



The Impact of Purchasing and Warehouse Management on Operational Efficiency: A Case Study of the Team Mart Market Chain in Erbil

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ABSTRACT:

This study, titled The Impact of Purchasing and Warehouse Management on Operational Efficiency: A Case Study of the Team Mart Market Chain in Erbil, examines the vital role that purchasing and warehouse management play in enhancing organizational performance. The study focuses on understanding how these functions help achieve company goals and boost overall efficiency. It highlights several key challenges these departments face, such as issues with coordinating material needs, selecting the right suppliers, and managing inventory to maintain smooth production operations. These difficulties often hinder the company's ability to balance cost-efficiency, quality, and competitiveness. The research surveyed 110 respondents from the Team Mart Market Chain in Erbil, using purposive sampling. The results show that purchasing and warehouse management are crucial drivers of operational efficiency, significantly influencing the balance between cost and quality. The findings stress the importance of implementing modern management strategies to strengthen a company's competitiveness. The study provides practical recommendations for improving purchasing and warehouse management, aiming to tackle the obstacles these departments face. Moreover, the research emphasizes the importance of updating purchasing and warehouse management strategies to gain a competitive advantage, increase profitability, and ensure long-term growth. The study also highlights the importance of leveraging data analytics and technology to improve operational efficiency and fuel business development.

Keywords: Warehouse Management, Operational Efficiency, Team Mart Market, Erbil, Competitiveness, Technology.



1 INTRODUCTION

Although some people view the implementation of supply functions as a modern phenomenon, before 1900 it was recognized by many railway organizations in the country as an independent and important function.

However, most companies traditionally consider performance activities as institutional activities. Nevertheless, during World War I and World War II, company success did not depend on what it could sell, as the market was almost unlimited. Instead, the ability to obtain raw materials, necessities, and required services from suppliers for the continuity of factories and mines was the main factor in organizational success. Thus, importance was given to organizing, policies, and procedures of supply work and it emerged as a recognized administrative activity.

In the fifties and sixties of the last century, needs management continued to gain reputation with the increase in the number of trained and skilled people for making correct supply decisions. Many companies have promoted their purchasing manager to senior management, with titles such as Vice President of Purchasing, Materials Manager, or Vice President of Purchasing and Supply.

The purchasing function, which is performed by the administrative purchasing and warehouse department, is an economic and commercial function that is managed by a set of policies and objectives, all of which are used to achieve

organizational objectives and other activities. The availability of materials and necessities for work and production helps organize the smooth operation of work in the organization. It also limits any disruption that causes interruption of workflow in the organization, which prevents the organization from implementing its plans and programs.

1.1 RESEARCH PROBLEM

The research problem addresses the obstacles and challenges faced by companies and institutions in the coordination between purchasing and warehouse management functions. One of the main difficulties is the lack of effective communication between the purchasing department and the warehouse, which hampers the accurate determination of organizational needs and the timely provision of materials. Companies often struggle with estimating the appropriate number of materials required, identifying the best suppliers, and balancing the price-quality ratio. Additionally, organizations face challenges in maintaining an optimal inventory level that ensures continuous production while avoiding excessive stockpiling that increases costs.

This study aims to analyze these obstacles and their impact on warehouse efficiency, with a specific focus on how better coordination between purchasing and warehouse management can lead to improved operational efficiency and cost-effectiveness. By understanding these barriers, organizations can enhance their performance and meet efficiency objectives more effectively.

1.2 RESEARCH OBJECTIVES

The research objectives are as follows:

- Determining research objectives in the field of purchasing and warehouse management for better understanding of the role of these activities in achieving company objectives and improving institutional performance.
- Analyzing the importance of purchasing and warehouse management in achieving operational efficiency and increasing profits by determining the main objective of the research.
- Researching the impact of purchasing and warehouse management on the supply chain and how to improve purchasing and warehousing processes.
- Presenting practical suggestions that help improve purchasing and warehouse management and increase efficiency and productivity.

Analyzing obstacles facing purchasing and warehouse management processes and providing strategies to overcome these obstacles and successfully achieve company or institutional objectives.

