

# A Study on Warehouse Management System with Reference to Kems Shakti Casting Pvt Ltd, Hosur

\*R. Naveen Prakash, Harish. M

Adhiyamaan College of Engineering, Autonomous, Hosur, Tamilnadu, India. \*Corresponding Author Email: <u>naveenprakash.hr@gmail.com</u>

Abstract. This paper explores an overview of a study on ware house management system that references precision to kems Shakti casting private limited. In manufacturing companies, produce process raw materials into finished goods. Raw materials obtained from suppliers will be stored, to meet the production needs. Warehouse as a place to store goods requires data accuracy for every transaction of goods that exist. Along with the growth of information technology, it is increasingly easy to process existing information, not least for manufacturing warehouses, especially in warehousing management. In warehousing management, existing transaction data is required for accuracy and speed in processing using a system. It can automate many warehouse processes, including receiving, put-away, picking, and shipping, increasing accuracy and reducing errors. The research methodology as follows the collected data after being coded were analysed and various statistical tests were applied based on hypothesis and matching variables. In this study both primary and secondary data were used. Tools used for analysis chi-square and percentage analysis was done. The objectives as follows are various modern trends in material handling and its impact on warehouse management. To make necessary of the warehouse management that handling finished good. The Limitation as follows the data have been collected from the present only. So, it may vary in the future. The duration of the study is limited. So, it may not be able to cover the entire scope. The conclusion as follow in the businesses can automate various warehouse processes, such as receiving, put away, picking, packing, and shipping, which reduces errors and speeds up operations. Real-time visibility into inventory levels and locations helps prevent stockouts and overstocks, leading to improved order fulfilment rates and customer satisfaction.

## **1.INTRODUCTION**

Warehouse can play a key role in the integrated logistics strategy and its building and maintaining good relationships between supply chain partners. Warehousing affects customer service stock-out rates and firm's sales and marketing success. A warehouse smoothens out market supply and demand fluctuations. When supply exceeds demand, demand warehouse stores products in anticipation of customer's requirements and when demand exceeds supply the warehouse can speed product movement to the customer by performing additional services like marking prices, packaging products or final assemblies. Objectives: The objective of the study is to have a practical bright of the working of the organization. Its decisions, its brief historical background and its future prospects. The following can be said to be the major objectives of the study. To recommend the most suitable warehousing methods of the goods. Provide solution for packaging & receiving and dispatching material problems. Need/scope: Inventory Management: A warehouse management system can provide real-time visibility into inventory levels, locations, and movements, allowing businesses to optimize storage space and minimize stockouts and overstocking. Barcode Scanning: warehouse management system systems typically incorporate barcode scanning technology, allowing for accurate and efficient tracking of inventory movements and reducing the risk of human error. ScopeThe 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.

## 2. LITERATUREREVIEW

Shi et al. (2020) conducted a literature review of smart warehouse technologies, including WMS, in the context of Industry 4.0. The authors discussed various smart technologies, such as the Internet of Things (IoT), cloud computing, and big data analytics, and their potential impact on warehouse management. The study highlights the need for

integrating smart technologies into warehouse management system to improve warehouse efficiency, flexibility, and responsiveness. Chen et al. (2021) conducted a systematic review of studies on warehouse management system implementation in e-commerce logistics. The authors identified various critical success factors for warehouse management system implementation, such as stakeholder engagement, process reengineering, and system customization. The study highlights the importance of warehouse management system in e-commerce logistics and the need for integrating warehouse management system with other logistics technologies, such as transportation management systems and last-mile delivery solutions. Lee et al. (2021) conducted a literature review of studies on warehouse automation technologies, including warehouse management system, in the context of the COVID-19 pandemic. The authors discussed various automation technologies, such as robotics, autonomous vehicles, and drones, and their potential impact on warehouse management during the pandemic. The study highlights the need for investing in warehouse automation technologies, including warehouse management system, to improve warehouse resilience, adaptability, and sustainability. Finally, Zhang et al. (2021) conducted a literature review of studies on intelligent warehouse systems, which integrate warehouse management system with artificial intelligence (AI) technologies, such as machine learning and deep learning. The authors discussed various intelligent warehouse applications, such as predictive maintenance, demand forecasting, and resource optimization. The study highlights the potential of intelligent warehouse systems to improve warehouse efficiency, reduce costs, and enhance customer satisfaction.

