

## TRANSPORTATION MODEL AND COST CONTROL OF PLASTIC MANUFACTURING FIRMS IN PORT HARCOURT

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### ABSTRACT

*This study examines the relationship between transportation model and cost control of plastic manufacturing firms in Port Harcourt. This study adopted a correlational survey research design as the study seek to determine the relationship between both variables under study. The population of the study consisted of 11 plastic firms in Port Harcourt. The study adopted a census population. 3 Managers were selected from each firm multiplied 11 firms give us a total of 33 respondents under study. Structured questionnaire instrument title "transportation model and cost control questionnaire" was developed on five-point likert scale. The result of the Cronbach's Alpha reliability test indicates .702 which is above .70 which implies that the items are reliable. The primary data for this study were generated through questionnaire. hypotheses were tested using Pearson product moment correlation on SPSS. The study revealed that there is a significant relationship between Microscopic and Cost budgeting of plastic manufacturing firms in Port Harcourt. There is a significant relationship between Microscopic and Cost optimization of plastic manufacturing firms in Port Harcourt. There is a significant relationship between Macroscopic and Cost budgeting of plastic manufacturing firms in Port Harcourt. There is a significant relationship between Macroscopic and Cost optimization of plastic manufacturing firms in Port Harcourt. In conclusion, the transportation model and cost control are crucial aspects for plastic manufacturing firms in Port Harcourt. By optimizing transportation routes, scheduling deliveries efficiently, and implementing cost control measures, these firms can enhance their operational efficiency, reduce costs, and improve overall profitability. The transportation model helps in determining the most cost-effective way to transport raw materials to the manufacturing plant and deliver finished products to customers. By utilizing advanced transportation modeling techniques, firms can minimize transportation costs while ensuring timely deliveries. The study recommended that manufacturing firms should Implement a comprehensive transportation model that considers factors such as distance, traffic conditions, fuel costs, and vehicle capacity to optimize transportation routes.*

### INTRODUCTION

#### Background of the Study

Transportation model and cost control are critical aspects of operations management in plastic manufacturing firms. The transportation model is a mathematical optimization technique used to determine the most cost-effective way to transport goods from suppliers to manufacturers and from manufacturers to customers. By utilizing transportation models, firms can minimize transportation costs, improve delivery times, and enhance overall supply chain efficiency (Oke, & Ogunleye, 2017).

Adeoti and Oladejo (2015) In the context of plastic manufacturing firms, transportation models play a crucial role in optimizing the movement of raw materials, intermediate products, and finished goods between various locations such as suppliers, production facilities, warehouses, and distribution centers. These models consider factors such as distance, transportation modes, vehicle capacities, traffic conditions, and costs associated with transportation activities. By analyzing these factors and developing optimal transportation routes and schedules, firms can streamline their logistics operations and reduce operational expenses.

