respondents.

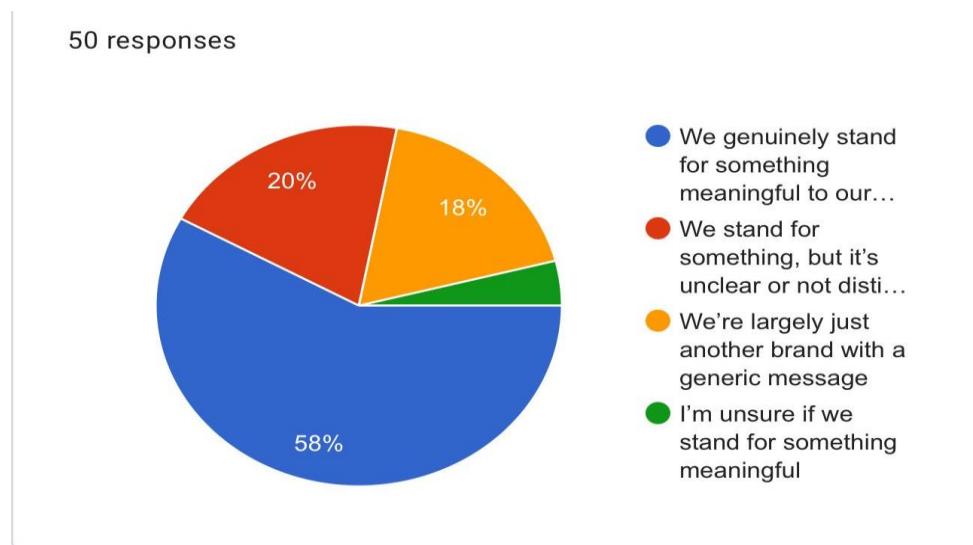
#### INTERPRETATION:

The need for improved product consistency (34%) signals quality variation issues. After-sales support (20%) and competitive pricing (18%) highlight customer experience and value expectations. Branding (16%) and innovation visibility (12%) suggest moderate concern about market presence and product uniqueness.

**TABLE: 4.13 BRAND PURPOSE AND CLARITY**

OPTIONS	NO. OF RESPONSES	PERCENTAGE
We have a clear, meaningful purpose.	29	58%
We have a purpose, but it's unclear.	10	20%
We're generic and lack distinction.	9	18%
Not sure if we have a meaningful purpose	2	4%

**CHART: 4.13**



#### ANALYSIS :

A clear, meaningful purpose is acknowledged by 58%, while 20% find it unclear and 18% feel it's generic.

#### INTERPRETATION:

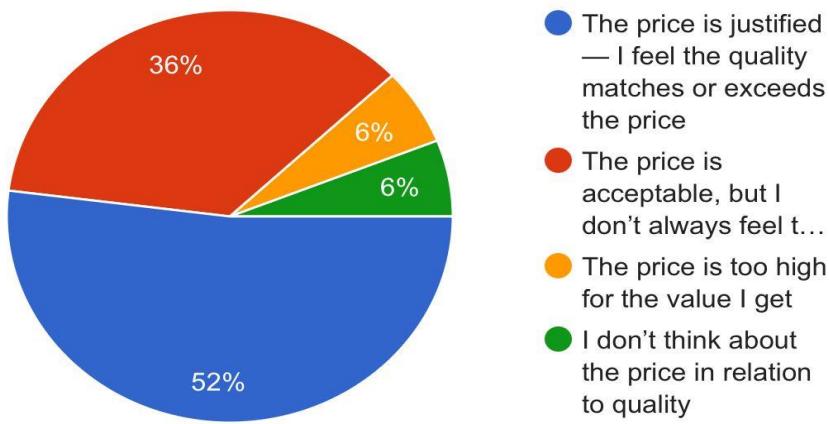
58% recognizing a clear purpose, the majority align with the brand's direction. However, 20% perceive ambiguity, and 18% see no distinction. The 4% uncertainty shows a need for clearer communication to strengthen internal and external brand perception.