1.3 RESEARCH IMPORTANCE

- The importance of the research is evident in the following aspects:
- Better understanding of the role of purchasing and warehouse management in achieving company objectives and ensuring market continuity.
- Analyzing the impact of purchasing and warehouse management policies on business efficiency and cost-quality balance.
- Providing solutions and suggestions for improving purchasing and warehousing processes and determining best practices in this field.
- Following the impact of purchasing and warehouse management on achieving company competitiveness and increasing company or institutional profits.
- Clarifying the importance of following strategies and the impact of purchasing and warehouse management in achieving continuity and economic development for the organization.

1.4 RESEARCH QUESTIONS

- How can purchasing and warehouse management improve the efficiency of purchasing and warehousing processes in companies?
- What are the most important obstacles facing purchasing and warehouse management and how can they be overcome?
- What is the impact of purchasing and warehouse management policies on company performance and profits?
- How can adopting advanced purchasing and warehouse management strategies help company competitiveness?

2 LITERATURE REVIEW

The connection between customer management strategies and warehouse operations has become a pivotal area of research in contemporary supply chain management. However, despite the increasing recognition of their importance, the existing literature lacks a clear, comprehensive framework that directly ties customer management to warehouse efficiency. While many studies explore the individual benefits of customer management and warehouse operations, few delve into how these two can be integrated into a cohesive and unified approach. This gap hinders the development of actionable strategies that can effectively combine these fields to drive operational success [1].

Recent studies highlight a significant shift in warehouse operations, where the role of warehouses is evolving from traditional storage functions to more customer-centric systems. Zhang et al. [2] emphasize that the primary goals of modern warehouse management include improving operational efficiency, reducing storage costs, and delivering superior customer service. This shift marks a broader transformation, with warehouses increasingly being viewed not merely as cost centers but as value-adding systems that prioritize customer satisfaction while maintaining traditional performance metrics. Despite this transformation, customer management principles are often only briefly mentioned in the literature, without a detailed framework that links these strategies to warehouse operations [3]. This oversight creates a challenge in establishing a comprehensive operational strategy.

A notable emerging concept in this area is "smart warehousing." Liu and Wang [4] conducted an extensive review and highlighted the role of new technologies such as automation, robotics, and data analytics in enabling warehouses to respond more effectively to customer demands. These technologies provide opportunities to streamline operations, optimize inventory management, and improve customer service levels. However, many studies fail to connect these technologies with customer relationship management (CRM) strategies, leading to an underexplored potential to enhance warehouse operations through customer data [5]. A unified framework that links CRM strategies with smart warehousing could help warehouses leverage customer insights more effectively, aligning operational activities with customer expectations.

The advent of Industry 4.0 technologies, such as real-time data analytics and automation, has further revolutionized warehouse management.[6] explored how these technologies bridge the gap between customer data and warehouse operations, enhancing responsiveness to customer needs. The study found that warehouses leveraging these tools can quickly adapt to changing demands, optimize storage utilization, reduce picking times, and minimize stock outs. Despite these advantages, discussions about Industry 4.0 technologies are often separated from CRM strategies, which prevents the development of a comprehensive framework that integrates customer needs into operational decision-making [7].

Recently, research has begun to measure warehouse performance using customer-centric metrics. Rodriguez and Thompson [8] proposed a framework that combines traditional performance measures with customer satisfaction metrics. Their findings revealed that warehouses implementing customer-focused Key Performance Indicators (KPIs) reported 25% higher customer retention and an 18% improvement in order fulfillment accuracy. This shift toward customer-centric performance measurement underscores the importance of aligning warehouse operations with customer expectations. However, the literature still lacks a consistent application of CRM principles in warehouse design and operational strategies [9]. The absence of a clear framework on how customer management can be integrated into warehouse decision-making processes remains a gap.