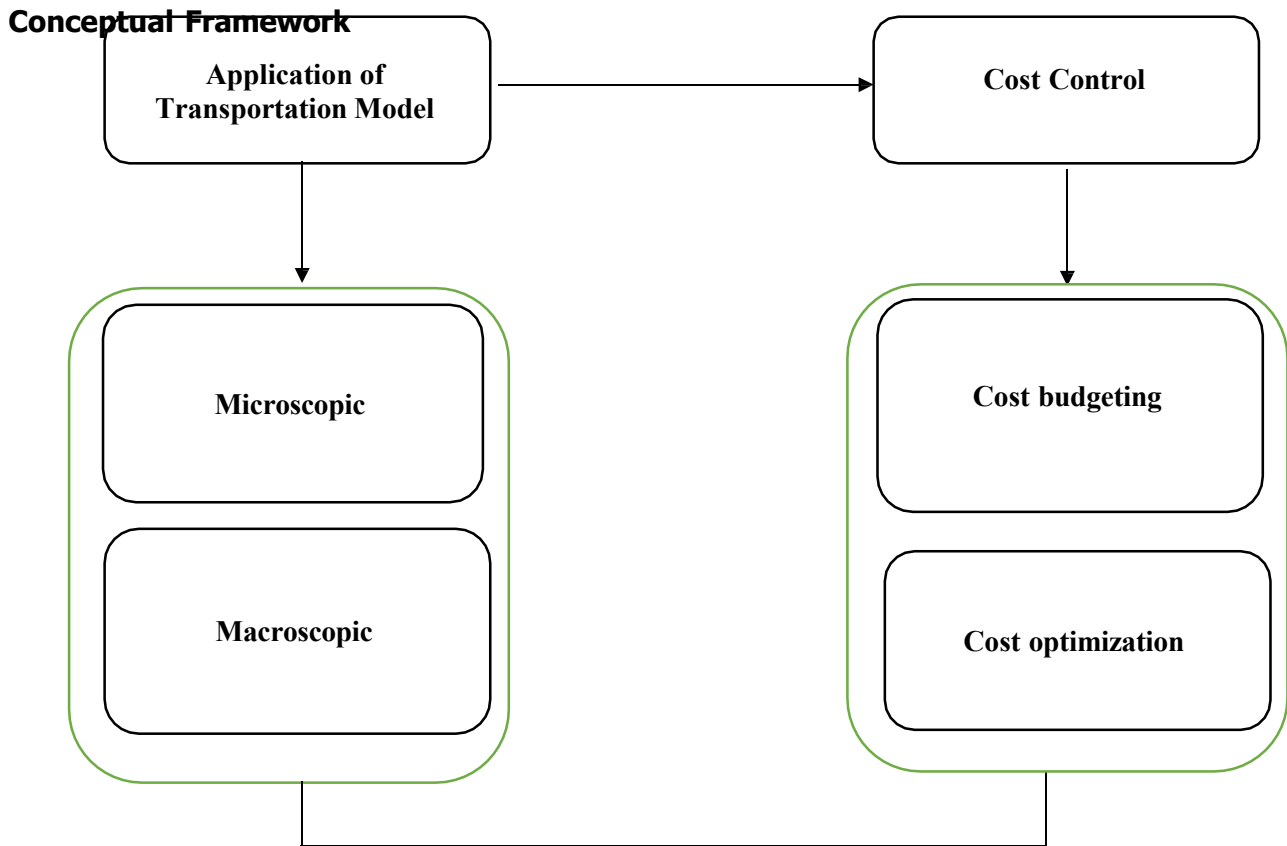
Cost control is another essential aspect of managing plastic manufacturing firms. Cost control involves monitoring and managing expenses related to production processes, raw materials procurement, labor costs, overhead expenses, transportation costs, and other operational expenditures. Effective cost control measures help firms optimize their financial performance, maximize profitability, and maintain competitiveness in the market (Okoli, & Schabram, 2010).

In the context of plastic manufacturing firms, implementing cost control strategies is crucial for ensuring efficient resource utilization, minimizing wastage, reducing production costs, and enhancing overall profitability. By analyzing cost structures, identifying cost drivers, implementing cost reduction initiatives, and monitoring cost variances, firms can effectively manage their expenses and improve their financial performance. Overall, the study on transportation model and cost control of plastic manufacturing firms aims to explore how these two key areas of operations management can be leveraged to enhance operational efficiency, reduce costs, improve supply chain performance, and drive sustainable growth in the plastic manufacturing industry.

### **Statement of the Problem**

The transportation model and cost control are crucial aspects of the operations of plastic manufacturing firms. These firms rely on efficient transportation systems to ensure the timely delivery of raw materials and finished products. Additionally, cost control is essential for maintaining profitability and competitiveness in the market. However, there are several problems that can affect the transportation model and cost control of plastic manufacturing firms. One of the primary challenges faced by plastic manufacturing firms is the increasing transportation costs. Fluctuating fuel prices, tolls, and other expenses can significantly impact the overall transportation costs, affecting the firm's bottom line. Transportation disruptions such as traffic congestion, road closures, or natural disasters can disrupt the supply chain of plastic manufacturing firms. These disruptions can lead to delays in production and delivery, resulting in increased costs and customer dissatisfaction (Onwuegbuzie & Leech, 2005).

