Architects and Interior Designers Approach Towards Buying Electrical Switches

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Abstract:

This research project was conducted by ascertaining the market trends and preferences of architects and interior designers in Pune regarding electrical switches and home automation solutions in this two-month internship at Legrand India Pvt Ltd. Using a mixed-method approach, the study gathered information from 116 face-to-face interviews that included insights in product preference, awareness level, and industry demands. Secondary research built up on these findings to give a broader market perspective. An analysis of the data revealed that key trends were the most popular switch types and features, as well as smart home automation. The study further opened up the possibility of areas where to further develop Legrand's product and marketing offers with concrete recommendations for where to focus engagement and expand further in the market. This research study will be helpful for Legrand to redefine their offerings within the parameters of sample size and scope so that Legrand can become stronger in the architectural and design markets in Pune.

Keywords - Market Trends, Home Automation, Architect Preferences Electrical Switches, Product Development

Introduction

This was a two-month internship project conducted at Legrand India Pvt Ltd that aimed at determining the market trends and preferences of architects and interior designers in Pune about electrical switches and automation solutions. As such, the research interacted with 116 professionals personally to elicit helpful feedback on the product offerings of Legrand, the demand for various kinds of switches, and the acquaintance and interest of customers for home automation solutions. The third aspect of this project was that it helped in setting and achieving a sales target of INR 33,000 directly contributing to the revenue of Legrand.

Rooted in market research and customer feedback principles, the design as formulated has hinted at the importance of systematic data collection targeting the targeted markets and understanding the present needs of the customer. The design and construction role as the most significant purchasing influence during their early use makes their perceptions invaluable. Structured questionnaires were deployed on switch requirements, product reviews, and awareness of automation. Therefore, it means the areas to improve in the product development of Legrand have been identified and potential innovation opportunities therein. This includes making use of both primary research and secondary sources, such as industry publications and competitor analysis, to collect data.

This tool was developed to capture preferences in the type, style, color, and functionality of switches as well as opinions regarding the Legrand brand against competitors. Significant trends and preferences are discovered

through quantitative analysis but would gain much more practical insight into reasons behind choices made by participants through qualitative analysis. The kinds of switches people prefer and those they are interested in based on the aspects they want, level of interest of people in smart home automation, and demographic information such as the type of industry and nature of projects their respondents have managed. These results led to actionable recommendations regarding product development and marketing strategies by the project for Legrand. These recommendations included developing new features based on actual demands, marketing targeted at architects and designers, and automation solutions increasing engagement with the brand. The smaller sample size and regional focus, this study provides Legrand with true customer preferences about Pune and gives the brand a possibility to innovate products, expand markets, and further research in other regions.

Project Details

1) Introduction

a. Background on Legrand India Pvt Ltd and the work it does in the electrical and automation industry.

b. Description of the two months internship.

c. Summary of questionnaire-based survey across Pune.

d. Clear statement of project objectives:

• Soliciting feed back from architects and interior designers.

• Assessing market demand.

• Achieving sales target of 33,000 INR.

2) Literature Review

a. Literature review to see what has been done on market research in the electrical industry

b. Customer feedback in product development and marketing

c. Trend for Home automation .

Background leading to high awareness and usage of smart technology

Research Methodology

a. Explaining the mixed-methods approach, a primary/secondary research approach

b. Development of the questionnaire based on what areas ,

•   Requirements for Switch

•   Product reviews

•   States of awareness about automation solution.

3) Field Research

a. Carried out face-to-face interviews with 116 architects and interior designers in Pune.

b. The sales target of INR 33,000 was also met.

4) Data Analysis

a. Quantitative analysis:

• Applied statistical methods to understand the preference levels for type, color, and functionality concerning switches.

b. Qualitative analysis:

• Open-ended feedback about Legrand products and automation solutions

• Sales data review and implications on the Legrand market presence.

5) Findings

a. Key insights summary:

• Switch types, styles, and features in greatest demand.

• Product feedback on Legrand's products compared to competition.

• The level of participant knowledge and interest in smart home automation solutions.

• Demographics regarding the professional backgrounds of the respondents, the size of the projects they have worked on, and the residence location.

6) Recommendations

a. Recommendations on product development:

• New features or upgrade in line with market demand.