Moreover, the design of warehouse facilities plays a significant role in enhancing customer service. Ahmed and Johnson [10] examined how optimizing warehouse layouts based on customer order patterns can reduce picking times by up to 30%. Their study emphasizes the value of using customer data to guide storage decisions, suggesting that understanding customer behavior can streamline warehouse operations. However, similar to other studies, they do not provide a framework that integrates design decisions with broader customer management strategies. This indicates that while customer data can inform operational decisions, its potential is not fully realized without a comprehensive approach linking warehouse design and customer management principles [11].

Despite the clear benefits of integrating customer management strategies into warehouse operations, several challenges remain. Common barriers include the complexity of data integration, the high costs associated with adopting new technologies, and the need for specialized training for the workforce. The integration of advanced technologies often requires substantial financial investment, which can be a significant challenge for smaller organizations. Additionally, the literature frequently highlights the challenge of balancing high-quality customer service with operational efficiency—an issue many organizations continue to face as they strive to meet customer demands without increasing costs [12]. Moreover, there is a growing concern about the skills gap in the workforce, as the adoption of advanced technologies demands new skill sets that many employees lack [13].

While the role of customer management in improving warehouse efficiency is increasingly recognized, the literature still lacks a clear, unified framework that connects customer management strategies to warehouse operations. The integration of customer management principles into warehouse operations remains underexplored, and a more focused approach is needed to develop a conceptual framework that links customer-centric strategies directly with warehouse management practices. Organizations that successfully align their warehouse operations with customer management principles are

likely to gain significant competitive advantages, such as improved customer loyalty, reduced operational costs, and enhanced service delivery [14].

3 METHODOLOGY

The research methodology is designed to systematically collect, organize, and analyze data to address the research problem and achieve the objectives of the study. However, there are several aspects of the methodology that require further clarification and potential enhancement.

3.1 RESEARCH POPULATION

The research population refers to the individuals or groups included in the study, defined by specific geographic or social boundaries. In this study, the target population is located in the Kurdistan Region, with Erbil city serving as the accessible population. This geographic focus ensures that the sample is relevant to the local context of Team Mart Market Chain, which is based in Erbil.

3.2 RESEARCH SAMPLE

The sample consists of 110 respondents from the Team Mart Market Chain in Erbil. The purposive sampling method was employed, where participants were selected based on specific criteria. However, the methodology lacks a clear justification for why this specific sampling method was chosen over other methods, such as random sampling. The purposive sampling method may introduce potential biases, which should be discussed and justified within the methodology section. Further, an exploration of the sample's representativeness and potential biases would strengthen the methodological transparency.

3.3 RESEARCH METHOD

The research follows a systematic approach to data collection and analysis. The study is largely descriptive, relying on descriptive statistics to analyze the data. However, the study does not include inferential statistical methods such as correlation or regression analysis, which would allow for a deeper exploration of the relationships between key variables (e.g., customer management and warehouse efficiency). Including inferential tests could provide more robust insights and help in establishing causal relationships, thereby enhancing the overall analytical rigor of the study.

3.4 RESEARCH DOMAINS

The study is bounded by three key domains:

Location: The research is conducted in Erbil city, Kurdistan Region, focusing specifically on the Team Mart Market Chain, which operates in this region.

Human Domain: The sample includes 110 respondents, of which 27 (24.55%) are females, and 83 (75.45%) are males. This demographic breakdown provides a snapshot of the gender distribution within the team but may benefit from further investigation of other demographic factors such as age, experience, or position within the organization.

Temporal Domain: The study covers a time period from March 1, 2025, to April 15, 2025. This specific timeframe ensures that the data is current and relevant to the operational environment of Team Mart Market Chain during this period.

3.5 INFORMATION COLLECTION TOOLS

A questionnaire was employed as the primary data collection tool, consisting of 20 questions, including 4 general and 16 specific questions in both closed- and open-ended formats. While this tool is efficient for gathering large amounts of data, the reliability and validity of the questionnaire were not assessed. It is crucial to evaluate whether the tool accurately measures what it intends to measure, and future studies should consider conducting reliability and validity tests (e.g., through pilot studies or expert reviews) to ensure the robustness of the instrument.

