



A study on material handling storage and packaging challenges by employees in siva foods at Thekutheru

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Abstract

This project focuses on examining the material handling and packaging challenges faced by employees in manufacturing and logistics sectors. It highlights common issues such as improper handling techniques, lack of training, inadequate equipment, and time-consuming manual processes that lead to reduced efficiency and increased risk of workplace injuries. The study also identifies problems related to packaging, such as material wastage, unsuitable packaging designs, and damage during transit. Through surveys and observations, the research provides insights into how these challenges affect employee performance and overall productivity. The findings emphasize the need for proper training, adoption of automation, ergonomic tools, and improved packaging strategies.

Keywords: Material handling, packaging challenges, storage material

Introduction

Materials handling is loading, moving and unloading of materials. To do it safely and economically, different types of tackles, gadgets and equipment are used, when the materials handling is referred to as mechanical handling of materials. Since primitive men discovered the use of wheels and levers, they have been moving materials mechanically. Any human activity involving materials need materials handling. However, in the field of engineering and technology, the term materials handling is used with reference to industrial activity. In any industry, be it big or small, involving manufacturing or construction type work, materials have to be handled as raw materials, intermediate goods or finished products from the point of receipt and storage of raw materials, through production processes and up to finished goods storage and dispatch points.

Materials handling as such is not a production process and hence does not add to the value of the product. It also costs money; therefore it should be eliminated or at least reduced as much as possible. However, Materials handling is the movement and storage of materials at the lowest possible cost through the use of proper methods and equipment. Material handling is the movement, protection, storage, and control of materials and products throughout manufacturing, warehousing, distribution, consumption, and disposal. As a process, material handling incorporated a wide range of manual, semi-automated, and automated equipment and systems that support logistics and make the supply chain work. Materials handling is the art and science of conveying, elevating, positioning, transporting, packaging and storing of materials. Storage or warehousing is very much a part of materials handling. Materials handling uses different equipment and mechanisms called Materials Handling Equipment. Though in one of the definitions, processing operations and inspection have been specifically excluded from scope of materials handling operations, it is worth mentioning that in specific cases processing or

inspection of materials may be accomplished simultaneously with handling activity.

Statement of The Problem

Loading, transporting, and unloading of commodities are all parts of materials handling. When handling materials is referred to as mechanical handling of materials, many sorts of tackles, gadgets, and equipment are employed to perform it safely and affordably. Since early man learned how to utilize wheels and levels, materials have been moved mechanically. Any human action involving materials requires management of those items. However, the word "materials handling" is used to refer to industrial activities in the fields of engineering and technology. Material must be handled as raw materials, intermediate goods, or finished products from the point of receipt and storage of raw materials through production processes and up to finished goods storage and dispatch points in any industry, large or small, involving manufacturing or construction type work. The value of the product is not increased by materials handling since it is not a manufacturing process.

Need of The Study

- To keep away the unnecessary and deficient level of inventories in the organization.
- To increase the service to the customer through short, convenient and conveyance.
- To keep up an adequate material in the organization for the smooth creation and self operations.
- To maintain the business operations of the organization in smooth adequate way.

Objectives of The Study

Primary Objectives

The main objective is to study on material handling and storage packaging challenges in siva foods madurai.

Secondary Objectives

- To identify the problems faced in material handling.
- To find out the critical factors influencing in various stages of material handling.
- To reveal the measures to improve the flow of material handling for effective work condition.
- Assist in reducing material degradation to enhance quality.
- Minimizing the total production time via the design of effective material mobility.

Scope of The Study

- This study aims to provide a comprehensive overview of modern materials handling and storage systems. It explores the principles and technologies that underpin these systems, examines best practices, and evaluates the impact of advanced solutions on operational performance.
- To give the arrangement to the organizations like what to arrange, when to arrange and the amount to be arranged.
- To find the most desirable qualities.
- To acknowledge the most preferred package.
- To give suitable measure for material handling and storage packaging.

Hypothesis of The Study

Hypothetical study focusing on material handling, storage, and packaging, potential challenges could include space limitations, equipment maintenance, employee training, and the need for efficient and safe handling practices, all of which can impact logistics costs and operational efficiency.

Research Design

A research design is the arrangement of condition for collection and analysis of data in a manner that aims to combine relevance to the research purpose with economy in procedure. The research design is the conceptual structure within which research is conducted.

Research Methodology

Research methodology is a way to systematically solve the research It may be understood as a science of studying how research is done scientifically. It includes the overall research design, the sampling procedure, data collection method and analysis procedure.

