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Logistics management and operational efficiency in ABC company

Mark Richard D. Dela Cruz *

Master of Business Administration Graduate, Laguna College of Business and Arts, City of Calamba, Laguna, Philippines.

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Abstract

The study aimed to describe and assess the logistics management and operational efficiency of the ABC Company. Quantitative Correlational research design was utilized to determine the relationship between the level of implementation in Logistics Management and Operational efficiency in ABC Company. Through stratified random sampling, the study gathered 150 respondents composed of department managers, supervisors, team leaders, and rank-and-file employees of ABC Company. Four-point Likert Scale, mean, ANOVA, and Pearson's r were utilized for quantitative data treatment. The study found that there was a significant difference among the assessments of department managers, team leaders, and rank-and-file employees on the level of manifestation of logistic management in terms of transaction system, management control, tactical planning, control, and decision analysis, and job performance task level. Likewise, there was a significant difference among the assessment of the respondents on level of operational efficiency in terms of logistics effectiveness, and logistics efficiency. However, in terms of logistic differentiation, there was no significant relationship. On the other hand, there was a significant relationship between the level of manifestation of logistic management and the level of operational efficiency in ABC Company.

Keywords: Logistics Management; Operational Efficiency; Transaction System; Management Control; Tactical Planning; Control and Decision Analysis

1. Introduction

Logistics management plays a crucial role in the smooth operation of businesses by coordinating the movement of goods across various channels, including suppliers, distributors, and retailers. It's not just about transportation; it involves optimizing every aspect of the supply chain to ensure efficient product flow and ethical business practices. Modern logistics focuses heavily on customer service, with information flow at its core. By understanding market demands and making strategic decisions, companies can maintain seamless operations, build long-term relationships with logistics providers, and gain competitive advantages.

In the Philippines, logistics management is a significant contributor to economic growth, though many companies still underestimate its importance. While the logistics industry is thriving, inefficiencies and outdated practices contribute to high logistics costs, impacting overall business performance. The country's archipelagic nature, along with infrastructure and reliability issues, creates challenges that drive up operational costs and reduce competitiveness. To stay ahead, companies must adopt modern technologies and outsourcing strategies, but many small and medium enterprises still struggle with the financial burden of such investments.

This study was anchored on the Theory of Transportation and Logistics Management and was affixed by the concept of Logistics Management. The Theory of Transportation and Logistics Management, the theories that are applied to the transportation industry include the material flow theory according Hou, et al. [1]. The theory of material flow explains how raw materials are transported and used to create final products; it is important to discuss it in the context of the

* Corresponding author: Mark Richard D. Dela Cruz

transportation industry. One of the most important components of the total task of supply chain management is the logistical duty of managing information flow and material flow. An information system that integrates data, personnel, equipment, and techniques for solving problems is used to support logistics management throughout planning and execution.

Yang and Lirn [2]'s theory of transportation and logistics management, which focused on resource-based, strategic decision-making, and knowledge-based perspectives, is also connected to supply chain management. Resource-based view allows examining the resources that a firm had and how these can be utilized for competitive advantage. If resources were correctly handled, they can make logistics companies more competitive in the market. Continually facing new challenges and was changing faster now compared to any time in the past.

For Swanson et al. [3], businesses today had to deal with new economic parameters. Political and economic moves occurred faster than before. Logistics operations can no longer be viewed as conventional transportation operations in such a setting. The logistics function must assist business expansion, as well as marketing and production endeavors. Because suppliers, customers, and manufacturing facilities were dispersed throughout a large geographic area, there was a more intricate information flow than there would be if they were all in one place. Despite some technical advancements, the material flow cannot be made simpler; therefore, a company's supply chain network needs to be as effective as possible to meet this issue.

Fisher-Holloway [4] mentioned that logistics systems were characterized by the increasing volumes and flows of goods. This brought to the core concept of logistics, which referred to the strategic planning and management of resources, parts, equipment, completed commodities, and information flow in supply chains.

Gani [5] stated that logistics Efficiency played a more important role in the growth and development of logistics management. However, a significant barrier to achieving the organizational goals can be insufficient operational processes and logistical infrastructure. One of the reasons for producers to get their goods to consumers securely, affordably, and with little turnover is to increase the connections between the various manufacturing sectors of the domestic economy.

This study examined how implementing system software in ABC Company could streamline logistics operations, reduce lead times, and enhance efficiency. Focusing on freight forwarding and beverage manufacturing, the company aimed to leverage modern logistics management systems to improve delivery accuracy, customer service, and overall productivity. By integrating information technology and optimizing inbound and outbound processes, ABC Company demonstrated how logistics innovation can meet customer needs, reduce cycle times, and create a more effective supply chain.

2. Review of Related Literature

This section discusses the literature and studies reviewed which are related to the topic. They offer support to the current study.

2.1. Logistics Management

Grant et al.'s [6] study entitle "Sustainable Logistics and SCM: Principles and Practices for Sustainable Operations" mentioned that inbound and outbound transportation management, warehousing, material handling, order fulfillment, logistics network design, inventory management, supply/demand planning, and administration of third-party logistics (3PL) service providers were a few examples of logistics management operations. The logistics function also encompassed, to varied degrees, customer service, packaging and assembly, sourcing and procurement, and production planning and scheduling.

