GLOBAL SUPPLY CHAINS MANAGEMENT IN A DEVELOPING ECONOMY – A CASE STUDY OF NIGERIA ECONOMY

ABSTRACT

Global Supply Chain Management (GSCM) is a complementary activity which entail the movement of goods, services and funds from countries that have sufficient of these resources to where they are needed in good time. Supply chain management is very vital in today's business as it intends to bridge the gap between developing countries and the developed countries by the provision of the wants of both economies. Nigeria as one of Africa's largest economies, has been deeply integrated into global supply chains across various industries, including oil and gas, agriculture, and manufacturing. However, the economic gain from the GSCM has been very low due to several factors such as unprocessed raw materials, unstable government policies, poor infrastructural amenities and poor workforce.

This paper seeks to measure the effect of SCM practices in the manufacturing sector, examine the impact of Global supply chain management (GSCM) practices on the economic development of Nigeria, as well as the constraints and benefits that global supply chains present to Nigeria's business sectors. The quantitative research technique was used to analyse the primary data collection from manufacturing, marketing, transport and logistics sectors of the economy using random sampling technique where descriptive statistics (mean) and inferential statistics (correlation analysis) tools were applied. The Pearson Correlation indicating a strong positive linear relationship between Global Supply Chain Management (GSCM) practices and economic growth and productivity of the sectors. But the null hypothesis was rejected indicating that there isn't sufficient statistical evidence to conclude a significant effect of GSCM practices on the economic growth in Nigeria.

Developing countries, including Nigeria, face numerous challenges in effectively managing global supply chains. To enhance efficiency, competitiveness, and economic growth, it is essential to adopt strategic principles that address infrastructural deficits, regulatory bottlenecks, and technological gaps.

Keywords: Supply Chain, industrialisation, international market, foreign investors, of economic growth and sustainable practices

INTRODUCTION

The concept of Globalisation of value chain has been a prominent feature of the world economy since the 17th century when colonial empires began to carve up the globe in search of raw materials and new markets for their manufactured goods and services. (Allen, R. C. (2011).

Global supply chains have significantly transformed the economic landscape of developing economies over three decades now. Globalisation is a phenomenon that involves functional integration between internationally dispersed activities (Dicken 1998:5). It involves all complementary activities associated with the movement of goods, services and funds from countries that have sufficient of these resources to where they are needed in good time. A supply chain is made up of several business entities (suppliers, manufacturers, wholesalers, distributors, retailers and customers) concerned with ensuring the flow of raw materials, component parts or finished goods from the source to the required destination. From the economics point of view Global Supply Chains(GSCs) is related to the principle of comparative advantage. In furtherance to this study there exist overlapping names and concepts, where different researchers use different terminology to discuss very similar ideas. Global commodity chains, value chains, value systems, production

networks and value networks are just some of the terms used by researchers whose common ground is much greater than their divisions. (Sturgeon, T. J. (2001).

However, GSCs are fundamentally a business strategy of Transnational Corporations (TNCs), and are driven by their own business agenda and interests. Low labour costs alone are insufficient and is not a justification for relocating a part of TNCs' production processes. GSCs also rely on sophisticated and competitive networks of goods and information flow to make decision. Participating and upgrading along the chains require not only manufacturing skills but also some sound business skills that are often lacking in developing countries. GSC (2013). Globalisation of value chain. Globalisation is very important in this 21st century, since it intends to bridge the gap between developing countries and the developed countries by the provision of the wants of both economies. it is the integration of country's resources to the development of the country and other countries. Globalisation is very important in this 21st century, since it intends to bridge the gap between developing countries and the developed countries by the provision of the wants of both economies. Nigeria as one of Africa's largest economies, has been deeply integrated into global supply chains across various industries, including oil and gas, agriculture, and manufacturing.

This paper seeks to examine the impact of Global supply chain management (GSCM) on the economic development of Nigeria, as well as the constraints and benefits that global supply chains present to Nigeria's economic growth.

Global supply chain management (GSCM) is a chain of several companies or firms that perform several functions such as manufacturing, supply of raw materials, transportation of materials, storage of goods, distribution of goods to final consumers and so on. Therefore, the purpose of this research study is to measure the practices of the impact of these chain of firms on the economic development of Nigeria as well as examine the challenges associated with the global supply chains practises, with emphasis on their role in trade expansion, industrialization, job creation and economic growth.

