

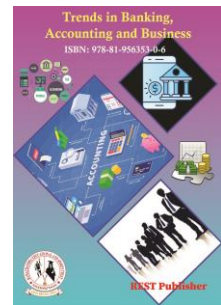


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A Study on Warehouse Management in Arsha Roll Forming India Pvt Ltd at Coimbatore

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Abstract: Warehouses are usually large plain buildings used for commercial purposes for storage of goods and are commonly used by exporters, importers, wholesalers, manufacturers etc. Warehouses are crucial components of most modern supply chains and are likely to be involved in various stages of the sourcing, production and distribution of goods, from the handling of raw materials and work- in-progress through to finished products. This study on warehouse management in ARSHA ROLLFORMING INDIA PVT LTD, investigates the optimization of warehouse management processes in a manufacturing company. Effective warehouse management is essential for ensuring timely production, optimizing inventory levels, and minimizing operational costs. This study aims to identify inefficiencies within the current system and propose actionable improvements to enhance productivity and accuracy. Employing a mixed-method approach, this study combines quantitative data analysis with qualitative insights from employee interviews. Data is sourced from inventory records, warehouse operations, and staff feedback, providing a holistic view of the current system. The research incorporates quantitative data analysis alongside qualitative interviews. Data is collected from warehouse operations, inventory records, and employee feedback to provide a comprehensive overview of the existing processes. The study recommends implementing a Warehouse Management System (WMS) that integrates advanced technologies such as barcode scanning, real-time inventory tracking, and automated picking systems. Additionally, redesigning the warehouse layout to streamline the flow of goods and enhancing staff training programs are proposed to further boost efficiency.

Keywords: WMS, DATA Exporters, Importers, Wholesalers, Manufacturers.

1. INTRODUCTION

Warehouse management is the act of organizing and controlling everything within your warehouse- and making sure it all runs in the most optimal ways possible. This includes: Arranging the warehouse and its inventory, having and maintaining the appropriate equipment, managing new stock coming into the facility, picking, packing and shipping orders, tracking and improving overall warehouse performance. The systems also direct and optimize stock put away based on real-time information about the status of bin utilization. A WMS monitors the progress of products through the warehouse. It involves the physical warehouses infrastructure, tracking systems, and communication between product stations. More precisely, warehouse management involves the receipt, storage and movement of goods, to intermediate storage locations or to a final customer. The dynamic landscape of modern commerce, effective warehouse management stands as a pivotal element in ensuring the seamless flow of goods from suppliers to customers. As businesses strive to meet the increasing demands of efficiency, accuracy, and speed in their supply chain operations, the role of a well-managed warehouse becomes ever more critical. This project explores the intricacies of warehouse management, aiming to optimize various processes to enhance overall operational performance. This study is based on the warehouse management process used at ARSHA ROLLFORMING INDIA PVT LTD. A warehouse is a commercial building for buffering and storage of goods, or an intermediate area for storage of raw materials or products until they are needed for production or consumption. Warehousing is an essential component for most businesses and government organizations. In any supply chain, inventory management and warehousing

form a part of operations intensive function and of the key building blocks in the entire chain and the efficiency of the warehouse operations will determine the further supply chain efficiency.

2. SCOPE OF THE STUDY

The main scope of the study is to ascertain the various methods to increase the warehouse management of the concern. The methods include regular information and also to increase the effectiveness to receiving and distribution of the material. And also to know different factors and to develop the ability of decision making & decision always is taken at right time. Main scope are: Distinguishes one company's goods from those of another local & other countries company. Check the quality for the material as well as the receiving and stuffing formats Protects both supplier and customers satisfaction Time should be maintained

3. OBJECTIVE OF THE STUDY

To investigate the technology integration in warehouse management processes in the company To examine the role of process automation in the warehouse operations in the company To assess the supplier and vendor collaboration in the supply chain of the company To analyze the cost-effectiveness of warehouse operations at the company To obtain suggestions from the respondents to enhance the warehouse management for the company

