

**Procurement and Logistics Services as Determinant of Corporate Performance Among
Selected Glass Manufacturing Firms in Ogun State**

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Certification

This is to certify that this project work was carried out by **Lukmon A., SAKA** with Matriculation N0: **LCU/PG/0001537**, **Adebukola O., AWOTIPE** with Matriculation N0: **LCU/PG/001621**, and **Omolara M., ADENIYI** with Matriculation N0: **LCU/PG/001973**, in the Department of Management & Accounting, Faculty of Management and Social Sciences under my supervision and that this work has not been previously submitted.

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Dedication

This research project is dedicated to Almighty God, The Merciful God for giving us the opportunity to succeed on this project work.

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Abstract

Procurement and logistics are recognized as a contemporary concept that leads in achieving benefits of both operational and strategic nature. Basically, this study was carried out to investigate the impact of procurement and logistics practices on the corporate performance of manufacturing firms. Secondary source of data was used and the data were gathered from annual report of twenty (20) quoted manufacturing firms in Nigerian Stock Exchange (NSE). Ordinary Least Square (OLS) regression techniques was adopted for the study. The result of finding showed that there is a significant relationship between procurement and logistics practice and manufacturing firms' performance in Nigeria. With the R^2 is 0.7216, which implies that about 72% of the changes in LCOP is as a result of changes in the independent variables in the model, i.e. changes in values of LCBBP, LCBIL and LSLTR, while 28% is caused by factors not included in the model and also, the results of the F-stat revealed that the variables are jointly significant in explaining LCOP at 5% significant level. Based on the result of findings, it was recommended that organisation needs to increase the effectiveness of procurements and logistics as well as finding better ways of evaluating this effectiveness and also, organisation should also strive to ensure that money spent on procurements and logistics yield better results.

Keywords: Procurement, Logistics, Corporate performance, Manufacturing firm

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Table of Contents

Title	Page
Certification	ii
Dedication	iii
Acknowledgements	iv
Abstract	v
Table of Contents	vi
Chapter One: Introduction	1
1.1 Background to the Study	1
1.2. Statement of the Problem	3
1.3 Aim and Objectives of the Study	5
1.4 Research Questions	5
1.5 Hypotheses	5
1.6 Significance of the Study	6
1.7 Scope of the Study	6
1.8 Limitation of the Study	6
1.9 Operational Definition of Terms	7
Endnotes	8
Chapter Two: Literature Review	9
2.1 Conceptual Review	9
2.1.1 Concept of Procurement	9
2.1.2 Customer Orientation	18
2.1.3 Strategic Supplier Partnership	18
2.1.4 Information Sharing	19

2.1.5	Adoption of Information Technology	19
2.1.6	Reverse Logistics	20
2.1.7	Knowledge Management	20
2.1.8	Policy Regulatory Framework	20
2.1.9	Leadership and Management Support	22
2.1.10	ict Infrastructure Support	26
2.1.11	Inventory Management Techniques	36
2.1.12	Company Performance	45
2.2	Theoretical Review	46
2.2.1	Institutional Theory	46
2.2.2	Dynamic Capabilities Theory	47
2.2.3	Agency Theory	48
2.2.4	Resource Based View Theory	49
2.2.4.1	Resource View Based Model: Input-Transformation-Output	50
2.2.5	Hegelian Dialectic Theory	51
2.2.6	Systems Theory	53
2.2.7	The Stockholder vs. Stakeholder Theories	56
2.2.8	The Natural Resource Based View of the firm (RBV)	57
2.2.9	Transaction Cost Economics (TCE)	59
2.3	Review of Empirical Studies	62
	Endnotes	67
	Chapter Three: Methodology	75
3.1	Research Design	75
3.2	Sample and Sampling Techniques	75
3.3	Model Specification	76

3.4	Estimation Technique	77
3.5	Apriori Expectation	77
3.6	Method of Data Analysis	78
	Endnotes	79
	Chapter Four: Results and Discussion of Findings	80
4.1	Data Presentation	80
4.2	Presentation of Empirical Results	80
4.2.1	Unit Root Test	81
4.2.2	Regression Analysis	82
4.2.3	Vector Error Correction Model	83
4.3	Test of Hypotheses	85
4.4	Discussion of Findings	86
	Chapter Five: Conclusion	87
5.1	Summary of Findings	87
5.2	Conclusion	88
5.3	Recommendation	89
5.4	Contributions to Knowledge	89
5.5	Areas for Further Studies	90
	Bibliography	91
	Appendix I	100
	Biodata	101
	University Compliance Certification	106

List of Tables

Table	Title	Page
4.1	Summary Statistics of the Variables	80
4.2	Result of the Unit Root Test	81
4.3	Result of the Regression Analysis	82
4.4	Result of the Vector Error Correction Model	83
4.5	Correlations	84
4.6	Regression Result	85

List of Figures

Figure	Title	Page
2.1	Resourced Based Model	51
2.2	Hegelian Dialectic Model	52
2.3	System Theory Model	55

Chapter One

Introduction

1.1 Background to the Study

Acquisition through purchase, renting, lease, hire buy, licencing, tenancy, franchise, or any other contractual means of any form of works, services, or supplies, or any combination thereof, is referred to as procurement¹. Procurement is the entire process of acquiring goods and/or services². It begins when an organisation identifies a need and determines its buying needs. Procurement continues through the procedures of risk assessment, identifying and evaluating alternative solutions, contract award, delivery and payment for the property and/or services, and, when applicable, ongoing contract management and evaluation of contract-related choices³. Acquisition also include the final disposition of property at the end of its useful life⁴.

In contrast, logistics is characterised as a business planning framework for managing material, service, information, and capital flows. It consists of the increasingly complex information, communication, and control systems demanded by the modern business environment. They

are both subsets of supply chain management, which has been defined as the systemic, strategic coordination of the traditional business functions and tactics within an organisation and across businesses within the supply chain for the purpose of enhancing the long-term performance of the individual organisations and the supply chain as a whole².

Corporate performance is an organization's ability to implement its plans using the smallest possible expenditure of resources especially finance and time. It is an important factor in the firm's organizational effectiveness, this being the ease and degree of success with which the organization is able to accomplish its aims. Organizational efficiency is the organization's degree of success in using the least possible inputs in order to produce the highest possible outputs⁴. Organizational efficiency is gauged using a number of quantitative figures such as production costs and production times because it is too broad of a concept to be encapsulated in a single figure. For an organization to succeed at accomplishing its aims, it must be able to create the right plans needed to accomplish those aims, pull together the resources needed to implement those plans, and then use resources such as cash and labor in the actual implementation of those plans. Organizational efficiency is the organization's ability to implement its plans using the smallest possible expenditure of resources. It is an important factor in the firm's organizational effectiveness, this being the ease and degree of success with which the organization is able to accomplish its aims which has resultant effect on productivity and profitability. Variation in demand and variances in consumer requirements, however, characterise modern business operations, and have prompted many companies to be adaptable⁵. Therefore, in order to maintain and even create competitive advantage, modern supply chains are expected to react quickly, effectively, and efficiently to changes in the marketplace. Additionally, as the new competitive environment shifts to be more global, technologically focused, and customer driven, product life cycles are shrinking and new

products are being introduced at a rapid pace, and customers continue to demand higher quality, faster response, and greater reliability of products and services, the new global market requires a more customer responsive behaviour by companies, and businesses have responded by developing novel products and refining production techniques to meet rising customer demands⁶.

Currently, procurement and logistics are seen as a cutting-edge idea that pioneers the attainment of both tactical and strategic advantages. 4 Academics, consultants, and business management have recently shown a growing interest in SCM and related concepts such as network sourcing, supply pipeline management, value chain management, and value stream management⁷. As a result, most businesses have been increasing their use of SCM methods, seeing them as a potentially valuable means of securing revenue through the enhancement of organisational performance⁷.

Supply chain management in the Nigerian context would be incomplete without discussing manufacturing. The supply chain also includes small and medium-sized Nigerian manufacturing enterprises. They could be final manufacturers, suppliers, or subcontractors. It is important for the government to emphasise attracting more foreign direct investment, joint venture or associate company from developed countries; however, the establishment of these companies in Nigeria necessitates local supporting companies (i.e. supplier, services, logistic) that are familiar with the concept of procurement and logistics. While there is some anecdotal evidence that procurement and logistics can increase performance, especially in the Nigerian manufacturing sector, there is a dearth of formal studies that quantify these gains. This research filled a need in the literature by analysing the effects of incorporating procurement and logistics on the productivity of the glass manufacturing sector within Nigeria's manufacturing industry⁴.

1.2. Statement of the Problem

For entities, application of appropriate procurement processes, policy and frameworks, controls including use of modern technology, with proper support from senior management who are accountable to relevant authorities is essential are essential influencers of effectiveness or procurement function in an organization. Decline in performance in government entities results in poor delivery of goods and services⁶.

Procurement and logistics are managed by the supply chain which can be expressed as the sum of parts involved in fulfilling a customer request and consists of suppliers, manufactures, warehouses, retailers, transporters and customers. The purpose of a supply chain analysis is to maximize company's profit in the process of generating value for the customer, namely maximizing the difference between the final product worth and the total cost expended by the supply chain to provide the product to the customer⁵. The challenges of delivering a product or service at the optimal time, place, and cost multiplied in the 1990s as competition heated up and markets went global. As a result, businesses have started to realise that boosting internal efficiencies isn't enough; they also need to compete by enhancing their supply chain as a whole. To maintain a competitive edge in today's global market and increase profits, supply chain management knowledge and practise are vital.

Academics, consultants, and business executives are all paying more and more attention to the subject of procurement and logistics. In an increasingly competitive market, many businesses have realised that procurement and logistics are crucial to establishing and maintaining a sustainable competitive edge for their products and/or services. Various fields of study, including purchasing and supply management, logistics and transportation, operations management, marketing, organisational theory, and management information systems, have each taken a unique approach to the subject of procurement and logistics. Industrial

organisation and transaction cost analysis, resource-based and resource-dependency theory, competitive strategy, and the social-political perspective are only some of the theories that have shed light on particular facets or angles of procurement and logistics⁶.

However, despite the increased attention paid to procurement and logistics, there is still much to be added to the literature by way of guidance to help the practice of procurement and logistics and its further impact on organizational efficiency. This study aspires to make contribution in that direction.

1.3 Aim and Objectives of the Study

The aim of this study examined how procurement and logistics practices have impacted corporate performance in among selected glass manufacturing firms in Ogun State, with specific objectives which include to:

- i. evaluate how procurement and logistics practices in the selected glass manufacturing firms in Ogun State have translated to productivity.
- ii. critically examine whether procurement and logistics practices in the selected glass manufacturing firms in Ogun State have impacted profitability.

1.4 Research Questions

The following research questions are addressed in this study.

- i. To what extent has procurement and logistics practices in the selected glass manufacturing firms in Ogun State translated to productivity?
- ii. To what extent has the procurement and logistics practice in the selected glass manufacturing firms in Ogun State impacted profitability?

1.5 Hypotheses

Consequently, the following hypotheses were postulated:

H₀₁: There is no significant relationship between procurement and logistics practices in the selected glass manufacturing firms in Ogun State to productivity.

H₀₂: There are no significant relationships between procurement and logistics practice in the selected glass manufacturing firms in Ogun State to profitability.

1.6 Significance of the Study

The significance of this study cannot be overemphasized as the procurement and logistics in organization has become a critical factor of development. Furthermore, the study will highlight various innovative options for enthroning best practices in the area of study. In addition, the reason for embarking on this research study is to sensitize executives, policy makers and institutions on the need to place a premium best road practice of international standard. Finally, the study will enlighten academicians, institutions, corporate managers and other stakeholders that want to know more about subject and proffer best practices options for the achievement of set goals and objectives.

1.7 Scope of the Study

The scope of the study is designed to cover the information on procurement and logistics service as determinant of corporate performance among selected glass manufacturing firms in Ogun State by actively utilizing data available between 2015-2020.

1.8 Limitations of the Study

In the study, effort shall be made to identify the remote and immediate causes of administration of wages and salaries on employee productivity in a private organization. In order words, the study shall be limited to the issues in objectives of the study then to examine the wages by which private sectors administers wages and salaries being paid to employees in their organization or establishment. The researcher was faced with some problems in the course of carrying out the study. The first problem encounter was financial problem and secondly, time factor, the research, was carried out alongside with academic works and other day-to-day activities. Thirdly, there were no enough co-operations from the respondent as some of them felt reluctant answering most of the questions being asked by them.

1.9 Operational Definition of Terms

Efficiency: This is a measurable concept that can be determined by determining the ratio of useful output to total input.

Logistics: This is the commercial activity of transporting goods to customers.

Procurement: This is the process of finding, agreeing terms and acquiring goods, services or works from an external source, often via a tendering or competitive bidding process.

Productivity: This is the measure of the efficiency of a person, machine, factory, system, etc., in converting inputs into useful outputs.

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Chapter Two

Literature Review

2.1 Conceptual Review

2.1.1 Concept of Procurement

It is safe to say that a profession which cannot clearly define itself risks not only being misunderstood but potentially loses its focus for practitioners. Smith and Lynch on page 35 suggests that terms can be defined in two ways: by relying on common usage or by creating a definition for intellectual or conceptual purposes¹. This study considered for the purpose of the research work both methods as it reviewed the literature and current practices in an effort to provide a baseline of common understanding. The Public Procurement Act of 2007 gave a sense of framework or control to the Nigerian procurement process. Prior to this law, Nigerian public procurement was not technically regulated in the sense that there was no federal or state law governing procurement².

2.1.1.1 Procurement Act 2007

Public procurement reform in Nigeria was also driven by the World Bank, as is the case in other developing nations³. One of the major benefits of governance reform is that it helps firmly establish transparency, accountability, openness, and appropriate value for money in all matters that concern public procurements; this is especially important in Africa, and Nigeria in particular, where the norms for legitimacy in public affairs are still being worked out⁴. The public procurement bill was sent to the National Assembly in 2003 and by 4th June 2007, the Public Procurement Act was passed in Nigeria and it becomes a watershed in Nigeria's attempt at key governance reform. The PPA Act 2007 is designed primarily after the United Nations Commission on International Trade Law (UNCITRAL) Model Law on Public Procurement⁵.

Lack of suitable legislation, a lack of basic expertise, and improper organisation of the procurement process were all highlighted as problems in the report assessing Nigeria's procurement system at the time⁶. According to a similar study conducted in Ghana and cited by 16, the country's procurement system is flawed because there is no comprehensive public procurement policy, no coordinating body with technical expertise, no clearly defined roles and responsibilities for procurement entities, no all-encompassing legal regime to protect public procurement, and no rules and regulations to guide, direct, train, and monitor public procurement⁷.