Developing countries, including Nigeria, face numerous challenges in managing global supply chains effectively. To enhance the efficiency, competitiveness, and economic growth, it is essential to adopt strategic principles that address infrastructural deficits, regulatory bottlenecks, and technological gaps. However, the flipside of globalisation also includes falling prices for producers as well as cases where upgrading of products or processes does not necessarily lead to increased profits and sustainable incomes. This section explores key approaches to improving global supply chain management (GSCM) and best practices among stakeholders of various sectors in Nigeria economy.

1.2 Statement of the Problem

The economic development in the Nigeria economy can be classified in two forms; the financial gains and the human capital gains. However, some of the roles of global supply chain practices dwell on the promotion of the viable business relationship between member of the group in different country and in different sectors, but the major objective is for growth and development of the economy of the countries where business is situated. The main worry is the variation in the benefits derived from varying countries are never equivalent, since developed countries benefit more from the chain compared to developing countries. Therefore, this study seeks provide reasons for this difference in the gains accrued to the beneficiaries due to SCM practices and hence, the need to answer some important questions in this research e study.

1.3 Objective of the Study

The general objectives of the study are:

1. Seeks to measure the effect of SCM practices in the manufacturing sector

2. To examine the impact of Global supply chain management (GSCM) on the economic development of Nigeria.

3. To identify the challenges and opportunities presented by the of Global supply chain management (GSCM) practices in Nigeria.

LITERATURE REVIEW

There are various scholars that have conducted research or has perform one form of related study on Global supply chain and its effects on businesses either locally or internationally. Therefore, this section reviewed some of the discovery of scholars that explores related research on the impact of global supply chain management in Nigeria and other countries focusing on its benefits and constraints.

Research by Gereffi et al. (2005) wrote on economic growth and Foreign Direct investment where they highlighted how global supply chains drive Foreign Direct Investment (FDI), leading to industrialisation, technological development and employment generation in developing economies. Nigeria has benefited from multinational investments in manufacturing, oil and gas, and agriculture sectors and the scholars elaborated the role of global supply chain in achieving economic growth. (World Bank, 2021).

Pietrobelli, C., & Rabellotti, R. (2011), explained how participation in global supply chains enables developing countries to adopt advanced technologies and business practices. Their study showed that firms in developing countries engaging in international trade have improved productivity and efficiency through technology adoption and engaging in standard and best practices in their operations, so as compete with multinational firms.

Connelly, B. L., Ketchen, D. J., & Hult, G. T. M. (2013) emphasizes the roles played by global supply chains in the provision of access to larger markets, enabling firms and industries to increase exports. The agriculture and textile sectors have particularly seen growth due to rising demand in global markets as the strive to increase customers and contacts internationally.

Mahmood, S., Misra, P., Sun, H., Luqman, A., & Papa, A. (2024) The study findings indicate that SEZ establishments foster economic resilience by attracting foreign investment, promoting industrial diversification, and facilitating technology transfer. Energy projects, including development of renewable energy sources and energy infrastructure, enhance energy security and mitigate potential risks associated with energy scarcity. Through effective global supply chain management, responsible sourcing, green logistics.

Ovezmyradov, B. (2022). Here the researcher underscores how supply chain help to avoid external disruption such as pandemics, wars and trade restrictions that may affect the economic system by stockpiling of goods and providing such goods for use during the affected period. Therefore supply chain pose to manage the supply disruptions and to also manage the gap of lack of production the and distribution networks gap by closing the lag with the stockpiled goods to meet demand of consumers until the pandemic or disruption period is over.

Elizabeth J. Woods (2004). The researcher analyses the role of SCM in the context of operational effectiveness and strategies for all parties involved. SCM implies managing the relationships between the businesses responsible for the efficient production and supply of agribusiness products from farm level to consumers, to reliably meet consumers' requirements in terms of quantity, quality and price. In practice, this often includes the management of both horizontal and vertical alliances. Meeting customers' requirements involves integrated management of the transactions and relationships between firms as well as processes within firms. Managing these relationships provides an opportunity for negotiating the shares between chain members of the value produced within the chain. The researcher explained that for developing countries to benefit well, their products has to be beneficial to the chain.

Adebayo, I. T. (2012). The study tried to examine the level at which the Nigerian manufacturing companies are involved in SCM practices as well determine the effect of these practices on SCM performance. With a total of 31 companies forming the sample size of the study, the data collected was analyzed using both descriptive statistics (tables, mean and standard deviation) and inferential statistics (correlation and multiple regression analysis), the result showed that SCM practices definitely impacts on SCM performance.

Gunasekaran, et al. (2001) explored that SCM needs to be assessed for its performance in order to evolve an efficient and effective supply chain. The role of these measures and metrics in the success of an organization cannot be overstated because they affect strategic, tactical and operational planning and control.

