

**LOGISTICS OPERATIONS AND SUSTAINABLE PERFORMANCE OF  
SELECTED TEXTILE MANUFACTURING FIRMS IN LAGOS STATE,  
NIGERIA**

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**17PAB01530**

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SELECTED TEXTILE MANUFACTURING FIRMS IN LAGOS STATE,  
NIGERIA**

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STATE, NIGERIA**

**NOVEMBER, 2021**

## ACCEPTANCE

This is to authenticate that this thesis is acknowledged in partial fulfilment of the requirements for the award of the degree of Doctor of Philosophy in Business Administration in the Department of Business Management, College of Management and Social Sciences, Covenant University, Ota, Ogun State, Nigeria.

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## **DECLARATION**

**I, ADEDUGBA ADEBAYO TOLULOPE (17PAB01530)** declare that this research was carried out by me under the supervision of Dr. Olaleke O. Ogunnaike, of the Department of Business Management and Dr. Kingsley A. Adeyemo of the Department of Accounting, College of Management and Social Science, Covenant University, Ota, Ogun State, Nigeria. I attest that the thesis has not been presented either wholly or partly, for the award of any degree somewhere else. All sources of information and data utilised in this thesis are properly acknowledged.

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## CERTIFICATION

We certify that this thesis "**LOGISTICS OPERATIONS AND SUSTAINABLE PERFORMANCE OF SELECTED TEXTILE MANUFACTURING FIRMS IN LAGOS STATE, NIGERIA**" was fundamentally executed by Adedugba Adebayo Tolulope under our supervision and that it has not been submitted for the honour of any degree in this or any other University.

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## **DEDICATION**

I unreservedly commit the entire thesis to the Jesus Christ. To him be all the glory.

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## ABSTRACT

*The textile industry in Nigeria has seen a sharp decline in the manufacturing sector, with many textile manufacturing firms closing their doors due to internal and external factors. The absence of sustainable mechanisms such as logistics operations is a contributing variable to the plummet of the textile manufacturing firms in Lagos State, Nigeria. This implies the absence of sustainability in the textile manufacturing industry. Primarily the study objectively examined the relationship between logistics operations, and sustainable performance and the moderating effect of logistics philosophy. Multi method was adopted by the study and a structured questionnaire, inventory records and observations were utilised as primary and secondary sources of data respectively. Furthermore, 659 questionnaire were apportioned to staff of the production, transportation, warehousing, inventory, accounting and operations /administration department in the twelve (12) textile manufacturing firms in Lagos State, Nigeria. The participant were converged utilising purposive sampling techniques and complete enumeration method. Data analysis was carried out using statistical and operational research tools such as partial least square(PLS), and QM software. The findings show that logistics philosophy significantly moderates the relationship between logistics operations and sustainable performance. The findings likewise show that transportation management has a considerable effect on economic performance; inventory management considerably affects innovative performance; information management impacts social performance while material handling noticeably does not impact environmental performance. The findings further revealed that logistic philosophies (just in time, just in case, lean and agile philosophy) moderates the relationship between logistic operations (transportation management, inventory management, information management and material handling) and sustainable performance(economic performance, innovative performance, social performance, and environmental performance). The results of the operational research findings revealed an optimal output to meet the goal of minimising the cost of delivery for the textile manufacturing firms at an optimal course via transportation linear model such as minimum cost technique and modified distribution method(MODI). The study also utilised economic order quantity(EOQ) to obtain an optimal inventory in order to minimise holding cost and reduce value depreciation of resources. The study recommends a continuous improvement in transportation management practices via transportation linear models in other to enhance and sustain economic performance. An efficient utilisation of inventory linear models will lead to innovative performance and the utilisation of logistics information technology and electronic customer feedback will improve customer retention. Material handling should also be reconfigured to meet environmental regulations and promote sustainable environmental performance. Furthermore logistics philosophies, i.e. just in time, just in case, lean and agile, should be leveraged upon to achieve an optimal logistics operations, i.e. transportation management, inventory management, information management and material handling, as well as sustainable performance. The study added to knowledge by initiating the economic order quantity (EOQ) model and transportation problem model for each selected textile manufacturing firm. The study also formulated a model that explained how logistics operations, logistics philosophies, and textile manufacturing firm sustainability are intertwined and interrelated.*

**Keywords:** Logistics Operations; Optimisation; Philosophies; Sustainable Performance; Textile Industry