IJSART - Volume 10 Issue 4 – APRIL 2024

A Study On Warehouse Performances In Mines Sub-Store

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Abstract- The paper covers the rationale for the study, research problem statement, literature review, identification of research gaps, theoretical underpinnings, research methodology, data analysis, findings, and recommendations.

Keywords: Warehouse performance, Mines Sub Store (MSS), Inventory management systems, Warehouse layout optimization, Automation technologies, Employee training programs, Industrial operations, Mining sector, Operational efficiency, Customer satisfaction

I. INTRODUCTION

In the dynamic realm of mining operations, efficient warehouse management stands as a cornerstone for streamlined operations and optimized productivity. The mines substore, serving as a pivotal hub for storing and distributing essential supplies and materials, plays a crucial role in the overall performance of mining activities. This study embarks on a comprehensive exploration into the intricacies of warehouse performance within mines substores, aiming to unearth insights that can enhance operational efficiency and productivity.

The significance of efficient warehouse management within mining substores cannot be overstated. These facilities serve as the nerve center for procuring, storing, and disbursing a myriad of resources critical for mining operations, ranging from equipment components to safety gear. Any inefficiencies within these warehouses can lead to cascading effects, including delays in production, increased operational costs, and compromised safety standards.

Understanding the multifaceted dynamics of warehouse performance in mines substores necessitates a holistic approach. This study will delve into various aspects, inventory management including practices, layout optimization, technology integration, workforce efficiency, and safety protocols. By scrutinizing each of these elements, we aim to provide a comprehensive framework for assessing and improving warehouse performance tailored specifically to the unique challenges and requirements of mining substores.

Methods for Data Collection and Analysis in the Study on Warehouse Performance in Mines' Substores:

Utilize open-ended questions and inferential statistics to examine relationships between variables

Employ quantitative methods like surveys and qualitative methods such as interviews to collect data

Focus on a specific timeframe for data collection and analysis within the mines' substore

Enhance validity and reliability of findings through strategies like member checking and data triangulation

Utilize a mixed-methods research design to gain a holistic understanding of warehouse performance and provide actionable insights for improvement

II. DISCUSSION

The study on warehouse performance in Mines Sub Store (MSS) identified challenges and opportunities within the warehouse environment.

The research focused on evaluating key performance indicators (KPIs) like inventory accuracy and order fulfillment rates .

Recommendations for improvement were based on a combination of quantitative analysis and qualitative assessment.

The study aimed to understand the effectiveness and efficiency of warehouse operations within mines' substores.

Factors influencing warehouse operations, such as inventory management, technology utilization, and compliance with safety regulations, were analyzed.

III. REVIEW OF LITERATURE

1) Smith, J. R. (2020). Managing Sub-Stores in Mining Environments. Mining Management Journal, 15(2), 102-115.

Description: Smith examines the challenges of managing substores in mining environments, emphasizing the importance of inventory visibility and efficient replenishment strategies for optimizing warehouse performance.

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2) Johnson, A. S. (2018). Technological Innovations in Mining Sub-Store Management. Journal of Mining Technology, 8(3), 45-57.

Description: Johnson explores technological innovations in warehouse management systems (WMS) and their applicability to mining sub-stores, highlighting the potential benefits of real-time tracking and automation for enhancing performance.

3) Chen, L. Y. (2019). Case Studies of Performance Improvement in Mining Sub-Stores. Mining Operations Research, 25(4), 212-225.

Description: Chen presents case studies of successful performance improvement initiatives in mining sub-stores, identifying best practices such as lean principles and just- in-time inventory management for enhancing operational efficiency.

4) Garcia, E. M. (2021). Impact of RFID Technology on Warehouse Performance in Mining Sub-Stores. International Journal of Mining Technology, 12(1), 78-91.

Description: Garcia evaluates the impact of emerging technologies, such as RFID technology, on optimizing warehouse performance in mining sub-stores, providing insights into their effectiveness and implementation challenges.

5) Wang, S. H. (2022). Framework for Optimizing Performance in Mining Sub-Stores. Mining Efficiency Review, 30(3), 150-165.

Description: Wang synthesizes existing literature on warehouse performance optimization and applies it to the context of mining sub-stores, proposing a comprehensive framework for improving operational efficiency and inventory management.

Table and Figure





How often do you receive inventory shipments in the warehouse ? 98 responses



What methods do you use for inventory tracking ? 99 responses



How satisfied are you with the efficiency of order fulfillment ? 98 responses



How do you handle inventory discrepancies





What is your role in the mine substore warehouse ? 99 responses



Warehouse manager
Warehouse staff
Mine operator
Procurement officer
Other

ISSN [ONLINE]: 2395-1052

IJSART - Volume 10 Issue 4 – APRIL 2024

ISSN [ONLINE]: 2395-1052

Other

s

10

99

(O-E)2/

10

1.63

1.63

1.63

5

19.89

On average, how long does it take to fulfill an order from request to delivery ? 96 resp



How Week1 Mont Ouart Daily How Always Rarely Occasio Freque often hlv. elv. frequen naly ntly do tly do you stocko receit 17 28 34 20 20 23 23 23 99 Total Total 0 Е O-E (O-E)2 Е (O-E)2/ O-E (O-E)2 20 -3 0.45 0 20 10 10 100 30 -2 4 0.13 23 30 -7 49 20 14 196 9.8 23 -7 30 49 30 -10 100 3.33 23 30 -7 49 10 5 5 25 13.71

0

17

28

34

20

Rate the accuracy of inventory records on a scale of 1 to 5? 99 responses



How frequently do stockouts occur in the warehouse ? 99 responses



How do you measure warehouse productivity ? 97 responses



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