

An Empirical Study on Warehouse Management System in Podaran Foods Indian Pvt. Ltd.

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Abstract

Efficient warehouse management is essential for maintaining operational excellence, inventory accuracy, and timely order fulfilment. This empirical study examines the effectiveness of the Warehouse Management System (WMS) at Podaran Foods Indian Pvt. Ltd., focusing on key operational parameters such as inventory control, order processing, employee satisfaction, and system usability. Data were collected using structured questionnaires and interviews with warehouse staff and supervisors. The study highlights the perceived benefits of WMS implementation and identifies challenges such as system adaptability and training requirements. Recommendations are provided to enhance warehouse operations, maximize system efficiency, and improve employee engagement.

Keywords: Warehouse Management System, Inventory Control, Operational Efficiency, Employee Satisfaction, Podaran Foods

Introduction

Warehouse Management Systems (WMS) have become indispensable tools in modern supply chains, enabling organizations to manage inventory, track orders, and optimize resource allocation. A WMS integrates technology, processes, and human resources to enhance warehouse efficiency, reduce errors, and improve customer satisfaction.

Podaran Foods Indian Pvt. Ltd., located on Tiruppur Road, Kangayam, operates in the food production and distribution sector. Effective warehouse operations are critical for ensuring product quality, timely delivery, and operational cost efficiency. This study aims to empirically assess the implementation and effectiveness of WMS in the organization, focusing on both operational performance and employee perception.

Literature Review

Warehouse Management Systems

A WMS is a software solution designed to streamline warehouse operations, including inventory tracking, order fulfilment, storage optimization, and reporting (Bartholdi & Hackman, 2016). Studies highlight that WMS adoption enhances efficiency, reduces human error, and supports real-time decision-making.

Benefits of WMS

Research indicates that WMS implementation can result in:

- Improved Inventory Accuracy – Reduces stock discrepancies and wastage.
- Enhanced Order Fulfilment – Faster and more reliable order processing.
- Labour Efficiency – Optimized workforce allocation and productivity.
- Data Transparency – Real-time monitoring and reporting (Frazelle, 2002).

Challenges in WMS Implementation

Challenges may include:

- Difficulty in adapting the system to existing warehouse workflows.
- Need for continuous employee training.
- Integration issues with ERP and other supply chain software.

Research Gap

Although WMS implementation has been studied globally, limited empirical research exists on food industry warehouses in Tamil Nadu, specifically at Podaran Foods, highlighting the need for this study.

Objectives of the Study

1. To assess the effectiveness of WMS in warehouse operations at Podaran Foods.
2. To examine the impact of WMS on inventory management.
3. To evaluate employee satisfaction and system usability.
4. To identify challenges and areas for improvement in WMS implementation.

Hypotheses

- H1: WMS significantly enhances operational efficiency in the warehouse.
- H2: WMS improves inventory accuracy and stock control.
- H3: Employee satisfaction is positively associated with WMS usage.
- H4: System adaptability and training challenges negatively affect WMS effectiveness.

Methodology

Research Design

This study uses a descriptive and empirical research design to examine the perceived effectiveness of WMS at Podaran Foods.

Population and Sample

- Population: Warehouse employees, supervisors, and inventory managers at Podaran Foods.
- Sample Size: 75 respondents selected using convenience sampling.

Data Collection

Data were Collected Using:

1. Structured Questionnaire: Measuring WMS usability, operational efficiency, inventory management, and employee satisfaction.

2. Interviews: With supervisors and managers to gain qualitative insights into WMS effectiveness and challenges.

Data Analysis Approach

Although this study is empirical, it focuses on qualitative and descriptive findings. Observations and survey responses are summarized to assess WMS performance and employee perception, without including statistical tables or regression analysis.

Findings

- WMS implementation is perceived to improve inventory tracking, reduce errors, and streamline operations.
- Employees generally report moderate to high satisfaction with the system but highlight training and adaptability challenges.
- Supervisors indicate that WMS enhances order fulfilment efficiency and improves overall workflow.
- System limitations include peak-time slowdowns and integration gaps with other processes.

Discussion

The study highlights that WMS implementation at Podaran Foods contributes positively to warehouse efficiency, inventory accuracy, and employee productivity, consistent with literature (Bartholdi & Hackman, 2016; Frazelle, 2002). The findings emphasize the importance of continuous training, system updates, and feedback mechanisms to maximize WMS benefits.

Conclusion and Recommendations

The empirical study concludes that the WMS is effective in enhancing warehouse operations at Podaran Foods.

Recommendations

1. Conduct periodic training programs to improve employee proficiency with the WMS.
2. Implement system updates and software integration with ERP for better operational continuity.
3. Monitor key performance indicators such as inventory accuracy and order fulfilment efficiency.
4. Establish feedback channels for employees to report system issues.
5. Explore automation and IoT solutions to further enhance real-time inventory monitoring.

These measures will help maximize operational efficiency, reduce errors, and improve employee satisfaction.

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