2.1.1.2 Procurement Practices

Products and services acquisition tactics are referred to as procurement practises.²² Procurement procedures can also be defined as the managerial measures made to improve the performance of the integrated supply chain. Customer orientation, strategic supplier partnership, level and quality of information exchange, Reverse logistics, and information management are terms associated with procurement processes⁸.

2.1.1.3 Procurement Processes

Procurement contract implementation in public institutions has, been overshadowed negatively due perceived inefficiency, corruption and disregard of value addition⁹. This has adversely impacted the rate and quality of progress in realizing the objectives of county development¹⁰. Effective policy regulatory framework could prevent employees from engaging in dishonest or unethical actions. As a public employee, you might have access to procurement and other nonpublic information that could affect a contract bid or the award process¹¹.

Improper disclosure of such protected information could violate numerous laws, as well as ethics rules. It also could subject you to administrative actions, as well as civil or criminal penalties¹². A scholar in his findings argue that management in contracting authorities should ensure that good practice in purchasing and that procedures are followed to ensure compliance with all relevant guidelines. Internal procurement processes lead indicators where management intervention is possible to affect customer service and financial outcomes¹³.

Management practices believes that process improvements transform business and lead to innovation and represent "the change that creates a new dimension of performance" for organizations¹⁴. In a study undertaken on opportunities and challenges of Business Process Management (BPM), it was points out that effective implementation and control of internal procurement processes enhance organization financial outcomes¹⁵.

In Russia, a study undertaken on promoting business process management excellence agrees that BPM is an effective methodology to use in times of crisis to make certain that the processes are efficient and effective, as this will result in a better and more cost-efficient organization⁸. It was pointed out that BPM empowers companies to align internal procurement processes that provide more value to both internal and external customers. It was determined that focusing on financial performance while ignoring non-financial performance cannot improve procurement processes since only partial performance is taken into account¹⁶.

We identified seven critical success factors in procurement, including: a well-defined procurement strategy; efficient management information and control systems; the cultivation of relevant expertise; participation in corporate management; an enterprising and proactive attitude; coordinated and concentrated efforts; and an established role in the organisation. Essential number eight is to share the company's vision, goals, and critical success criteria with everyone in the organisation and to develop a plan for acquiring resources that will lead

to sustained cost savings⁹. In understanding the procurement processes, it is possible to estimate the real cost involved with purchasing goods and services¹⁷.

According to a study on public procurement in Australia, the achievement of procurement objectives is influenced by both internal and external pressures. In their findings, Gavrea et al. indicate that interactions between various elements, such as professionalism, staffing levels and budget resources, procurement organisational structure, regulations, rules, and guidance, and internal control policies, require consideration and impact procurement performance¹⁸. Benchmarking identifies current best practises and then focuses on how internal processes should be re-engineered and managed to achieve excellence in key procurement areas. It was argued that internal procurement regulations are related to efficiency, effectiveness, and performance¹⁹. It was also stated that companies' excellent performance indicates progress toward predetermined goals, reveals areas of strengths and weaknesses, and forecasts the future²⁰.

In a study undertaken by some scholars on the challenges encountered by county governments in Kenya during budget preparation empirically examined the relationship between public participation in county budget preparation process and found no significant relationship between the independent and dependent variable. Similarly in a study on factors affecting budget utilization in Kericho county government identified tax compliance, vat policy, government policy and inflation effects as independent variables and budget utilization as dependent variable²¹. The study found no positive relationship between all independent variables and dependent variable. In a study on local budgeting argues that budget process and execution for local governments should be incorporated into managerial decision making continuously and management information incorporated in budget execution reporting²¹.

Achieving efficiency in public procurement is an ambitious task, as procurement faces numerous challenges, especially due to the market structure, the legal framework and the political environment that procurers face. United States federal procurement at around \$200 billion per annum, and put the combined procurement for state and local governments at more than \$1 trillion. Government's collective purchasing at around 20 percent of Gross Domestic Product (GDP), and for developing countries, Nicol (2003) put the figure at 15 percent of GDP. For Russia, federal procurement in 2004 was expected to amount to about 40 percent of the country's budget¹⁵.

The amount of global public sector procurement represents 8% (\$3.2 trillion) of the \$40 trillion global GDP. The African public sector has struggled with poverty and effective service delivery. It is the obligation of the public sector, in conjunction with other stakeholders, to combat poverty. However, the state will serve all citizens, and the poor in particular, more effectively if specific procedures are in place to manage government operations. It is estimated that public procurement in developing nations accounts for up to 25 percent of their GDP²². The rate in industrialised nations has hovered around 10 percent for a lot of years. Despite the fact that, in absolute terms, the procurement market trade volume in developing countries may not be substantial, the relative higher ratio it has on total GDP is a sufficient incentive for the formation of any economic alliance that most international trade organisations cannot afford to easily forego, in addition to the political impact it may pose. In the Middle East and Africa as a whole, the central government's expenditures range between 9 and 13 percent¹⁷. This illustrates the importance of public procurement to a nation¹⁰.

Therefore, public procurement has significant economic and political ramifications, and it is necessary to ensure that the process is inexpensive and efficient. This necessitates that the actors, including the government, the procuring entities, the business community or suppliers,

and other stakeholders, such as professional associations, academic institutions, and the general public, understand the entire procurement process. The Public Procurement and Disposal Act of 2005 was intended to address the stated problems, however experience reveals that the results have not been exactly as anticipated. The Public Procurement Act is crucial to the management of procurement processes, as it aims to minimise cases of interference from players outside the concerned committees while discouraging fraudulent practises through debarment, transfer of procurements to other procuring entities, and the introduction of deterrent penalties. Article 227 of the Constitution of Kenya, 2010 has established a new framework to manage the public procurement and disposal process, which aims to ensure that Government Owned Entities are nimble enough to respond to market possibilities in order to increase public value²².

While the PPOA review did find some areas of strength, it also revealed several areas for improvement. These included the high cost of procurement, the lengthy time required to acquire or respond to business opportunities, difficulties in negotiating with suppliers, external approval processes, and the issue of resale of branded items. Since these problems have been brought to light, it is imperative that research be conducted to investigate and define the most effective methods of public procurement utilised by commercial state-owned firms. Furthermore, although many academics have studied procurement methods, none of these studies have focused on the role that procurement and logistics services play in determining corporate performance within a subset of Ogun State's glass manufacturing enterprises. This has resulted in a substantial information gap, which serves as the impetus for the present investigation¹⁸.

2.1.1.4 Procurement Practices and Organizational Performance

The supply chain system of a business must also include a procurement system. Strategic and operational procurement processes are typically separated inside an organisation since the actions and priorities in these two areas are absolutely, completely different. Tasks that are often delegated to strategic procurement include procurement-oriented development, supplier management, and the pooling of purchase requisitions. Because E-procurement platforms provide greater supply chain transparency, they enable businesses to concentrate strategic procurement operations while decentralising operational procurement²³.

In general, organisational performance is evaluated based on service and product quality, customer satisfaction, market success, innovation in service delivery, and employee relationships. A scholar in his study of organisational performance supported by a balanced scorecard, Paul found that structural performance area units are often evaluated based on return on investment, sales margin, capability utilisation, customer satisfaction, and product quality²⁴. A solid customer base contributes to enhanced marketing and financial performance. As customers begin to demand that the products and services they purchase are eco-friendly, it is imperative that manufacturers create intelligence regarding these ever-changing client demands. A manufactured product that remains unsold in inventory because it does not satisfy client demand is manifestly harmful to the environment. In addition to influencing performance, a company's client relations procedures can impact its ability to manage its supplier base²⁵. Administration of the one and only winning offer involves downstream combination for customers, as well as oversight of the economy for upstream suppliers. Each entity in the supply chain has the potential to be both a supplier and a customer. When a client-centered organisation vision is sustained in tandem with effective TQM and supply base administration methods, it will assemble a concentrated effort based on a mixed bag of

predetermined routes. These may contribute to productivity, decreases in creator and cycle time, increased customer satisfaction, and business sector dissemination. What's more, advantages²⁶.

With well-planned and executed procurement, businesses may cut back on stock on hand, improve customer service and prices, and speed up inventory turnover. Procurement's short-term benefits include higher production thanks to less stock on hand and shorter turnaround times. Based on long-term goals, this element plays a significant part in expanding the company's market share and achieving more external integration of its procurement²³.

If you want to have a reliable supply chain, you need to have a robust procurement system. Adequate management of the procurance function is an indication of system performance in reaching its claimed aims in the service industry. An organization's productivity and profitability can both benefit from adopting best procurement procedures. Increased organisational performance is guaranteed by bolstering procurement functions in service companies through strategies including supplier relationship management, ethical procurement, information exchange, technological advancements, and the implementation of green supply chain management.

2.1.1.5 Procurement and Logistics Sustainability

Organizations that take steps toward sustainability stand to earn a number of benefits⁹. Businesses, stakeholders, the environment, the public, governments, and national and international communities are all possible beneficiaries. Both monetary (profit maximisation) and non-monetary (environmental protection, law enforcement) motivations can play a role. Competitiveness, profitability, increased sales turnover, and increased market share are examples of economic drivers, while resource conservation, preservation, and pollution

reduction are examples of environmental drivers. National and international legal drivers are established to compel businesses to implement sustainability practises. Meanwhile, sustainability inhibitors are problems that businesses encountered when trying to embrace sustainability²⁴.

In addition, businesses will be more committed to sustainability activities if they realise that doing so would help them achieve their core business objective of profitability, as profitability equals business sustainability or business continuity²⁵. Most businesses lack the appropriate infrastructure to implement the sustainability principles necessary for effective procurement and logistics. Where such amenities do exist, they are prohibitively expensive to acquire and keep up. Some individuals see sustainability as a very expensive undertaking that can lead to a decrease in profits for these and other reasons. This is based on a deficiency of data on how to effectively incorporate sustainability into business supply chains. Given that sustainability is a relatively new idea with as-yet-unknown repercussions, the majority of stakeholders are sceptical about it due to a lack of available information and a lack of expertise among employees. The purpose of this research is to dispel doubts about the benefits of sustainability and to demonstrate that it is essential for manufacturers to adopt sustainable practises in order to remain competitive in the short and long term²⁶.

2.1.1.6 Key Terms in Procurement and Logistic Sustainability

Various authors have used their own terms to define sustainability. In order to boost the long-term financial performance of both the company and its supply chains, sustainability is defined by Kramer as "the strategic, transparent integration and achievement of an organization's social, environmental, and economic goals in the systemic coordination of key inter-organizational business processes." Kagans, referenced by Kramer, provides a macro definition of sustainability as development that satisfies present wants without jeopardising

future generations' ability to satiate their own²⁷. The triple bottom line approach has been used to describe the most widely accepted notion of sustainability. People, planet, and profit are all names for the three facets of an organization's performance that Kramer suggests make up it's "triple bottom line"²⁹.

2.1.2 Customer Orientation

When managing a supply chain, it's important to work with groups outside of the company, such as customers and suppliers. This requires a strategic relationship between the many parties involved in the supply chain. Supply chain members and strategic relationships, for instance, are crucial to the successful implementation of supply chain standards. When it comes to logistics, the sourcing decisions you make will be child's play. Regardless of the nature of your organisation, supplier selection that takes into account how well your operations work together to acquire the necessary complementary abilities can constitute a crucial procedure³⁰. In a research of 215 North American businesses, Hagans found that strategic sourcing activities improve supply chain performance, and that strategic sourcing selections are strongly associated with producing objective accomplishment³¹. In addition, the second order build of supply chain management relies heavily on strategic supplier partnerships. Strategic sourcing's defining features include supply management's status in the company's structure, the degree to which it is integrated with other parts of the business, the extent to which information is actively shared with suppliers, and the breadth and depth of provider development initiatives³².

2.1.3 Strategic Supplier Partnership

There must be careful consideration given to both the suppliers selected and the manner in which enterprises are integrated in order to acquire the required supplementary skills. The two

main components of what is known as "strategic sourcing" are strategic outsourcing and supplier capability assessments. Moreover, the second order architecture of SCM, the strategic supplier partnership, is not complete without it.⁴⁰ Strategic sourcing's defining characteristics are well-known, and they include supply management's position in the company's hierarchy, supply managers' ability to collaborate with other departments, employees' willingness to share relevant data with suppliers, and the breadth and depth of the company's efforts to cultivate new partnerships with suppliers²¹.

2.1.4 Information Sharing

The level of information sharing is a measure of how freely sensitive data is passed along the supply chain. Several studies have looked at the value of information sharing along the supply chain. For the most part, these academics have used simulation methods to try to quantify the benefits of information sharing. It will be really useful if shops and manufacturers shared promotional information. Supply chain interruptions are possible outcomes of promotional activity. Demand might be artificially boosted in the short-term by a retail offer. The manufacturer is also unprepared for the campaign if information about it is not provided. There is a risk that the distributor won't have enough inventory to meet the demand that the campaign creates³³.

2.1.5 Adoption of Information Technology

With the proliferation of the internet and other forms of electronic communication, businesses are now more attuned to their clients than ever before. The adoptive parent of electronic data interchange (EDI) has a deeper understanding of the operational benefits, greater exposure to external influences and mutual affection, and less technical and organisational challenges than the non-adoptive parent of EDI does²⁰.

2.1.6 Reverse Logistics

It is defined as the efficient and cost-effective management of the sequence of tasks involved in reclaiming a product from the consumer for the purposes of recycling or reselling it. To recapture or create value or ensure proper disposal, Hagens defined reverse supply chain as the method of designing, implementing, and dominating the economical, cost-efficient flow of raw materials, in-process inventory, finished product, and connected information from the point of consumption back to the point of origin³³.

2.1.7. Knowledge Management

Due to the increasing amount of competition on a global scale and the rapid development of technology, especially in the fields of information and correspondence and the World Wide Web, rivalry learning based on these lines is becoming increasingly important in supply chain management across businesses. Increased emphasis on information management as a structural strategy could help supply managers deal with uncertainty more effectively. It has been established that the executive's frameworks for associations, when institutionalised, provide a larger platform from which to harness implicit learning. On the other hand, external knowledge management increases product value by improving the quality of brand platforms and the public's opinion of such brands³⁴.

2.1.8 Policy Regulatory Framework

Procurement contract procedures are outlined in policies, rules, regulations, and guidelines. In order to minimise unnecessary deviations, contracts must be meticulously drafted with the participation of all relevant parties within the public procurement regulatory framework³¹.

