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A Study on Distribution Channel Effectiveness in Inventaa Led Lights Pvt. Ltd.

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ABSTRACT

This research explores the effectiveness of distribution channels for INVENTAA LED Lights in Tamil Nadu, highlighting the importance of channel structure, stock control, and dealer relations to business success. Through the evaluation of information from distributors, retailers, and consumers, the research determines some of the major issues like irregular supply chains, little stock visibility, and poor after-sales support. The study also identifies the revolutionizing effect of online platforms, such as e-commerce and mobile apps, in facilitating operations and increasing customer interactions. External variables such as variable market demand and changing regulatory policies also affect distribution efficiency. It is particularly notable that government policies such as the UJALA scheme have significantly contributed to encouraging the adoption of LEDs, although the involvement of Tamil Nadu has been relatively subdued, impacting general market penetration. The research advises strategic enhancements including the implementation of sophisticated inventory management systems, improving retailer relationships, and using digital tools to enhance the supply chain. These recommendations provide actionable insights for improving distribution efficiency in the LED lighting market

KEYWORDS: Distribution Efficiency, Inventory Management, Digital Transformation, Government Policy

INTRODUCTION

Channel effectiveness of distribution is the capability of a business's supply chain and distribution network to move goods or services from the original producer to the ultimate consumer in the most efficient, cost-saving, and customer-focused way. It includes the strategic choice, management, and fine-tuning of different intermediaries like wholesalers, distributors, retailers, and digital platforms so that products reach the right location, at the correct time, and in the correct amount. A good distribution channel assists companies in serving several purposes such as maximizing market coverage, improving customer satisfaction, reducing lead time, cutting operational expenses, and boosting profitability. It needs an efficient system of logistics, effective inventory control, and sound relationships with members of the channels to avoid stockouts or over inventorying. Distribution channel performance is also determined by some of the following factors: consumer trends, geographical reach, product nature, industry dynamics, and technology. Firms need to make sure that the distribution strategies they adopt meet the needs of their customers, regulatory conditions, and market competition to be successful. Companies measure the performance of their distribution channels using key performance indicators (KPIs) like sales performance, customer satisfaction, delivery speed, and cost. Issues such as high logistics costs, channel conflict, and technological disruptions need to be overcome using innovative solutions like omnichannel distribution, automation, and real-time supply chain tracking. With fast-paced digital evolution, companies are moving towards technology-enabled and integrated distribution models, such as direct-to-consumer (DTC) strategies, online shopping, and automated fulfillment facilities. As competition becomes fiercer, companies that invest in adaptive, sustainable, and consumer-oriented distribution strategies can gain a competitive advantage and guarantee long-term success in the market.

THEORETICAL BACKGROUND

MEANING

Distribution channel effectiveness refers to the ability of a company's distribution network to successfully and efficiently move goods and services from manufacturers to end consumers through various pathways. This process involves a well-coordinated system of intermediaries, including wholesalers, distributors, retailers, e-commerce platforms, and logistics providers. A highly effective distribution channel ensures that products reach customers in a timely, cost-efficient, and seamless manner, enhancing overall customer satisfaction while optimizing business operations.

CONCEPT:

The concept of **distribution channel effectiveness** revolves around optimizing the movement of goods to maximize market reach and profitability. It involves selecting the right intermediaries, streamlining logistics, and leveraging technology to enhance efficiency. Effective distribution ensures that the right product is delivered at the right time, place, and cost, contributing to business success.

DEFINITION

According to marketing expert **Philip Kotler**, "A distribution channel is a set of interdependent organizations involved in the process of making a product or service available for use or consumption by the consumer or business user." This definition highlights the complexity and interconnected nature of distribution networks, which require seamless coordination between multiple entities to ensure smooth product flow. The success of a distribution channel depends on a variety of factors, including logistical capabilities, supplier and retailer relationships, inventory management strategies, transportation efficiency, and the ability to leverage digital technologies for automation and tracking.

FUNCTIONS:

Distribution channels serve several key functions, including:

- Transactional Functions – Buying, selling, and risk-taking associated with product movement.
- Logistical Functions – Storing, sorting, and transporting goods efficiently.
- Facilitating Functions – Providing financing, marketing, and information sharing to support sales.
- Customer Service – Ensuring product availability and after-sales support to enhance consumer experience.

SOURCES:

The effectiveness of distribution channels depends on various sources, including:

- Market Research & Consumer Insights – Understanding customer needs and preferences.
- Technology & Digital Platforms – Leveraging e-commerce, AI, and automation to streamline logistics.
- Strategic Partnerships – Collaborating with wholesalers, retailers, and logistics firms.

