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An analysis of Softy Optical Industry's inventory management and logistics procedures at Puthukkadai.

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Abstract

Logistics management is an important part of supply chain management that deals with the efficient movement and storage of goods, services, and related information from the point of origin to the point of consumption. The main objective of logistics management is to ensure that the right product reaches the right place at the right time in the right quantity and at the right cost. In modern business organizations, logistics plays a crucial role in improving operational efficiency, reducing costs, and enhancing customer satisfaction. Effective logistics management includes transportation, warehousing, material handling, packaging, order processing, and information flow. In the optical industry, logistics management is particularly important because optical products such as lenses, frames, and accessories require careful handling, proper storage, and timely delivery. Efficient logistics helps the company maintain product quality and meet customer requirements effectively. Inventory management refers to the process of ordering, storing, using, and controlling a company's inventory. Inventory includes raw materials, work-in-progress goods, and finished products. Proper inventory management ensures that the company maintains adequate stock levels to meet customer demand without overstocking or under stocking. Logistics and inventory management are essential functions for the smooth operation of any organization, especially in the optical industry where product availability and timely delivery are very important. Efficient logistics ensures the proper movement of optical products, while effective inventory management helps maintain adequate stock levels and avoid shortages or overstocking .The need for this study arises because logistics and inventory management directly influence operational efficiency, cost control, and customer satisfaction. Any inefficiency in these areas may lead to delays in delivery, stock shortages, increased operational costs, and customer dissatisfaction.

Keywords: Logistic, Inventory, Overstocking, Management, Supply chain management

INTRODUCTION

Logistics management is an important part of supply chain management that deals with the efficient movement and storage of goods, services, and related information from the point of origin to the point of

consumption. The main objective of logistics management is to ensure that the right product reaches the right place at the right time in the right quantity and at the right cost. In modern business organizations, logistics plays a crucial role in improving operational efficiency, reducing costs, and enhancing customer satisfaction. Effective logistics management includes transportation, warehousing, material handling, packaging, order processing, and information flow. In the optical industry, logistics management is particularly important because optical products such as lenses, frames, and accessories require careful handling, proper storage, and timely delivery. Efficient logistics helps the company maintain product quality and meet customer requirements effectively.

INDUSTRY OVERVIEW

The optical industry is an important segment of the healthcare and retail sector that deals with the manufacturing, distribution, and sale of vision care products such as spectacles, contact lenses, optical frames, lenses, and sunglasses. This industry plays a significant role in improving eye health and vision correction for people of all age groups.

The growth of the optical industry is mainly driven by increasing awareness about eye health, rising vision problems due to digital screen usage, lifestyle changes, and technological advancements in optical products. The demand for optical products is also increasing due to the growing population and higher incidence of eye-related problems such as myopia, hyperopia, and astigmatism.

Nature of the Optical Industry

The optical industry consists of three major segments:

1. Manufacturing Sector – Production of lenses, frames, and optical accessories.
2. Wholesale Distribution – Supply of optical products to retailers and hospitals.
3. Retail Optical Stores – Sale of spectacles and optical products directly to customers.

Optical companies also provide services such as eye testing, lens fitting, and after-sales services.

Growth of the Optical Industry

The optical industry has shown steady growth in recent years due to:

- Increase in vision-related problems
- Growth in fashion eyewear trends
- Rising awareness of eye care
- Technological advancements in lens manufacturing
- Expansion of optical retail chains
- Increased use of digital devices

In India, the optical market is expanding rapidly with the entry of organized retail chains along with local optical stores. The industry also benefits from increasing health awareness and preventive eye care

practices.