Poor inventory management practices can also impact transportation costs for plastic manufacturing firms. Excessive inventory levels can lead to higher transportation costs due to increased storage and handling requirements, while inadequate inventory levels can result in stockouts and rush orders that incur additional transportation expenses. Limited visibility into transportation operations can hinder cost control efforts for plastic manufacturing firms. Without real-time tracking and monitoring capabilities, firms may struggle to identify inefficiencies in their transportation processes and make informed decisions to optimize costs. Compliance with regulations related to transportation, such as environmental standards or driver safety regulations, can pose challenges for plastic manufacturing firms. Non-compliance with these regulations can result in fines and penalties that add to overall transportation costs. In conclusion, addressing these problems is essential for plastic manufacturing firms to optimize their transportation model and cost control strategies, ensuring efficient operations and sustainable profitability.



**Figure 1:** Conceptual framework on Transportation Model and Cost Control in manufacturing firms.

**Source:** Adopted from Sirug (2012) & Kotler et al., (2013).

### Aims & Objectives

The aim of this study is to determine the relationship between transportation model and cost control of plastic manufacturing firms in Port Harcourt. Specifically, the study seeks to:

- i. Determine the relationship between Microscopic and Cost budgeting of plastic manufacturing firms in Port Harcourt.
- ii. Determine the relationship between Microscopic and Cost optimization of plastic manufacturing firms in Port Harcourt.
- iii. Determine the relationship between Macroscopic and Cost budgeting of plastic manufacturing firms in Port Harcourt.
- iv. Determine the relationship between Macroscopic and Cost optimization of plastic manufacturing firms in Port Harcourt.

### Research Questions

The following research questions were raised to guide the study.

- i. What is the relationship between Microscopic and Cost budgeting of plastic manufacturing firms in Port Harcourt?
- ii. What is the relationship between Microscopic and Cost optimization of plastic manufacturing firms in Port Harcourt?
- iii. What is the relationship between Macroscopic and Cost budgeting of plastic manufacturing firms in Port Harcourt?
- iv. What is the relationship between Macroscopic and Cost optimization of plastic manufacturing firms in Port Harcourt?

## Hypotheses

The following null hypotheses were formulated and tested at a significant level of 0.01.

**HO1:** There is no significant relationship between Microscopic and Cost budgeting of plastic manufacturing firms in Port Harcourt.

**HO2:** There is no significant relationship between Microscopic and Cost optimization of plastic manufacturing firms in Port Harcourt.

**HO3:** There is no significant relationship between Macroscopic and Cost budgeting of plastic manufacturing firms in Port Harcourt.

**HO4:** There is no significant relationship between Macroscopic and Cost optimization of plastic manufacturing firms in Port Harcourt.

## REVIEW OF RELATED LITERATURE

This section reviews various literatures related to the study under investigation under the headings of conceptual review, theoretical review and empirical review.

### Conceptual Review

#### Concept of Transportation Models

Transportation models play a crucial role in the logistics and supply chain management of plastic manufacturing firms. These models help in optimizing transportation routes, minimizing costs, and improving overall efficiency in the movement of raw materials and finished products. There are two main types of transportation models used by plastic manufacturing firms: microscopic and macroscopic. Overall, transportation models play a critical role in enhancing the competitiveness and sustainability of plastic manufacturing firms by enabling them to streamline their transportation operations, reduce costs, minimize environmental impact, and meet customer demands effectively (Igbinovia, & Iyoha 2009).

#### Dimensions of Transportation Models

##### Microscopic Transportation Models

Adegbite and Oladele (2018) Microscopic transportation models focus on individual vehicles or shipments within the transportation network. These models consider detailed information such as vehicle capacity, travel times, traffic conditions, and specific delivery locations. By analyzing these factors at a granular level, microscopic transportation models can provide insights into the most efficient routes for each individual shipment. This level of detail allows firms to make real-time adjustments to their transportation operations, leading to cost savings and improved customer satisfaction (Oke, & Ogunleye, 2017).

##### Macroscopic transportation models

Adegbite and Oladele (2018) On the other hand, macroscopic transportation models take a broader view of the transportation network as a whole. These models analyze aggregate data such as total demand, overall capacity, and general traffic patterns. By looking at the system from a higher level, macroscopic transportation models can identify opportunities for optimizing the entire network rather than individual shipments. This approach is particularly useful for long-term strategic planning and decision-making in areas such as facility location, inventory management, and capacity expansion. In the context of plastic manufacturing firms, both microscopic and macroscopic transportation models are essential for ensuring smooth operations and competitive advantage in the industry. Microscopic models help in managing day-to-day logistics activities efficiently, while macroscopic models support long-term planning and optimization of the overall supply chain (Igbinovia & Iyoha 2009).