•Targeted marketing for architects and interior designers.

•Promotion of automation solutions

•Suggestions on widening the sales channels and enhancing the tie-up with the clients. 8) Conclusion

a. Summary of key learnings.

•Importance of achieving the sales target.

•Aftermath for Legrand India Pvt Ltd from the output of the project.

9) Limitations and Future Scope

a. Study Limitation

• Sample size

•Biases that might have crept in.

•Many prospects of further research in other regions or market

Review Of Literature

Montgomery and Magazine released a comprehensive work on the developing discipline of home automation, presenting technical details, consumer behavior, as well as ownership patterns of home automation systems. Their work depicts how quickly smart home technologies have picked up, but in addition, it also depicts the way by which these systems improve user experience. A further step is taken by Stavropoulos et al. (2024) when it reports on the design and development of a smart home and smart grid testbed proving the integration of IoT in residential energy management. Their research brings attention to increasing convergence through home automation with energy efficiency and smart grid infrastructures as made possible through technological breakthroughs that are a precursor of how homes should be in the future. Kara further elaborates on this by considering how building automation standards contribute to productivity and energy management in offices and indicating that automation spreads beyond residences into the commercial sector.

In the electrical innovation field, Romero-Hernandez, Hirsch, and Romero (2015) measured the steps implemented by Legrand for energy consumption reduction. The study illustrates the company's stance on leadership in energy-efficient solutions in relation to consumer demands for technologically innovative products. The initiative of Legrand appears to correspond to broader industrial trends in sustainability and energy conservation since there is growing interest on the part of companies to create environmentally friendly products that are aligned with laid down standards and fulfill consumer demand for advanced and efficient systems.

Harrigan (2014) highlights the importance of human factors research in designing spaces and automation systems. His work focuses on how architects and interior designers can design such environments to make interaction between people and technology not disrupted but rather seamless. This consideration of human behavior and ergonomics is what will enable designers to enhance user satisfaction with automation systems. This is particularly relevant to architects and designers, as they assume a key role in integrating home automation technologies in such a manner that maximizes usability and aesthetic appeal.

The problems with pricing durable goods are somewhat peculiar, if only because of the relevant industries, such as home automation and electrical fixtures, given that certainly untypical goods can have a wide but rather segmented demand, so that other aspects of pricing, apart from that for the mass-market products of companies like Legrand, need also to take account of the elasticities of demand for individual types of good.

The discussion by Gowri Sankaran and Rysman (2012) contributes to the analysis, focusing on consumer demand for new durable goods, thus according greater fluidity to consumer preferences. Thus, it is apparent that companies need to be in tune with evolving market dynamics and changes for them to remain competitive, especially when it comes to introducing new product variants like the home automation system.

Desai and Purohit (1999) provide more research on the strategic decisions of firms in the durable goods market on the issue of leasing vs. selling of a durable good. This is an important study for firms in the automation industry, as high setup costs may encourage them to opt for leasing as an alternative to sales. Bond and Samuelson (1987) examine how market structure influences innovating incentives in the durable goods industry. The discussion depicts that firms are competitively challenged to innovate, a trend that is commonly witnessed in firms such as home automation due to rapid technological shift.

Cohen, in turn, provides a more comprehensive analysis by providing an overview of industrial policies in France and further details on how competition and trade have been affected by both the old and new policies. This context is highly relevant for multinational companies like Legrand, which have to negotiate a very vast array of regulatory environments for their purposes of retaining competitiveness in international markets. Consumer attitudes towards brand extensions across various sectors, including durable goods, are examined by Srivastava and Sharma (2013). Challenges and opportunities that corporations experience in expanding their product lines come into the limelight as the study delves into the extent to which companies are foraying into new, innovative fields like home automation.

Finally, Ogaki and Reinhart's 1998 works publish an economic model of consumer choice of durable goods. Through the intertemporal substitution analysis of these works, a number of trade-offs faced by consumers emerge via the consumption of such high-tech products as home automation systems, where relatively higher costs at the onset will balance against long-term efficiencies and savings. As such, all these works dovetail in providing a holistic understanding of the economic, technological, and human aspects of the home automation and durable goods industries.