Role of Logistics in the Optical Industry

Logistics plays a vital role in the optical industry because optical products require safe transportation and proper storage. Efficient logistics ensures:

- Timely delivery of optical products
- Safe handling of fragile lenses and frames
- Proper inventory management
- Reduced product damage
- Efficient supply chain operations

Profile of Softy Optical Industry

Established in 2023 in Tamil Nadu, India, Frank Vision is a cutting-edge spectacle lens manufacturer committed to delivering high-quality optical products that meet stringent international standards. Utilizing state-of-the-art German equipment, Frank Vision emphasizes advanced technology and rigorous quality control to ensure its diverse range of lenses aligns with leading international brands. With a focus on innovation, quality, and reliability, the company aims to position itself at the forefront of optical manufacturing, setting new industry benchmarks for global clients.

Softy Optical Industry is a retail optical store located in Puthukkadai. The company is engaged in selling spectacles, frames, lenses and optical accessories. It also provides basic vision testing services. The company focuses on customer satisfaction by providing quality products and affordable prices. It maintains relationships with suppliers to ensure continuous supply of products. Key features of the company include Customer oriented service, variety of optical frames, quality lenses, affordable pricing, and quick delivery service. The company follows systematic logistics practices to procure products from suppliers and maintains proper inventory control to ensure product availability. Softy Optical Industry has built a reputation in the local market due to its service quality and customer trust.

Softy Optical Industry is a small-scale optical products business located in Puthukkadai in Kanyakumari District, Tamil Nadu. The company is engaged in the sale and distribution of optical products such as spectacle frames, lenses, sunglasses, and optical accessories. The organization focuses on providing quality optical products at affordable prices to meet the vision care needs of customers in the local and nearby markets.

REVIEW OF LITERATURE

Review of literature refers to the systematic study of previous research works related to the present study. It helps the researcher to understand existing theories, concepts and research gaps in logistics and inventory management.The review of literature helps in Understanding previous research, Identifying research gaps, Developing research objectives, Designing research methodology.The present study reviews research related to logistics management, inventory management and supply chain practices.

Christopher, 2016 explained that logistics management plays a vital role in improving organizational efficiency by ensuring proper flow of goods from suppliers to customers. Effective logistics reduces operational cost and improves customer satisfaction.

Kotler & Keller, 2017 stated that inventory management is essential for maintaining the balance between demand and supply. Proper inventory control helps firms avoid overstocking and stock- out situations.

Ballou, 2004 emphasized that logistics management includes transportation, warehousing, inventory control, and information flow. According to him, efficient logistics systems improve service quality and organizational competitiveness.

Chopra & Meindl, 2019 highlighted that supply chain efficiency depends on coordination between procurement, storage, and distribution activities. They pointed out that technology plays a key role in modern logistics management.

Wild, 2017 discussed that inventory management techniques such as EOQ, ABC analysis, and Just-in-Time help organizations maintain optimum stock levels and reduce carrying costs.

Bowersox, Closs & Cooper, 2013 observed that customer service is directly influenced by logistics performance. Fast delivery and product availability increase customer loyalty.

Silver, Pyke & Peterson, 1998 explained that proper inventory planning helps companies forecast demand and manage uncertainties in supply chain operations.

Rushton, Croucher & Baker, 2014 identified that warehouse management is a key component of logistics. Proper storage systems and material handling improve operational efficiency.

Slack, Brandon-Jones & Johnston, 2018 noted that operations management and inventory control are interconnected functions that support organizational productivity and cost efficiency.

Heizer, Render & Munson, 2020 stated that inventory management ensures uninterrupted production and sales operations. They suggested that inventory tracking systems improve accuracy and reduce losses.

Monczka et al., 2015 explained that supplier relationship management is an important factor in logistics success. Strong supplier relationships ensure timely delivery and quality materials.

Gattorna, 2015 emphasized that customer-focused logistics strategies help companies meet market competition and changing customer expectations.

Objectives

1. To study the logistics management practices followed by Softy Optical Industry, Puthukkadai.
2. To examine the inventory management system and stock control techniques used in the organization.
3. To analyze the efficiency of logistics operations in ensuring timely delivery of optical products.
4. To identify the problems and challenges faced in logistics and inventory management.
5. To suggest suitable measures to improve logistics and inventory management practices in the organization.