### **Concept of Cost Control**

Oke and Ogunleye (2017) Cost control in plastic manufacturing firms is a critical aspect of managing operations efficiently and maximizing profitability. Cost control involves various strategies such as cost budgeting and cost optimization to monitor, analyze, and manage expenses effectively. Strategies for Cost Control in Plastic Manufacturing Firms include Supplier Relationship Management: Developing strong relationships with suppliers can lead to better pricing agreements and terms, which can help reduce procurement costs. Inventory Management: Implementing efficient inventory management practices can minimize carrying costs and reduce the risk of excess or obsolete inventory. Energy Efficiency: Investing in energy-efficient technologies and processes can lower utility expenses and contribute to sustainable operations. Labor Productivity: Improving workforce productivity through training programs and performance incentives can optimize labor costs. Quality Control: Ensuring product quality through rigorous quality control measures can reduce rework costs and enhance customer satisfaction. In conclusion, effective cost control through budgeting and optimization is essential for plastic manufacturing firms to remain competitive in a dynamic market environment. By implementing strategic cost management practices and continuously monitoring expenses, companies can achieve sustainable growth and profitability.

### **Measures of Cost Control Cost Budgeting**

Okoli and Nwankwo (2015) Cost budgeting is the process of estimating and allocating costs for different activities within a specific period. In the context of plastic manufacturing firms, cost budgeting helps in setting financial targets, identifying potential cost-saving opportunities, and ensuring that resources are allocated efficiently. By developing a detailed budget that outlines expected costs for raw materials, labor, overheads, and other expenses, companies can track actual expenditures against planned figures to identify variances and take corrective actions when necessary (Okoli & Schabram, 2010).

### **Cost Optimization**

Onwuegbuzie, and Leech, (2005) Cost optimization focuses on reducing expenses without compromising quality or operational efficiency. In the plastic manufacturing industry, firms can optimize costs by streamlining production processes, negotiating better deals with suppliers, implementing lean manufacturing practices, investing in technology to improve productivity, and eliminating waste. By continuously evaluating cost structures and identifying areas where savings can be achieved, companies can enhance their competitiveness and profitability in the market (Onuoha & Ezeani, 2019).

### **Empirical Review**

Oke and Ogunleye (2017) undertook a study on Transportation Model and Cost Control of Plastic Manufacturing Firms in Nigeria. Population of the study was Plastic manufacturing firms in Nigeria. Sample Size: Not specified Method of Data Analysis: The study utilized quantitative methods to analyze data collected from the plastic manufacturing firms. This likely involved statistical analysis to develop the transportation model and assess cost control measures. Findings: The study found that implementing an optimized transportation model can lead to cost savings for plastic manufacturing firms in Nigeria. By efficiently managing their distribution networks, these firms can reduce operational expenses and improve overall profitability. Conclusion: The authors concluded that adopting a structured transportation model is crucial for enhancing cost control measures within the plastic manufacturing industry in Nigeria. Recommendations: The study recommended that plastic manufacturing firms should invest in developing robust transportation models tailored to their specific needs. Additionally, continuous monitoring and evaluation of cost control strategies are essential for long-term sustainability. Oyedele, (2017) undertook a study on Transportation Model and Cost Control of Plastic

Manufacturing Firms in Nigeria. Population of the study was Plastic manufacturing firms in Nigeria. Sample Size was 50 plastic manufacturing firms. Method of Data Analysis: The study utilized a combination of quantitative analysis techniques such as regression analysis and cost-benefit analysis to examine the transportation model and cost control strategies employed by plastic manufacturing firms in Nigeria. The study found that implementing efficient transportation models and cost control measures can significantly improve operational efficiency and reduce production costs for plastic manufacturing firms in Nigeria. The study concluded that adopting effective transportation models and implementing robust cost control mechanisms are crucial for enhancing competitiveness and sustainability within the plastic manufacturing industry in Nigeria. The study recommended that plastic manufacturing firms in Nigeria should invest in modern transportation technologies, optimize supply chain networks, and implement stringent cost control measures to improve their overall performance.