Li & Wu's [7] article entitled "ERP System in the Logistics Information System of Supply Chain Enterprises" said that more transportation and better data management had to be made available for business collaboration, particularly given the industry's rapid growth. The most crucial aspect of contemporary logistics information management was the logistic transaction system based on information, automation, networks, and intelligent information. The company's logistics information management had evolved day by day along with the ongoing expansion of logistics businesses, and related operators had grown in significance. Modern business development was thus inextricably linked to the involvement of numerous partners in contemporary business management. The growth of the entire company supply chain was likewise accelerating. It proposed new guidelines for organizational development and called on organizations

to fulfill those guidelines. Enterprises must simultaneously maintain their competitiveness, enhance their methods for managing logistics, and raise the overall level of logistics management.

Ristovska et al.'s [8] study, entitled "The Impact of Logistics Management Practices on Company's Performance," said that logistics needed to respect the process of planning, implementation, and control of the procurement, storage, transport, and information and with the sole purpose of improving them. A company's ability to develop and maintain a competitive edge rested heavily on how adaptable and willing they were to make quick adjustments to their operations to stay ahead of the competitors in the market. The foundation for the company's operation in the current environment and one of the primary success elements was the ongoing adjustment and improvement of the procedures.

Moreover, Allen [9] in his article mentioned that in a changing environment, logistics planning minimizes risk by enabling companies to anticipate change and develop strategies to adapt to those changes. Supply chains were constantly changing, many businesses created logistics strategies for product lines, geographical areas, or client segments. This allowed them to respond to market changes that affected one region or business line while preserving efficiency across other business lines. Delivering the right items to the right clients at the right time and for the least amount of money was the main goal of any logistics plan. By identifying the service levels at which the company was most profitable, an efficient logistics plan can help the business reduce investments and other expenditures. It was a win-win situation since the business saved money and the clients were satisfied because they got what they needed when they needed it.

Murray [10], in his 2019 article in a website of "the balance small business about tactical supply chain management," mentioned that tactical management focused instead on processes and procedures that can save time and money while also meeting customer demands and providing value. Tactical decisions can also help minimize risks. Tactical supply chain decisions were made within the constraints of the overarching strategic supply chain decisions made by company management. Tactical planners took the strategic message and focused on creating real benefits for the company.

2.2. Operational Efficiency

Arshinina & Kiseleva [11], in their study entitled "Evaluation of the Effectiveness of the Logistics System" said that the availability of inventories, productivity, and activity quality all affected how effective the logistics system was. The overall cost of logistics directly related to the expected level of performance. The total expenses of logistics increased as this level rose. The capacity to balance the cost of overall operations with the level of logistics services was essential for developing an effective logistics system at an organization. From the perspective of the customer, the level of service quality of an order determines how effective the logistics system was the cost of logistics served as a tool for business management. Making economically sound management decisions was aided by knowing the composition of the logistics expenses. The administration of the business can be facilitated by the examination of such costs. The financial capacity of the economic unit was increased by the decline in logistical costs and the rise in profit levels as a result. Indications describing the capacity, productivity, and expenses of the enterprise's logistics system were the most prevalent, typical indications of the efficacy evaluation of logistic systems and business processes.

Burity [12], in his research entitled "The Importance of Logistics Efficiency," said that gratifying internal customers came before gratifying external ones was crucial. In contrast to how internal customers were satisfied. Indirectly or directly, the effectiveness of the logistics process had a big impact on the pleasure of all customers, their loyalty, and retention.

Meanwhile, Yi & Natarajan [13] cited that customer and employees' satisfaction was a key concept in modern marketing thought and practice, which emphasized delivering satisfaction to customers and obtaining profits in return. The implementation of information management systems, the quality and capabilities of logistics services, the reliability of logistics, staff training initiatives, and competition learning were all ways to increase logistic efficiency and boost customer experience and relations.

Ziyadin et al.'s [14] study entitled "Differentiation of Logistics Services on the Basis of ABC Analysis" said that the conditions in the service sector were becoming increasingly developed. An increase in demand for a service was caused by increased competition, as well as numerous procedures related to the integration of supply chain actors. Currently, the primary sources of profit in several businesses (automotive, electrical engineering, etc.) came from the provision of various consumer services rather than the manufacturing sector. The idea of integrated supply had gained traction in the modern economy in this regard. The company should be prepared to offer customers not only high-quality services in their most effective form, but also a complex of different service types. The mix, quality, and needed degree of service were frequently determined by the customers themselves. The profitability indicator for each service offered to

customers was the most crucial factor in determining the success of service businesses. The idea of integrated supply had gained traction in the modern economy in this regard. The company should be prepared to offer customers not only high-quality services in their most effective form, but also a complex of different service types. The mix, quality, and needed degree of service were frequently determined by the customers themselves. The profitability indicator for each service offered to customers was the most crucial factor in determining the success of service businesses.

3. Material and methods

3.1. Research Design

This study utilized quantitative correlational research design in determining the significant relationship between the level of implementations in Logistics Management and Operational efficiency in ABC Company. Descriptive research collected data to seek answers to the questions about the status of the study. The quantitative research method attempts to collect quantifiable information to be used for statistical analysis of the sample population.