According to Kothari, public contracts can be made more effective by working within the bounds of government policy and regulation. This study identified four public contract determinants as internal procurement process, policy regulatory frameworks, leadership and management and ICT infrastructure support³¹.

Compliance with legal duties was found to improve procurement procedure in a study based on the Institution theory of public contracts. According to research done on public procurement rules, it is long past due to create a more robust institutional structure and managerial capacity in order to ensure that these practises are properly mainstreamed and integrated into the public financial management system³⁵. A study of the factors influencing procurement planning in Kenya's county governments found that the establishment of a functional management or regulatory body and the building of the institutional development capacity both contributed to improved organisational performance²⁸.

The results of the study into public procurement reform showed that bettering the effectiveness of government procurement procedures and policies was essential. It was also noted that the federal and state governments need to modify their approaches to enforcing the public procurement market and to establishing efficient and effective contract administration and dispute resolution procedures²⁷. It was equally argued that other reforms include safeguarding the integrity of the procurement system by establishing and enhancing control and audit system¹⁹.

In a study undertaken on irregularities in undertaking procurement practices in public institutions, it was found out that the entrenchment of efficient appeals mechanisms in the procurement policy was critical in fighting irregularities in public procurement. It was also pinpointed that introducing ethics and anticorruption measures in public procurement regulations was long overdue. Implementation of policy regulatory framework infrastructure

can impact on the performance outcome. Enforcement is viewed as any actions taken by regulators to ensure compliance. There are mixed opinions regarding the effect of enforcement on compliance. It was argued in a study that enforcement may make violators more sophisticated in how to prevent, and conceal detection by the authorities²². However, Compliance was found to be enhanced by the use of enforcement. When laws are enforced and punishments are made harsher, more people obey them³⁰. There is a correlation between lax rule of law enforcement and corruption in government procurement agencies in developing countries.

Procurement bidders have the right to investigate whether or not the process follows the regulations in nations with complaint and review mechanisms. Procurement officials have a lot of reason to follow the regulations because they could face review for any violations they might commit. In circumstances when legal infractions may be profitable due to underenforcement by the legal system (either because sanctions are too low or because detection is imperfect or inefficient), public bodies may opt to develop poor compliance mechanisms. It is clear that the threat of legal sanctions is crucial to regulatory compliance, and that enforcement action has a cumulative effect on the consciousness of regulated organisations, reminding PEs and individuals that violators will be punished and prompting them to check their own compliance programmes³³.

2.1.9 Leadership and Management Support

Leaders will have a vision of what can be achieved and then communicate this to others and evolve strategies for realizing the vision²⁹. They motivate people and are able to negotiate for resources and other support to achieve their goals³⁵. The management of corporate Real Estate Asset in Kenya argue that it is the responsibility of managers to ensure that the available resources are well organized and applied to produce the best results. In the resource

constrained and difficult environments a manager must also be a leader to achieve optimum results.

Leadership is conceptualized in terms of commitment by the top management in evaluating its position regarding electronic business transactions¹³. This was necessary for significant financial investment which must make resources available and cultural transformation to ensure culture orientation in an organization. The owners and managers need to be enthusiastic, passionate and firm believers in the benefits of electronic commerce.²⁸ Leadership and management are critical in contract implementation⁶.

Salamon and Robinson argued that human actors are confronted with numerous challenges to adapt to unpredictable changes introduced in an organization to enhance performance²⁴. This may result in costly contractual breakdowns impacting negatively on organizational performance. When procurement contracts are managed well, resulting in high financial and non-financial performance then process ownership is realized with payoffs and costless bargaining is assumed³⁴.

However, failure to procedurally adhere to contractual obligation that factor determinants negatively affect performance³⁵. Non-verifiable problems that affect procurement function both internally and externally ought to be isolated and. Contracting proponents, whose roots are in economics, argue that effective implementation of procurement contract reduces service costs through competitive efficiencies and economies of scale enhancing organizational performance³⁶.

Lack of a cadre of skilled professionals in public procurement is a major challenge that requires attention for national and county governments. Procurement professionals are recognized as being in short supply globally²⁹.

In a study on procurement policies in public corporation suggests that Kenya's shortage of procurement practitioners can be addressed through measures including formally recognizing procurement as a profession, making training readily available, identifying MCIPS as the required Kenya qualification and formulating a strategic plan for Long Term Skills training.⁴⁴

One of the major challenges in public procurement is lack of proper internal procurement processes, leadership and management structure, unrealistic budgets and inadequacy of skills of procurement practitioners⁶. Organizational performance is focused on non-financial rather than financial functions²⁰. They conclude in their findings that failure to establish performance of the procurement function for public entities can lead to inefficient, irregular and costly consequences to the organizational performance²⁸.

Top management support was the most important critical success factor in contract implementation¹⁸. The role of leadership in organizational change established a significant relationship between organizational change and leadership characterized with vision and innovation. Despite top management support importance in implementation of procurement planning activities, the commitment for procurement planning issues from top management is however inadequate¹⁸. In Kiama's survey on Chief Executive Officers perspectives on Supply Chain Management, only 23 percent of the responding Chief Executive Officers were responsible for driving development and execution of contracts¹⁹. It is considered that a company's success is due to organizational performance, employee job satisfaction and employee affective commitment. Some researchers have suggested that leaders motivate and help their employees to be competitive by using effective leadership styles. Therefore, the leader's use of effective leadership styles is due to promote standards of excellence in the professional development of the members of the organization. Effective leadership also involves motivation, management, inspiration, remuneration and analytical skills. When all

these are present, the organizations record increased employee satisfaction that positively that positively influences the productivity and the profits. The positive effect of leadership on organizational performance was measured by some researchers through human resources (turnover rate and job performance), organizational effectiveness (cost and quality) and financial performance (market share, profit, and return on asset)²¹. To increase the organizational performance a leader must have the ability to promote creativity and innovation, stimulate the subordinates to challenge their own value systems and improve their individual performance. A number of studies on leadership styles suggest that the practices of the transformational leadership have a positive impact on the organizational performance. There is no general agreement in the literature on the criteria to be used in assessing the organizational performance. However, there are four main dominant approaches: Goal Approach. People create organizations for a specific purpose which is determined by the stakeholders. The organizational performance is the ability of the organization to achieve its goals. The System Resource Approach explores the relation between the organization and the environment. An organization is performant and effective when it takes advantage of its environment in the acquisition of high value and scarce resources to endorse its operations. Constituency Approach, an organization is effective when multiple stakeholders perceive the organization as effective. The organizations with more control over resources are likely to have the most influence on the performance³⁷.

Competing Values Approach was developed by McIvor and it states that organizational goals are created in different directions by the various expectations of multiple constituencies⁵. Therefore, organizations may have different criteria to measure performance. Stakeholders support the adaptability of their organizations; they want them to be flexible, stable and

effective. A performing and effective organization has a high degree of collaboration and commitment among stakeholders through work groups, team projects and management²⁷.

The flexibility and the ability of the organization to take advantage of its environment in the acquisition of internal and external resources are indicators of performance, its value being measured by the stock market and it is the key metric to measuring organizational performance. Other means to increase organizational efficiency and effectiveness include strategic initiatives focused on organizational performance²⁰.

2.1.10 ICT Infrastructure Support

Information Technology (IT) is a general term that describes any technology that helps to produce, manipulate process, store, communicate, and/or disseminate information³⁵. An information system is defined as a set of structured operations that, when executed, provide data for decision making. An information system is an integrated user-machine system that provides data to assist an organization's operations, management, analysis, and decision-making tasks. Based on these three definitions, ICT may be considered as the system that facilitates the processing and flow of information, as well as the technologies utilised in the actual processing that leads to the production of a product or the delivery of a service to clients¹⁵.

Technology adoption research reveals that S-shaped adoption curves can be observed in practically all scenarios, notably for network technologies, ICT included. A few early adopters initiate the gradual proliferation of an idea. Information technology facilitates communication between geographically dispersed individuals or groups. Included are cell phone, telex, radio, television, and video conferencing systems, as well as more advanced computer-based technology. User usage has increased at roughly the same rate as providers' supply chain

enablement during the past decade. With the addition of items and suppliers to the procurement processes, there are less reasons for users to attempt to circumvent the system³⁶.

Despite this, users say that a number of obstacles are still holding down user acceptance, including a lack of accurate accounting for spending categories inside the system, unpredictable purchase needs, cumbersome bureaucratic procedures and policies meant to spur use, and skewed supplier bases. Many supply managers at best-practice businesses have become expert "sales" of the ICT-enabled procurement system to end users since they have been working on user acceptance for years. Information systems that are shared between organisations can help strengthen the resulting partnership³⁷.

Spiller also came to the conclusion that the two companies' successful supplier relationships can be attributed to their commitment to six core tenets: knowing your suppliers' processes inside and out, embracing supplier competition as an opportunity, maintaining close watch over them, enhancing their technical capacities, sharing knowledge extensively while remaining selective, and engaging in continuous joint improvement activities³². This demonstrates that evidence for sharing information will affect the relationship between partners.

What's more, the research uncovered the top five conditions for forming productive alliances. The five main components are as follows: supplier adds distinctive value; early communication to suppliers; top-level management support; shared aims; two-way information sharing; and shared objectives³⁵. It's clear that communication is key to any fruitful business relationship. Therefore, it stands to reason that businesses are more likely to fortify their partner relationship if they improve their information sharing capability.

In the study on the factors affecting procurement planning in county governments in Kenya, Jordan and Young empirically examined the relationship between staff competence, top management support, ICT tools and budgeting procedure as independent variable and procurement planning as dependent variable. The findings of the study indicated positive relationship between independent variables and dependent variable²⁸. On the contrary, a scholar analyzed the factors affecting procurement performance of public universities in Nairobi County by empirically examining the relationships between staff competence and top management as independent variables and procurement planning as dependent variable. By contrast their findings excluded ICT tools and budgeting procedure as independent variables. But staff competence and top management support as independent variables indicated a positive relationship with the dependent variable²⁶.

ICT is the technology that enables the design, storage, and transmission of data and voice, together with their connected processes, as defined in the role of the information and communication technology industry in increasing economic opportunities. According to this interpretation, ICT represents the technological perspective of an information system (IS) and includes computer, telecommunications, and automation tasks. In order to better serve their clients in real time, several businesses have begun using ICT to enhance the goods and services they provide³⁸.

Integrating IT resources has become a priority as businesses undergo transformation. Many businesses and organisations use IS now to improve their bottom line and other metrics. Many businesses, including financial institutions, insurers, and service providers, now view ICT as a KSF since it has become the industry-defining driving force behind the creation and distribution of their products and services. Organizational effectiveness and productivity can be greatly improved by using ICT infrastructure support³⁹.

Information sharing on the utilisation of IT was shown to be helpful in determining future demand and participation in sourcing choice in variables impacting the adoption of internet-based ICTs. According to the research, information sharing describes the degree to which a company discloses secret or proprietary data to a business partner in the supply chain. From what has been described, it appears that the information exchange does more than just facilitate communication between parties; it also furnishes relevant, up-to-date data. So, the quality of the shared data should be considered. Some characteristics of information quality are its veracity, completeness, timeliness, and credibility in transmission⁶.

Mamiro in a study on the use of ICT for firm productivity argue that public institutions must utilize ICT effectively to enhance procurement processes within the regulatory framework¹⁹. The was further corroborated that ICT can enhance service delivery and improve internal efficiencies by lowering costs and increasing productivity. Therefore, both formal and informal forms of information sharing with partners are included in this concept. And the data has to meet strict criteria for correctness, timeliness, sufficiency, veracity, and importance⁴⁰. It is widely accepted that the internet or an internet tool may enhance information sharing and more collaboratively with their partners, which means that ensuring the quality of shared information has become a crucial issue of efficient Supply Chain Management. In their piece, "E-procurement" is defined as "a form of internet-based tool for¹⁹.

E-marketplaces give a centralised online platform for businesses to easily interact with one another. 4 It was also suggested that during the e-design phase, information between the consumer and seller is shared in real time in order to develop product specifications that enhance the final product. By talking things over, we can keep design complexity down and save money on spec revisions³.

In the study on the factors affecting electronic procurement implementation in automobile industry in Kenya, Cooper and Schindler empirically examined the relationships between organizational factors, management support, technical support and environment factors as independent variables and e-procurement implementation as dependent variable found that there is a positive relationship between all independent variables and dependent variable. Similarly, it has been confirmed that by conducting a study on implementation of government electronic procurement in system in the county of Mombasa by identifying lack of experienced personnel as hindrance for seamless transition from manual to electronic procurement environment²³. Similarly Cooper and Schindler identified finance, leadership, legal framework and competent staff as key factors in implementing e-procurement in the public sector¹⁹.

In the study undertaken on procurement practices affecting effective public projects implementation in Kenya, Drucker empirically examined the relationship between procurement planning, contract monitoring and control, choice of procurement procedure and communication independent variables and effective project implementation as dependent variable and found that there was positive relationship between independent variables and dependent variable.

Apiyo and Mburu analyzed the factors affecting implementation of public procurement planning in county Governments in Kenya focusing Nairobi County Government by empirically examining and establishing a positive relationship staff competence and procurement planning³.

There has been a lot of study on the impact of IT spending on productivity over the past three decades. According to a survey of studies that examine the connection between IT spending and ROI, studies have been conducted at three distinct aggregation levels: national, sectorial,

and enterprise. As was noted previously, research undertaken in the late 1980s and early 1990s failed to discover evidence supporting the common belief that investment in IT leads to better productivity. Eventually, this incongruity became known as the "organisational productivity paradox," or the failure of results to show that spending on IT increased macroeconomic productivity. As Nobel laureate Robert Solow put it, "the computer age is everywhere but in the organisational performance statistics".

2.1.10.1 Efficiency

Efficiency is a performance indicator that characterises a process that makes the most with the fewest resources. Efficiency refers to the effectiveness with which one employs all available resources, including one's own time and energy, to generate a desired result. In order to quantify efficiency, we can look at the ratio of usable output to total input. It maximises productivity by cutting down on resource wastage like time, money, and effort³².

It's not uncommon for the development of novel labor-saving devices to occur simultaneously with major efficiency breakthroughs. The wheel was one early example, as was the horse collar, which allowed horses to carry heavier burdens without being overworked. During the Industrial Revolution, new technologies like the steam engine and the automobile made it possible for people to travel greater distances in shorter amounts of time, which improved the efficacy of both international transportation and international trade. New, more efficient, and more widely applicable forms of energy generation, such as the combustion of fossil fuels, were made possible by the Industrial Revolution. Time efficiency was also a result of social movements like the Industrial Revolution. The factory system, in which everyone does their share to keep the assembly line moving as rapidly as possible, is only one example of how efficiency may be improved and costs reduced. In addition, several researchers have established standards on how to carry out their work effectively. The autobiographical novel

"Cheaper by the Dozen" is a well-known cultural representation of the drive for efficiency. The book's protagonist, Frank Gilbreth, is the author and patriarch of a family that creates systems to streamline even the most menial activities, like cleaning one's teeth³⁹.