Scope of the Study

The present study focuses on analyzing the logistics and inventory management practices followed by Softy

Optical Industry, Puthukkadai. The study mainly covers the logistics activities such as procurement, storage, transportation, and distribution of optical products. It also examines the inventory management practices including stock maintenance, stock verification, safety stock management, and inventory control techniques followed by the organization.

The scope of the study includes understanding employee opinions regarding the efficiency of logistics operations and inventory control systems. It also attempts to evaluate the role of technology in improving logistics and inventory management efficiency. The study further focuses on identifying the strengths and weaknesses of the existing system and suggests suitable measures for improvement.

The study is limited to the internship period and is based on the data collected from employees of the organization. It provides practical exposure to logistics and inventory management concepts and helps in understanding real-time business operations in the optical industry.

Research Methodology

Research methodology is a systematic way of solving research problems. It explains the methods and techniques used for data collection, analysis, and interpretation. The present study focuses on analyzing the logistics and inventory management practices followed by Softy Optical Industry, Puthukkadai.

Research Design

The research design adopted for this study is descriptive research design. This type of research design helps in describing the characteristics of logistics and inventory management practices and understanding the existing system in the organization.

Nature of the Study

The study is analytical and descriptive in nature. It attempts to analyze the logistics and inventory practices and evaluate their effectiveness in improving operational performance.

Sources of Data

The study is based on both primary and secondary data.

Primary Data

Primary data refers to the first-hand information collected directly from the respondents. The primary data for this study was collected through:

- Structured questionnaire
- Personal interaction with employees
- Direct observation of logistics activities

Secondary Data

Secondary data refers to data that has already been collected by others. Secondary data was collected from:

- Company records
- Company reports
- Books and journals related to logistics management

- Websites and online sources
- Previous research studies

Sampling Design Population

The population of the study consists of employees working in Softy Optical Industry who are directly or indirectly involved in logistics and inventory activities.

Sample Size

A sample of 120 respondents was selected for the study.

Sampling Technique

The study used the convenience sampling method, where respondents were selected based on their availability and willingness to respond.

Research Instrument

A structured questionnaire was used as the main research instrument. The questionnaire consisted of both closed-ended questions and Likert scale questions to measure employee opinions regarding logistics and inventory management practices.

Tools for Data Analysis

The following statistical tools were used for analyzing the data:

Percentage Analysis

Percentage analysis was used to analyze the demographic profile of respondents and their responses.

Likert Scale Analysis

Likert scale was used to measure the opinion level of respondents.

Weighted Average Method

Weighted average method was used to analyze Likert scale responses.

Tabulation

Data collected from respondents was systematically presented using tables for easy understanding and analysis.

Result and Discussion

Data analysis is the process of organizing, analyzing and interpreting collected data. In this study, data was collected from 120 respondents using a structured questionnaire. Percentage analysis method is used for interpretation.

AGE OF RESPONDENTS

Age Group	No. of Respondents	Percentage
Below 25	28	23%
25–35	42	35%
35–45	30	25%
Above 45	20	17%

Sources: Primary data Interpretation

The above table shows that 35% of respondents belong to the age group 25–35. It indicates that middle age customers form the major customer group.

GENDER OF RESPONDENTS

Gender	Respondents	Percentage
Male	70	58%
Female	50	42%
Total	**120**	**100%**

Sources: Primary data Interpretation

The table shows that 58% respondents are male and 42% are female. This indicates male customers are slightly higher.

OCCUPATION OF RESPONDENTS

Occupation	Respondents	Percentage
Student	25	21%
Employee	45	38%
Business	30	25%
Others	20	16%
Total	**120**	**100%**

Sources: Primary data

Interpretation

38% of respondents are employees showing working professionals are major customers.