**TABLE: 4.14 PRICE PERCEPTION**

<b>OPTIONS</b>	<b>NO. OF RESPONSES</b>	<b>PERCENTAGE</b>
The price is justified	26	52%
The price is acceptable	18	36%
The price is too high	3	6%
I don't think about the price	3	6%

**CHART: 4.14**

50 responses



#### ANALYSIS :

Most respondents (52%) believe the price is justified, with 36% finding it acceptable. Only 6% feel it's too high.

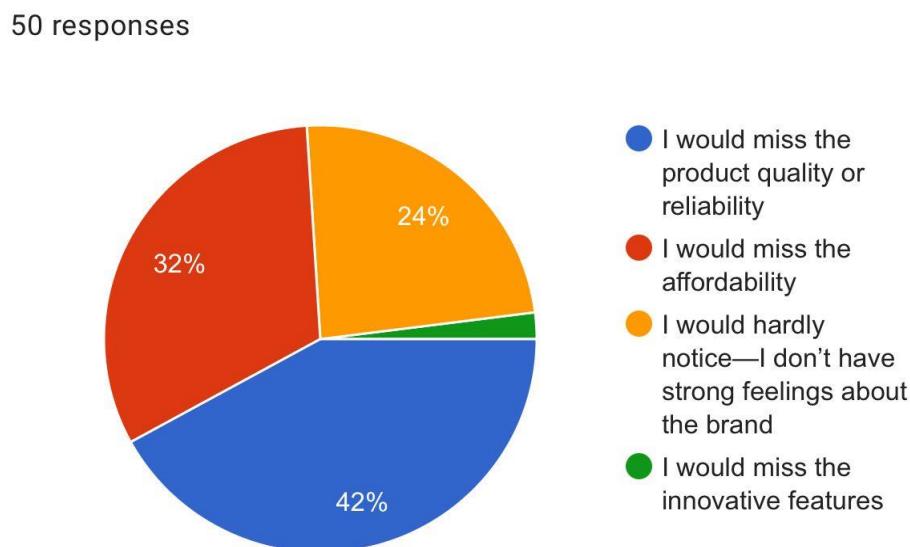
#### INTERPRETATION:

A majority (52%) feel the price reflects the product's value, and 36% consider it acceptable, indicating general pricing satisfaction. Only 6% think it's too high, and another 6% are indifferent, suggesting minimal concern over cost among the audience.

**TABLE: 4.15 CUSTOMER PRIORITIES**

OPTIONS	NO. OF RESPONSES	PERCENTAGE
I would miss the product quality or reliability	21	42%
I would miss the affordability	16	32%
I would hardly notice	12	24%
I would miss the innovative features	1	2%

**Chart 4.15**



#### ANALYSIS :

Product quality or reliability is most valued (42%), followed by affordability (32%). Only 2% would miss innovative features.

#### INTERPRETATION:

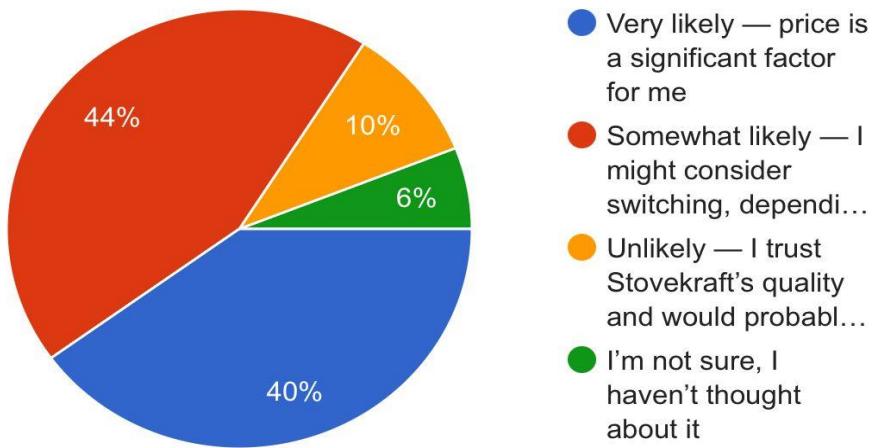
42% valuing quality and reliability, these are key strengths. Affordability (32%) is also important to many users. However, 24% would hardly notice its absence, and only 2% value innovation, highlighting a need to improve product distinction and uniqueness.