Objective

1.   Smart Home Automation Product Professional Professionals' Awareness and Need Assessment
*   Assess the knowledge and interest of architects and interior designers in smart home automation.
*   Assess the frequency that architects and interior designers include or would opt for automation technologies in their designs.
*   Identify awareness or demand gaps among the architects and interior designers for smart home products.

2.   Determine specific requirements and features valued by architects and interior designers for the products.
*   Key characteristics and functions to which architects and interior designers give importance in choosing electrical products, including switches and automation systems.
*   no Recorded preferences on design aspects, human factor considerations, integration into the system, and energy efficiency.
*   no Key elements for buying decision to guide product development.

3.   To Provide Product Development and Marketing Recommendations Based on the Survey Findings
*   no Actionable recommendations to Legrand to make further product concentration based on the survey findings.
*   Implement new features, improvements, or marketing programs tailored to architects and interior designers needs.
*   Help Legrand ensure product development and marketing strategy are aligned with the market in order to increase competitiveness and market share.

Methodology

*   Research Type/Research design: Descriptive type of research
*   Data Type: Primary Data
*   Tools for Data collection: Questionnaire
*   Sample size: 116 Respondent

- Sampling Frame: list of architects and interior designers in Pune
- Sampling Unit: Architects and Interior designers

Marketing Management: Practical application of marketing strategies and management of a firm's marketing resources. It involves identification of products or services that appeal to customers, with strategies to sell them, communicate, and drive business growth. As defined by the American Marketing Association, marketing management refers to planning and executing the conception, pricing, promotion, and distribution of ideas, goods, and services with a view to achieving organizational objectives efficiently.

The Marketing Mix (also called the 5 P's)

- Product: The products or services to be sold.
- Price: The price paid by the consumer
- Place: Where products or services will be sold
- Promotion: The advertising and marketing plan
- People: Who is the target market or customer

Customer Profiling

Refers to the creation of customer personas which may be very detailed based on their objectives and attributes, enabling customer-centered decisions so the product or service would fit the needs and expectations of the user.

Customer Perception

It refers to how the consumers perceive and appraise the quality of a product, which would be influenced by aspects like price, packaging, and origin, thereby helping the marketers form the presentation and promotion of the product in harmony with consumer expectations and success.
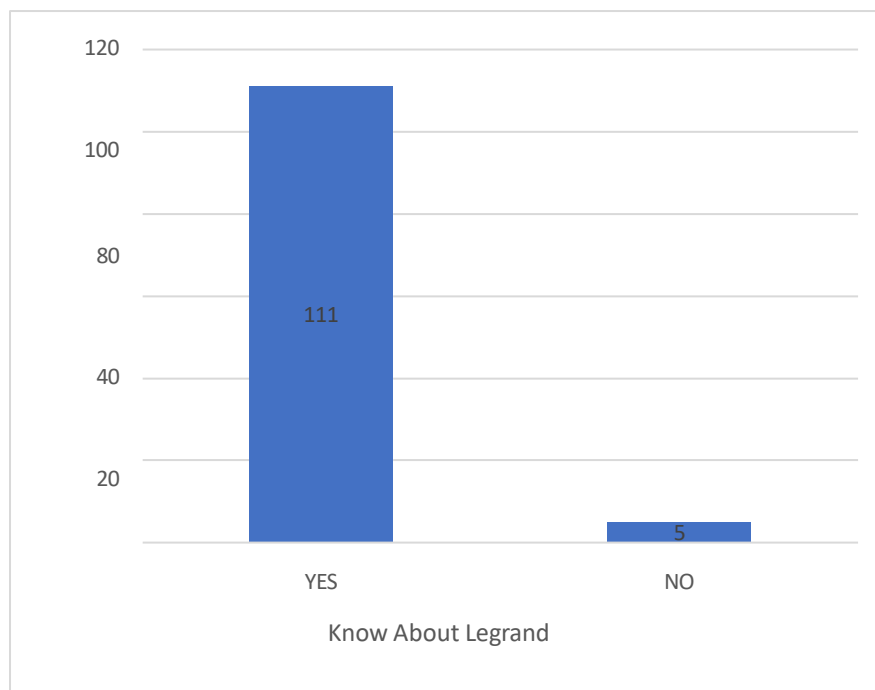
Key Elements of Perception

There are three steps involving exposure or noticing the product, attention or focusing on the stimuli, and interpretation or forming an overall view of the product through stimulation as well as personal experience.