#### **3. RESEARCHMETHODOLGY**

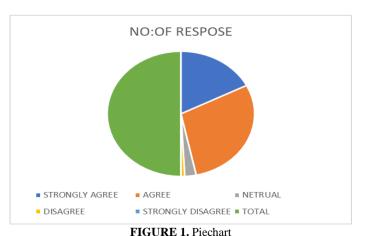
Research refers to a search for knowledge. It is a systematic method of collecting and recording the facts in the form of numerical data relevant to the formulated problem and arriving at certain conclusions over the problem based on collected data. Research methodology is the backbone of the project work. It is a way to systematically solve the research problem. It may be understood as a science of studying how research is done scientifically. This are following Research involves gathering new data from primary data or from secondary data. The Formulating the objective of the study, Designing the methods of the data, Selecting sample size, Collecting the data, Processing and analysing the data Reporting the finding.

### **4. DATA ANALYSIS**

Data analysis and interpretation is the process of assigning meaning to the collected information and determining the conclusion, significance and implications of findings. It is an important and exciting step in the process of research. In all research studies, analysis follows data collection. Analysis is the statistical methods of interpretation, with describes the characteristics of the data and will give the investigator an insight into the problem. It simplifies the masses facts and presenting them in an understandable from in order to test the hypothesis. The research work is incomplete without analysis and interpretation.

| Responses         | No:of respose | Percentage |
|-------------------|---------------|------------|
| Strongly agree    | 21            | 35         |
| Agree             | 35            | 58.33      |
| Netrual           | 3             | 5          |
| Disagree          | 1             | 1.67       |
| Strongly disagree | 0             | 0          |
| Total             | 60            | 100        |

**TABLE 1.** company pursuing best warehouse management



Interpretation: from the above figure majority of respondent are agreed with the statement and some of them are also strongly agree, neutral and disagree the statement. we can say that majority of them are agree (58.33%) with that the company is pursuing best warehouse management practices and some of them are strongly agree (35%) and some are neutral (5%) and some of them are disagree (1.67%) with the statement. Findings: on warehouse management systems suggest that they are becoming increasingly important for businesses to manage their warehouse operations efficiently and effectively. inventory management, labour productivity, order fulfilment, cost savings, integration with other systems, impact of emerging technologies, the findings suggest that warehouse management system are essential tools for businesses to manage their warehouse operations efficiently and effectively, and that the adoption of warehouse management system can lead to significant improvements in inventory management, labour productivity, order fulfilment, and cost savings. Suggestion: Warehouse management systems are critical for companies that need to manage inventory and keep track of the movement of goods within a warehouse. Determine your requirements, Research warehouse management system, Evaluate the technology, Plan the implementation, Train your staff, Monitor the system, continuously improve, Warehouse management system is only as good as its implementation and usage, so make sure to invest time and resources into both.

#### **5. CONCLUSION**

A Warehouse Management System is an essential tool for managing inventory, tracking the movement of goods, and improving warehouse efficiency. When selecting and implementing a warehouse management system, it is important to carefully evaluate your requirements, research vendors, plan the implementation, train your staff, monitor the system, and continuously improve. By taking these steps, you can optimize your warehouse operations, reduce errors, and increase customer satisfaction.

#### REFERENCES

- [1]. Gue, K. R. (2015). Warehouse Management: A Complete Guide to Improving Efficiency and Minimizing Costs in the Modern Warehouse.
- [2]. Kogan Page Publishers. Coyle, J. J., Langley Jr, C. J., Novack, R. A., & Gibson, B. (2016). Supply Chain Management: A Logistics Perspective.
- [3]. Cengage Learning.de Koster, R., Le-Duc, T., &Roodbergen, K. J. (2007). Design and control of warehouse order picking: A literature review. European Journal of Operational Research, 182(2), 481-501.
- [4]. Blanchard, D. (2016). Supply Chain Management Best Practices. John Wiley & Sons.