Descriptive research identified each phenomenon based on an observational basis, or the exploration of correlation between two or more phenomena. Descriptive correlational design in relating relationships among the studied variables was very useful Hall [15]. Descriptive research is a process of collecting, tabling, and classifying as well as analyzing numerical data about observation of variable conditions, processes, and cause-effect relationships, and the making of adequate and accurate interpretation about such data with or without the aid of statistical tools as described by the study of Sileyew [16]. Muldyagin [17] stated that a descriptive quantitative method in which the researcher data was presented in descriptive and numerical form. This means that the study was to determine variables, whether the variable was one or even more without making comparison or connecting with other variables.

3.2. Research Locale

This research was conducted within the logistics operation of ABC Company. Data of the dependent variables of this study— Transaction system, Management control, Tactical planning, control and decision analysis and Strategic Planning were gathered from the logistics operations department.

3.3. Population and Sampling

In this study, the researcher utilized stratified random sampling to collect quantitative data. Quantitative research methods are generally suited since the population is a large group, the sample will be able to get representatives from the population. Operations department employees were chosen to be part of the sampling.

The researcher used stratified random sampling. It was the most appropriate sampling for the research since this looks at a random sample and adds credibility to a sample when the potential sample is larger than one can handle. While this is a type of sampling that uses small sample sizes, its goal is to increase credibility, not to encourage representativeness or the ability to generalize.

3.4. Respondents of the Study

The study was conducted at ABC Company particularly with the operations personnel. The researcher used random sampling to determine the respondents of the study. The researcher chose one hundred (100) respondents from the operations department as shown in Table 1.

Table 1 Distribution of Respondents

Respondents	Population	Sample	Percent
Dept. Managers	3	3	100%
Supervisors	10	6	60%
Team Leader	15	10	67%
Rank & File	122	81	66%
Total	150	100	

Table 1 shows the sample size versus total operations population. Operations department have a total population of one hundred fifty (150) and sample size of (100)

3.5. Research Instrument

The study used self-made questionnaire adapted from different questionnaires modified with the help of the statistician according to the needs of the study.

The questionnaire utilized for data collection comprises two parts. The first determined the level of manifestation of Logistics Management as shown in Table 2 based on the following variables: (a) Transaction system, (b) Management Control, (c) Tactical planning, control & decision analysis, (d) Strategic Planning.

The second part of the questionnaire measured the level of operational efficiency as shown in Table 3 in the operations department in ABC Company in terms of the following: (a) Logistics Effectiveness, (b) Logistics Efficiency, (c) Logistics Differentiation.

Table 2 Logistics Management

Scale	Range	Level of Manifestation
4	3.25 – 4.00	Highly Manifested (HM)
3	2.50 – 3.24	Manifested (M)
2	1.75 – 2.49	Slightly Manifested (SM)
1	1.00 - 1.74	Not Manifested (NM)

Table 3 Operational Efficiency

Scale	Range	Categorical Response	Verbal Interpretation
4	3.25 – 4.00	Strongly Agree	Very High Efficiency (VHE)
3	2.50 – 3.24	Agree	High Efficiency (HE)
2	1.75 – 2.49	Disagree	Low Efficiency (LE)
1	1.00 - 1.74	Strongly Disagree	Very Low Efficiency (VLE)

Based on the questionnaire, the researcher discussed the topic with the respondents to briefly explain the significance of responding to all the questions and gathering the necessary information and data to make the study reliable and genuine. The collected data and gathered information were subjected to statistical treatments.

3.6. Data Gathering Procedure

The questionnaire was administered to the respondents to identify and determine the assessment of employees. After the data were collected and analyzed, the researcher consulted the thesis adviser to seek advice and assistance in the development and improvement of the research framework and continuity toward the completion of the study. The researcher then proceeded with the review of the literature and the related studies to see its relevance to the subject, assessing and knowing the retention level of the employees, then writing the final document.

3.7. Treatment of Quantitative Data

The survey consisted of items that were measured and analyzed using the following statistical tools:

- Four-Point Likert Scale and Mean were used to determine the level of manifestation of logistics management and the level of operational efficiency in ABC Company.
- Analysis of Variance (ANOVA) was used to determine if there was a significant relationship between the level of manifestation and the level operational efficiency in ABC Company.
- Pearson Product-Moment Correlation (Pearson r) was utilized to conclude if there was a significant relationship between the level of manifestation of logistics management on the level of operational efficiency in ABC Company.

4. Results and discussion

This section deals with the presentation, analysis, and interpretation of all the gathered data. The study aimed to assess the level of manifestation of logistics management and operational efficiency of the ABC Company. This research also sought to answer the following problems:

4.1. Problem Number 1. What is the level of manifestation of logistics management in the ABC Company as assessed by Department Managers, Supervisors, Team leaders and Rank & File employees in terms of Transaction System, Management Control, Tactical Planning, Control, and Decision Analysis, and Strategic Planning?