Data Visualization

Q.1Do you know about Legrand, the company?

| Yes	111
No	5
Total	116

Interpretation

• The level of respondent awareness has been to a high level, that is with 111 in the "YES" category.

• Only about 5 respondents fall under the "NO" category, which gives an indication of very low ignorance.

• Brand recognition is a good indicator that a strong brand presides over the market, which may result in a positive outcome for sales.

Q2. How many people have tried automation in their project?

|	
Yes	57
No	59
Total	116

Automation Users
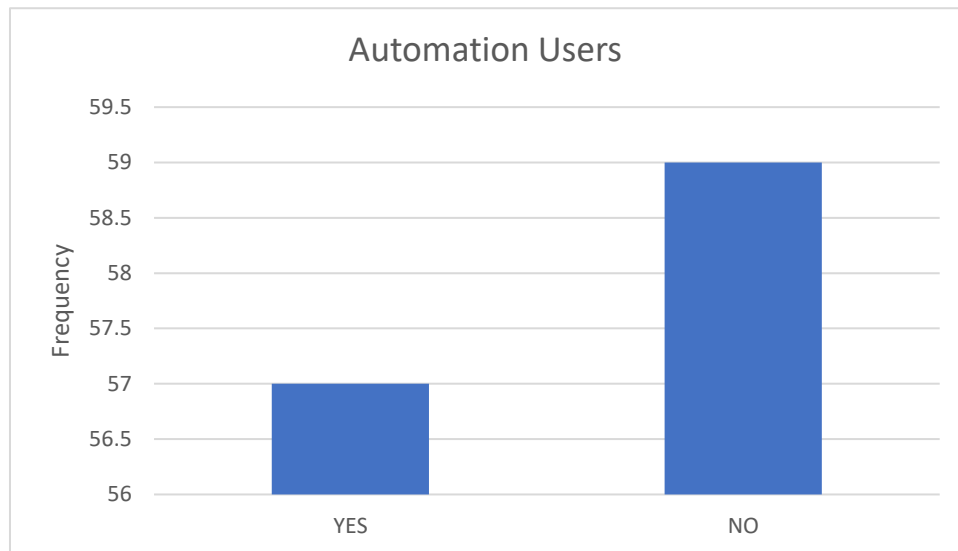
Interpretation

•Most respondents, just below 59, are not making use of automation, hence low usage.

• A tiny percentage (slightly above 57) has adopted automation, which can be said to have already implemented its use at some capacity.

• There is a great opportunity to significantly promote and expand the penetration of automation through programs aimed at raising the awareness of benefits.

Q3. From where do you purchase Legrand products?

|	
Distributor	47
Retailor	32
Both	32
Through company	2
We don't suggest	1
Client through	2
Total	116
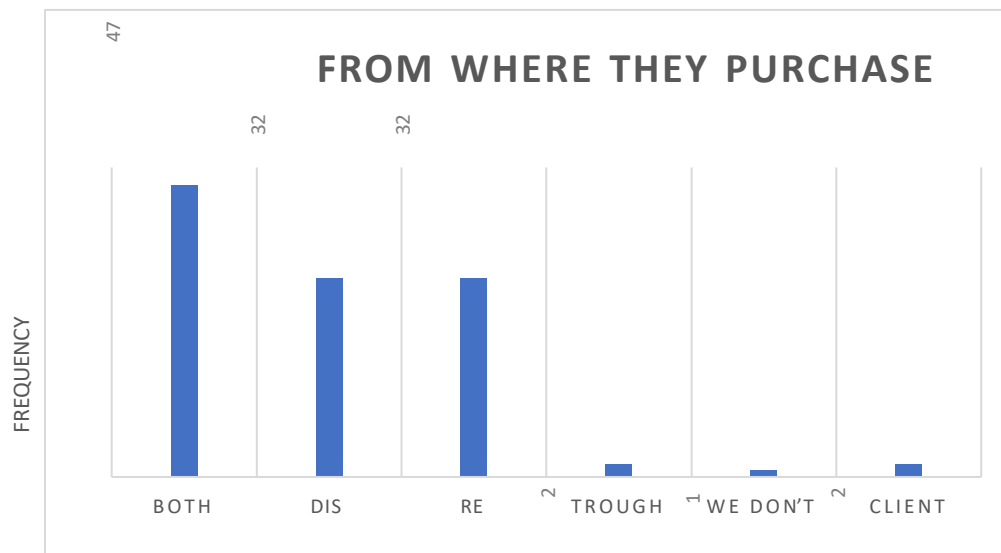
Interpretation