The concept of efficiency, however, is subjective. Market efficiency indicates the extent to which stock prices accurately reflect all available information, whereas economic efficiency refers to the optimization of resources to best serve each person in a given economic scenario. When stock prices reflect the true cost of production, we have achieved operational efficiency. There is no hard and fast rule for what constitutes efficiency, but indicators include producing items at the lowest feasible cost and doing labour with the highest potential output.

2.1.10.2 Impacts of Efficiency

If a society is well-run, it can better serve its members and thrive. A reduced selling price is often possible when products are manufactured with greater efficiency. Those impacted can now retain a higher level of living, thanks to efficiency improvements that have made it possible to maintain things like access to reliable electricity and running water, as well as faster and more convenient methods of transportation. When commodities can be transported more rapidly and over greater distances, the prevalence of hunger and malnutrition drops dramatically. The reduction in the working week is a direct result of efficiency gains. Due to the fact that more work can be done in less time, slaving away overnight is no longer required⁴⁰.

Efficiency is crucial since resources are limited. It makes sense to aim to conserve time, money, and raw materials while keeping production at a steady, reasonable rate. Efficiency is defined as the elimination of unnecessary resources.

2.1.10.3 Production Efficiency

There comes a point in any economy's production efficiency where more of one good cannot be made without reducing the output of another good. This occurs when a country's economy is performing at its maximum potential output. Production efficiency indicates whether or not an economy is generating as much as feasible without squandering scarce resources by gauging whether or not a product is created at the lowest average total cost³⁵.

In theory, production efficiency encompasses the full range of outcomes along the frontier of production possibilities; yet, quantifying this is challenging. The economy has reached its maximum level of production when more of one good cannot be made without reducing the output of another. To maximise production efficiency, a company must maximise output per unit of input while also minimising waste. The goal is to maximise efficiency while minimising waste and improving both output quantity and quality. When production efficiency is maximised, no further output is achievable without increasing resource consumption or lowering product quality⁴¹.

2.1.10.4 Efficiency Ratio

The efficiency ratio is a common metric used to assess an organization's internal efficiency. You can use an efficiency ratio to figure out how often your accounts receivable are turned over, how often your accounts payable are paid off, how much equity you have and how you use it, and how well you utilise your inventory and your machinery. Commercial and investment bank performance can be monitored and analysed with this ratio as well.

Efficiency ratios, also known as activity ratios, are used by analysts as a quick and easy way to assess how well a company is doing right now. All of these ratios can be calculated with data found in a company's current assets or current liabilities, providing concrete insight into

the company's performance. One way to evaluate a business is to look at how efficiently it turns its resources into cash. One common type of efficiency ratio considers how long it takes a business to do things like collect payments from customers or turn inventory into cash. Profitability is directly correlated with a company's efficiency ratios, so tracking them is crucial⁴².

These ratios can be compared to peers in the same industry and can identify businesses that are better managed relative to the others. Some common efficiency ratios are accounts receivable turnover, fixed asset turnover, sales to inventory, sales to net working capital, accounts payable to sales and stock turnover ratio.

2.1.10.5 Productivity Vs Efficiency

Production efficiency, or productivity, is measured in terms of production per unit of time, such as 100 units per hour. An objective measure of efficiency is the ratio of output to input (in this case, the amount of resources consumed and the amount of waste generated). Efficiency in production can only be gauged by dissecting the entire manufacturing process. Priority is being given to minimising waste in both materials and time of production without compromising quality. This is expected to take some time because new circumstances may call for revised strategies. When increasing output cannot be done without negatively impacting another aspect that is when production efficiency has been maximised. Assuming that point is reached, the company is operating at maximum efficiency within the current framework⁵⁰.

2.1.10.6 Organizational Efficiency (Productivity vs. Profitability)

The effectiveness with which a group achieves its goals is a measure of that group's efficiency. Whichever way you look at it, this describes a company that achieves its goals in an efficient

manner⁴⁹. One definition of organisational efficiency is an organization's ability to achieve its goals with as little waste of time, money, and other resources as possible in order to maximise the likelihood of success. The desired result will be determined by the organization's objectives, which may include, for instance, maximising profits through meeting sales quotas. An efficient business will generate output with no extraneous byproducts. If the company is efficient in its operations and competent at managing its resources, it will be able to produce and sell its product at a profit. This is often referred to as "maximising profits" in economics and business⁴⁹.

In most cases, a company's efficiency can be gauged by comparing its actual net profitability to its expected net profitability. Growth metrics and survey findings on customer satisfaction could be two more indicators. Highly efficient businesses display strengths across five areas: leadership, decision making and structure, people, work processes and systems, and culture. A company's success depends on its ability to respond to changes in the marketplace. One way to ensure a company's long-term success is to regularly assess its operations and make any necessary adjustments to increase its productivity and effectiveness⁴⁹.

Given that each institution has its own unique set of criteria and priorities to weigh and examine through self-assessment, measuring organisational success can be something of an inexact science. Understanding a company's level of organisational efficiency is important for several reasons: it serves as a check-in to see how well internal procedures are meeting an initial vision, it provides investors, donors, or employees with an idea of the company's strengths, and it highlights areas of ineffectiveness that can be the focus of improvements. Financial results alone are not always adequate for determining the success or failure of a corporation. A corporation might be ineffective even though it is turning a profit if it is not

fulfilling its objective, is not retaining its best employees, and is not preparing for the next generation of initiatives⁴⁹.

The effectiveness of an organisation is evaluated in terms of how well it performs overall. Organizational effectiveness may be determined by a number of factors, including financial success, long-term planning, internal structure, and adherence to fundamental values. The effectiveness of a company can be gauged more accurately if objective criteria are used for evaluation. Many businesses and nonprofits evaluate their own performance because no two sets of criteria will be the same. Since there is no single formula for measuring organisational effectiveness, a business may choose to provide assessment findings in terms of specific goals reached or sought after. Exposing areas of inefficiency can potentially have huge benefits for a company. Identifying problem areas provides a firm with a road map for the future and generates anticipation among employees, investors, donors, and customers. The best strategy to improve productivity is to use the organization's current deficiencies as a guide for future adjustments⁵⁰.

2.1.11. Inventory Management

Inventory management's primary objective is to improve corporate processes in order to facilitate the efficient movement of items, products, and services. The term "inventory" refers to a company's whole stock of goods, including finished products and raw materials used in their manufacture. Stationery, office equipment, plant and machinery, consumables, and other items are all examples of stock that can be used immediately or sold to customers⁵.

2.1.11.1 Types of Inventories

Inventory can be classified into three types which include

All commodities purchased by a company and set aside for later use are considered raw materials. Raw materials are the ingredients that make up a confectionery company's stock.

Raw materials that have not yet been completely processed by the plant are kept in a ii) Work-In-Progress inventory until they reach the appropriate processing level. Materials in this category have undergone some processing but not all of it.

Finished Goods Inventory refers to the available supply of manufactured items. Finished-goods inventory, goods-in-transit inventory, or finished-goods-warehouse inventory are all examples. Maintaining adequate inventory requires close coordination between the organization's manufacturing and retail divisions.

2.1.11.2 Inventory Management Techniques

The success and decrease of the firm's expenditure calls for enhanced supply chain performance and understanding to the workforce, making inventory management approaches crucial for business operations. Managers and procurement employees would benefit greatly from training in these methods, as they are essential to the success of any business²³.

The techniques are:

2.1.11.3 Economic Order Quantity

Using the Economic Order Quantity (EOQ) model, businesses can identify the optimal size of delivery and select the cheapest deliverer, ensuring that overall inventory investment costs are kept to a minimum. Each time stock of a certain item is low, the EOQ model may calculate

the optimum replacement order quantity. When deciding how much of an item to restock, the EOQ model takes into account both the cost of ordering and the cost of storing the order. While a higher order quantity will decrease your average inventory holding costs, it will also increase your holding costs because it will reduce your ordering frequency. Smaller order quantities have the opposite effect of decreasing average inventory, necessitating more frequent and expensive orders⁷.

The EOQ model makes the following assumptions:

- Demand is constant and known with certainty.
- Depletion of stock is linear and constant.
- No discount is allowed for quantity purchases.
- The time interval between placing an order and receiving delivery is constant.

2.1.11.4 Vendor-Managed Inventory (VMI)

When it comes to managing large-scale production, the VMI method can yield substantial benefits through open cooperation with reputable suppliers of crucial commodities. VMI allows the vendor in a vendor/customer relationship to take charge of inventory planning, monitoring, and control on behalf of the client, all while keeping stock within agreed-upon limits so the customer can focus on improving demand accuracy. In exchange for timely inventory replenishment that contributes to improved capacity planning and institutional efficiency, the client-organization abdicates its order-making obligations. The overall cost of the inventory management system (including the expenses to the vendor and the costs to the buyer or customer) can be decreased with the help of mathematical models⁷.

2.1.11.5 Just-In-Time

JIT is an inventory management strategy that aims to restock stores only when they are actually needed. This strategy will be favoured for high-priced stock that is infrequently used because of its high keeping cost, high ordering cost, or high purchasing price. The model works to prevent unnecessary stockpiling and the expenditures that come with it. As a result, businesses only order more supplies when they're getting low. Having the vendor deliver on time is essential for the JIT method to work. This is to prevent costly and catastrophic disruptions to operations caused by late shipments of inventory⁴¹.

Just-in-time scheduling is a developing field with the goal of increasing ROI by decreasing work-in-process stock and the costs associated with holding it. JIT is a production scheduling approach that is recommended for use with single and parallel machines and is now being seriously evaluated for use with flow shop machinery.

2.1.11.6 Activity Based Costing Analysis

Having stock on hand also benefits businesses since happy customers mean more word-of-mouth advertising for your company. With goods in your warehouse, an organisation has the advantage of prompt delivery and stock out are not experienced. Therefore, businesses must guarantee they have sufficient inventory for distribution and operations. To this end, they can utilise Activity Based Costing (ABC) analysis, often known as the "Pareto Analysis." As a common inventory control method, the ABC system is used to categorise products⁵¹.

On the basis of unit cost involved, the various items are classified into 3 categories:

A, consisting of items with the large investment,

C, with relatively small investments but fairly large number of items and

B, which stands mid-way between category A & C.

Category A needs the most rigorous control, C requires minimum attention and B deserves less attention than A but more than C.

Steps for implementation of ABC analysis are,

- a) Classify the items of inventories determining the expected use in units and the price per unit for each item.
- b) Determine the total value for each item by multiplying the expected units by its unit price.
- c) Rank the items in accordance with the total value, giving first rank to the items with highest total value and so on.
- d) Compute the ratio (percentages) of number of units of each item to total units of all items and the ratio of total value of each item to total value of all items.
- e) Combine items on the basis of their relative value to form three categories A, B and C.

When running a business, whether it sells physical goods or provides a service, inventory control is crucial. Maintaining an accurate inventory affects every part of a business. Finding the sweet spot between adequate inventory management and client cost is crucial. Controlling inventory entails the processes necessary to keep stockpiles at predetermined levels. Keeping track of raw materials is crucial to effective inventory control in manufacturing because of the emphasis on finished goods. A corporation needs to pay attention to both sales and buy management and logistic management if it wants to have effective inventory management. Responsibility for inventory management and control extends beyond the accounting and warehousing departments to the entire company⁵².

Administrative controls, such as inventory management, are crucial in every business, but especially in those involved in production, distribution, or retail sales. Having "the correct commodities, quality and quantity, at the right place and time" is the essence of inventory management. This procedure is essential in the supply chain network to safeguard the manufacturing system against any disruption. Controlling inventories is making certain that the proper quantity of high-quality stock is kept in the right places at all times⁵³.

Part of managing inventory is weighing the pros and cons of holding on to stock. Efficient stock control reduces stock on hand, cuts costs, and boosts profits. An appropriate inventory level can be based on assessment of the incremental profitability to the opportunity cost of carrying the greater inventory balances⁴⁴.

In this 21st century, the internet and internet-based technologies are impacting business in numerous ways. E-mails for gaining access to and communicating with customers, website technologies created for distributing, searching, and retrieving documents over the Internet, and many other similar tools are all utilised in the course of inventory management. These emerging technologies have the potential to reduce operational expenses, enhance existing customer and supplier relationships, streamline business operations, boost productivity, and introduce exciting new markets. According to CIPS, scholars have been captivated with the topic of inventory control for decades. Ultimately, the issue boils down to how to coordinate production and distribution in a way that satisfies both demand and supply. Recent improvements in information technology have given managers with the capabilities to get improved and timely information regarding, for example, demand, lead times, available assets and capacity. Technology has also enabled clients to get huge volumes of information about a product, such as its physical qualities and availability. Suppliers face mounting pressure from customers in today's hypercompetitive market to improve product quality while cutting costs

and cutting production times. Good inventory management is no longer a competitive advantage. It is a vital capability to survive in a global economy⁴⁴.

A crucial part of excellent inventory management is effective utilisation of information. An informed management can choose which data to collect, purchase, and keep, as well as which information technology to implement. When information is not put to good use, it is useless. If an inventory management uses tracking technology, they can learn about the status of individual orders. There is no point in collecting this data or investing in the technology to collect it if it is not utilised to make better replenishment decisions⁵.

The costs and advantages of maintaining inventory must be balanced in order to effectively manage inventory. An inventory's main perk is that it guarantees supplies won't run out at inopportune moments. The key costs of an inventory are the opportunity cost of the capital needed to finance the inventory, ordering costs, and storage costs. The objective of effective inventory management is to maximise the inventory's net benefit, defined as the benefits minus the expenses of holding the inventory⁵¹.

Merchandise in stock ranges in profitability and storage requirements.

Cooper and Schindler recommend that the following actions take place within a company in the management of inventory:

- establish purchasing review criteria to review the inventory characteristics
- purchase only the amount of raw materials needed for a production run or a period of time
- Collaboration with vendors to improve the purchasing practice
- improve inventory control through application of effective inventory control systems

- encourage materials exchange within the company
- consider just-in-time manufacturing.

It was found that effective inventory management was a capability necessary to lead in the global marketplace. He provides four fundamentals of effective inventory management:

- It requires managers to know how best to use available information.
- Managers need to quantify the value of information.
- They need to coordinate decentralized inventory operations.
- Effective inventory management requires decision tools that can be embraced by their users⁵².