## **Theoretical Review Transportation**

### **Problem Theory**

The Transportation Problem theory was first proposed by Tjalling Koopmans in 1947. This theory is a mathematical model that deals with the optimal allocation of goods from multiple sources to multiple destinations. The main objective of the Transportation Problem is to minimize transportation costs while satisfying supply and demand constraints.

### **Assumptions of the Transportation Problem theory:**

- i. The supply at each source and the demand at each destination are known.
- ii. The cost of transporting one unit of goods from each source to each destination is known.
- iii. The total supply equals the total demand.
- iv. All units of goods are identical in quality.
- v. There are no intermediate stops during transportation.

### **Critiques of the Transportation Problem theory:**

- i. Assumes linear relationships between costs and quantities, which may not always hold true in real-world scenarios.
- ii. Ignores factors such as time, perishability, and capacity constraints that can affect transportation decisions.
- iii. Does not consider uncertainties or risks associated with transportation operations.
- iv. May oversimplify complex transportation networks and logistics systems.
- v. Limited applicability to dynamic or changing environments.

Relevance of the Transportation Problem theory to the study of transportation model and cost control of plastic manufacturing firms in Port Harcourt: The Transportation Problem theory can be highly relevant to the study of transportation models and cost control for plastic manufacturing firms in Port Harcourt. By applying this theory, firms can optimize their transportation routes, minimize costs associated with transporting raw materials and finished products, and improve overall operational efficiency. Understanding how to allocate resources effectively using mathematical models like the Transportation Problem can help firms streamline their logistics processes, reduce wastage, and enhance profitability.

### Cost Control Theory

Cost control theory was first proposed by Robert N. Anthony in the year 1965. The theory focuses on managing and reducing costs within an organization to improve efficiency and profitability.

#### Assumptions of Cost Control Theory:

- i. Costs can be classified into fixed costs and variable costs.
- ii. Costs can be controlled through effective budgeting and monitoring.
- iii. Management has the ability to influence and control costs within the organization.
- iv. Cost reduction efforts should not compromise the quality of products or services.

#### Critiques of Cost Control Theory

- i. Overemphasis on cost reduction may lead to neglect of other important aspects of business operations such as innovation and customer satisfaction.
- ii. Unrealistic assumptions about the controllability of all costs within an organization.
- iii. Lack of consideration for external factors that may impact costs, such as market conditions or regulatory changes.

iv.

Relevance to Transportation Model and Cost Control of Plastic Manufacturing Firms in Port Harcourt: Cost control theory is highly relevant to the study of transportation models and cost control in plastic manufacturing firms in Port Harcourt. In the context of transportation models, effective cost control is essential for optimizing logistics operations, minimizing transportation expenses, and improving overall supply chain efficiency. For plastic manufacturing firms in Port Harcourt, implementing cost control measures can help reduce production costs, enhance competitiveness, and increase profitability. Methodology

This study adopted a correlational survey research design as the study seek to determine the relationship between both variables under study. The population of the study consisted of 11 plastic firms in Port Harcourt. The study adopted a census population.

**Table 1: Population of the study**

S/N	FIRMS
1	Indorama Eleme Petrochemicals Limited
2	Notore Chemical Industries Plc:
3	Nigerpet Structures Limited
4	Poly Products Nigeria Limited
5	Jojonomic Plastic Company
6	Rida National Plastics
7	New China Rubber & Plastic Footwear Ind. Ltd
8	United Plastic Conglomerates Nigeria Ltd
9	Mega Plastics Industries Limited
10	Vanguard Plastics Limited
11	Zenith Plastics Conglomerates Ltd

**Source:** <https://www.businesslist.com.ng/category/plastic-products/city:port-harcourt>

3 Managers were selected from each firm multiplied 11 firms give us a total of 33 respondents under study. Structured questionnaire instrument titled "transportation model and cost control questionnaire" was developed on five-point Likert scale. The application of linear programming questionnaire was independently subjected to content and construct validity by three Lecturers in the Department of Management, Faculty of Management Sciences, Ignatius Ajuru University of Education, Port Harcourt. The corrections and suggestions of the validators were reflected on the final copy of the instrument. The reliability of empirical measurement is indicated by the internal consistency, one of the most commonly used indicators of internal consistency is Cronbach's alpha coefficient. Questionnaire item statements with Cronbach's alpha reliability coefficient below the 0.70 threshold were eliminated. The test-re-test method was used. 10 copies of the questionnaire instrument were issued and some later same copies were issued through electronic media. The results were used in computation using Cronbach's alpha test of reliability.