• Most of the respondents prefer buying from the "BOTH" categories, with a frequency just shy of 50, which indicates a high likelihood of multiple sources.

• NORMAL Frequencies in the "DISTRIBUTOR" and "RETAILOR" categories indicate that they are also relatively common distribution channels.

• "WE DON'T SUGGEST" and "CLIENT THROUGH" categories are almost at zero with the minimum frequency, thus are the most unfavourable channels, and the "THROUGH COMPANY" category shows moderate direct purchase preferences.

Q4. Who were your respondents?

|	
Architect	81
Interior Designer	32
Consultant	2
Builder	1
Total	116
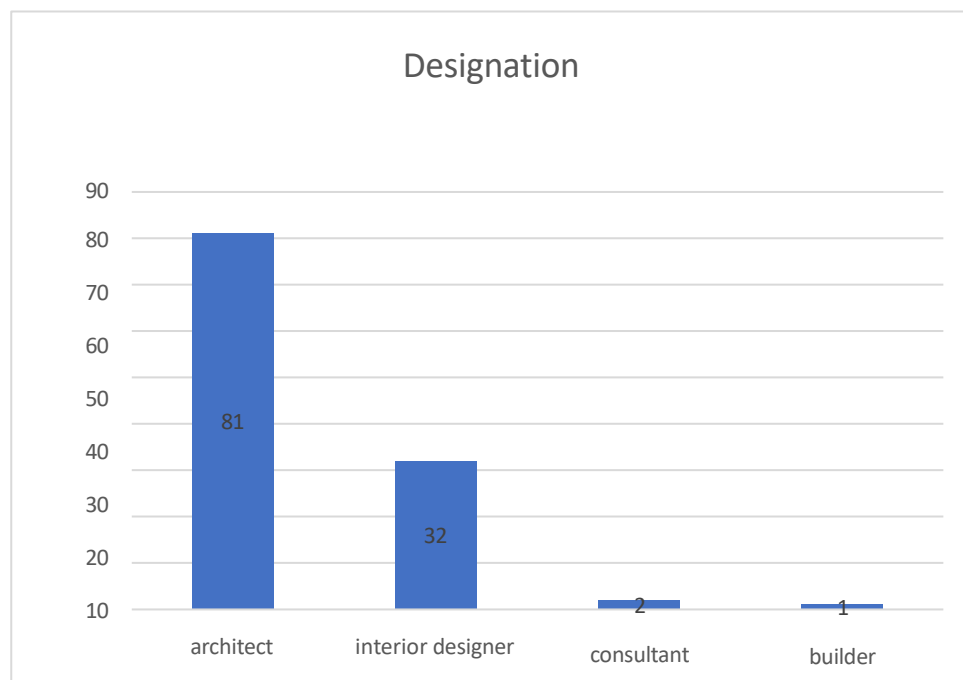
Interpretation

The most common category would be "architect," which means that 81 of the respondents belonged to that category.

• The "interior designer" category ranks second, with about 32, which is a fairly reasonable level of representation.

• The "consultant" and "builder" categories also have low frequencies: almost zero and close to one respectively, which indicates that these occupations are much less representative for the surveyed sample.