The new policy for managing raw material inventories is meant to address the issue of stockpiling too much of a given item by optimising the quantity of raw materials on hand⁴³. Eriksson and Kovalainen demonstrated the significance of inventory management by assessing its impact on economic performance, particularly for small and medium-sized manufacturing firms. Machine tool industries in India were the focus of his research because of the country's high inventory requirements in those fields. Findings indicated that inventory management did, in fact, affect labour productivity, capital productivity, and returns to scale in the organisations that participated in the study⁵².

2.1.11.7 Storage and Warehousing

One of the most important parts of logistics is warehousing. This term covers a wide range of contexts, including the warehousing of manufactured goods, agricultural commodities, and

commercial goods and services. Product acceptance (loading, unloading), inspection, and "appropriate storage" are only a few of the many tasks involved in warehouse management. The architecture of the warehouse, the tracking systems, and the lines of communication "between product stations" are all part of the warehouse management system. The "Just in Time" method of storing is one of the most environmentally friendly developments in recent years. It's the process of having goods shipped from the manufacturer to the supplier without any intermediate storage. However, as a result of the expanding distances between intermediaries brought about by globalisation, the system's applicability is becoming increasingly restricted. Modern logistics cannot survive without warehouse service, although numerous sustainable adaptations of warehousing infrastructure can be introduced⁵⁴.

2.1.11.8 Organizational Logistics Chain Performance

There needs to be a thorough investigation into inventory management strategies and the efficiency of the organization's supply chain if it is to be avoided that the business spends a disproportionate amount of money on stock. Maintaining an ideal balance between time, place, and cost is essential to customer satisfaction, and the company should solicit input from those who use their services. If a company wants to maximise profits or keep spending in check, it needs to strike a balance between the total cost model's three components: purchasing, ordering, and holding⁵⁵.

In order to effectively manage supply chain costs, businesses must employ trained experts with knowledge of the ins and outs of inventory control. In today's world, where companies are always competing with one another, supply chain management has to be significantly improved. Enterprise Resource Planning (ERP) and Material Requirements Planning (MRP) are two examples of cutting-edge technologies that can help businesses operate more efficiently (MRP). When employees have a firm grasp on demand planning, forecasting, and

location strategies used in the context of inventory management, the business will function at peak efficiency⁵⁶.

Successful inventory management seeks to maximise customer service while minimising expenses so as to assure profitable operations. Specifically, the goals of inventory management are as follows: guaranteeing a steady stream of products to customers while minimising the risk of stockouts; minimising the amount of money spent on stockpiles (i.e., ensuring that as little of the company's working capital as possible is held up in inventory); maximising the effectiveness of material procurement, storage, use, and accounting as much as possible; keeping accurate and up-to-date records of inventory levels at all times⁵⁷.

2.1.12 Company Performance

There has yet to be agreement among management scholars on how to define a company's success. Different researchers in the field examine company performance from various vantage points, including strategy management, operations management, human resources, marketing, management accounting, etc⁵⁸. The Thai defined performance management as the process by which the efficiency and effectiveness of an action is measured, and they went on to explain that this could be done quantitatively or qualitatively. Because of the focus of this study, we will be looking at firm performance from a more operational viewpoint. Company performance is seen as a set of measurements used to quantify the efficiency and effectiveness of actions from an operational viewpoint⁴⁵. Measures include things like a company's stock price, how it ranks in an industry survey, its financial health, the public's perception of the company's brand, its profitability, and its return on investment. In order to fulfil its goals and maximise shareholder value, businesses use business performance management tools to plan, measure, and regulate their performance in areas like sales and marketing, operations, business decisions, and the supply chain²⁷.

2.1.12.1 Corporate Social Responsibility (CSR)

According to Kavua, corporations who take on social responsibility initiatives do so to lessen the impact their operations have on the community at large and to steer clear of any potential distributional problems⁵⁶. It was also emphasised that companies should factor in the norms of the community in which they operate while making business decisions and formulating strategy. Corporate social responsibility (CSR) refers to the efforts made by businesses to voluntarily incorporate social and environmental issues into their operations and relationships with stakeholders⁵⁷. Companies should make it a priority to act in ways that don't negatively impact their stakeholders³⁸. Further, it was determined that a more positive brand image and reputation would result from a firm's successful incorporation of CSR into its strategic and operational business decisions^{6,48}.

2.2 Theoretical Review

Theoretical propositions on the subject matter are traceable to the following theories;

2.2.1 Institutional Theory

Meaning in life can be attributed to the cultural-cognitive and regulatory factors that make up institutions, as well as to the activities and resources that support them. He goes on to define regulatory, normative, and cultural cognitive institutions. When it comes to the regulatory pillar, it's all about using rules, laws, and fines as an enforcement mechanism, with convenience as the basis for compliance. Social obligation provides the ground for conformity with the normative pillar, which consists of rules (how things should be done) and values (preferred or desirable). The foundation of cultural and cognitive pillar is mutual comprehension (common beliefs, symbols, shared understanding). This notion is crucial for public service organisations to adopt sustainable procurement policy and practise. It all comes

down to the company's culture and the extent to which its climate encourages long-term viability and/or regular innovation⁵⁶.

2.2.2 Dynamic Capabilities Theory

Having "the capacity to renew competences so as to achieve congruence with the changing business environment" is what is meant by the word "dynamic." This is especially important when time to market is of the essence and the nature of competition is ill-defined. "The key role of strategic management in appropriately adapting, integrating, and reconfiguring internal and external organisational skills, resources, and functional competences to match the requirements of a changing environment" is how capabilities are defined. The original intent of the dynamic capabilities theory was to shed light on the factors contributing to a company's success in a constantly shifting business climate by analysing the resources at their disposal. An explanation for the role of dynamic Capabilities appear to be geared toward the end goal of gaining a competitive edge that can be maintained in ever-changing market conditions⁵⁷. The manufacturing process takes place in an environment that is constantly shifting. Therefore, manufacturing entities should use information communication technology capabilities that are advanced and in conformity with the emerging trends in manufacturing and operations in order to maintain a competitive advantage over other firms⁵⁸.

According to the dynamic capabilities theory, a company's business processes, market position, and opportunities all play a role in shaping how it cultivates its own set of specialised competences in response to shifts in the external business environment⁵⁹. To calculate DCs, these three criteria are used. In organisations, processes serve three functions: coordination, learning, and reconfiguration. The position's technology, IP, complementary

assets, customer base, and external relations with suppliers and complementors are all defined by these factors. The strategic options open to a company are known as "paths," and they are characterised by the interdependencies between them and technological advances. The organisational processes that are shaped by a company's asset positions and pathways, describe the nature of the firm's DC's and its competitive advantage. Firm-specific assets, such as values, culture, and organisational experience, contribute to the competitive advantage that comes with these capabilities but cannot be bought and sold. This necessitates the cultivation of the company's own set of unique skills and expertise.⁵³ A firm's unique and difficult-to-replicate behaviour is supported by the fact that DCs cannot be purchased. Rents from a competitive advantage through competencies can only be generated if the competences are built on a set of proprietary processes, capabilities, and ancillary resources that are challenging for competitors to replicate⁶⁰.

2.2.3 Agency Theory

Agency theory is concerned with agency relationships. Two parties have an agency relationship when they cooperate and engage in an association wherein one party (the principal) delegates decisions and/or work to another (an agent) to act on its behalf.⁵² The important assumptions underlying agency theory are that: Potential goal conflicts exist between principals and agents; each party acts in its own self-interest; Information asymmetry frequently exists between principals and agents; Agents are more risk averse than the principal and Efficiency is the effectiveness criterion⁶¹.

An agent's goals in an agency relationship are normally to maximise rewards and reduce principle control, whereas the principal's goals are to minimise agency expenses associated with things like specifying, rewarding, monitoring, and policing the agent's behaviour⁶². It is crucial for any principal-agent relationship to have effective management of agency

problems, such as information acquisition (or communication), preference mismatch (or conflict of interest), effort (or moral hazard), and capability (or adverse selection), which are typically associated with the agent⁶³.

Both sides in a procurement and supply chain relationship are agents, with the buyer acting as the principal and the supplier as the agent in charge of producing goods or providing services.

Similarly, a manufacturing company's role as principal or agent depends on whether it is transacting with the supplier directly or using a market intermediary. As a result, managers in the manufacturing sector need to incorporate concepts from agency theory and the agency relationship into their day-to-day work. Since purchasing companies entrust production and service provision to suppliers, it is their job to guarantee that these providers meet the quality standards outlined in their contracts⁶⁴.

2.2.4 Resource Based View Theory

Resource-based view theory aspires to explain the internal sources of a firm's sustained competitive advantage. It was Penrose who established the foundations of the resource-based view as a theory. Making smart and creative use of available resources was a major point of emphasis. Companies were shown to be inherently diverse, even among those operating in the same industry, due to the fact that the bundles of productive resources under their control could differ considerably from one firm to the next⁶⁵. Kiama adopted a resource orientation to study procurement's impact on product innovation and the company's bottom line. Firms spread their financial wings by acquiring related businesses and expanding their operations in other ways as resources permit. This theory is relevant to independent variables in the study; internal procurement regulations, policy regulatory framework, leadership and management

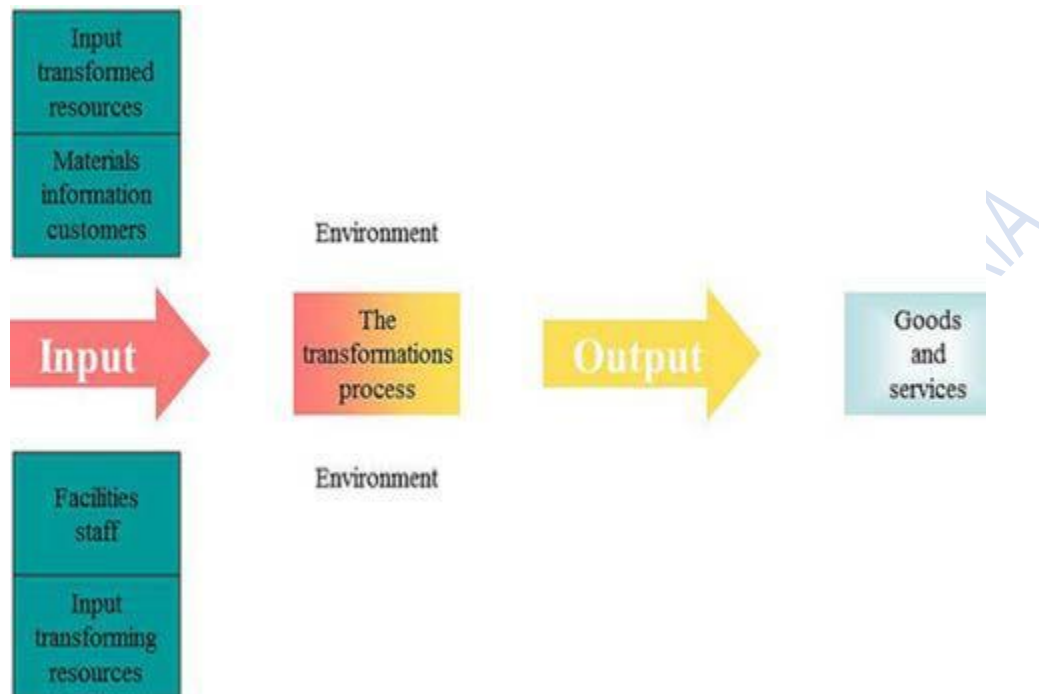
and ICT infrastructure support due to available capacity and resources⁶⁶. To perform is to produce valued results. A performer can be an individual or a group of people engaging in a collaborative effort⁶⁷. Developing organization procurement performance is a journey, and level of performance describes location in the journey. The development of a procurement strategic plan for County governments with a clear vision and mission based on a business model is critical in enhancing organizational performance⁶⁵.

2.2.4.1 Resource View Based Model: Input-Transformation-Output

Globally Organizations have potential to create markets for goods and services or shift their paradigm to have competitive advantage over others by effectively utilizing available resources to create new opportunities. In a study undertaken by Hui et al on the resource-based theory of competitive advantage it was found that resources are the inputs to the transformation process in an organization. In a study on impacts of organization resources on agency performance describes resources in terms of qualified staff, budgets, enabling environment, information technology, specific intellectual property and others⁶⁷. Operations require coordination and use of resources. Capabilities are ‘the capacity of a team to perform some tasks. Resources are the source of capabilities – capabilities are the source of competitive edge. Markets can be created or paradigms changed by an organization to its favor by use of the resources it has at its disposal to create new opportunities to enhance performance⁶⁸.