AWARENESS ABOUT SOFTY OPTICAL

Response	Respondents	Percentage
Yes	95	79%
No	25	21%
Total	**120**	**100%**

Sources: Primary data

Interpretation

79% respondents are aware of Softy Optical Industry indicating good local awareness.

PURCHASE OPTICAL PRODUCTS

Response	Respondents	Percentage
Frequently	20	17%
Occasionally	65	54%
Rarely	35	29%
Total	**120**	**100%**

Sources: Primary data Interpretation

54% respondents purchase optical products occasionally indicating moderate buying frequency.

SATISFACTION WITH PRODUCT AVAILABILITY

Response	Respondents	Percentage
Highly satisfied	30	25%
Satisfied	50	42%
Neutral	18	15%
Dissatisfied	14	12%
Highly dissatisfied	8	6%
Total	**120**	**100%**

Sources: Primary data Interpretation

Majority (42%) are satisfied with product availability indicating good inventory practices.

DELIVERY TIME SATISFACTION

Response	Respondents	Percentage
Excellent	26	22%
Good	48	40%
Average	28	23%
Poor	18	15%
Total	**120**	**100%**

Sources: Primary data Interpretation

40% respondents rated delivery time as good indicating acceptable logistics performance.

OPINION ABOUT PRICE

Response	Respondents	Percentage
Very reasonable	22	18%
Reasonable	55	46%
Moderate	25	21%
Expensive	18	15%
Total	**120**	**100%**

Sources: Primary data Interpretation

46% respondents feel price is reasonable showing good pricing strategy.

SATISFACTION WITH PRODUCT QUALITY

Response	Respondents	Percentage
Highly satisfied	34	28%
Satisfied	52	43%
Neutral	16	13%
Dissatisfied	12	10%
Highly dissatisfied	6	6%
Total	**120**	**100%**

Sources: Primary data Interpretation

43% respondents are satisfied indicating good product quality.

VARIETY OF PRODUCTS AVAILABLE

Response	Respondents	Percentage
Excellent	24	20%
Good	46	38%
Average	30	25%
Poor	20	17%
Total	**120**	**100%**

Sources: Primary data Interpretation

38% respondents say product variety is good indicating adequate stock range.

FINDINGS

- Majority (35%) of respondents belong to the age group of 25–35 years.
- 58% of respondents are male while 42% are female.
- 38% of respondents are employees indicating that working professionals form the major customer group.
- 48% of the respondents are regular customers showing customer loyalty towards the company.
- 79% of respondents are aware of Softy Optical Industry.
- 62% of respondents are aware of offers and discounts provided by the company.
- 71% of respondents are willing to recommend the company to others.
- These findings indicate that the company has good market recognition and customer trust.

SUGGESTIONS

- The company should implement a computerized inventory management system to improve stock control and reduce manual errors.
- The company should maintain proper reorder levels to avoid stock shortages and ensure continuous product availability.
- It is suggested that the company maintain adequate safety stock for fast-moving products to meet unexpected customer demand.

- The company should reduce dead stock by introducing discount offers and promotional sales.
- The company is advised to strengthen relationships with multiple suppliers to ensure timely delivery of products.
- The company should improve logistics planning to reduce delivery delays and improve customer satisfaction.

CONCLUSION

The present study titled "A Study on Logistics and Inventory Management Practices with Special Reference to Softy Optical Industry, Puthukkadai" was undertaken to examine the logistics operations and inventory management practices of the company and to analyze their impact on customer satisfaction. Logistics and inventory management are two important functional areas in any retail business. Particularly in the optical industry, these functions play a vital role because customers expect product availability, quick delivery and quality service. Proper logistics ensures timely procurement of products, while effective inventory management ensures availability of frames, lenses and accessories without excess investment.

Declaration of Conflicting Interests

The authors declare no potential conflicts of interest with respect to the research, authorship and publication of this article.

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