Q5. Which is the most preferred brand by the respondents?

|	
Anchor	30
Great white	3
Havells	6
Schneider	4
Norisys	9
Legrand	64
Total	116
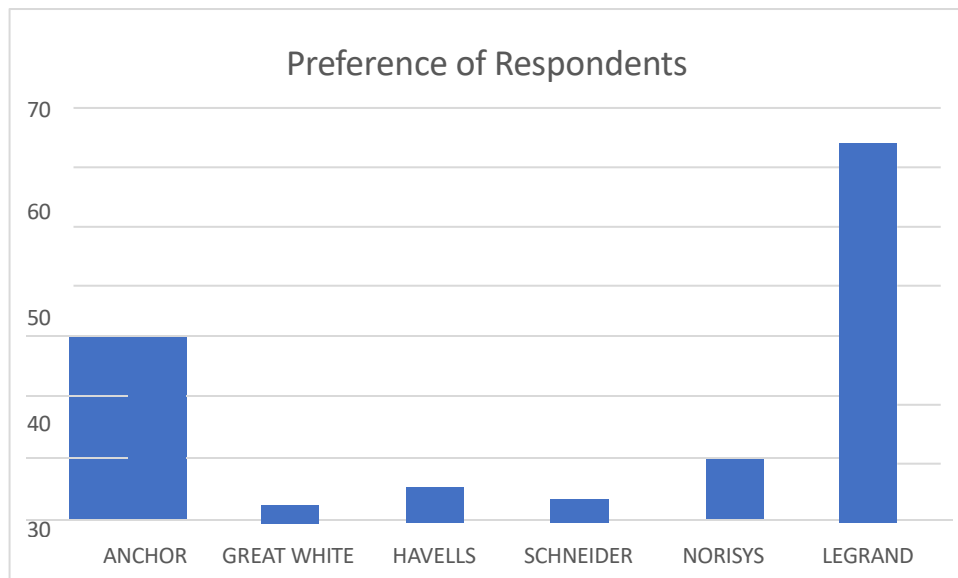
Interpretation

• LEGRAND is a market leader and thus commands an excellent presence in the market and trust from consumers.

• Further improvement in the market strategies or in the offering of the products for it to be competitive presents a lower ANCHOR preference.

• The diversified preference for GREAT WHITE, HAVELLS, SCHNEIDER and NORISYS reflects a competitive market wherein the brand has only moderate market presence and therefore requires niche strategies to promote brand loyalty and expand market share.

Q6. Have you used Legrand specific automation?

| Legrand	8
Others	108
Total	116
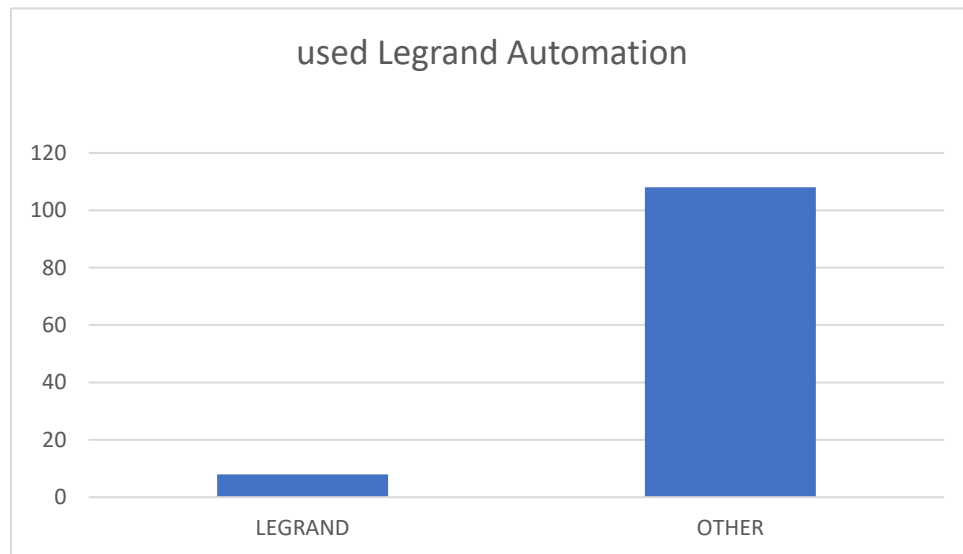
Interpretation

• The graph displays wide differential use, showing "OTHER" automation solutions are used only at just below 120, which is a very high usage.

• This shorter bar for "LEGRAND" represents a far much lower uptake, suggesting lesser preference by respondents.

• That's not a very significant difference, indicating Legrand needs to emphasize something like performance, availability, or pricing factors to improve its market appearance and accelerate adoption rates.

Q7. Define your gender?