Figure 2.1

Resource Based Model: Input-Transformation-Output

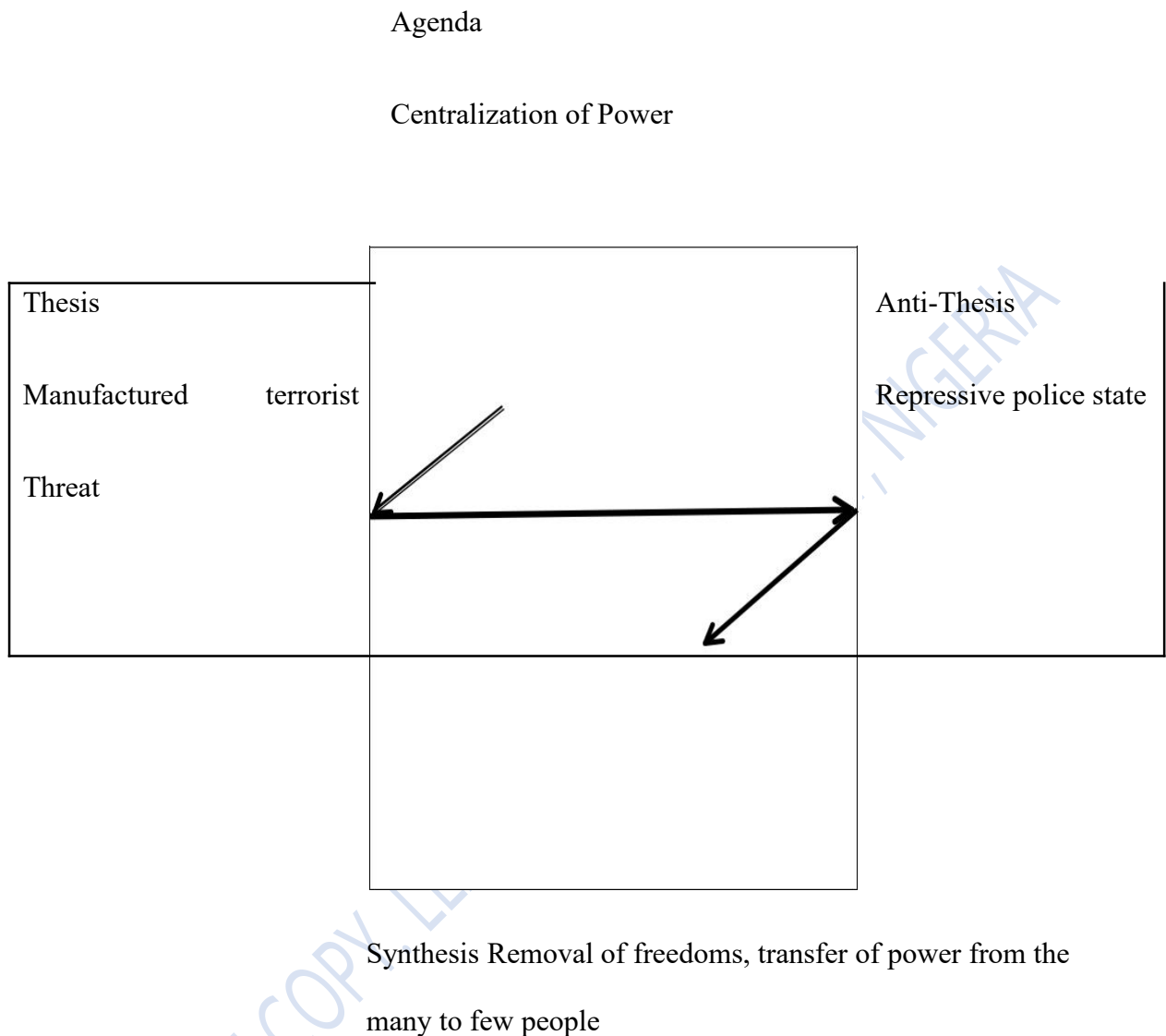


Source: Researcher Computation, 2022

2.2.5 Hegelian Dialectic Theory

This study is based on Hegelian dialectic theory. The theory has it that the organizational entity exists in a pluralistic world of colliding events, forces, or contradictory values that compete with each other for domination and control. Change in organizations occurs when opposing values, forces or events gain sufficient power to confront and engage the status quo⁶⁹. Opposing forces are termed thesis (status-quo) and antithesis (new situation)⁷⁰.

Figure 2.2: Hegelian Dialectic Model: Problem- Reaction Solution



Source: Researcher Computation, 2022

This theory is applicable in the public sector when implementing changes in ICT infrastructure support, leadership and management support structures and internal procurement processes necessary in enhancing organizational performance⁶¹. In a study on managing conflict in organizations contends that organizations need to learn and continuously change to improve their competitive positions. In a study undertaken by Hawthorne on designing change capable organization, it was found that change whether internal or external

is associated with conflict and dealing with conflict is essential for realizing good performance⁵⁷.

In a study on analysis of conflict management and leadership for organizational change, it was observed that leadership involves defining and communicating an organization's long-term vision and mission⁶³. A leader is someone who uses his or her influence to improve his organization managing conflict and change. Conflict management involves implementing strategies to limit the negative aspects of conflict and to increase the positive aspects of conflict, such as through enhanced team learning and group outcomes⁵⁹.

Laratta in a study on leadership behavior and organizational performance pinpoints that quality leadership teams understand that their collective and individual behavior influences organizational performance. In a review on procurement policy, procedures and process, it was observed that procurement procedures of public sector competitive process must be subject to an independent internal review periodically within the legal and policy framework of the national government county. It has also been observed that in order for organizations to remain competitive in procurement contract implementation, regulatory reform is necessary to adapt to market transition systems, new technologies and services to safeguard public interests⁶⁸.

2.2.6 Systems Theory

The systems theory developed by Ludwig Von Bertalanffy in 1968 allows for a look behind the scenes of businesses. Based on his research, Ludwig claimed that system theory was concerned with how successful organisations functioned. Bottom-up responsibility is what Kavua and Ngugi called "organisational ownership" in their conclusion³³. The analytical lens of systems theory can be applied to any facet of an organization's operations. According to a

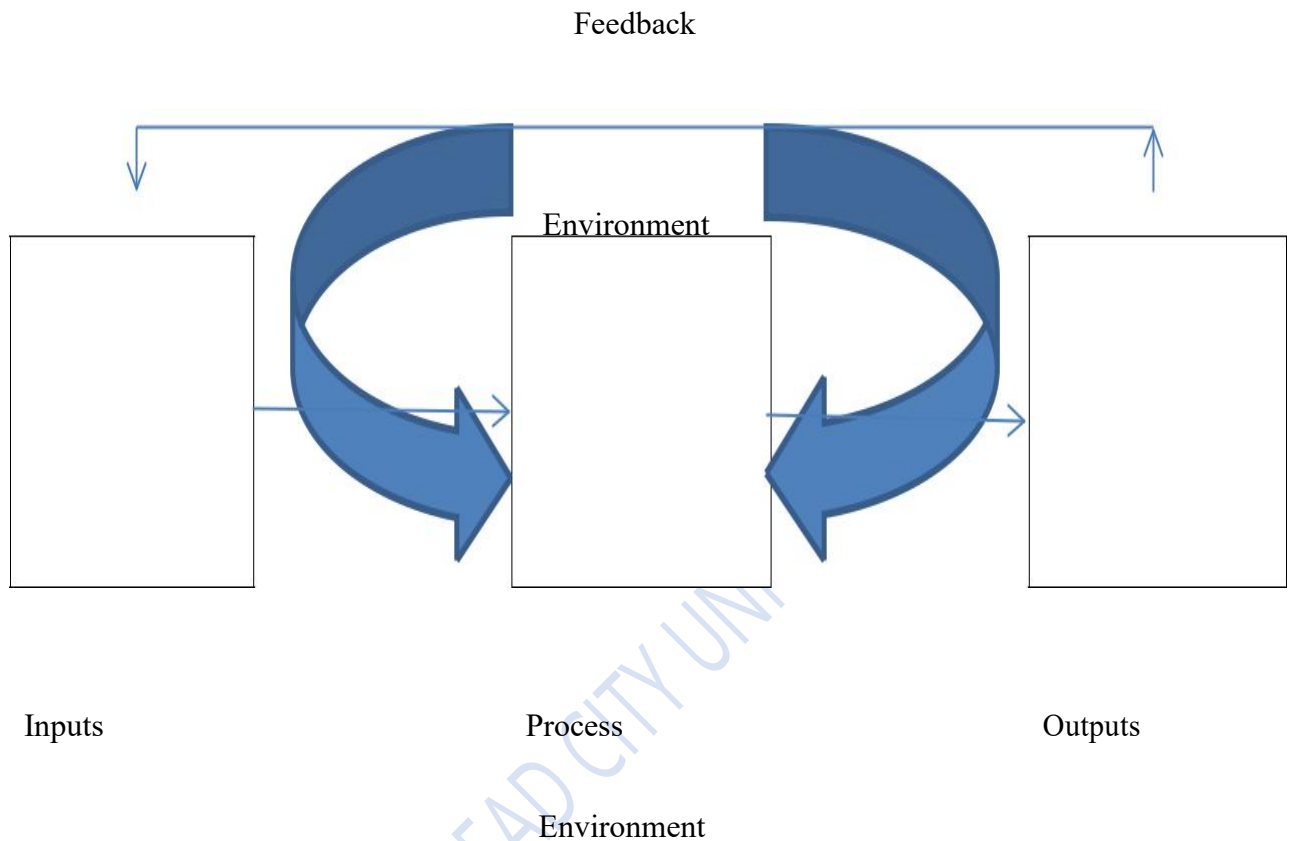
sagepub argument, the influence of system theory on the workplace is recognised by top-level management⁴⁵.

Kothari in a study on supplier selection methods in public institutions assert that a procurement supply chain network is vital in accomplishing organisational purpose⁶⁹. According to Rahim's research on management theories and concepts, systems theory is crucial for leadership and management assistance while analysing activities in the workplace⁷⁰. This theory could help leadership and management supporting public entities to collectively monitor events in the entire organization with a view of identifying and isolating bottlenecks that could hinder program coordination⁷¹.

Systems theoretic analysis suggests that charismatic leadership and management support may improve organization financial and non-financial performance are likely to inject innovations into the internal rules within policy regulatory framework⁷². The charismatic leadership is useful on the short-term basis it is also a catalyst for long-term organizational performance. Systems theory analysts argue that introduction and implementation of effective changes in the performance of organizations takes time to mature. A system adaptive standardization of processes such as compatibility of internal rules with policy regulatory framework, leadership and management support and ICT infrastructure may lead to a shrinking of the system in the short-term. This implies that standardization reduces the complexity of internal and external procedures of organizations, leading to increase efficiency, effective use of resources and lead to performance improvement⁷³. In an interactive system, an entry moves towards a goal. In this study, procurement contract determinants constitute inputs, processes, and environment leading to the final state which is organizational performance. The inputs have to be transformed into inputs by a process⁷³.

Figure 2.3

System Theory Model



Source: Researcher's Design (2021)

The conceptual framework in figure 2.3 shows the relationship between the study variables. Independent variables, which are of procurement contract determinants constituted the activities carried out to support organizational performance. Independent variables include internal procurement process, policy regulatory framework, leadership and management support and ICT infrastructure support. Organizational performance is dependent variable in this study.

2.2.7 The Stockholder vs. Stakeholder Theories

Professor at the University of Virginia F. Edward Freeman, in his seminal work "Strategic Management: A Stakeholder Approach." Within the context of his study of the stockholder theory, Friedman contended that profit maximisation is the only legitimate goal of any corporation. Friedman continues by emphasising that businesses have a moral obligation to maximise their profits. As a result, the company has no place taking on any sort of corporate social responsibility, as doing so might be counterproductive to its bottom line. Since oil spills are more likely to happen in areas where oil firms extract resources, donating money to environmental causes might not be seen as serving the company's shareholders' best interests. Friedman's famous quote also supports this:

"There is one and only one social responsibility of business – to use its resources and engage in activities designed to increase its profits so long as it stays within the rules of the game, which is to say, engages in open and free competition without deception or fraud.

Several criticisms have been levied against this theory by proponents of sustainable development. An example of this is the Stakeholder Theory. The Stakeholder Theory as developed originally by Freeman cited in Jiang and Qureshi argues that not only the shareholders are important in matters that concern the organization as there are different organisations and groups who are considered to be stakeholders of an organization and must be taken into account while making decisions⁷². Cooper and Schindler refers to stakeholders as individuals and groups whose position or beliefs may influence the operations and decisions made by an organization. Different stakeholders exist with different level of importance or contribution⁷³. Some of the groups that may be considered as stakeholders are suppliers, customers, media, government, society, creditors, shareholders and competitors in

some cases. Jordan and Young stated that the pressure from stakeholders is a major driver for sustainable practices in the supply chain of most organizations. In recent times the activities of environmental groups and agencies such as Greenpeace, Fair-trade and the United Nations have necessitated organizations to pay close attention to sustainability in their operations²⁸.

Hart and Sharma asserted that the classification and power of stakeholders might change over time. In recent times organizations pay more attention to environmental groups and agencies in order to improve their brand image and reputation. The management of relationships between the organizations and stakeholders is an essential part of maintaining a sustainable supply chain⁷⁴. Aggarwal also stated that a poor management and integration of the various stakeholders may have a negative effect on public image and such affect its performance³⁸. In agreement with this Hagans also noted that the effective relationship management with these interest groups is a strategic factor in evaluating sustainability issues. Suppliers form an integral group of stakeholders in an organization. Suppliers are important stakeholders necessary to achieve a sustainable supply chain⁵³. An assessment of different stakeholders shows that suppliers are important stakeholders that increased organizations awareness and readiness for environmental friendly decisions.

2.2.8 The Natural Resource Based View of the Firm (RBV)

The Resource Based View of the firm as described by Barney suggests that organizations could derive sustainable competitive advantage from the set of distinctive resources that it possesses which may lead to better company performance²⁹. These set of distinctive resources refer to assets, capabilities, processes and knowledge which are instilled in the firms operations and strategy to improve competitiveness. Barney further clarified that for these resources to derive competitive advantage they must be valuable, rare and non-imitable. The RBV has since then become a very sound theory for analysis in the operations and supply

chain realm and particularly in sustainable supply chain. The study further introduced the natural Resource Based View of the firm stating opportunities involved in developing capabilities such as investment in sustainability as a driver for competitive advantage⁵⁶. Gavrea, Ilies and Stegorean posit that investments in environmental and social sustainable activities could build up a firm's competitiveness. Firms striving to build competitive advantage from engaging in sustainable activities should consider three major strategic capabilities which would fulfill the criteria of being rare, valuable and non-imitable as described by BCG in the Resource Based View theory¹¹. The strategic capabilities as highlighted by Gavrea, Ilies and Stegorean are: pollution prevention, product stewardship and sustainable development⁷⁷. The strategic capabilities are linked to competitive advantage because they help the firm in lowering costs considerably, pre-empting the competitors and also paving way for future strategic positions. Gavrea, Ilies and Stegorean further developed on the Natural Resource Based View and stated that if the natural resource fulfills the criteria of being rare and non-imitable alone, they may yield the firm some competitive advantage, but they must possess some specific characteristics such as causal ambiguity, social complexity and be specific to the firm alone. Causal ambiguity which forms the first basis in the natural Resource Based View is generally used in connection with environmental pollution as regards prevention of environmental issues such as oil spillages in the oil sector. Gul looked at this from the perspective of differentiating between pollution control and pollution prevention and argued that firms could gain competitive benefits from investment in pollution prevention technologies rather than pollution control technologies⁷⁸. The author finds, Gul study interesting particularly in the Oil and Gas industry. For example, Oil and Gas companies could purchase oil-spillage control technologies as, "off-the-shelf" obtaining capabilities from the market that may also be available to competitors and hence provide little if any meaningful competitive advantage. Although it takes a unique set of skills and tacit

knowledge to prevent oil spills and gas flaring, doing so would give you a competitive edge if you invested in the technology in the first place. According to Kothari, the presence of such tacit knowledge results in an advantage that rivals would have a hard time duplicating⁷⁹.

Hart's Natural Resource Based View of the Firm failed to adequately account for social responsibility as one of the three components of the triple bottom line and as a result, has been criticised on the grounds that it does not contribute to the sustainable supply chain argument. In defence, Gul argued that social issues like human rights and working conditions were not as prioritised as environmental concerns when the natural Resource Based View of the Firm was first introduced because there was less global sourcing from China and developing economies like India, Bangladesh, and the rest of Africa⁵¹.