Table 4 Level of Manifestation of Logistics Management in the ABC Company as assessed by Department Managers, Supervisors, Team Leaders, and Rank-and-File Employees in terms of Transaction System

Indicators *The ABC Company…*	**Managers**		**Supervisor**		**Team Leaders**		**Rank and File**		**Composite**	
	$\bar{X}$	**VI**	$\bar{X}$	**VI**	$\bar{X}$	**VI**	$\bar{X}$	**VI**	$\bar{X}$	**VI**
Uses updated and modern computers or devices.	3.67	HM	3.17	HM	3.10	M	3.44	HM	3.35	HM
Uses of high-speed internet connections.	3.67	HM	3.50	HM	3.00	M	3.54	HM	3.43	HM
Has a transaction system that is accessible between point to point.	4.00	HM	3.33	HM	3.10	M	3.60	HM	3.51	HM
Allows employees to access every transaction detail and information.	3.67	HM	3.33	HM	3.00	M	3.53	HM	3.38	HM
Allows employees to have clear communication with every operator.	3.00	HM	3.33	HM	2.70	M	3.54	HM	3.14	M
GENERAL ASSESSMENT	3.60	HM	3.33	HM	2.98	M	3.53	HM	3.36	HM

Legend: 3.25 – 4.00 Highly Manifested (HM); 1.75 – 2.49 Slightly Manifested (SM); 2.50 – 3.24 Manifested (M); 1.00 – 1.74 Not Manifested (NM)

The level of manifestation of logistics management in ABC Company as assessed by all employees in terms of Transaction System had a general assessment of 3.36 verbally interpreted as Highly Manifested. Furthermore, the indicator "The ABC Company has a transaction system that is accessible between point to point," had the highest computed mean of 3.51 verbally interpreted as Highly Manifested while the indicator "The ABC Company allows employees to have clear communication with every operator," had the lowest computed mean of 3.13 verbally interpreted as Manifested.

It can be concluded that the ABC Company highly manifested transaction system to their employees. It shows that the ABC Company has efficiently applied the logistics management system in their logistics operations.

Feng and Qiwen [4] in their study entitled "Operation Management of Smart Logistics in Transaction System," the logistics transaction system had a higher degree of flexibility due to its more accurate demand forecasting, better optimization of inventory, and more efficient transportation routing with technologies. The information sharing and communication among employees in logistics made the process faster, and related business processes can be centrally managed, thus strengthening the coordination of different logistics processes. Real-time monitoring and intelligent decision-making enabled the logistics system to function without significant human intervention, which brought higher efficiency to logistics operations. The increasing ability to tackle unexpected issues of smart logistics enhanced customer satisfaction.

Table 5 Level of Manifestation of Logistics Management in the ABC Company as assessed by Department Managers, Supervisors, Team leaders, and Rank-and-File Employees in terms of Management Control

Indicators The ABC Company…	**Managers**		**Supervisor**		**Team Leaders**		**Rank and File**		**Composite**	
	$\bar{X}$	**VI**	$\bar{X}$	**VI**	$\bar{X}$	**VI**	$\bar{X}$	**VI**	$\bar{X}$	**VI**
Has a quick and accurate reports generation.	4.00	HM	3.17	M	3.20	M	3.52	HM	3.47	HM
Monitors fleets availability and control.	4.00	HM	3.17	M	3.00	M	3.49	HM	3.42	HM
Monitors workforce, equipment, and parts availability.	4.00	HM	3.67	HM	3.00	M	3.53	HM	3.55	HM
Has available fleet necessary documents through system monitoring.	3.67	HM	3.67	HM	2.90	M	3.53	HM	3.44	HM
Has availability inbound and outbound monitoring.	3.33	HM	3.17	M	3.00	M	3.57	HM	3.27	HM
General assessment	3.80	HM	3.37	HM	3.02	M	3.53	HM	3.43	HM

Legend: 3.25 – 4.00 Highly Manifested (HM); 1.75 – 2.49 Slightly Manifested (SM); 2.50 – 3.24 Manifested (M); 1.00 – 1.74 Not Manifested (NM)

The level of manifestation of logistics management in ABC Company, as assessed by all employees in terms of Management Control, had a general assessment of 3.43 that was verbally interpreted as Highly Manifested. Furthermore, the indicator "The ABC Company has a management control that monitors manpower, equipment and parts availability," had the highest computed mean of 3.55 verbally interpreted as Highly Manifested while the indicator "The ABC Company which has availability inbound and outbound monitoring," had the lowest computed mean of 3.27 verbally interpreted as Highly Manifested. It can be concluded that the ABC Company highly manifested management control to their employees. It shows that the ABC Company has great management control over the whole logistics operation.

Table 6 Level of Manifestation of Logistics Management in the ABC Company as assessed by Department Managers, Supervisors, Team leaders, and Rank-and-File Employees in terms of Tactical Planning, Control, and Decision Analysis

Indicators The ABC Company…	**Managers**		**Supervisor**		**Team Leaders**		**Rank and File**		**Composite**	
	$\bar{X}$	**VI**	$\bar{X}$	**VI**	$\bar{X}$	**VI**	$\bar{X}$	**VI**	$\bar{X}$	**VI**
Allows management identifying backlogs and delays	4.00	HM	3.33	HM	3.10	M	3.56	HM	3.50	HM
Follows evaluation of inventory level and stock availability.	3.67	HM	3.50	HM	2.90	M	3.56	HM	3.41	HM
Identifies vehicle routes and mapping thru system	3.33	HM	3.33	HM	2.90	M	3.44	HM	3.25	HM
Has a basis for inbound and outbound improvement.	3.00	M	3.33	HM	3.10	M	3.47	HM	3.23	M
Observes identification of fleet moving, in-transit, and on-going.	3.33	HM	3.67	HM	2.80	M	3.54	HM	3.34	HM
GENERAL ASSESSMENT	3.47	HM	3.43	HM	2.96	M	3.51	HM	3.34	HM