Female	36
Male	80
Total	116
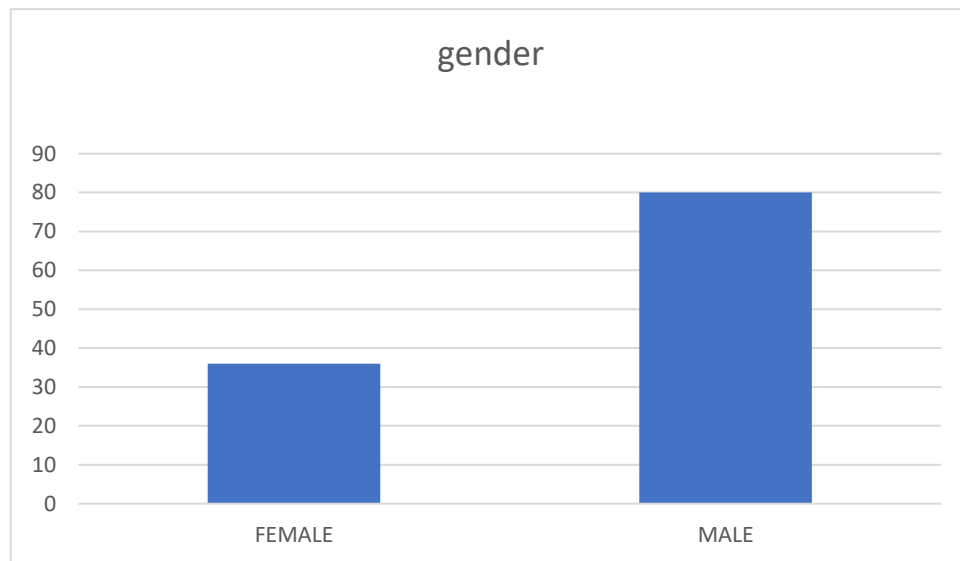
Interpretation

• The number in the "MALE" category is overwhelmingly large, more than triple the number of entries in the "FEMALE" category, to the point of huge difference.

• This discrepancy can be ascribed to several underlying causes, such as that there are more males participating or because of unequal distribution within the sample of population.

• I'd be hard-pressed to comment further on why the gap is so wide without other background information, but it does clarify that there is much variance between the two groups.

Interpretation

1.   Brand Awareness:

High brand awareness for Legrand with most respondents knowing the brand; this is a strong market presence.

2.   Automation Adoption:

Less number of respondents have adopted automation than have not adopted automation, hence this is potential for growth in automation usage.

3.   Purchasing Preferences:

Most respondents prefer to use multiple sources of purchasing; the "BOTH" categories are the most popular.

Distributors and retailers are also very common channels, whereas "WE DON'T SUGGEST" and "CLIENT THROUGH" is the least using.

4.   . Professional Profiles

Architects are the most prominent in the group of respondents, followed by interior designers. Consultants and builders are quite less represented.

5.   Brand Preference:

Legrand stands as the most favorite brand with a significant difference compared with Anchor, Great White, and Havells.

6.   Gender Distribution

Male Predominance is seen among the respondents with the majority being males.

Result

Legrand has established strong market presence; most respondents are aware of the company, which means that branding and marketing strategies have been quite effective.

1. In a pool of respondents, there seems to be parity in the distribution of respondents who use automation technologies and those who do not, implying that Legrand stands a great chance to market automation benefits with a view to increase adoption rates.

2. The respondents have preferences for sourcing; most prefer buying through channels, from the distributors and the retailers. This means Legrand should continue to maintain good relations with the various sales channels for it to meet its customers' needs.

3. From the above, there is a majority of respondents being architects, thereby meaning Legrand's products and its marketing strategy are well-targeted to this group. The fact that residential and commercial projects are emphasized increases the relevance of Legrand's offerings in these areas.

4. Legrand happens to be the most preferred brand by the respondents, which means it has enjoyed competitive advantage. With more brands appearing, this would indicate stiff competition.

5. In this regard, the higher number of male respondents may indicate that the customer base or target market for Legrand in this particular segment is still more male-oriented.