It was argued that the attributes of the Natural Resource Based View theory fit into the sustainable supply chain realm and can be used as a competitive weapon to bolster the theory's position on sustainability.

This view was bolstered by Hui et al., who argued that green production lines gave businesses a competitive edge that would last for decades. When it comes to achieving the triple bottom line in a sustainable supply chain, the Natural Resource Based View as an enabler will now pave the way for discussions about transaction cost economics as another enabler.

2.2.9 Transaction Cost Economics (TCE)

Coase first proposed the concept of transaction costs in 1937, proposing that they play a significant role in determining how a business chooses to use its resources. Hagans refined the concept further, dividing transaction costs into indirect expenses like relationship management and the opportunity cost of bad choices³⁸. Costs associated with relationship management might include, but are not limited to, those associated with making plans, adjusting to change,

coordinating activities, and ensuring the safety of communications⁵³. Legal fees for drafting contracts and enforcing any default are two examples of such expenses. Transaction cost economics is predicated on the interplay of two crucial behavioural and monetary assumptions²¹.

The behavioral assumptions of the TCE are:

(i.) bounded rationality and (ii.) opportunism

2.2.9.1 Bounded Rationality

Business decision-makers strive for objectivity but are sometimes constrained by their own cognitive, communicative, and processing limitations, which can manifest as linguistic or neurophysiological constraints. The identified obstacles may cause the company to incur extra expenses. According to Jordan and Young, the vertically integrated manufacturing sector necessitates effective coordination between the buying and supplying firms, as well as between various business functions, in order to make sustainable decisions along the supply chain⁷⁸.

2.2.9.2 Opportunism

Based on Williamson's illustrative opportunism assumption, it is possible that supply chain or business function decision makers will act dishonestly or circumvent regulations in order to advance their own personal or organisational interests. Companies may have to spend more money on supply chain monitoring and asset security as a result of this issue. In his investigation of the opportunistic nature of the actors and decision-makers in Bangladesh's garment industry, Raymond highlighted how this may be avoided to enable successful compliance to rules in sustainable supply chain⁷⁸.

The transactional assumptions of the TCE are:

(i.) Asset specificity and

(ii.) Uncertainty

Asset Specificity

How dedicated or specialised an asset is to a single set of customers or vendors is what we mean when we talk about asset specificity. Asset specificity is a metric used to assess how dependent an investment is on a single transaction or relationship, taking into account how easily the asset may be moved into a new investment if the first one were to end⁷⁹. A scholar divides the assets into four groups, each with their own unique characteristics: assets that are site-specific, physical, specialised, and human. Further, Kramer argued that investments that are highly asset-specific include those whose costs add little or no value outside of a specific transaction or relationship. For this reason, some decision-makers are hesitant to put their money into sustainable development transactions requiring specialised assets⁸⁰.

Uncertainty

Uncertainty, as defined by Jordan and Young, is the presence of apprehension regarding the possibility of unanticipated events occurring during the course of a transaction and, consequently, the incurrence of additional expenses. Both ex ante environmental costs and ex poste behavioural costs can come from unpredictability. A scholar imply that if the amount of uncertainty surrounding sustainable development investment is high, or if the conduct of the supplying firm or business function is high, investment in sustainable development may be disallowed. Thus, it follows that efficient relationship management has the potential to lessen

anxiety and boost businesses' propensity to finance sustainable growth⁸⁰. Because of TCE and RBV, the Triple Bottom Line notion of sustainability can be reexamined⁸¹.

2.3 Review of Empirical Studies

Kavua and Ngugi in his study examined procurement performance of rural electrification projects. The study believes that process improvements transform business and lead to innovation and represent "the change that creates a new dimension of performance" for organizations⁸². In a study undertaken by Drucker on opportunities and challenges of Business Process Management (BPM), points out that effective implementation and control of internal procurement processes enhance organization financial outcomes⁸³.

In Russia, a study undertaken by Swinney and Netessin on promoting business process management excellence agrees that BPM is an effective methodology to use in times of crisis to make certain that the processes are efficient and effective, as this will result in a better and more cost-efficient organization⁸⁴. Steinberg points out that BPM empowers companies to align internal procurement processes that provide more value to both internal and external customers⁸⁵. Spiller asserted that focusing on financial and neglecting non-financial performance cannot improve the procurement operations because only partial performance is considered³².

Rahim identified seven key success factors that influence procurement, including a clear procurement strategy, effective management information and control systems, the development of expertise, a role in corporate management, an entrepreneurial and proactive approach, coordination, and concentrated efforts. Communicate the important success criteria to all levels of the company and establish a procurement plan to achieve continual value for

money improvement. In understanding the procurement processes, it is possible to estimate the real cost involved with purchasing goods and services⁷⁶.

Williamson in a study on public procurement in Australia assert that realization of procurement goals is influenced by internal and external forces⁷⁹. Gavrea et al. in their findings point out that interactions between various elements; professionalism, staffing levels and budget resources, procurement organizational structure, regulations, rules, and guidance, and internal control policies, all need attention and influence procurement performance. Benchmarking helps identify current best practice and then focuses on how internal processes could be re-engineered and managed to achieve excellence in critical procurement areas. TOG maintained that there is a link between internal procurement regulations, efficiency, effectiveness and performance⁸⁰. Thai argues that high performance by organizations is an indication of progress towards set objectives, identifies areas of strengths and weaknesses and predicts the future⁸¹.

In a study undertaken by Sekaran on the challenges encountered by county governments in Kenya during budget preparation empirically examined the relationship between public participation in county budget preparation process and found no significant relationship between the independent and dependent variable⁸². Similarly Laratta in a study on factors affecting budget utilization in Kericho county government identified tax compliance, vat policy, government policy and inflation effects as independent variables and budget utilization as dependent variable⁸³. They found no positive relationship between all independent variables and dependent variable. Bailey et al in a study on local budgeting argues that budget process and execution for local governments should be incorporated into managerial decision making continuously and management information incorporated in budget execution reporting⁸⁴.

Green, Whitten and Inman theorized and assessed a logistics performance model incorporating logistics performance as the focal construct with supply chain management strategy as antecedent and organizational performance, both marketing and financial, as consequences. Data from a national sample of 142 plant and operations managers were analyzed using a structural equation modeling methodology. Findings indicated that logistics performance is positively impacted by supply chain management strategy and that both logistics performance and supply chain management strategy positively impact marketing performance, which in turn positively impacts financial performance. Neither supply chain management strategy nor logistics performance was found to directly impact financial performance⁸⁵.

Some scholars analysed the efficiency and efficacy of a company's logistics management, which included transportation, warehousing, packaging, inventory management, and information management. Reducing the cost of each logistical operation effects the total cost and improves the performance of the organisation. The article identified and outlined the logistical activities that were crucial to the performance of the organisation. A sample of eighty examinees from eighty different companies in the Republic of Macedonia participated in the empirical investigation. The survey results clearly verified and demonstrated the overall concept. Inventory, storage, warehousing, transportation, and information management are crucial objectives for logistics managers in order to lower the company's overall expenses. Findings included affirmation of the need for logistics managers to manage all logistical activities optimally in order to improve corporate efficiency, customer happiness, and competitiveness^{86,87}.

Some scholars evaluated the impact of procurement practise on service sector organisational performance. Utilizing an exploratory study methodology, the procurement processes were

analysed. Principal data gathering instruments included structured questionnaires and semi-structured interviews with AAST logistical Managers. Due to the researcher's use of the regression model fitted for the effect of Procurement Practices; Customer Orientation, Strategic Supplier Partnership, Information Sharing, Adoption of IT, Reverse Logistics, and Knowledge Management on Organizational Performance, the results and conclusions can be generalised to any educational service. Customer Orientation and Knowledge Management were found to have a significant positive effect on Organizational Performance, as their regression coefficients and P-values were 0.430 and 0.256 and 0.000 and 0.001 respectively. In addition, the R square value was 0.389%, indicating that 38.9% of the variance in Organizational Performance could be explained by the independent variables⁸⁸.

Researchers investigated the influence of transport management on organization effectiveness; evaluated the influence of inventory management on organizational productivity and examined the influence of information flow on employee's efficiency. Descriptive survey research design was used to sample 115 employees of Dangote Flour Mills Ilorin. Findings of the study showed that transportation management affects organizational effectiveness with a R² value of 0.769; that there is strong relationship between information flow management and employees' efficiency with a R² value of 0.923 and that there is strong relationship between inventory management and organizational productivity with a Pearson correlation value of 0.859. This study therefore recommended that factors associated with logistics management needs to be considered by the organization in their strategic plans as it will contribute significantly to a sustainable development of the Nigeria economy⁸⁹.

Karibo conducted a study to determine the relationship between good logistics management and on-time delivery and sales growth. Effective and efficient logistics management is considered and regarded as a competitive instrument for enhancing performance. This study

examined the relationship between logistics management and the performance of 122 enterprises in Nigeria's Rivers State. It centred logistics management (using transportation and physical distribution as a dimension) on on-time delivery and sales expansion. The research survey technique was used to analyse the research framework through the empirical examination of primary data gathered through the use of a questionnaire; thus, the research survey method was utilised. The investigation demonstrated that effective transportation and distribution have respective effects on on-time delivery and sales growth. Therefore, enterprises should build and maintain a standard and standardised logistics management system so that the appropriate amount of stock is maintained and the optimal order quantity is attained through the proper physical distribution of the product in order to achieve superior performance. In addition, to achieve fair on-time delivery, companies and managers must be equipped with the most recent transportation technologies⁹⁰.

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Chapter Three

Methodology

3.1 Research Design

The research design for this study is a descriptive survey. It is considered appropriate for the study because it entails the use of secondary data, which are analyzed and interpreted in order to justify the purpose of the research. The purpose of descriptive survey is to collect detailed and factual information that describes an existing event¹. The research work relied mainly on secondary source of data. The required information were obtained from the annual reports of that sampled manufacturing firms in Ogun State. This method was found favourable by the researcher in order to underpin the perceived impact of procurement and logistics practices on the corporate performance of manufacturing firms in Ogun State. In the same vein, the study equally explored the positivism philosophy which is founded on objectivity. BCG expound on this concept by stating that researchers who believe in this philosophy aims at obtaining results and making conclusions by being objective as opposed to being subjective. In this case, the researcher chooses data from a larger data sample and then bases his/her results/conclusion on the data sample collected independent of their beliefs or views on the research question at hand. This philosophy is highly used by researchers dealing with experimental and observational studies². Positivism is based on highly structured methods which are comprehensive when collecting quantifiable observations used to gain generalized results supported by statistical techniques³.

3.2 Sample and Sampling Techniques

Sample is the subject of a population. Sampling is a proportion or a segment of the whole population. This study examined impact of procurement and logistics practices on the

corporate performance of manufacturing firms in Ogun State. Purposive and convenience sampling techniques were adopted for this study.

3.3 Model Specification

Ordinary Least Square (OLS) regression techniques was adopted for the study. In doing this, attention was given to the multi-variable case (which leads to the multiple regression model). The multiple regression model deals with the multivariable case, where a given variable, Y_t , is explained by a set of independent value, X_t 's thus:

$$Y_t = a_0 + a_1 X_{1t} + a_2 X_{2t} + \dots + a_n X_{nt} + u_t \dots \dots \dots (3.1)$$

Where Y_t = Dependent Variable

X_t 's = Independent (Explanatory) Variables

U_t = Stochastic (Error) Term.

Multiple regression models are usually estimated by the OLS regression techniques. This is a statistical method that obtains estimates or linear equation by minimizing the sum of squares of the residuals. Given the above argument, the functional form of the model specified for this study is given as:

$$COP = f(CBBP, CBIL, SLTR) \dots \dots \dots (3.2)$$

The explicit form of Equation 3.2 was transformed as follows:

$$COP = \beta_0 + \beta_1 CBBP + \beta_2 CBIL + \beta_3 SLTR + u$$

$$\text{LogFOT} = \text{Log}\beta_0 + \text{Log}\beta_1 CBBP + \text{Log}\beta_2 CBIL + \text{Log}\beta_3 SLTR + u \quad (3.3)$$

Where;

COP = Corporate Performance Measured by Profitability

CBBP = Cost Benefits arising from Bulk Procurement

CBIL = Cost Benefits arising from Integrated Logistics

SLTR = Slack Time Reduced in the Production Process.

$\beta_0 - \beta_3$ = are parameters

Log = Natural Logarithm

U = an error term.

3.4 Estimation Technique

Multiple regression models are usually estimates by the OLS regression techniques. This is a statistical method that obtains estimates or linear equation by minimizing the sum of squares of the residuals. Provide the assumptions of the OLS techniques are not violated, the estimated regression coefficients will be best linear unbiased estimated or BLUE and will possess the asymptotic efficiency.

3.5 Apriori Expectation

This is most commonly used with deductive approach. Survey is a popular and common strategy in business and management research and is most frequently used to answer who, what, where, how much and how many questions⁴. Surveys are popular because they allow the collection of a large amount of data from a sizeable population in a highly economical way⁵. Survey allows the collection of quantitative data which can be analysed using descriptive and inferential statistics. Survey strategy gives the researcher control over the research process and through sampling method, it is possible to generate findings that are

representative of the whole population at a lower cost than collecting the data for the whole population⁶. Other data collection techniques in survey strategy include structure observation, structured interview. In conclusion, this study will employ the survey strategy because of its planned large sample size as well as for the fact that it is adopting questionnaire as the data collection method.

3.6 Method of Data Analysis

The methods of analysis adopted were descriptive and inferential statistics. The descriptive statistics include percentages, tables and frequency distribution. These were used to analyse the demographic variables of the responses to each item on the research instrument. The inferential statistic models establishes the relationship between the dependent and independent variables.

Endnotes

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Chapter Four

Results and Discussion of Findings

4.1 Data Presentation

This research work utilized secondary data, which was sourced exclusively from the case study financial records. Table 4.1 shows the data for the afore-mentioned variables, which covers the period 2015 to 2020.

4.2 Presentation of Empirical Results

Table 4.1 Summary Statistics of the Variables

	LCOP	LCBBP	LCBIL	LSLTR
Mean	9.67769	3.940818	6.542264	3.683071
Median	9.684560	4.304385	6.795858	4.383127
Maximum	9.854373	6.571373	7.513464	6.385093
Minimum	9.440140	0.626938	4.136606	- 0.139262
Std. Dev.	0.106756	1.789452	0.865107	1.986374
Skewness	-0.337482	- 0.328852	- 1.287645	- 0.515147
Kurtosis	2.402378	1.896169	4.059662	1.912699
Jarque-Bera	1.219093	2.476525	11.63250	3.365595
Probability	0.543597	0.289887	0.002979	0.185853

Source: Author's computation using Eviews 9.0, (2021).