In addition to these there are other scholars that have carried out GSCs study in Nigeria, developing countries as well as the countries in the international community, but we only mentioned the few stated above for this study.

Supply Chain Practices

Supply Chain Management (SCM) Practices refer to the set of activities, strategies, and processes that organizations use to manage and improve the flow of goods, services, information, and finances from manufacturers through suppliers to end customers efficiently and effectively. Organisations involved need to focus on supply chain management practices that have impact on enhancing SCM activities and ultimately performances (Arawati, 2011).

The objectives of supply chain practices are thus;

i. Reduction of costs: This is where the chain maintenance of the most effective minimal cost for all expenses is considered during practice. The cost of production, storage, transportation, logistics and other expenses are reviewed by members at all time in order to deliver the best to members internationally. These costs are compared relatively at every stage, since SCM is all about cost and benefit. The SCM have put in place tools in the system to check and control cost of operation always, as a matter of control there is standard price control system.
ii. Quality Control System: The quality of services and goods rendered are also very important, because consumer's satisfaction is key. Therefore, at every stage of the supply chain the quality is ascertaining, so that the final product quality is consistent or close to expectation.
iii. Ensure timely delivery: Timing is very important at every production or manufacturing stage, especially for Just in time production (JIT). For the supply chain to be effective,

timing also has to be perfect, as such the time of delivery is paramount at every stage of the chain.

iv. Strengthen relationships with suppliers and customers: For the supply chain to be able to achieve set goal and for the performance to effective there must be a smooth relationship between suppliers, manufacturers and consumers, so that each of the stage should be able to know and understand the needs of the other parties and should be ready to satisfy that need.

v. Increase overall competitiveness: One of the major objective of SCM is to ensure that organisations involved are effective in their performance, this allows for healthy competition among members of group. This brings out the best in terms of customer's satisfaction for all members.

Key Elements of SCM Practices Include:

In Nigeria, where supply chain activities failures can be caused by poor infrastructural facilities availability, fuel scarcity, or port congestion and inconsistent government policies, good SCM practices help businesses like Dangote, Nestlé, or Jumia stay competitive and overcome some of these challenges by ensuring steady flow of products, reduced waste, and improved customer satisfaction. Some of the Key Elements of SCM Practices which enable members of the group performance to be effective Include:

1. Strategic Supplier Partnership

This refers to the long-term relationship and close cooperation between an organisation and its suppliers to achieve mutual benefits. Strategic partnerships with suppliers enable organisations to work more effectively with a few important suppliers who are willing to share responsibility for the success of the products. Suppliers who are willing to go extra mile in getting the right materials for the manufacturer in order to achieve the set product design at the best competitive price. For instance; Dangote Group partners with local and international suppliers for consistent delivery of raw materials (like limestone for cement production). By working closely with reliable suppliers, they reduce delays and improve production efficiency.

2. Customer Relationship Management (CRM)

This practice focuses on building and maintaining strong relationships with customers to increase customer satisfaction and loyalty. This practice allows manufacturers to develop link with customers in order to manage customers need and expectation, here they settle to meeting customer's satisfaction. This allows customers to have confidence in the organisation, its products and her management. Organisations need to view their relationship as asset to the customers which can improve sales. For instance; Jumia Nigeria uses CRM tools to track customer preferences, buying history, and offer personalized deals and information to help customers make informed decision on products qualities and quantities. This keeps customers engaged and encourages through repeat purchases. Also help customers to understand the business of organisation and their products to allow better planning.

3. Information Sharing

Shared information are of two aspects namely quantity information and quality information of SCM. Both type of information is equally important and are utilised by suppliers to win their end users loyalty in terms of finished products. Effective Supply Chain Management requires transparent and timely information exchange among supply chain partners to improve planning and coordination. According to Stein and Sweat (1998), supply chain partners who exchange information regularly are

able to work as a single entity. Together, they can understand the needs of the end user better and hence can respond to market change quicker. For instance; Nigerian Breweries shares demand forecasts and inventory levels with distributors to avoid stock outs or overstock situations, especially during peak seasons like holidays and festive periods.

4. Inventory Management

This involves record management of stored and utilised materials and finished products by both suppliers and customers. This records of stored and used items are for future purposed by either the manufacturers, suppliers or the users of the products. This involves maintaining optimal inventory levels to meet demand while minimizing costs. It is very important stored materials and products are preserves according to standards, to enable usage when the need arises. Inventory management is mainly to minimise, manage or maintain cost as well as time effect. For instance;
Shoprite Nigeria uses inventory tracking systems to monitor stock levels in real-time, ensuring popular items like rice, cooking oil, meat and vegetables are always available without overstocking.