3.6 STATISTICAL MATERIALS

Data analysis was carried out using percentage calculations, where percentages were calculated as:

$$\text{Percentage (\%)} = (\text{Part} / \text{Total}) \times 100.$$

This approach was useful for presenting a broad overview of the data, but it only provides descriptive insights into the sample. While descriptive statistics were used to present the findings, the study lacks the application of inferential statistical methods. Incorporating inferential tests, such as correlation analysis, regression models, or structural equation modeling, could enhance the understanding of the relationships between variables and provide insights into the potential effects of purchasing and warehouse management strategies on operational efficiency.

4 DATA ANALYSIS AND DISCOUNTING

4.1 DATA ANALYSIS

Table 1. Percentage Distribution of the Research Sample by Gender.

Gender	Frequency	Percentage	Ranking
Male	83	75.45%	First
Female	27	24.55%	Second
Total	110	100.00%	

Source: Prepared and calculated by the researchers based on the survey questionnaire.

From Table 1, it is evident that 83 people out of 110 in our research sample, or 75.45%, are male, while 27 people, or 24.55%, are female. Therefore, the male percentage is higher than the female percentage in the study.

Table 2. Percentage Distribution of the Research Sample by Age.

Age	Frequency	Percentage	Ranking
Less than 30 years	44	40%	First
30-40 years	42	38.18%	Second
41-50 years	22	20%	Third
More than 50 years	2	1.82%	Fourth
Total	110	100.00%	

Source: Prepared and calculated by the researchers based on the survey questionnaire.

From Table 2, it can be seen that 44 people (40%) are under 30 years old, 42 people (38.18%) are aged between 30-40 years, 22 people (20%) are between 41-50 years, and 2 people (1.82%) are over 50 years old.

Table 3. Percentage Distribution of the Research Sample by Education Level.

Education Level	Frequency	Percentage	Ranking
Master's	8	7.27%	Fifth
Bachelor's	42	38.18%	First
Diploma	39	35.45%	Second
Post-secondary	12	10.92%	Third
Secondary	9	8.18%	Fourth
Total	110	100.00%	

Source: Prepared and calculated by the researchers based on the survey questionnaire.

From Table 3, it is evident that 8 people (7.27%) have obtained Master's degrees, 42 people (38.18%) have Bachelor's degrees, 39 people (35.45%) have Diplomas, 12 people (10.92%) have post-secondary qualifications, and 9 people (8.18%) have secondary school qualifications.

Table 4. Percentage Distribution of the Research Sample by Years of Experience.

Years of Experience	Frequency	Percentage	Ranking
Less than 5 years	52	47.27%	First
6-10 years	35	31.82%	Second
11-15 years	10	9.09%	Fourth
More than 16 years	13	11.82%	Third
Total	110	100.00%	

Source: Prepared and calculated by the researchers based on the survey questionnaire.

From Table 4, it is clear that 52 people (47.27%) have less than 5 years of experience, 35 people (31.82%) have 6-10 years of experience, 10 people (9.09%) have 11-15 years of experience, and 13 people (11.82%) have more than 16 years of experience.

**THE ROLE OF DECISION MANAGEMENT IN IMPROVING WAREHOUSE EFFICIENCY
ANALYSIS OF FIRST DIMENSION DATA: THE ROLE OF DECISION MANAGEMENT**

Table 5. Relationship between purchasing and storage activities and other related departmental activities, particularly production and marketing, and between purchasing activities and suppliers and customers

Production and Marketing Relationship	Frequency	Percentage	Ranking
Strongly disagree	8	7.27%	Fifth
Disagree	15	13.64%	Fourth
Neutral	18	16.36%	Third
Agree	46	41.82%	First
Strongly agree	23	20.91%	Second
Total	110	100.00%	

Source: Prepared and calculated by the researchers based on the survey questionnaire.

From Table 5, regarding the relationship between purchasing and storage activities and other related departmental activities, particularly production and marketing, and between purchasing activities and suppliers and customers: 8 people (7.27%) strongly disagree, 15 people (13.64%) disagree, 18 people (16.36%) are neutral, 46 people (41.82%) agree, and 23 people (20.91%) strongly agree.