Legend: 3.25 – 4.00 Highly Manifested (HM); 1.75 – 2.49 Slightly Manifested (SM); 2.50 – 3.24 Manifested (M); 1.00 – 1.74 Not Manifested (NM)

The level of manifestation of logistics management in ABC Company as assessed by all employees in terms of Tactical Planning, Control and Decision Analysis had a general assessment of 3.34 verbally interpreted as Highly Manifested. Furthermore, the indicator "The ABC Company has a tactical planning, control and decision analysis that is allow management identifying backlogs & delays," had the highest computed mean of 3.50 verbally interpreted as Highly

Manifested while the indicator "The ABC Company has basis for inbound and outbound improvement," had the lowest computed mean of 3.23 verbally interpreted as Manifested. It can be concluded that the ABC Company highly manifested tactical planning, control, and decision analysis to their employees. It shows that the ABC Company is very efficient by applying the logistics management system in terms of logistics operations.

Table 7 Level of Manifestation of Logistics Management in the ABC Company as assessed by Department Managers, Supervisors, Team Leaders, and Rank-and-File Employees in terms of Strategic Planning

Indicators *The ABC Company…*	**Managers**		**Supervisor**		**Team Leaders**		**Rank and File**		**Composite**	
	$\bar{X}$	**VI**	$\bar{X}$	**VI**	$\bar{X}$	**VI**	$\bar{X}$	**VI**	$\bar{X}$	**VI**
Implements strategic planning with other value-chain members	3.67	HM	3.50	HM	3.10	M	3.38	HM	3.41	HM
Identifies and develops company capabilities and opportunities.	4.00	HM	3.67	HM	3.00	M	3.52	HM	3.55	HM
Improves of services according to customer opinions.	4.00	HM	3.33	HM	2.80	M	3.48	HM	3.40	HM
Improves of services according to employees' opinions.	3.33	HM	3.33	HM	3.10	M	3.48	HM	3.31	HM
Implements strategic planning on achieving objective & goals of organization.	4.00	HM	3.50	HM	3.10	M	3.53	HM	3.53	HM
Has a basis for decision on overall logistical structure & resource distribution.	4.00	HM	3.83	HM	3.20	M	3.54	HM	3.64	HM
GENERAL ASSESSMENT	3.83	HM	3.53	HM	3.05	M	3.49	HM	3.48	HM

Legend: 3.25 – 4.00 Highly Manifested (HM); 1.75 – 2.49 Slightly Manifested (SM); 2.50 – 3.24 Manifested (M); 1.00 – 1.74 Not Manifested (NM)

The level of manifestation of logistics management in the ABC Company as assessed by all employees in terms of Strategic Planning had a general assessment of 3.48 verbally interpreted as Highly Manifested. Furthermore, the indicator "The ABC Company has a strategic planning that has a basis for decision on overall logistical structure & resource distribution," had the highest computed mean of 3.64 verbally interpreted as Highly Manifested while the indicator "The ABC Company improves of services according to employees' opinions," had the lowest computed mean of 3.31 verbally interpreted as Highly Manifested. It shows that ABC Company has strategic planning aligned with the company objectives and goal of delivering all cargo intact at the right time and in the most cost-effective way. A strategic logistics operation could allow one to reduce his/her investments, maximize profits and maintain customer satisfaction with service. Moreover, it also helped to minimize the risks by forecasting changes and creating accurate data strategies for the next future planning.

4.2. Problem Number 2. What is the level of operational efficiency in ABC Company as assessed by department manager, supervisors, team leaders, and rank & file employees in terms of Logistics Effectiveness, Logistics Efficiency, and Logistics Differentiation?

The level of operational efficiency of logistics management in the ABC Company as assessed by department managers, supervisors, team leaders, and rank-and-file employees in terms of Logistics Effectiveness had a general assessment of 3.30 verbally interpreted as Very High Efficiency as shown in Table 8. Furthermore, the indicator "The ABC Company has a logistics effectiveness that builds value-relations to customers" had the highest computed composite mean of 3.40 verbally interpreted as Very High Efficiency, while the indicator "The ABC Company has inventory level and requirements accuracy" had the lowest computed composite mean of 3.16 which was also verbally interpreted as High Efficiency.