Method of The Data Collection

1. Primary Data
2. Secondary Data

Primary data: The data is basically acquired from employees through sampling by using a questionnaire. It appears that primary data was collected through sampling employees using a questionnaire. This is a common method for collecting primary data, particularly for descriptive research designs. It is important to ensure that the sampling method used is representative of the population of interest and that the questionnaire is designed and tested to ensure it is valid and reliable.

Secondary data: The secondary data was collected through several articles, company prospectus and websites. That secondary data was collected through several articles, company prospectus, and websites. Secondary data can be a valuable source of information and can help 21 to provide context and support for the primary data. It is important to critically evaluate the sources of secondary data to ensure their accuracy, relevance, and reliability.

Period of The Study

The study conducted during the period of January 2.

Area of The Study

The survey was conducted in siva foods company, Therkutheru (Madurai).

Limitation of The Study

This study on material handling, storage, and packaging challenges is subject to several limitations. Firstly, the scope of the study is confined to specific industries and a limited geographical area, which may restrict the generalizability of the findings to other sectors or regions. The study also faced time constraints, limiting the depth of analysis and the possibility of conducting a longitudinal assessment. Additionally, the sample size was relatively small, which may affect the accuracy and representativeness of the results. Access to detailed internal data from companies was limited due to confidentiality concerns, which may have restricted the depth of insight into operational challenges.