**TABLE 4.16 REPERCHASE LIKELYHOOD**

OPTIONS	NO.OF RESPONSES	PERCENTAGE
Very likely	20	40%
Somewhat likely	22	44%
Unlikely	5	10%
I'm not sure	3	6%

**Chart 4.16**

50 responses



#### ANALYSIS :

A majority are positive: 40% very likely and 44% somewhat likely. Only 10% are unlikely to respond favorably.

#### INTERPRETATION:

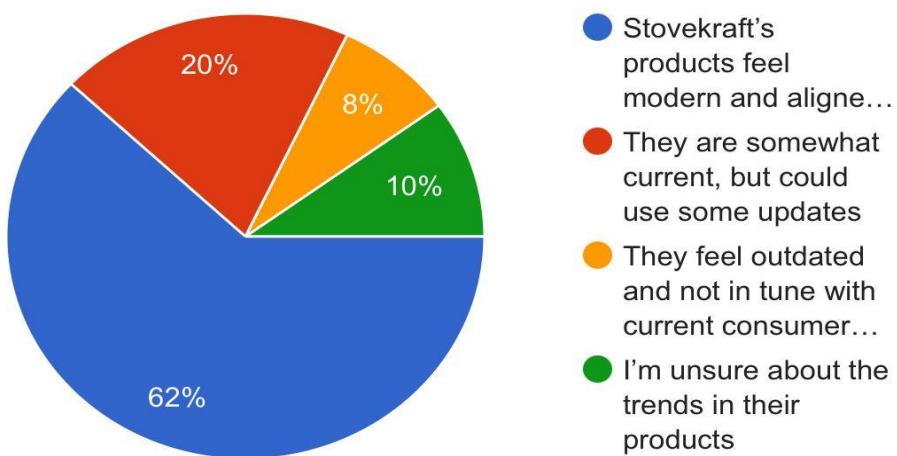
84% (40% very likely, 44% somewhat likely) showing positive intent, customer loyalty or engagement seems strong. However, 10% are unlikely and 6% unsure, indicating a small segment that may need more convincing or targeted support to improve confidence.

**Table 4.17 BRAND TREND PERCEPTION**

OPTIONS	NO. OF RESPONSES	PERCENTAGE
Modern and on-trend	31	62%
Somewhat current, needs updates	10	20%
Outdated and off-trend	4	8%
Not sure about their trends	5	10%

**Chart 4.17**

50 responses



#### ANALYSIS :

Most respondents (62%) view the brand as modern and on-trend, while 20% think it needs updates to stay current.

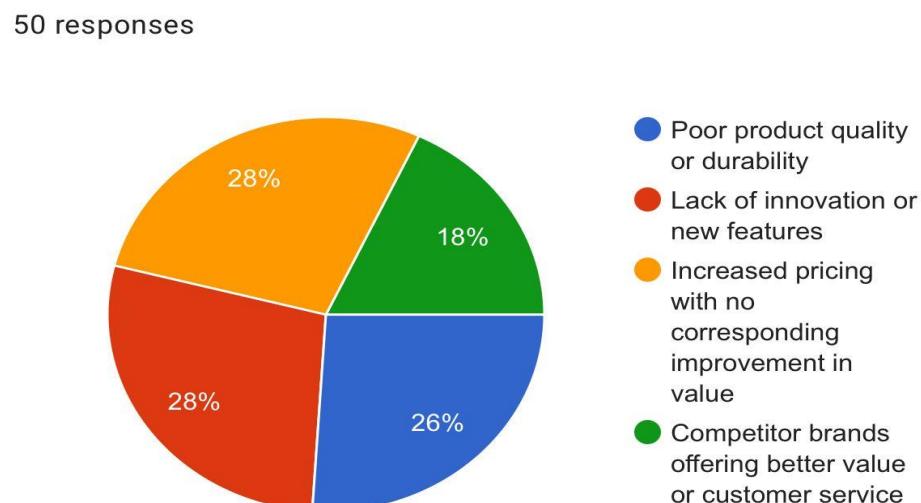
#### INTERPRETATION:

A strong majority (62%) perceive the brand as modern, suggesting effective alignment with current market trends. However, 20% see room for improvement, and 18% (8% outdated, 10% unsure) signal a need for clearer trend communication and continued brand evolution.

**TABLE 4.18 CUSTOMER COMPLAINTS**

OPTIONS	NO. OF RESPONSES	PERCENTAGE
Poor quality or durability	13	26%
Lacks innovation	14	28%
Higher price, same value	14	28%
Competitors offer better value	9	18%

**Chart 4.18**



#### ANALYSIS :

Top concerns are lack of innovation and high price for same value, each at 28%, followed by poor quality (26%).

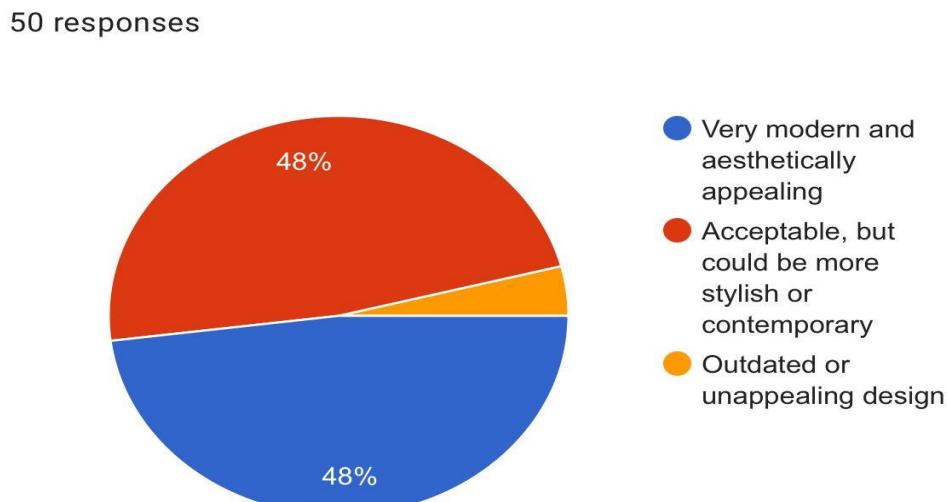
#### INTERPRETATION:

Lack of innovation and pricing concerns (both 28%) are key drivers of dissatisfaction. Poor quality or durability (26%) also impacts customer perception. With 18% favoring competitors for better value, addressing innovation, quality, and pricing is crucial for competitive positioning.

**Table 4.19 PRODUCT MODERNITY**

OPTIONS	NO. OF RESPONSES	PERCENTAGE
Very modern	24	48%
Acceptable	24	48%
Outdated	2	4%

**Chart 4.19**



#### ANALYSIS :

Responses are evenly split between “Very modern” and “Acceptable” at 48% each, with only 4% viewing it as outdated.