Table 8 Level of Operational Efficiency in ABC Company as assessed by Department Manager, Supervisors, Team Leaders, and Rank-and-File Employees in terms of Logistics Effectiveness

Indicators *The ABC Company…*	**Managers**		**Supervisor**		**Team Leaders**		**Rank and File**		**Composite**	
	$\bar{X}$	**VI**	$\bar{X}$	**VI**	$\bar{X}$	**VI**	$\bar{X}$	**VI**	$\bar{X}$	**VI**
Has a quick movement of product	3.33	VHE	3.00	HE	3.30	VHE	3.58	VHE	3.30	VHE
Has a smooth and clear movement of information.	3.33	VHE	3.17	HE	3.00	HE	3.44	VHE	3.24	HE
Has accurate sales forecasting.	3.67	VHE	3.17	HE	3.20	HE	3.49	VHE	3.38	VHE
Has inventory level and requirements accuracy.	3.33	VHE	3.00	HE	2.80	HE	3.49	VHE	3.16	HE
Achieves customer need and requirements.	3.67	VHE	3.17	HE	2.90	HE	3.57	VHE	3.33	VHE
Looks at competitiveness to market.	3.67	VHE	3.00	HE	2.90	HE	3.52	VHE	3.27	VHE
Builds value-relations to customers	3.67	VHE	3.17	HE	3.20	HE	3.57	VHE	3.40	VHE
GENERAL ASSESSMENT	3.52	VHE	3.10	HE	3.04	HE	3.52	VHE	3.30	VHE

Legend: 3.25 – 4.00 Very High Efficiency (VHE); 1.75 – 2.49 Low Efficiency (LE); 2.50 – 3.24 High Efficiency (HE); 1.00 – 1.74 Very Low Efficiency (VLE)

The above-mentioned findings of the study imply that the ABC Company is highly efficient on logistics management system. It was evident that Logistic Management operational effectiveness has a great effect on the company. It also shows that the application of the system will be one of the tools for the improvement of logistics operations and employees.

Table 9 Level of Operational Efficiency in ABC Company as assessed by Department Manager, Supervisors, Team Leaders, and Rank-and-File Employees in terms of Logistics Efficiency

Indicators *The ABC Company…*	**Managers**		**Supervisor**		**Team Leaders**		**Rank and File**		**Composite**	
	$\bar{X}$	**VI**	$\bar{X}$	**VI**	$\bar{X}$	**VI**	$\bar{X}$	**VI**	$\bar{X}$	**VI**
Applies accuracy of order requirements.	3.33	VHE	3.33	HE	3.00	HE	3.47	VHE	3.28	VHE
Applies accuracy of delivery timing.	3.33	VHE	3.17	HE	2.90	HE	3.37	VHE	3.19	HE
Has clear information of order & cycle time.	3.67	VHE	3.00	HE	3.00	HE	3.42	VHE	3.27	VHE
Reduces delivery/ transportation cost.	3.33	VHE	3.00	HE	3.10	HE	3.44	VHE	3.22	HE
Effectively reduces fuel efficiency.	3.00	HE	3.00	HE	3.20	HE	3.51	VHE	3.18	HE
Integration of individual function.	3.33	VHE	3.17	HE	3.10	HE	3.42	VHE	3.26	VHE
GENERAL ASSESSMENT	3.33	VHE	3.11	HE	3.05	HE	3.44	VHE	3.23	HE

Legend: 3.25 – 4.00 Very High Efficiency (VHE); 1.75 – 2.49 Low Efficiency (LE); 2.50 – 3.24 High Efficiency (HE); 1.00 – 1.74 Very Low Efficiency (VLE)

The level of operational efficiency of logistics management in the ABC Company as assessed by department managers, supervisors, team leaders, and rank-and-file employees in terms of Logistics Efficiency had a general assessment of 3.23 verbally interpreted as High Efficiency as shown in Table 9. Furthermore, the indicator "The ABC Company has a logistics efficiency that applies accuracy of order requirements" had the highest computed composite mean of 3.28 verbally interpreted as Very High Efficiency, while the indicator "The ABC Company has effectively reduced Fuel efficiency" had the lowest computed composite mean of 3.18 verbally interpreted as High Efficiency.

The above-mentioned findings of the study imply that ABC Company has very high efficiency in logistics efficiency in the application of logistics management system. It also shows that the application of the system will be one of the tools for the improvement of operations and employees.

Table 10 Level of Operational Efficiency in ABC Company as assessed by Department Manager, Supervisors, Team Leaders and Rank-and-File Employees in terms of Logistics Differentiation

Indicators *The ABC Company…*	**Managers**		**Supervisor**		**Team Leaders**		**Rank and File**		**Composite**	
	$\bar{\bar{X}}$	**VI**	$\bar{\bar{X}}$	**VI**	$\bar{\bar{X}}$	**VI**	$\bar{\bar{X}}$	**VI**	$\bar{\bar{X}}$	**VI**
Has superior customer experience.	3.67	VHE	3.17	HE	3.10	HE	3.37	VHE	3.33	VHE
Has clear communication with customers.	3.33	VHE	3.33	VHE	3.00	HE	3.35	VHE	3.25	VHE
Creates value with customers has clear information of order & cycle time.	3.33	VHE	3.17	HE	3.10	HE	3.40	VHE	3.25	VHE
Has strategic competitive advantage.	3.33	VHE	3.00	HE	3.00	HE	3.37	VHE	3.18	HE
Achieves operational excellence for sustainable growth.	3.00	HE	3.17	HE	3.10	HE	3.40	VHE	3.17	HE
Has in-house development of individual functions.	3.33	VHE	3.33	VHE	3.10	HE	3.42	VHE	3.30	VHE
GENERAL ASSESSMENT	3.33	VHE	3.19	HE	3.07	HE	3.38	VHE	3.24	HE

Legend: 3.25 – 4.00 Highly Efficient (HE); 1.75 – 2.49 Slightly Efficient (LE); 2.50 – 3.24 Efficient (E); 1.00 – 1.74 Very Low Efficiency (VLE)

The level of operational efficiency of logistics management in ABC Company as assessed by all employees in terms of Logistics Differentiation had a general assessment of 3.24 verbally interpreted as High Efficiency. Furthermore, the indicator "The ABC Company has a logistics differentiation that has superior customer experience," had the highest computed composite mean of 3.33 verbally interpreted as Very High Efficiency while the indicator "The ABC Company has achieved operational excellence for sustainable growth," had the lowest computed composite mean of 3.17 verbally interpreted as High Efficiency. It was evident that Logistic Management operational efficiency has a great effect within the company. It also shows that the application of the system will be one of the tools for the improvement of operations and employees.