5. Logistics Management

It focuses on the efficient movement of goods from suppliers to manufacturers to customers. This flow of materials and products requires timing too. This is because manufacturers need to meet customers demand, thereby building customers confidence on product and organisation. It is also necessary for brand or product's loyalty. Logistics management involves communication, warehousing, transportation, quality assurance, distribution, record keeping and so on. For instance;

Indomie (Dufil Prima Foods) has a robust logistics network with warehouses and distribution centers across Nigeria to ensure quick delivery of noodles to even remote areas.

6. Quality Management

Ensures that products and processes meet defined quality standards throughout the supply chain. Quality assurance works for both raw materials, intermediate products and final products. This is another vital section of the SCM. This is where all the product confidence is built on, as such the quality management is not negotiable for SCM practices to be effective. In order to maintain the quality of products some of the members keep a separate section to handle quality assurance of the products at all stages. For instance; Nestlé Nigeria maintains strict quality checks for raw materials and finished goods. They work closely with farmers in Northern Nigeria to ensure high-quality raw milk for their products.

7. Outsourcing and Third-Party Logistics (3PL)

This is a situation where organisation contract out a section of its department to specialist to handle for professionalism and efficiency purpose. It Involves using external companies to handle certain supply chain functions like warehousing, transportation, or packaging. This part of SCM is only introduced after manufacturers and organisations have compared all options such as quality, time as well as cost and discovered that this is the best alternative for the organisation to outsource that area of the organisation's department or function to enable the organisation focus on primary duty. Most often organisation outsource certain part of responsibility or duty to enable management concentrate on the very important aspect of their duty for economic and business purpose. For instance; Konga e-commerce company outsources their delivery to GIG Logistics in order to reduce delivery times and operational costs.

8. Green Supply Chain Management

This focuses on environmental sustainability by reducing waste, recycling materials, and minimizing carbon emissions. This section is for organisations that deal with recycle products, such as plastics, PVC materials, paper (pulp materials). They engage suppliers of this materials and train the suppliers at intervals how to handle these materials to keep them in useable state, such as cleaning this recycle materials, sorting them and package them for supply purpose or use. This section of SCM always work according to government standards. For instance; Coca-Cola Nigeria promotes recycling through partnerships like the Food and Beverage Recycling Alliance (FBRA) to collect and recycle Coke PET bottles.

9. Demand Forecasting and Planning

This section work with data collection from sales or marketing department and also the procurement or purchase department. The accounts department also play vital part here, since it deals with financial position of the company. Predicting customer demand to align with production and inventory of the company. This allows management of the organisation to know their business best to have control of every situation involving customers demand. For instance; PZ Cussons Nigeria uses sales data and seasonal trends to forecast demand for soaps and detergents, helping avoid shortages during festive seasons.

10. Risk Management in Supply Chain

This section help Identifying and mitigating risks that could disrupt supply chain operations. These risks are from suppliers not meeting company's demands, poor quality risk, poor marketing or sales risk, over demand risk, workers or labour challenges risk, financial risk; unable to meets demand, etc. all risk have better management strategies. Therefore, management should prepare to manage any form of challenge the organisation is faced with, in order to get effective performance for SCM operations. For instance; During the COVID-19 pandemic, pharmaceutical companies like Emzor Pharmaceuticals adopted local sourcing strategies to reduce dependence on imports, managing risk from global supply disruptions.

EMPIRICAL THEORY ON GLOBAL SUPPLY CHAIN

Introduction

Several empirical theories underpin global supply chain management (GSCM), providing a framework for understanding its dynamics, efficiency, and impact on economic development. These theories help explain how supply chains operate, how businesses optimize their networks, and how economies benefit from integration into global markets. This section reviews key empirical theories that support GSCM, with a particular focus on their relevance to Nigeria.

1. Global Value Chain (GVC) Theory

The Global Value Chain (GVC) theory, developed by Gereffi et al. (2005), this is a specialised form of division of labour where production is fragmented across multiple countries or states into stages, allowing firms to specialize in specific stages of manufacturing processes or service provision. This theory emphasizes on governance structures, upgrading opportunities, and the distribution of economic benefits across different nations. In Nigeria, this theory is relevant in sectors such as agriculture and oil and gas, where integration into global value chains influences production efficiency and trade patterns. For instance, Multi-choice Ltd are in charge of Entertainment business they run entertainment business various Africa countries.