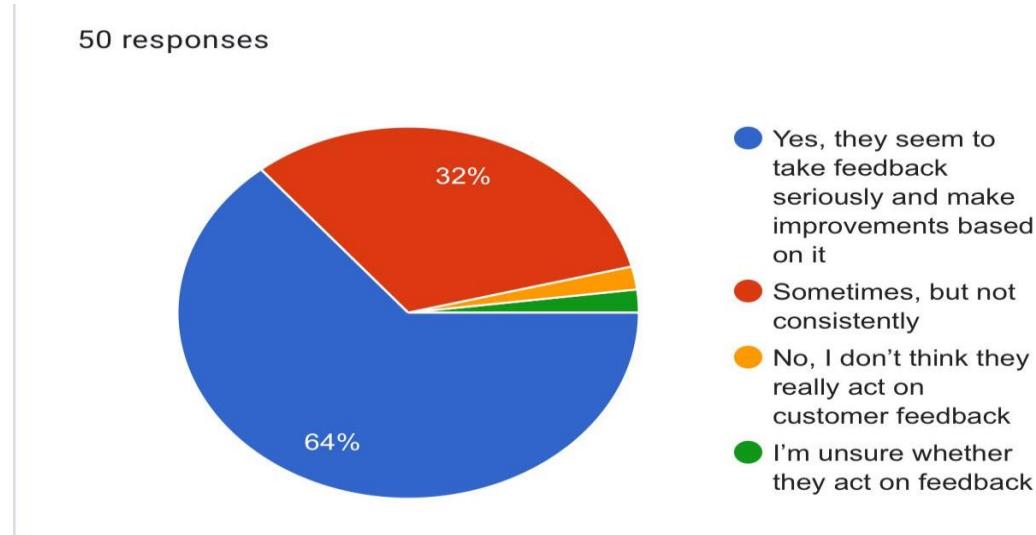
#### INTERPRETATION:

A combined 96% of respondents view the brand as either very modern or acceptable, indicating strong relevance in appearance or style. Only 4% see it as outdated, showing minimal concern but suggesting an opportunity for continual design or trend updates.

**Table 4.20 FEEDBACK PERCEPTION**

OPTIONS	NO.OF RESPONSES	PERCENTAGE
Yes	32	64%
Sometimes	16	32%
No	1	2%
I'm unsure	1	2%

**Chart 4.20**



#### ANALYSIS :

64% responded "Yes", indicating strong agreement. 32% answered "Sometimes", while "No" and "I'm unsure" received only 2% each.

#### INTERPRETATION:

A majority of respondents (64%) consistently support the idea, showing general approval. The 32% who answered "Sometimes" suggest conditional agreement. Minimal disagreement or uncertainty (only 2% each) implies strong clarity and consensus among participants about the subject in question.

CHAPTER -5

FINDINGS, SUGGESTIONS AND CONCLUSION

## **FINDINGS, SUGGESTIONS AND CONCLUSION**

### **5.1 Summary of Findings**

- Majority of respondents (48%) were in the 25–34 age group, with 66% being female.
- Indicates the brand's strong reach among young adults, particularly women.
- Pressure cookers (42%) and mixer grinders (40%) were the most owned products.
- Chimneys (16%) had the lowest adoption, suggesting lower perceived value or awareness.
- 70% of users were aware of warranty policies; 68% had claimed warranty services.
- High awareness indicates effective communication, but the 16% uncertainty shows room for improvement.
- 72% reported being “very satisfied” or “satisfied.”
- However, 24% remained neutral, signaling areas where experiences could be improved.
- 62% found the process easy, while 34% were neutral.
- Suggests that clarity of steps can be enhanced to reduce hesitation.
- Most common issues included: product features (36%), malfunctions (34%), and broken parts (32%).
- Poor product quality (16%) was least reported but still significant.
- Top areas for improvement: product durability (48%) and better materials (38%).
- Enhancements in product manuals and testing were also recommended.
- 68% were in favor of extended warranties.
- Suggests customers value protection and are open to additional coverage.
- 38% cited brand trust and identity as reasons for continued patronage.
- Only 8% expressed readiness to switch to a competitor.
- 62% viewed the products as modern and on-trend; 48% believed they were very modern.
- Reflects positive perception but also highlights a segment expecting updates.
- 52% felt the pricing was justified, with only 6% considering it too high.
- Suggests overall satisfaction with the value proposition.
- 42% would miss product quality if the brand disappeared; only 2% would miss innovation.

- Emphasizes the need to boost innovative features.
- 84% were either very or somewhat likely to repurchase.
- Reflects high brand engagement and satisfaction.

## 5.2 Suggestions

Create a centralized digital database to log and categorize all warranty claims with failure codes.