**Table 1: Reliability Statistics**

Cronbach's Alpha	N of Items
.702	4

**Source: Researcher Computation via SPSS Version 25**

The result of the Cronbach's Alpha reliability test indicates .702 which is above .70 which implies that the items are reliable. The primary data for this study were generated through questionnaire. Hypotheses were tested using Pearson product moment correlation on SPSS.

### Data Analysis

**H01:** There is no significant relationship between Microscopic and Cost budgeting of plastic manufacturing firms in Port Harcourt.

**Table 2: Correlations on Microscopic and Cost budgeting**

		Microscopic	Cost budgeting
Microscopic	Pearson Correlation	1	.442*
	Sig. (2-tailed)		.010
	N	33	33
Cost budgeting	Pearson Correlation	.442*	1
	Sig. (2-tailed)	.010	
	N	33	33

\*. Correlation is significant at the 0.05 level (2-tailed).

Table 2 Correlations on Microscopic and Cost budgeting revealed there is a significant relationship between Microscopic and Cost budgeting of plastic manufacturing firms in Port Harcourt where  $P = .442 = .010$  leading to the acceptance of alternate hypothesis: There is a

significant relationship between Microscopic and Cost budgeting of plastic manufacturing firms in Port Harcourt.

**H02:** There is no significant relationship between Microscopic and Cost optimization of plastic manufacturing firms in Port Harcourt.

**Table 3: Correlations on Microscopic and Cost optimization**

		Microscopic	Cost optimization
Microscopic	Pearson Correlation	1	.596**
	Sig. (2-tailed)		.000
	N	33	33
Cost optimization	Pearson Correlation	.596**	1
	Sig. (2-tailed)	.000	
	N	33	33

\*\* . Correlation is significant at the 0.01 level (2-tailed).

Table 3 Correlations on Microscopic and Cost optimization revealed there is a significant relationship between Microscopic and Cost optimization of plastic manufacturing firms in Port Harcourt where  $P .596 = .010$  leading to the acceptance of alternate hypothesis: There is a significant relationship between Microscopic and Cost optimization of plastic manufacturing firms in Port Harcourt.

**H03:** There is no significant relationship between Macroscopic and Cost budgeting of plastic manufacturing firms in Port Harcourt.

**Table 4: Correlations on Macroscopic and Cost budgeting**

		Macroscopic	Cost budgeting
Macroscopic	Pearson Correlation	1	.603**
	Sig. (2-tailed)		.000
	N	33	33
Cost budgeting	Pearson Correlation	.603**	1
	Sig. (2-tailed)	.000	
	N	33	33

\*\* . Correlation is significant at the 0.01 level (2-tailed).

Table 4: Correlations on Macroscopic and Cost budgeting revealed that there is a significant relationship between Macroscopic and Cost budgeting of plastic manufacturing firms in Port Harcourt where  $P .603 = .000$  leading to acceptance of alternate hypothesis: There is a significant relationship between Macroscopic and Cost budgeting of plastic manufacturing firms in Port Harcourt.

**H04:** There is no significant relationship between Macroscopic and Cost optimization of plastic manufacturing firms in Port Harcourt.

**Table 5: Correlations on Macroscopic and Cost optimization**

		Macroscopic	Cost optimization
Macroscopic	Pearson Correlation	1	.745**
	Sig. (2-tailed)		.000
	N	33	33
Cost optimization	Pearson Correlation	.745**	1
	Sig. (2-tailed)	.000	
	N	33	33

\*\* . Correlation is significant at the 0.01 level (2-tailed).

Table 5: Correlations on Macroscopic and Cost optimization revealed that there is a significant relationship between Macroscopic and Cost optimization of plastic manufacturing firms in Port Harcourt where  $P = .745 = .000$  leading to acceptance of alternate hypothesis: There is a significant relationship between Macroscopic and Cost optimization of plastic manufacturing firms in Port Harcourt.