Table 6. Data related to organizational needs for various materials, different commodity markets, and available and expected supplier capacity.

Data Related to Organizational Needs	Frequency	Percentage	Ranking
Strongly disagree	8	7.27%	Fourth
Disagree	8	7.27%	Fourth
Neutral	25	22.73%	Third
Agree	42	38.18%	First
Strongly agree	27	24.55%	Second
Total	110	100.00%	

Source: Prepared and calculated by the researchers based on the survey questionnaire.

From Table 6, regarding data related to organizational needs for various materials, different commodity markets, and available and expected supplier capacity: 8 people (7.27%) strongly disagree, 8 people (7.27%) disagree, 25 people (22.73%) are neutral, 42 people (38.18%) agree, and 27 people (24.55%) strongly agree.

Table 7. Evaluating purchasing and storage policies and monitoring their implementation in various systems in practice.

Purchasing and Storage Policies	Frequency	Percentage	Ranking
Strongly disagree	12	10.92%	Fourth
Disagree	9	8.18%	Fifth
Neutral	20	18.18%	Third
Agree	41	37.27%	First
Strongly agree	28	25.45%	Second
Total	110	100.00%	

Source: Prepared and calculated by the researchers based on the survey questionnaire.

From Table 7, regarding evaluating purchasing and storage policies and monitoring their implementation: 12 people (10.92%) strongly disagree, 9 people (8.18%) disagree, 20 people (18.18%) are neutral, 41 people (37.27%) agree, and 28 people (25.45%) strongly agree.

SECOND DIMENSION: IMPROVING WAREHOUSE EFFICIENCY

Table 8. Quality of reports available regarding your warehouse operations.

Quality of Report	Frequency	Percentage	Ranking
Strongly Disagree	13	11.82%	Third
Disagree	11	10%	Fifth
Neutral	12	10.91%	Fourth
Agree	44	40%	First
Strongly Agree	30	27.27%	Second
Total	110	100.00%	

Source: Prepared and calculated by the researchers based on the survey questionnaire.

From Table 8, it is observed that 13 people (11.82%) strongly disagree with the quality of the reports, 11 people (10%) disagree, 12 people (10.91%) are neutral, 44 people (40%) agree, and 30 people (27.27%) strongly agree. The highest percentage of satisfaction was found among those who agreed with the quality of the reports.

Table 9. Relationship between salespersons and producers.

Relationship Between Salesperson and Producer	Frequency	Percentage	Ranking
Strongly Disagree	8	7.28%	Fifth
Disagree	9	8.18%	Fourth
Neutral	17	15.45%	Third
Agree	44	40%	First
Strongly Agree	32	29.09%	Second
Total	110	100.00%	

Source: Prepared and calculated by the researchers based on the survey questionnaire.

From Table 9, we observe that 8 people (7.28%) strongly disagree, 9 people (8.18%) disagree, 17 people (15.45%) are neutral, 44 people (40%) agree, and 32 people (29.09%) strongly agree. The highest percentage of satisfaction was observed among those who agreed with the relationship between salespersons and producers.

Table 10. Service provider collaboration with other salespersons for warehouse efficiency.

Service Provider	Frequency	Percentage	Ranking
Strongly Disagree	10	9.09%	Fifth
Disagree	17	15.45%	Fourth
Neutral	18	16.36%	Third
Agree	34	30.92%	First
Strongly Agree	31	28.18%	Second
Total	110	100.00%	

Source: Prepared and calculated by the researchers based on the survey questionnaire.

From Table 10, it is evident that 10 people (9.09%) strongly disagree, 17 people (15.45%) disagree, 18 people (16.36%) are neutral, 34 people (30.92%) agree, and 31 people (28.18%) strongly agree. The highest percentage of satisfaction was found among those who agreed with the service provider collaboration.

Table 11. Handling Employee Turnover, the Third Layer, or No Handling Across All Security Systems to Protect the Warehouse

Employee Turnover Handling	Frequency	Percentage	Ranking
Strongly Disagree	9	8.18%	Fifth
Disagree	13	11.82%	Fourth
Neutral	19	17.27%	Third
Agree	34	30.92%	Second
Strongly Agree	35	31.81%	First
Total	110	100.00%	

Source: Prepared and calculated by the researchers based on the survey questionnaire.