Data Analysis and Interpretation

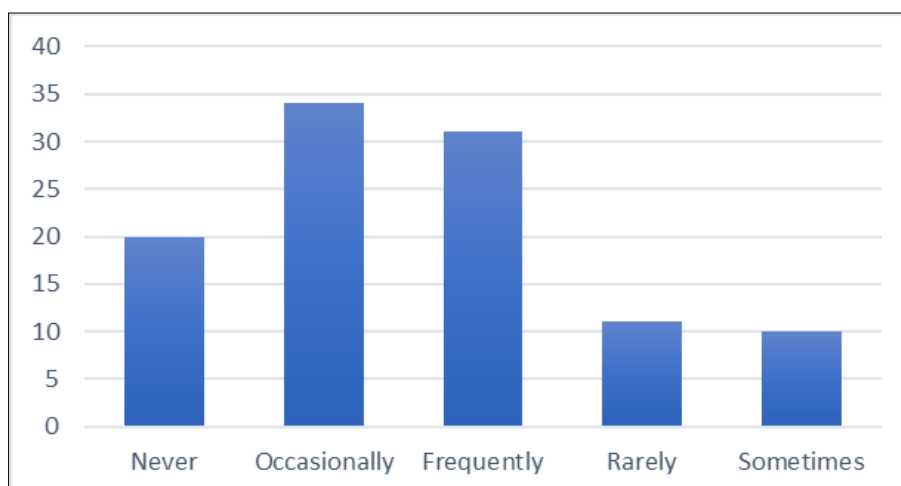


Chart Showing the require Assesstence Respondent

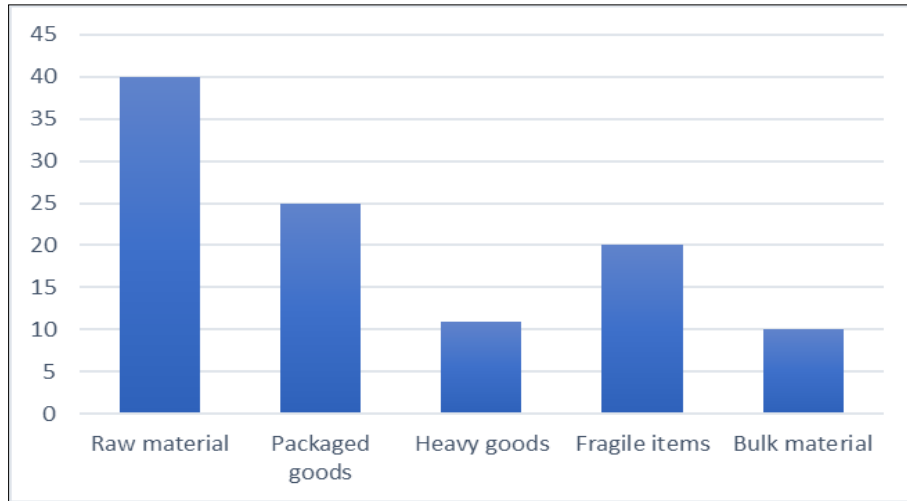


Chart Showing the Challenges to Handle Material

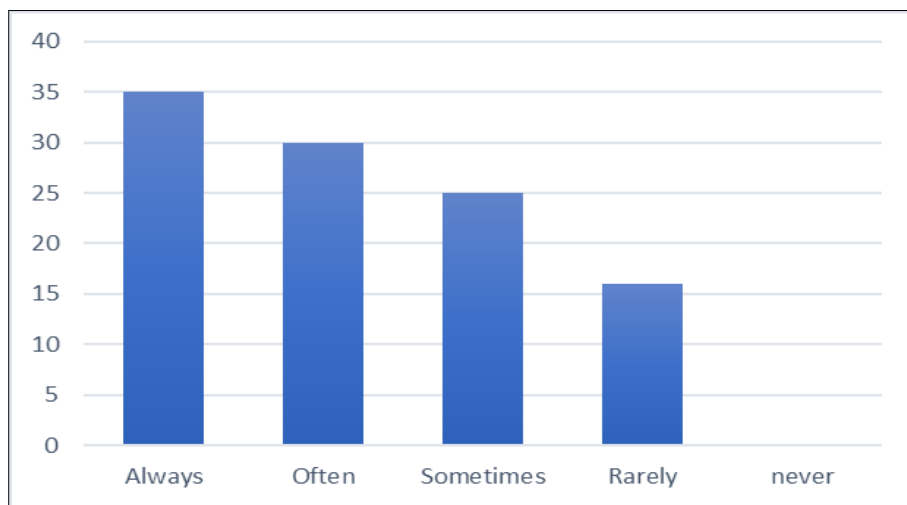


Chart Showing the Physical Strain

Chi-Square

Case Processing Summary							
		Cases					
		Valid		Missing		Total	
		N	Percent	N	Percent	N	Percent
Gender * Timeorientation		105	99.1%	1	.9%	106	100.0%

Gender * Timeorientation Crosstabulation							
Count		Timeorientation					Total
		strongly agree	agree	neutral	strongy disagree	disagree	
Gender	Male	34	0	0	0	0	34
	Female	12	7	30	13	9	71
Total		46	7	30	13	9	105

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	64.492 ^a	4	.000
Likelihood Ratio	79.434	4	.000
Linear-by-Linear Association	48.806	1	.000
N of Valid Cases	105		

a. 4 cells (40.0%) have expected count less than 5. The minimum expected count is 2.27.

Inference

The Chi-Square test reveals a statistically significant association between gender and the type of challenges handled ($p < 0.001$). The data shows that males predominantly handle raw materials, while females manage a diverse range of tasks including packaged goods, fragile items, and bulk items. This indicates a gender-based distribution of workload, suggesting potential specialization or role assignment based on item type in the organization.

Finding

- 76% of employees are aware of the existing safety measures in the organization,
- showing effective communication on workplace safety.
- 68% of respondents rated the welfare facilities as "Good", reflecting a positive sentiment towards current welfare practices.
- 72% of employees expressed satisfaction with the availability and accessibility of first aid, indicating efficient emergency preparedness.
- 61% of employees have participated in at least one safety or health-related program, revealing decent employee engagement levels.
- 66% of respondents indicated that safety standards directly influence their job satisfaction, underlining the importance of a secure workplace.
- 58% of employees are satisfied with the periodic medical checkups provided,
- showing a need for improvement in healthcare monitoring.
- 60% of the respondents stated that their grievances related to safety were addressed properly and timely.

Suggestion

- The overall experience from the index to the study reveals that the maximum customers enjoy the services provided by siva foods
- Many respondents strongly agree that the inner packaging is good, it is worth exploring ways to improve it further. This can be achieved by investing in better materials that
- offer more protection to the products during transportation and storage.
- From the analysis the siva foods company is likely to have a good reputation among the customers.
- Overall, these suggestions can help improve the material handling and storage packaging at siva foods and satisfy customers.
- Respondents strongly agree that siva foods is time-oriented, it may be worthwhile to prioritize time efficiency in all aspects of the logistics process. This can include investing in technologies that can speed up the handling and packaging of goods, as well as optimizing transportation routes to reduce delivery times.
- Respondents choose dock equipment as the best measure to improve material handling,

- a suggestion for Good Trans Logistics would be to invest in high-quality dock equipment.

Conclusion

The study on material handling and storage packaging in logistics has provided valuable insights into the current practices and areas for improvement at Good Trans Logistics. The study found that the company's material handling and storage packaging practices are generally satisfactory, but there are some areas for improvement to meet customer preferences and enhance overall efficiency. Many respondents agreed that the individual packaging, inner packaging, and outer packaging provided by siva foods are good and among them, outer packaging has been rated high. Additionally, many respondents strongly agreed that siva foods has good experience, strong customer service, and is time-oriented. Regarding measures to improve material handling, the respondents strongly agreed that automated storage, automated guided vehicles, conveyors, and dock equipment are effective measures and among them dock equipment has been rated high.

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