4. LITERATURE REVIEW

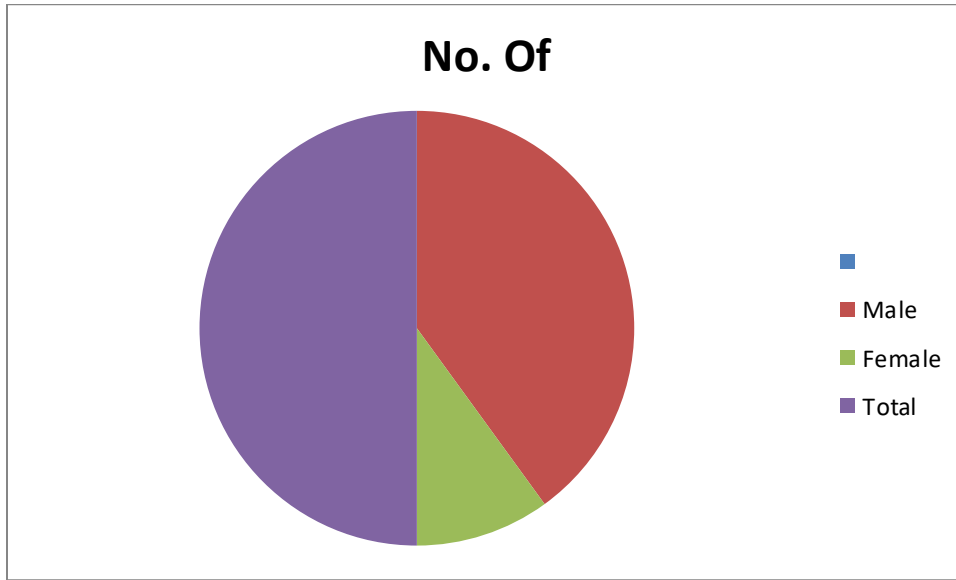
Ruston et al (2000): According to Rushton et al, the success of the warehouse or the position of the warehouse in supply chain depends upon the size, location, and capacity of the warehouse and the amount of inventory and inventory reduction are the key factors. De koster.R, Le-Duc.T,Roodbergen.K.J (2007): According to them order picking is an important aspect to satisfy its customer and it has to be steadily designed and have to be controlled optimally and it also focus on the layout design and routing methods. Tommy Blomqvist (2010): According to Tommy Blomqvist, warehouse acts as a connection point or an end point in supply chain that links material flow between suppliers and the customers. In order to meet customer demands they have to customize their value proposition.J. Gonda Tozay (2011): According to Gonda Tozay, manufacturing firm must make a key decision on the location and design of warehouse and quantitative and qualitative factor. It also increase corporate profit and customer satisfaction based on the location of the warehouse. Dr. Vipul Chalotra (2013): According to Vipul Chalotra, warehouse provides a incessant supply of goods and services in bigger markets and also factors affecting the warehouse by poor warehouse layout, improper demand forecasting. Ferdoush Saleheem, Mahadi Hasan miraz, Md. Mamun, Zurina Hanafi (2014): According to them the effects of warehouse and supply chain can play a significant role and it identifies the external factors, market trends, and possible barriers which affects the performance of a warehouse. Taylor & Francis (2015): According to them there are variety of tools and indicators to measure warehouse performance and also focuses on the performance indicators like time, cost and quality.

5. RESEARCH METHODOLOGY

The research methodology on warehouse management involves a systematic approach to collecting, analyzing, and interpreting data to develop actionable strategies for optimizing warehouse operations. The methodology encompasses various qualitative and quantitative techniques to ensure a comprehensive analysis and practical recommendations. Research Design The research design for this project is descriptive and analytical, aimed at understanding the current state of warehouse management and identifying areas for improvement. This design allows for a detailed examination of existing processes and the evaluation of potential enhancements. Data collection methods include direct observations, questionnaires with warehouse staff, and analysis of historical performance data. Additionally, benchmarking against industry standards and best practices helps identify potential areas for improvement.

TABLE 1. Data Analysis Percentage Analysis Gender

Particulars	No. Of Repondents	Percentage
Male	80	80%
Female	20	20%
Total	100	100%



Chi-Square Test Warehouse Management and Safety Behavior Ho: There is no significant association between Warehouse Measurement and Safety Behavior process.

TABLE 2. H1: There is a significant association between Warehouse Measurement and Safety Behavior process.

Case Processing Summary						
	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
WM * SB	107	90.7%	11	9.3%	118	100.0%

Chi-Square Tests			
	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	847.278 ^a	558	<.001
Likelihood Ratio	349.316	558	1.000
Linear-by-Linear Association	72.118	1	<.001
N of Valid Cases	107		

6. FINDINGS

Majority of 80% of employees in warehouse are male. It has been found that majority of employees are strongly agree with checking of warehouse function and effectiveness of the technical protective measures periodically. Respondent comment that ensuring the warehouse safety first aid measures are essential for it. Main evidence of improvements are cost saving, less time consumption and high level of accuracy.

7. SUGGESTIONS

Man power can be increased and also warehouse handling equipment's like forklift and hand trolley can be increased. A record can be maintained for each item in stock showing the quantity on hand, quantity received, quantity issued, & location in the warehouse. Use collaboration platforms to improve communication and coordination with suppliers and vendors. This can help in better demand forecasting and inventory management. Develop comprehensive training programs for warehouse staff to ensure they are proficient in using new technologies and following optimized processes.

8. CONCLUSION

Warehouse process can be improved by reducing or maintain the operation. With combination of material handling process and time measurement it help to improve the current work process. Warehouse management today are lifeblood of any industry and no government industry or organization or private organizations operates without so warehouse functions increase the efficiency and effectiveness of the manufacturing organization since it have many significant contribution which is finally results the reproduction costs. Not only the warehouse function but also the material handling process contributes to the betterment of the organization. The warehouse is a key component of the supply chain in emergencies. It buffers uncertainties and breakdowns that may occur in the supply chain. When properly managed and appropriately stocked a warehouse provides a consistent supply of material when it is needed.

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