4.2.1 Unit Root Test

The results of the ADF unit root tests for the model is presented in table 4.2. The result shows that all the variables are non-stationary at levels, therefore, we cannot reject the null hypothesis at 5% confidence level. However, the results show that all of the variables LCOP, LCBBP, LCBIL and LSLTR are stationary at first difference at 5% confidence level.

Table 4.2: Result of the Unit Root Test

Variable	Constant and	Prob	Constant and	Prob
	Trend Level		Trend 1 st difference	
LCOP	0.569937	0.9989	-4.293247	0.0135
LCBBP	-1.476602	0.8145	-3.837501	0.0278
LCBIL	-3.527389	0.0518	-5.897789	0.0001
LSLTR	-2.772193	0.2163	-8.220550	0.0000

Source: Author's computation using Eviews, 9.0.(2021)

4.2.2 Regression Analysis

Table 4.3 presents the regression analysis of the Model. The result shows that there is a positive relationship between LCOP and LCBBP, LCBIL and LSLTR. However, despite all possessing positive relationships with LCOP, the relationship is insignificant. The R^2 is 0.7216, which implies that about 72% of the changes in LCOP is as a result of changes in the independent variables in the model, i.e. changes in values of LCBBP, LCBIL and LSLTR, while 28% is caused by factors not included in the model. The result indicate that the Durbin Watson is 1.8638, which means that there is no presence of autocorrelation as it falls between the parameters of 1.72 (du) and 2.28 (4-du). The results of the F-stat shows that the variables are jointly significant in explaining LCOP at 5% significant level.

Table 4.3 Result of the Regression Analysis

Variables	Coefficients	Std. Error	t-statistics	Prob
LCBBP	0.024564	0.029079	0.844731	0.4047
LCBIL	0.082060	0.047087	1.742733	0.0913
LSTLR	0.003088	0.023115	0.133573	0.8946
C	9.412798	0.154728	60.83447	0.0000
R ² 0.753498				F-stat 23.68992
				D.W-stat 1.863827
Adjusted R ² 0.721691				Prob (F-stat) 0.0000

Source: Author's computation using Eviews, 9.0.(2021)

4.2.3 Vector Error Correction Model

The vector error correction model is used to measure the dynamic relationship between the variables from short run to long run equilibrium position. Table 4.4 presents the short run analysis for the model. The result shows that the coefficient of the error term is negative and significant at 1% level with value of 0.7408%. The result implies that about 0.7408% error converge quickly in the short run to form a long run equilibrium relationship between the variables. Hence, there is a short run relationship among the variables LCOP and LCBBP, LCBIL and LSLTR.

Table 4.4. Result of the Vector Error Correction Model

ECT	D(LCOP)	D(LCBBP)	D(LCBIL)	D(LSLTR)
CointEq1	-0.740889 (0.10501)* [-7.05532]	-4.509000 (1.32122) [-3.41276]	-1.499771 (0.94058) [-1.59452]	-5.897639 (1.66740) [-3.53702]
R ²	0.982683			

Source: Author's computation using Eviews, 9.0(2021).

Note: *, **, * indicate significance at 1%, 5% and 10% levels, respectively**

Table 4.5: Correlations

		COP	CBBP	CBIL	SLTR
COP	Pearson Correlation	1	.367	-.152	-.289
	Sig. (2-tailed)		.055	.439	.135
CBBP	N	28	28	28	28
	Pearson Correlation	.367	1	-.264	-.429*
CBIL	Sig. (2-tailed)	.055		.174	.023
	N	28	28	28	28
SLTR	Pearson Correlation	-.152	-.264	1	.440*
	Sig. (2-tailed)	.439	.174		.019
	N	28	28	28	28
	Pearson Correlation	-.289	-.429*	.440*	1
	Sig. (2-tailed)	.135	.023	.019	
	N	6	6	6	6

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

Table 4.5 shows that CBBP has positive relationship with COP but not significant. This implies that CBBP contributes 3.67% to COP. This result is in line with expectation that Cost Benefits arising from Bulk Procurement has positive relationship with corporate performance. But CBIL and SLTR have inverse effect on corporate performance. This implies that the Cost Benefits arising from Integrated Logistics and Slack Time Reduced in the Production Process lower the level of corporate performance.

Table 4.6: Regression Result

Variable	Co-efficient	t- value	P
COP	4.558	1.783	0.087
CBBP	0.014	1.426	0.167
CBIL	-0.002	-0.015	0.988
SLTR	-0.023	-0.716	0.481
R ²	0.156		
Adj. R ²	0.050		
F – Value	1.478		
probability	0.245		

Source: Field Result, 2022

The intercept value of 4.558 indicates that the corporate performance will grow by 4.558 while all other factors are maintained constant. Estimated coefficients of 0.014 CBBP indicate that a unit change will result in a 0.1% increase in COP, -0.002 CBIL indicates that a unit change will result in a 0.2% decrease in COP, and -0.023 SLTR indicates that a unit change will result in a 0.2% decrease in COP. The finding demonstrates that CBBP has a beneficial effect on COP, which is consistent with predictions.

4.3 Test of Hypothesis

From the above table calculated above for CBBP is 0.014 while the t table at 5% level of significance is 1.426. Since the $t_{calc} > t_{table}$, we reject the null hypothesis and accept the alternative hypothesis.

Following the decision criteria below;

Reject H_0 if $t_{calc} > t_{0.05}$

Reject H_0 if $P\text{value} > 0.05$

Therefore we reject the null hypothesis that states that there are no significant relationships between procurement and logistics practice in the selected glass manufacturing firms in Ogun State to profitability.

4.4 Discussion of Findings

This study examines Procurement and Logistics Services as Determinant of Corporate Performance among Selected Glass Manufacturing Firms in Ogun State, two specific objectives was looked into in this study; to evaluate how procurement and logistics practices in the selected glass manufacturing firms in Ogun State have translated to productivity; and, to critically examined whether procurement and logistics practices in the selected glass manufacturing firms in Ogun State have impacted profitability. Two research questions was generated for the study and two hypotheses were also tested in this study.

From the study, findings revealed that procurement has a positive relationship with corporate performance. Also, from the hypotheses tested, it was revealed that there is significant relationship between procurement and logistics practice in the selected glass manufacturing firms in Ogun State to profitability.

Chapter Five

Conclusion

5.1 Summary of Findings

In the course of this research, a number of useful facts were unraveled about procurement and logistics service as determinant of corporate performance among selected glass manufacturing firms in Ogun State. This research study tried to state what procurement and logistics is and does.

Based on the analysis in chapter four the following findings were arrived at which are summarized below:

- i. Procurement practices in companies are a critical factor for productivity.
- ii. Procurement practices in organisations can be responsible for optimal output of finished goods.
- iii. Procurement practices in the company have been instrumental to uninterrupted work flow.
- iv. Logistics standards are positively correlated to finished goods management.
- v. Logistics standards are positively correlated to finished goods management.

. This results trend on the same path with the submission of Green, Whitten and Inman which found that logistics performance is positively impacted by supply chain management strategy and that both logistics performance and supply chain management strategy positively impact marketing performance, which in turn positively impacts financial performance¹.

Finally, procurement and logistics standards are relevant from pre-production to post-production arrangements.

5.2 Conclusion

Based on the foregoing, we have come to the conclusion that procurement and logistics are crucial to every successful enterprise. Having this in place is crucial to the success of any business. This agrees with the findings of a study by Karibo, which aimed to shed light on the impact that logistics management has on on-time deliveries and sales growth. The study concluded that in order to maximise efficiency, businesses should implement and maintain a standard and vanilla logistics management system, ensuring that adequate stock is kept and that the optimal order quantity is achieved through strategic product distribution. Companies and their managers need cutting-edge transportation technology to make even modest time commitments a reality². Although procurement and logistics is not the only factor that contributes to high sales volume, however it carries a higher percentage. Moreover procurement and logistics is a value-adding supply chain management concept and supply chain management is a systematic, integrated management philosophy, its core meaning enables companies to fully understand the customer and market demand, with suppliers and other partners in the business to keep pace, resource sharing and integration, coordinate and support all enterprise collaborative supply chain operations and improve the overall competitiveness of the supply chain, enhance the sensitivity to market risk and effectively meet customer needs of functional systems, build quality brand resources, and ultimately achieve long-term sustainable development of enterprises.

5.3 Recommendations

Based on the conclusion presented above, we drew certain recommendations that served as basis to improve the practice, quality and worth of procurements and logistics among Nigeria manufacturers.

- i. In the light of various findings in the study the following recommendations are made.
Organisation needs to increase the effectiveness of procurements and logistics as well as finding better ways of evaluating this effectiveness.
- ii. Organisation should also strive to ensure that money spent on procurements and logistics yield better results.
- iii. Organisation should consider the appropriate timing for implementation.

Above all, it is recommended that a practise that can be managed according to an approach where the client order is the beginning point, and works down the rest of the chain as such to removing waste and trimming procedures that do not add value along the way. In order to facilitate efficient procurement and logistics, it is recommended that businesses develop a culture of trust throughout the supply chain.

5.4 Contribution to Knowledge

This study offers significant contribution to literature conceptually, theoretically, and empirical.

Conceptually, the study focused on identifying gaps in literature pertaining procurement and logistics services. From the theoretical stand, theories that apply to the study on procurement and logistics services were reviewed. These theories include the Institutional theory, Dynamic

Capabilities theory, Agency theory Resourced Based View theory, and Systems theory. The purpose of these theories is that they offer valuable insight into different circumstances under which the manufacturing firms are likely to be involved in procurement and logistics services as it relates to Corporate Performance. This study's results are in line with the theories reviewed.

Empirically, this study added to existing literature on procurement and logistics services. Though various study has been carried out with regards to the variables reviewed in the work from developed economy context, nevertheless much has not been investigated in manufacturing firms. This mean that much is not known in this regard. Hence, by the findings of the two hypotheses examined, the study become a basis for reference for future study on procurement and logistics services. Moreover, the study provides findings that can serve as reference point to buttress the empirical submissions in further studies.

In conclusion, points raised above lay more emphasis by pointing out the significant contributions offered by this study to knowledge with its practical implication for the management of the selected Glass Manufacturing Firms in Ogun State.

5.5 Areas for Further Studies

Through the study major limitations were that respondents were not willing to respond at first but with on showing them the importance of the study the response to the study was accepted. Time factor was also a challenge as the study was done through questionnaire which are time consuming. Based on the findings, the study suggests that further studies should be conducted on the effects of Procurement and Logistics Services on the Performance of Corporate Firms in Nigeria.

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Appendix I

Macroeconomic Variables of the Study

YEAR	COP	CBBP	CBIL	SLTR
2015	5.9846	132.37	15.48	11.58
2016	6.96	132.60	18.36	12.54
2017	7.161	148.68	17.59	13.72
2018	7.356	146.20	16.02	10.80
2019	6.322	150.20	12.00	12.20
2020	7.161	156.00	12.00	10.67

Source: Author's computation, (2021).

Biodata

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B. Educational Background

1. Educational Institutions Attended with Dates and Qualifications

- Lead City University, Ibadan, Oyo State 2020 – till date
- College of Supply Chain, Lagos State 2016
- Lagos State Polytechnic, Lagos State 2002 – 2004
- Lagos State Polytechnic, Lagos State 1997 – 2000
- Community Secondary School, Mushin, Lagos State 1990 – 1996

2. Academic Qualifications Obtained (with dates)

- MBA, Procurement and Supply Chain Mgt. In view
- PGD, Logistics Management 2016
- HND, Business Administration – Upper Credit 2002 – 2004
- ND, Business Studies – Lower Credit 1997 – 2000
- SSCE 1996

C. Working Experience with Dates

- WACOT Ltd 2018 till date
- ALMA Stores Ltd. 2012 – 2015
- Lucky Accessories Ltd 2007 – 2012

- | | | |
|--|--|------------------|
| ➤ | HR Consultants | 2004 – 2006 |
| D. Award and Fellowship (if any) | | Nil |
| E. Member of Academic Professional Bodies | | |
| ➤ | Chartered Institute of Warehousing and Material Management | Associate Member |
| ➤ | Nigeria Institute of Management (Chartered) | Associate Member |
| ➤ | Chartered Institute of Supply Chain Management | Associate Member |
| ➤ | Institute of Chartered Portfolio Management | Full Member |
| F. Publication (if any) | | Nil |

Signature

Date

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- Lead City University, Ibadan 2020 – till date
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- Lagos State Polytechnic, Lagos State 2014 – 2016
- Lagos State Polytechnic, Lagos State 2017 – 2018
- IHS Ijara-Isin Day & Boarding College, Kwara State 2007 – 2013

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- MBA, Procurement and Supply Chain Mgt. In view
- PGD, Logistics Management 2019
- HND, Business Administration – Upper Credit 2016
- ND, Business Studies – Lower Credit 2018
- SSCE 2013

C. Working Experience with Dates

- West Africa – Petro Gas Global Limited 2020 till date
- Timing Solution Limited (NYSC) 2019
- Guarantee Trust Bank Plc (Transaction Teller 2017) 2017

➤ Victronics Nigeria Limited	2015 – 2016
D. Award and Fellowship (if any)	Nil
E. Member of Academic Professional Bodies	Nil
F. Publication (if any)	Nil

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B. Educational Background

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- Lead City University, Ibadan, Oyo State 2020 – till date
- Babcock University, Ilisan Remo, Ogun State 2007 - 2011
- Ambassadors Demonstration School, Ile-Ife, Osun State 1991 – 1997

2. Academic Qualifications Obtained (with dates)

- MBA, Procurement and Supply Chain Mgt. In view
- BSC, Microbiology 2011
- First School Leaving Certificate 1997

C. Working Experience with Dates

- Thor Exploration 2021 – till date
- Oriental Foods Industry 2018 – 2021
- Rom Oil Mills Limited 2014 – 2018

Signature

Date

University Compliance Certification

This is to certify that this Thesis was written by **Omolara M., ADENIYI** with Matric No. **LCU/PG/001973**, **Adebukola O., AWOTIPE** with Matric No. **LCU/PG/001621**, **Lukmon A., SAKA** with Matric No. **LCU/PG/001537** in the Department of Management and Accounting, Faculty of Management and Social Sciences, Lead City University, Ibadan in full compliance with approved University format.

Signature

Date

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