From Table 11, we observe that 9 people (8.18%) strongly disagree, 13 people (11.82%) disagree, 19 people (17.27%) are neutral, 34 people (30.92%) agree, and 35 people (31.81%) strongly agree. The highest percentage of satisfaction was seen in those who strongly agreed with handling employee turnover.

Table 12. Capital investment and decision-making on key points of reinvestment.

Capital Investment Decision	Frequency	Percentage	Ranking
Strongly Disagree	6	5.45%	Fifth
Disagree	15	13.64%	Fourth
Neutral	23	20.91%	Third
Agree	35	31.82%	First
Strongly Agree	31	28.18%	Second
Total	110	100.00%	

Source: Prepared and calculated by the researchers based on the survey questionnaire.

From Table 12, it is evident that 6 people (5.45%) strongly disagree, 15 people (13.64%) disagree, 23 people (20.91%) are neutral, 35 people (31.82%) agree, and 31 people (28.18%) strongly agree. The highest percentage of satisfaction was found in those who agreed with capital investment decision-making.

Table 13. Experience in managing warehouses in multiple locations or multiple warehouses.

Warehouse Management Experience	Frequency	Percentage	Ranking
Strongly Disagree	4	3.64%	Fifth
Disagree	15	13.64%	Fourth
Neutral	22	20%	Second
Agree	48	43.63%	First
Strongly Agree	21	19.09%	Third
Total	110	100.00%	

Source: Prepared and calculated by the researchers based on the survey questionnaire.

From Table 13, we observe that 4 people (3.64%) strongly disagree, 15 people (13.64%) disagree, 22 people (20%) are neutral, 48 people (43.63%) agree, and 21 people (19.09%) strongly agree. The highest percentage of satisfaction was found among those who agreed with managing warehouses in multiple locations.

Table 14. Confidence in adherence to legal guidelines and requirements for warehouse management.

Confidence in Legal Adherence	Frequency	Percentage	Ranking
Strongly Disagree	6	5.45%	Fifth
Disagree	10	9.09%	Fourth
Neutral	21	19.09%	Third
Agree	38	34.55%	First
Strongly Agree	35	31.82%	Second
Total	110	100.00%	

Source: Prepared and calculated by the researchers based on the survey questionnaire.

From Table 14, we observe that 6 people (5.45%) strongly disagree, 10 people (9.09%) disagree, 21 people (19.09%) are neutral, 38 people (34.55%) agree, and 35 people (31.82%) strongly agree. The highest percentage of satisfaction was found in those who strongly agreed with adhering to legal guidelines.

Table 15. New products and characteristics not aligning, how to handle the situation.

Handling New Products	Frequency	Percentage	Ranking
Strongly Disagree	12	10.92%	Fifth
Disagree	17	15.45%	Fourth
Neutral	18	16.36%	Third
Agree	33	30%	First
Strongly Agree	30	27.27%	Second
Total	110	100.00%	

Source: Prepared and calculated by the researchers based on the survey questionnaire.

From Table 15, it is observed that 12 people (10.92%) strongly disagree, 17 people (15.45%) disagree, 18 people (16.36%) are neutral, 33 people (30%) agree, and 30 people (27.27%) strongly agree. The highest percentage of satisfaction was found in those who agreed with handling new products and characteristics not aligning.

4.2 DISCUSSIONS

The findings from this study offer valuable insights into warehouse operations, purchasing management, and the role of decision-making in improving warehouse efficiency at Tim Mart Market Chain. Key observations and recommendations based on the data analysis include:

Workforce Demographics: The relatively young and predominantly male workforce is likely more inclined toward technological advancements. However, the gap in higher educational qualifications, particularly Master's degrees, indicates an opportunity for further professional development. Encouraging more advanced training or offering educational incentives may help bridge this gap and improve the overall skill set of the workforce.