Key Results & Conclusions

1. High Recognition of Legrand Brand Amongst Respondents

Objective 1: Assess the level of awareness and market for Smart Home Automation products amongst professionals

A total of 111 out of 116 are aware of Legrand, which can serve to expose it to great brand recognition.

Such high awareness might mean that an already experienced market presence by Legrand might fuel greater demand for their smart home automation products.

2. Moderate Acceptance of Automation, Growth Potential

Objective 1: Level of Awareness and Demand of Smart Home Automation Products Among Professionals

A slightly higher number of respondents, about 59, have yet to adopt automation than their counterparts, those who have adopted automation, just a bit above 57.

Opportunity lies in here for Legrand to specifically target non-users and tell benefits and ease of use of automation products.

3.Preferred Acquisition Channels: Prefer Multiple Sources

Objective 2: Identify Specific Product Requirements and Features Preferred by Architects and Interior Designers.

Almost all respondents prefer to buy from multiple sources. This indicates a high preference for flexibility in acquiring.

Expansion could meet this demand by expansion in all channels of the presence, including a strong network of distributors and direct sales.

4. Architect and Interior Designer Powerhouse

Objective 2: Identify specific product requirements and features architects and interior designers want.

Around 80 percent of respondents are architects while around 30 percent interior designers; this makes these two professional groups key.

Legrand has to concentrate its marketing and new product development activities on the very specific needs and preferences of architects and interior designers.

5. Great Brand Preference by Legrand but way behind in Acceptance for Automation

Objective 3: To Provide Suggestions for Product Development and Marketing Strategies Based Upon the Data Collected.

 Legrand is the most preferred brand, as close to 70 of the respondents claimed a strong brand loyalty.

Although Legrand's automation solutions have the lowest uptake, this also means much to be delivered in terms of promoting the offers to the users and the marketing at large.

Limitations

1. The sample size of 116 architects and interior designers of Pune should not be generalized to the larger population from the rest of India.

2. The sample was based on only one city, namely Pune, without considering regional preference and consciousness regarding smart home automation.

3. Response bias might occur as some people might answer according to the social acceptability norm rather than their real feelings.

4. The method of designing and putting the questions in the questionnaire also may have influenced the result as any vague or loaded question can distort the messages.

5. The duration of internship maybe two months might not be enough to express the richness of analysis and scope of research.

6. Being dynamic, smart home technology and fluctuation in market might make it irrelevant in the longer run, as the studies and recommendations might not prove valid.

Learning

1. Developed insight into the pace of fast-moving durable goods sector, specifically electrical and home automation.

2. Was aware of certain product categories, such as switches, sockets, and smart home solutions; innovation and customization a priority.

3. Understood market trends, most importantly, increasing demand for smart home automation and energy-efficient solutions

4. Gained insight in how technology drives industry dynamics and generates new products.

5. Expanded knowledge of the regulatory environment and its impact on business expansion and product formulation.

6. Enhanced skills in conducting market surveys, which involves developing and distributing questionnaires.

7. Skills for gathering and assessing feedback from architects and interior designers

8. Analytical skills enhanced by both quantitative and qualitative data analysis.

9. A report writing and presentation ability improved in that it is essential to marshal and present research findings by finding an apt proposal for recommendation.

10. Acquired good interpersonal skills through proper communication with professionals and assessing their requirements and developing the relations

11. Overcame the time constraint in gathering data and hence learned to plan meticulously as well as accommodate many situations

12. Managed response bias and sample size issues also by suggesting that bigger and diversified studies are needed

13. Developed the problem-solving ability along with effective working with constraint, primarily at the implementation level of the research.

14. Gained new insights into how well product development aligns itself with market needs, which ensues that the products meet the desires of customers.

15. The importance of innovation, technology, and sustainability as a source of competitive advantage in product design as well as in business strategy.

Recommendations

1. Investigate the causes of socket problems for Myrius and ensure the effects of effective solution for improvement for quality products.

2. Develop a process for taking customer feedback that is analyzed to continually enhance the products and the performance.

3. To communicate proactively to potential participants through various mediums the benefits of joining the Legrand Innovation Centre

4. Incentives, rewards, and other motivating factors for the participant's engagement and involvement into the Innovation Centre

5. Inducing a feeling of belongingness and encouraging mutual support to create a happy experience for the participant and a climate of innovation.

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