- Implement root cause analysis tools (e.g., Pareto charts) to pinpoint the most frequent issues.
- Introduce post-claim feedback surveys to measure customer sentiment after service.
- Develop KPIs that combine product performance metrics with customer service scores.
- Enhance design review cycles using insights from warranty data (e.g., recurring faults in seals or handles).
- Increase field-testing durations to simulate real-use conditions and prevent early product failures.
- Automate claim processing using a mobile-friendly portal for faster approvals and status updates.
- Train customer service teams in empathy-based communication to enhance user satisfaction.
- Offer optional paid extended warranties with added benefits to offset warranty costs.
- Conduct vendor audits to ensure materials used meet durability standards, reducing product failures.

## 5.3 Conclusion

This study demonstrates that warranty claims analysis is not just a reactive cost center but a strategic tool for business growth. By identifying common product failures and understanding customer expectations, Stove Kraft Ltd. can streamline its product development process, reduce defect rates, and reinforce customer trust.

The high awareness of warranty policies, combined with a favorable perception of the brand's product quality, indicates a strong foundation. However, challenges like neutral user experiences, complaints about specific features, and concerns about product innovation require continuous improvement efforts.

In conclusion, aligning warranty management with strategic objectives—like enhancing product quality, increasing transparency, and improving customer service—can position Stove Kraft Ltd. as a customer-centric, innovation-driven leader in the kitchen appliance industry. This will not only enhance brand perception but also drive long-term competitiveness and profitability.

## BIBLIOGRAPHY

Luo, M., & Wu, S. (2018). A comprehensive analysis of warranty claims and optimal policies. *European Journal of Operational Research*, 276(1), 144–159.  
<https://doi.org/10.1016/j.ejor.2018.12.034>

Relich, M., & Nielsen, I. (2021). Estimating production and warranty cost at the early stage of a new product development project. *IFAC-PapersOnLine*, 54(1), 1092–1097.  
<https://doi.org/10.1016/j.ifacol.2021.08.128>

Arabi, M., Mansour, S., & Shokouhyar, S. (2017). Optimizing a warranty-based sustainable product service system using game theory. *International Journal of Sustainable Engineering*, 11(5), 330–341. <https://doi.org/10.1080/19397038.2017.1387187>

Li, K., Wang, L., Chhajed, D., & Mallik, S. (2018). The impact of quality perception and consumer valuation change on manufacturer's optimal warranty, pricing, and market coverage strategies. *Decision Sciences*, 50(2), 311–339. <https://doi.org/10.1111/deci.12331>

Li, C., Wang, X., Li, L., Xie, M., & Wang, X. (2019). On dynamically monitoring aggregate warranty claims for early detection of reliability problems. *IISE Transactions*, 52(5), 568–587. <https://doi.org/10.1080/24725854.2019.1647477>

Wang, Y., Yu, Z., & Ji, X. (2018). Coordination of e-commerce supply chain when e-commerce platform providing sales service and extended warranty service. *Journal of Control and Decision*, 7(3), 241–261. <https://doi.org/10.1080/23307706.2018.1549515>

## **Annexure**

### **Warranty Claims Analysis Questions**

#### **Stovekraft Customer Survey**

##### **1. How old are you?**

- A: Under 18
- B: 18-24
- C: 25-34
- D: 35-44
- E: 45+

##### **2. Gender ?**

- A: Male
- B: Female
- C: Prefer not to say

##### **3.What type of product did you purchase?**

- A: Pressure Cooker
- B: Mixer Grinder
- C: Gas Stove
- D: Chimney
- E: Non-stick Cookware
- F: Other: \_\_\_\_\_

##### **4.Have you ever had to file a warranty claim ?**

- A: Yes
- B: No

##### **5.If yes, how satisfied were you with the warranty claim process?**

- A: Very Satisfied – It was a smooth and quick process
- B: Satisfied – The process was good but could have been faster
- C: Neutral – The process was average, with no significant positives or negatives
- D: Dissatisfied – The process took too long and lacked clarity