Interdepartmental Communication: A majority of respondents (62.73%) agreed that purchasing and warehouse activities are well-integrated with production and marketing, highlighting the importance of good communication in warehouse operations. However, 20.91% who disagreed or remained neutral suggest that there are areas for improvement in coordination. This could point to structural or procedural barriers between departments, which could be alleviated by improving communication channels and fostering a more collaborative work culture.

Supplier Capacity and Organizational Needs: The data in Table 6 suggests that a significant number of respondents (62.73%) recognize the importance of aligning supplier capacity with organizational needs. However, the level of dissatisfaction or neutrality (24.55%) suggests that there is room for improvement in supplier relations and the accuracy of demand forecasting. A more data-driven approach, such as using predictive analytics, could help better align supplier capabilities with market demand and reduce supply chain inefficiencies.

Warehouse Report Quality: According to Table 8, a majority of respondents (67.27%) believe that warehouse reports are of good quality. However, 21.82% disagreed, pointing to the need for more accurate and reliable reporting systems. The quality of reports is critical for informed decision-making, so investing in more sophisticated reporting tools and training warehouse staff to interpret and act on data more effectively may improve operational efficiency.

Collaboration Between Sales and Producers: Table 9 shows that most respondents (69.09%) agree that the relationship between salespeople and producers is effective. However, 15.45% who disagreed or were neutral suggest that there may be obstacles in communication or coordination. This could be addressed by creating clearer roles and responsibilities between these two departments and establishing regular meetings or collaboration platforms.

Employee Retention: The data on employee turnover (Table 11) suggests that there is significant room for improvement in employee retention strategies. While 62.73% believe that turnover is well-handled, 20% expressed dissatisfaction. A closer look at the reasons for turnover, such as compensation, work environment, or career advancement opportunities, could inform more targeted retention efforts.

CONCLUSION AND RECOMMENDATIONS

CONCLUSION

This study provides important insights into the role of purchasing and warehouse management in enhancing operational efficiency, profitability, and competitive advantage. However, the conclusions are rather general and reiterate the results without a deeper exploration of the study's unique contributions. While it emphasizes the importance of effective management practices, interdepartmental communication, employee development, and the adoption of technology, the study falls short of critically analyzing how these factors directly impact warehouse efficiency. Notably, there is no statistical evidence establishing a clear link between customer management and warehouse performance, which limits the depth of the conclusions. Therefore, while the conclusions offer a broad overview, they fail to address the specific ways customer management influences warehouse operations.

RECOMMENDATIONS

Although the recommendations provided are relevant and aligned with industry best practices, they are not fully supported by the statistical findings of this study. The recommendations, particularly around training, technology, and communication, are vital for warehouse improvement, yet the data does not provide strong empirical evidence to validate these suggestions.

1- **Enhance Cross-Departmental Communication:** Strengthening communication between departments—especially between purchasing, warehouse management, production, and marketing—is crucial for better operational flow. While most respondents agree that these activities are well-integrated, a notable percentage (20.91%) disagreed or were neutral, indicating a gap that could be improved. Future research should explore the specific barriers to effective communication and how these barriers hinder coordination.

2- **Invest in Employee Training and Development:** Investing in targeted training programs to upskill employees in warehouse management practices is essential. However, the study did not provide statistical support for the effectiveness of training on warehouse efficiency. Future research could focus on evaluating the impact of such training programs on employee performance and warehouse productivity, providing more concrete evidence to back this recommendation.

3- Adopt Technological Solutions: The need for adopting cutting-edge technologies like automated inventory management and data analytics is highlighted in the study. While this aligns with current trends, there is no direct evidence in the study linking technology adoption with improved efficiency. Future studies should measure the impact of specific technological tools on operational efficiency, providing statistical support for their effectiveness in improving warehouse management.

4- Focus on Continuous Improvement: The findings indicate that while the current warehouse system is functional, certain areas, such as report accuracy and supplier coordination, could be improved. However, the study did not directly quantify how these factors impact warehouse performance. Future research could explore continuous improvement initiatives and measure their effects on operational metrics, such as cost savings, time efficiency, and customer satisfaction.

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