4.3. Problem Number 3. Is there any significant difference among the assessment of department managers, supervisors, team leaders and rank and file on the level of manifestation of logistic management and level of operational efficiency in ABC Company?

Table 11 Level Test of Significant Difference among the Assessment of Department Managers, Supervisors, Team Leaders, and Rank-and-File on the Level of Manifestation of Logistic Management in ABC Company

Sub-variables		**Sum of squares**	**Df**	**Mean square**	**F Ratio**	**Sig.**	**Remarks**	**Decision**
Transaction System	Between Groups	2.888	3	0.963	4.184	0.008	Significant	Reject H_o
	Within Groups	22.089	96	0.230				
	Total	24.978	99					
Management Control	Between Groups	2.688	3	0.896	3.880	0.011	Significant	Reject H_o
	Within Groups	22.174	96	0.231				
	Total	24.862	99					
	Between Groups	2.731	3	0.910	4.378	0.006	Significant	Reject H_o

Tactical Planning, control, and decision analysis	Within Groups	19.959	96	0.208				
	Total	22.690	99					
Job Performance Task Level	Between Groups	2.192	3	0.731	4.013	0.010	Significant	Reject H_o
	Within Groups	17.477	96	0.182				
	Total	19.669	99					

Level of significance 0.05

There was a significant difference between the responses of the groups of respondents on the above-mentioned variables. As shown in Table 11, the generated computed probability values of transaction system, management control, tactical planning, control, and decision analysis, and strategic planning were .008, .011, .006, and .010 respectively which were lesser than the level of significance of 0.05; thus, rejecting the null hypothesis. This means that the department managers, supervisors, team leaders and rank-and-file employees had different perceptions regarding the level of manifestation of logistic management in ABC Company. There was a significant difference between the responses of the groups of respondents on the variables of Logistics Effectiveness and Logistics Efficiency. As shown in Table 11, the generated computed probability values of logistics effectiveness, Logistics Efficiency, were .004, and .039, respectively which were less than the level of significance of 0.05; thus, rejecting the null hypothesis. However, there was no significant difference among the responses of the groups of respondents on the variable Logistics Differentiation. The generated computed probability value was .260, which was higher than the level of significance of 0.05, thus, accepting the null hypothesis.

Table 12 Test of Significant Difference among the Assessment of Department Managers, Supervisors, Team Leaders, and Rank-and-File on the Level of Operational Efficiency in ABC Company

Sub-variables		**Sum of squares**	**Df**	**Mean square**	**F Ratio**	**Sig.**	**Remarks**	**Decision**
Logistics effectiveness	Between Groups	2.874	3	0.958	4.750	0.004	Significant	Reject H_o
	Within Groups	19.360	96	0.202				
	Total	22.234	99					
Logistics efficiency	Between Groups	1.799	3	0.600	2.900	0.039	Significant	Reject H_o
	Within Groups	19.850	96	0.207				
	Total	21.649	99					
Logistics differentiation	Between Groups	1.021	3	0.340	1.359	0.260	Not Significant	Accept H_o
	Within Groups	24.030	96	0.250				
	Total	25.051	99					

Level of significance 0.05

This means that the department managers, supervisors, team leaders, and rank-and-file employees have different perceptions regarding the level of manifestation of logistic management in ABC Company.

4.4. Problem Number 4. Is there any significant relationship between the level of manifestation logistics management and the level of operational efficiency in ABC Company?

Table 13 Test of Significant Relationship between the Level of Manifestation Logistics Management and the Level Operational Efficiency in ABC Company

Level of Manifestation Logistics Management	**Level of Operational Efficiency**	**r value**	**P value**	**Remarks**	**Decision**
Transaction System	Logistics effectiveness	0.578**	0.000	Significant	Reject H_o
	Logistics efficiency	0.527**	0.000	Significant	Reject H_o
	Logistics differentiation	0.567**	0.000	Significant	Reject H_o
Management Control	Logistics effectiveness	0.589**	0.000	Significant	Reject H_o

	Logistics efficiency	0.528**	0.000	Significant	Reject H_o
	Logistics differentiation	0.528**	0.000	Significant	Reject H_o
Tactical Planning, control, and decision analysis	Logistics effectiveness	0.515**	0.000	Significant	Reject H_o
	Logistics efficiency	0.449**	0.000	Significant	Reject H_o
	Logistics differentiation	0.505**	0.000	Significant	Reject H_o
Strategic Planning	Logistics effectiveness	0.493**	0.000	Significant	Reject H_o
	Logistics efficiency	0.499**	0.000	Significant	Reject H_o
	Logistics differentiation	0.525**	0.000	Significant	Reject H_o

**Correlational at the level 0.01; *Correlational at the level 0.05(Two-tailed)

There was a significant relationship between the level of manifestation logistics management and the level of operational efficiency in ABC Company as shown in Table 13. The r values .449 to 589 were interpreted as with a moderate positive correlation to correlate logistics management and operational efficiency in ABC Company. The computed probability values of .000 were less than the level of significance ($P<0.05$); thus, rejecting the null hypothesis. It can be concluded that logistics management has a moderately significant relationship with operational efficiency at ABC Company. The higher the logistics management, the higher the operational efficiency.