KEY WAYS TO IMPROVE DISTRIBUTION CHANNEL EFFECTIVENESS:

- Optimize inventory management to maintain proper stock levels.
- Leverage technology to streamline operations and track inventory.
- Strengthen partnerships with distributors and retailers for better coordination.
- Expand distribution networks to reach a wider audience and increase sales.
- Enhance logistics efficiency to reduce delivery delays and improve cost-effectiveness.

HISTORY

The concept of distribution channels has evolved over millennia, beginning with early barter systems and ancient trade routes. In early civilizations such as Mesopotamia, Egypt, and China, merchants played a crucial role in distributing goods like spices, textiles, and precious metals. The Silk Road, one of the most famous trade networks, facilitated the exchange of goods, ideas, and culture between Asia, the Middle East, and Europe. Similarly, the Roman Empire developed an extensive network of roads and maritime routes, enabling the efficient distribution of goods across its vast territories.

REVIEW OF LITERATURE

- **John Fahy, (2022)** "The importance of distribution channels has grown significantly with the rise of globalization and the increase in consumer demand for convenience. Global supply chains, digital payment systems, and localized distribution hubs are some of the elements that have reshaped how products are delivered worldwide.
- **Rajendra Sisodia, (2022)** "Effective management of distribution channels is integral to maintaining a firm's profitability and long-term success. This requires businesses to constantly innovate and adopt new technologies, such as automation, to streamline the distribution process. Additionally, strong relationships with suppliers, distributors, and retailers can help to mitigate risks and ensure reliability in the supply chain.
- **Abdelrahman Mohsen, Ranya Ibrahim Yousif, Israa Yasser, and Farida Wally (2023)** This research investigates the impact of different distribution channel strategies and types on consumer buying behaviour specifically focusing on convenience products such as protein bars. Utilizing a conclusive research design, the study collected data through self-administered questionnaires from a sample of 120 consumers using a non-probability judgmental sampling technique.

- **Zhang, L., & Carter, J. (2024)** Zhang and Carter analyze the shift toward customer-centric distribution strategies, particularly in last-mile delivery, which has become a critical factor in consumer satisfaction. Their research emphasizes that companies investing in real-time tracking, automated delivery hubs, and flexible delivery options outperform competitors relying on traditional distribution models.
- **Kim, H., & Davis, L. (2025)** Kim and Davis assess the effectiveness of sustainable distribution models in reducing carbon footprints and improving cost efficiency. Their research suggests that eco-friendly packaging, optimized delivery routes, and alternative fuel vehicles significantly enhance the sustainability of last-mile logistics. They conclude that companies integrating green logistics see long-term profitability and stronger brand loyalty.

RESEARCH METHODOLOGY

MEANING

Research is a systematic process of investigating problems to gain knowledge. According to Clifford Woody, it involves defining problems, forming hypotheses, collecting and analyzing data, and testing conclusions to see if they align with the hypotheses.

RESEARCH DESIGN

The study adopts a descriptive research design, which is used to describe the characteristics of a particular population or phenomenon. This design helps in identifying patterns, relationships, and trends in the distribution system of Inventaa LED Lights Pvt. Ltd.

SAMPLING TECHNIQUE

The sampling technique used in this research is simple random sampling, ensuring each individual in the population had an equal chance of being selected. This reduces sampling bias and enhances the reliability of the data.

SAMPLE SIZE

A total of 110 respondents were selected from a population of 800, which includes distributors, retailers, and customers associated with Inventaa LED Lights in Tamil Nadu.

SOURCES OF DATA

Primary Data: Collected through a structured questionnaire designed to gather insights from stakeholders about the effectiveness of the distribution channel.

Secondary Data: Obtained from company records, industry reports, academic journals, previous research papers, magazines, and verified websites.

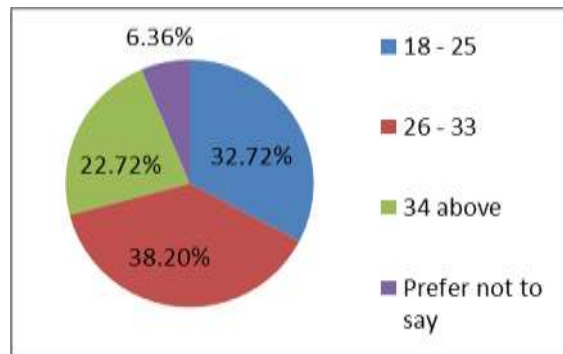
DATA ANALYSIS TECHNIQUE

Data was analyzed using Karl Pearson's Correlation to determine the strength and direction of the relationship between various variables such as departmental roles and frequency of communication with wholesalers.