E: Very Dissatisfied – The warranty claim process was complicated and unhelpful

**6. How Was the claim process easy to navigate?**

A: Very Easy

B: Easy

C: Neutral

D: Difficult

E: Very Difficult

**7. What type of issue did you face with the product that led to a warranty claim? (Select all that apply)**

- A. Product malfunction (e.g., stopped working)
- B. Broken or damaged parts
- C. Poor product quality or durability
- D. Incorrect installation or assembly
- E. Issues related to product features or performance

Other: \_\_\_\_\_

**8. Would you feel more confident purchasing Stovekraft products in the future if the warranty policy was improved or more comprehensive?**

A: Yes, a stronger warranty policy would increase my confidence in the brand

B: No, I believe the warranty is sufficient as it is

C: I'm unsure

**9. Based on your experience, what improvements would you recommend to Stovekraft to reduce the likelihood of warranty claims? (Select all that apply)**

- A. Improve product durability
- B. Use better quality materials
- C. Enhance product testing before release
- D. Provide clearer instructions or installation guides
- E. Offer better customer service and quicker response times

**10. If Stovekraft offered an extended warranty or maintenance program, would you be interested in purchasing it?**

A: Yes, I would definitely be interested

B: Maybe, depending on the price and coverage

C: No, I'm not interested in an extended warranty or maintenance plan

**11. If Stovekraft disappeared from the market tomorrow, what would customers truly miss—and what would they barely notice?**

- A: Strong brand identity and product trust
- B: Affordable price point
- C: Unique features or innovations
- D: Nothing—they would easily switch to competitor

**12. What is one uncomfortable reason customers might trust our competitors more than us?**

- A: Stronger after-sales support
- B: Better product consistency
- C: More visible innovation
- D: Stronger branding/advertising
- E: Lower prices for similar quality

**13. Do we genuinely stand for something meaningful to consumers, or are we just 'another kitchen appliance brand'?**

- A: We genuinely stand for something meaningful to our customers
- B: We stand for something, but it's unclear or not distinct enough
- C: We're largely just another brand with a generic message
- D: I'm unsure if we stand for something meaningful

**14. How do you feel about the price of Stovekraft products in relation to the quality you receive?**

- A: The price is justified — I feel the quality matches or exceeds the price
- B: The price is acceptable, but I don't always feel the quality is superior
- C: The price is too high for the value I get
- D: I don't think about the price in relation to quality

**15. If Stovekraft disappeared from the market tomorrow, what would you miss the most—and what would you hardly notice?**

- A: I would miss the product quality or reliability
- B: I would miss the affordability
- C: I would hardly notice—I don't have strong feelings about the brand
- D: I would miss the innovative features

**16. If a competitor launched a product with similar features at a lower price, how likely are you to switch brands?**

- A: Very likely — price is a significant factor for me
- B: Somewhat likely — I might consider switching, depending on the product
- C: Unlikely — I trust Stovekraft's quality and would probably stick with them
- D: I'm not sure, I haven't thought about it

**17. Do you believe Stovekraft products are designed to reflect the latest trends in consumer preferences, or do they feel outdated?**

- A: Stovekraft's products feel modern and aligned with the latest trends
- B: They are somewhat current, but could use some updates
- C: They feel outdated and not in tune with current consumer preferences
- D: I'm unsure about the trends in their products

**18. What is the one thing that could make you stop buying from Stovekraft in the future?**

- A: Poor product quality or durability
- B: Lack of innovation or new features
- C: Increased pricing with no corresponding improvement in value
- D: Competitor brands offering better value or customer service
- E: Other: \_\_\_\_\_

**19. How would you rate the overall design of Stovekraft products in terms of modernity and aesthetics?**

- A: Very modern and aesthetically appealing
- B: Acceptable, but could be more stylish or contemporary
- C: Outdated or unappealing design

**20. Do you feel that Stovekraft listens to customer feedback and acts upon it effectively?**

- A: Yes, they seem to take feedback seriously and make improvements based on it
- B: Sometimes, but not consistently
- C: No, I don't think they really act on customer feedback
- D: I'm unsure whether they act on feedback