4.5. Problem Number 5. Based on the findings of the study, what action plan may be proposed?

This action plan proposal as shown in Table 14 applies to all employees of the ABC Company. This action plan aims to pinpoint and address the difficulties this organization is now experiencing in the logistics sector and to offer workable solutions to enhance performance.

Table 14 Proposed Action Plan

Areas of Concern	**Objective**	**Strategy**	**Person Responsible**	**Frequency**	**Success Indicators**
Establish Regular meetings of Management and Subordinates	To develop employees' communication level and competitiveness towards Logistics Management	Implementation of regular communication activity to all employees about Logistics Management Open forums meeting Suggestion box Pre-operation meeting	Top Management and Human Resource Department	Monthly	Key performance Indicator
Route Plan & Mapping	To find ways to alternate routes and maps to reduce fuel consumptions	Establish regular road surveys to identify which road has the easiest and fastest route for deliveries.	Supervisor & Team leaders	Semi Annual	
Training and Development	To improve employees' core development and competitiveness towards Logistics Management	Establish a Training Plan for all employees about Logistics Management Identify the level of knowledge and understanding for every employee.	Top Management and Human Resource Department	Quarterly	Key performance Indicator

		Gather the details of all the target employees. Create a schedule of training for each employee. Create an assessment regarding the subject matter.			
Employee's rewards, incentives, and promotions	To encourage employee's improvement in overall performance	Implement rewards and incentives program.	Human Resource Department	Annual	Key Performance Indicators

The strategy aims to improve several logistics management processes, including the transaction system, management control, tactical planning, control and decision analysis, and strategic planning. This organization can become more successful, effective, and dependable by putting this action plan into action, which will help it grow and become more competitive. By targeting crucial areas that require attention and improvement, this action plan offers a roadmap for improving logistics management inside the organization. By carrying out these action plans, the business will be able to establish logistical effectiveness, lower turnover costs, increase efficiency, and foster a positive logistics sector. A profitable business will result from the plan's successful execution. The general objective of this action plan is to improve the level of Logistics Management Manifestation in ABC Company.

5. Conclusion

Based on the results of this study, it can be concluded that logistics management greatly affects the operational efficiency of employees in the ABC Company. Additionally, based on the study's findings, the following conclusions were drawn:

- That the logistics management in the ABC Company are encountering very minimal difficulties, nevertheless, in the logistics operations they are very reliable in achieving the goals of ABC Company.
- There are some weaknesses that need to be addressed to achieve effective and efficient logistics operations.
- That the Department Managers, Supervisors, Team leaders and Rank-and-File employees have different perceptions about the level of manifestation of logistic management in ABC Company.
- That the higher the logistics management, the higher the operational efficiency.
- That the proposed action plan is very necessary to improve logistics management at ABC Company.

Compliance with ethical standards

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Disclosure of conflict of interest

The manuscript's author says there are no conflicts of interest relating to the study's findings. He certifies that this research has been carried out impartially, without any financial or personal ties that may influence how the findings are interpreted or presented. He pledges to disclose any potential conflicts of interest in the future immediately.

Statement of ethical approval

The dignity and well-being of respondents was always protected, the research data remained confidential throughout the study and the researcher obtained the respondents' permission to use their real names in the research report. In the conduct of the entire study, the researcher made sure that all references were properly cited.

Statement of informed consent

Full consent was obtained from the respondents prior to the study and voluntarily submitted themselves to the study. Nobody was pressured nor forced to answer the instruments. The respondents were not deceived about the objective of the study. The researcher ensured that respondents were given complete details and information regarding this research. The final written report was accurate and clear without plagiarism. The respondents ensured that their responses, opinions, and perspective were treated confidentially, and ensured that it will not be violated nor compromised. In addition to understanding the discourse of this study, being aware of what was ethical was an important part of planning for this research. At all times the researcher ensured that participants were kept protected from unnecessary stress and safe from harm.

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Author's short biography

Mark Richard D. Dela Cruz

Mark Richard D. Dela Cruz is currently the CSR Assistant Manager at TF Logistics Philippines, Inc. He earned his Bachelor of Science in Business Management, Major in Operations Management at STI-Calamba Branch last October 2013. He finished his master's in business administration at Laguna College of Business and Arts, Calamba City last July 2023. He is experienced in different industries such as manufacturing, logistics, and services with a demonstrated history of working in operations and skilled in operational, occupational health, safety and environment, and well verse in using Microsoft Office Productivity Tools for his strong operations and professional skills are profound because he graduated at STI Calamba City.