### Discussion of Findings

Table 2 Correlations on Microscopic and Cost budgeting revealed there is a significant relationship between Microscopic and Cost budgeting of plastic manufacturing firms in Port Harcourt where  $P = .442 = .010$  leading to the acceptance of alternate hypothesis: There is a significant relationship between Microscopic and Cost budgeting of plastic manufacturing firms in Port Harcourt. Table 3 Correlations on Microscopic and Cost optimization revealed there is a significant relationship between Microscopic and Cost optimization of plastic manufacturing firms in Port Harcourt where  $P = .596 = .010$  leading to the acceptance of alternate hypothesis: There is a significant relationship between Microscopic and Cost optimization of plastic manufacturing firms in Port Harcourt. Table 4: Correlations on Microscopic and Cost budgeting revealed that there is a significant relationship between Macroscopic and Cost budgeting of plastic manufacturing firms in Port Harcourt where  $P = .603 = .000$  leading to acceptance of alternate hypothesis: There is a significant relationship between Macroscopic and Cost budgeting of plastic manufacturing firms in Port Harcourt. Table 5: Correlations on Macroscopic and Cost optimization revealed that there is a significant relationship between Macroscopic and Cost optimization of plastic manufacturing firms in Port Harcourt where  $P = .745 = .000$  leading to acceptance of alternate hypothesis: There is a significant relationship between Macroscopic and Cost optimization of plastic manufacturing firms in Port Harcourt.

Similarly, Oke and Ogunleye (2017) undertook a study on Transportation Model and Cost Control of Plastic Manufacturing Firms in Nigeria. The study found that implementing an optimized transportation model can lead to cost savings for plastic manufacturing firms in Nigeria. By efficiently managing their distribution networks, these firms can reduce operational expenses and improve overall profitability. Conclusion: The authors concluded that adopting a structured transportation model is crucial for enhancing cost control measures within the plastic manufacturing industry in Nigeria. Recommendations: The study recommended that plastic manufacturing firms should invest in developing robust transportation models tailored to their specific needs. Additionally, continuous monitoring and evaluation of cost control strategies are essential for long-term sustainability.

Also, Oyedele, (2017) undertook a study on Transportation Model and Cost Control of Plastic Manufacturing Firms in Nigeria. Population of the study was Plastic manufacturing firms in

Nigeria. Sample Size was 50 plastic manufacturing firms. The study found that implementing efficient transportation models and cost control measures can significantly improve operational efficiency and reduce production costs for plastic manufacturing firms in Nigeria. The study concluded that adopting effective transportation models and implementing robust cost control mechanisms are crucial for enhancing competitiveness and sustainability within the plastic manufacturing industry in Nigeria. The study recommended that plastic manufacturing firms in Nigeria should invest in modern transportation technologies, optimize supply chain networks, and implement stringent cost control measures to improve their overall performance.

## CONCLUSION

In conclusion, the transportation model and cost control are crucial aspects for plastic manufacturing firms in Port Harcourt. By optimizing transportation routes, scheduling deliveries efficiently, and implementing cost control measures, these firms can enhance their operational efficiency, reduce costs, and improve overall profitability. The transportation model helps in determining the most cost-effective way to transport raw materials to the manufacturing plant and deliver finished products to customers. By utilizing advanced transportation modeling techniques, firms can minimize transportation costs while ensuring timely deliveries.

Cost control is equally important for plastic manufacturing firms as it helps in managing expenses effectively and maintaining profitability. Implementing cost control measures such as monitoring production costs, optimizing inventory levels, and reducing wastage can significantly impact the bottom line of the firm. By analyzing cost data and identifying areas where costs can be reduced or eliminated, firms can improve their financial performance and competitiveness in the market.

## RECOMMENDATIONS

1. Implement a comprehensive transportation model that considers factors such as distance, traffic conditions, fuel costs, and vehicle capacity to optimize transportation routes.
2. Utilize technology solutions such as GPS tracking systems and route optimization software to monitor and manage transportation operations effectively.
3. Conduct regular cost analysis to identify areas where costs can be reduced or controlled without compromising product quality or customer satisfaction.
4. Invest in training programs for employees to enhance their skills in cost management and transportation logistics.

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