RESULT ANALYSIS

➤ AGE OF THE RESPONDENTS

S. No.	Age	No. Of Respondents	Percentage
1	18 - 25	36	32.72%
2	26 - 33	42	38.20%
3	34 above	25	22.72%
4	Prefer not to say	7	6.36%
	Total	110	100.00%

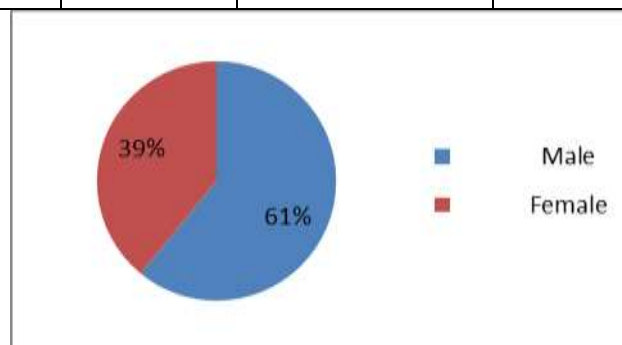


INTERPRETATION

From the above table it is interpreted that, 38.20% of the respondents belong to the age of 26-33 years 32.72% of the respondents belong to the age group of 18-25 years , 22.72% of the respondents belong to the age group of 34 years and above and 6.36% of the respondents preferred not to disclose their age

➤ GENDER OF THE RESPONDENTS

S. No.	Gender	No. Of respondents	Percentage
1	Male	67	60.90%
2	Female	43	39.10%
	Total	110	100.00%



INTERPRETATION

From the above table it is found that 60.90% of the respondents are male and 39.10% of respondents are female.

ANALYSIS USING KARL PEARSON'S CORRELATION

Correlation analysis is the statistical tool used to measure the degree to which two variables are linearly related to each other. Correlation measures the degree of association between two variables.

HYPOTHESIS:

NULL HYPOTHESIS (H_0):

There is no significant relationship between the department and how often wholesalers approach the company for information about INVENTAA LED lights (i.e., the Pearson correlation coefficient is zero).

ALTERNATIVE HYPOTHESIS (H_1):

There is a significant relationship between the department and how often wholesalers approach the company for information about INVENTAA LED lights (i.e., the Pearson correlation coefficient is not zero).

Correlation

Correlations

		Department	Specify how often wholesalers approach your company for information about INVENTAA LED lights
Department	Pearson Correlation	1	-.488**
	Sig. (2-tailed)		<.001
	N	110	110
Specify how often wholesalers approach your company for information about INVENTAA LED lights	Pearson Correlation	-.488**	1
	Sig. (2-tailed)	<.001	
	N	110	110

** . Correlation is significant at the 0.01 level (2-tailed).

FINDINGS

- 38.20% of the respondents belong to the age group of 26-33 years.
- 60.90% of the respondents belong to the Male employees
- 51.81% of wholesalers inquire about INVENTAA LED Lights daily.

SUGGESTIONS

- To improve client accessibility, the business should enhance its multichannel distribution strategy. Integrating both online and offline channels can lead to higher sales and greater customer satisfaction, as many customers value having multiple purchasing options.
- To minimize the delivery of damaged goods, better handling and packaging practices should be implemented. Utilizing stronger packaging materials and improving logistics can help address this common concern and boost customer confidence.
- Clear communication with distributors and retailers is essential. Regular updates through newsletters, training, and an online portal can improve product information sharing.
- A better online order system is needed for smoother transactions. A user-friendly platform can boost efficiency and improve the customer experience, addressing common ordering issues.
- To ensure faster delivery, the company should establish more regional distribution hubs. Strategically placed warehouses can significantly reduce delays and meet customer expectations.

CONCLUSION

The research points out that although Inventaa LED Lights enjoys a robust market presence, it suffers from problems such as irregular supply, poor stock visibility, and poor after-sales support. Digital platforms are revolutionizing distribution, providing new opportunities for efficiency. Building retailer relationships, implementing improved inventory systems, and leveraging digital tools can significantly enhance distribution effectiveness and customer satisfaction.

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APPENDIX

- Age: - (a) 18 – 25 (b) 26 – 33 (c) 34 and above (d) prefer not to say
- 2. Gender: - (a) Male (b) Female
- Specify how often wholesalers approach your company for information about INVENTAA LED lights.
(a) Daily (b) Weekly (c) Monthly (d) Rarely (e) Never