2. Transaction Cost Economics (TCE) Theory

This theory was initiated by Ronald Coase (1937) and later by Williamson's (1975) Transaction Cost Economics theory, this theory measures the cost and benefits associated to employing a particular type of economic activity and it explains how firms decide between in-house production and outsourcing the production or economic activity based on cost efficiency. This theory highlights the role of contract enforcement, opportunism, and asset specificity in global supply chain decisions. For Nigeria, TCE theory is useful in analysing how businesses engage with international suppliers, navigate regulatory frameworks, and mitigate risks associated with cross-border trade. Other scholars that contributed to this theory recently are Benito and Tomassen (2010) have examined the implications of governance costs for the exploitation of technology in a knowledge-intensive firm, Buckley and Hashai (2014), for example, emphasize that the knowledge-intensity of the firm will impact on its organizational structure. The core concept of this theory is that most firms compare the market cost or external cost to cost of operation, if operation cost is lower, then better internalise firm's operation broad. For instance, Jumai E-commence and her business relationship with GIG Logistics to handle all Jumai deliveries.

3. Resource-Based View (RBV) Theory

The Resource-Based View (RBV) theory, proposed by Barney (1991), posits that firms achieve competitive advantage by leveraging unique resources of the firm either tangible or intangible assets and capabilities which are the firm's capacity to employ its resources effectively to achieve desired outcomes. This include the skills, routines, processes, and organizational structures that enable a firm to coordinate and leverage its resources to create value, In the context of GSCM, RBV theory suggests that Nigerian firms must develop specialized skills, technological capabilities, and infrastructure to enhance their competitiveness in global supply chains. Generally, the Resource-Based View theory suggests that competitive advantage grew from the strategic leveraging of valuable, rare, inimitable, and non-substitutable resources and capabilities, which enable firms to surpass rivals and achieve superior financial performance on the long term bases. (Somashekar, C. (2014). For instance, Konga and Jumai specialises in E-commerce, GIG Logistics specialises in logistics

4. Network Theory

Network theory examines how firms establish relationships with suppliers, customers, and other stakeholders within supply chains. According to this theory, strong networks enhance knowledge sharing, reduce uncertainty, and improve operational efficiency. Nigeria's participation in global supply chains can benefit from fostering strategic partnerships with multinational corporations and leveraging digital platforms to strengthen business networks. For instance, Peterson and Zetasan (PZ) where records of sales for the various divisions were managed for future forecasting.

5. Just-in-Time (JIT) and Lean Supply Chain Management Theory

Just-in-Time (JIT) and Lean Supply Chain Management theories focus on reducing waste, improving efficiency, and ensuring timely production and delivery. Originally developed in Japan's manufacturing sector, these principles have been widely adopted in global supply chains. In Nigeria, adopting JIT strategies can help minimize delays caused by infrastructural challenges and enhance production efficiency. For instance, Dangote cement and its customers.

6. Institutional Theory

Institutional theory explores how regulatory environments, social norms, and governmental policies shape supply chain practices. It highlights the role of institutional pressures in determining how firms comply with international trade regulations, sustainability standards, and corporate governance

requirements. Nigeria's regulatory framework and policy consistency play a crucial role in determining the country's attractiveness to global supply chain investors. The following are the key components of institutional theory of trade: Institutions can include legal systems, property rights regimes, trade agreements, cultural norms, and social conventions. Transaction Costs: These costs can include search and information costs, bargaining and negotiation costs, monitoring and enforcement costs, and coordination costs. Comparative Institutional Advantage: The Institutional Theory of Trade suggests that countries may possess a "comparative institutional advantage" in certain industries or types of trade due to the quality and effectiveness of their institutional environment. Path dependence suggests that historical institutional arrangements and policy choices can have long-lasting effects on economic outcomes and patterns of trade. For instance, Nigerian Brewery Ltd., they manage farms in Niger State, Edo State, etc while the manage factories is Lagos State, Oyo State, etc

Conclusion

These empirical theories provide a comprehensive understanding of global supply chain management and its impact on developing economies like Nigeria. While the Global Value Chain (GVC) theory explains the structure of supply chains, Transaction Cost Economy (TCE) and Resource Base View (RBV) theories address cost efficiency and competitive advantage respectively. Network theory, JIT principles, and institutional theory further enhance our understanding of how firms optimize their global supply chain operations. By aligning policies and business strategies with these theoretical insights, Nigeria can strengthen its role in global supply chains and drive sustainable economic growth.

<u>Opportunities of Global Supply Chains in Nigeria</u>

There are several opportunities associated with being a member of the group or carrying out its practices, which help to overcome the negative effect of the policies of the countries where member carry-out their business. Majorly the advantage for existing members is that the domestic environment does not affect them very much, since their operating domain is globally and not locally. There only challenge is the local regulation, as such some many opportunities are open to members as thus;

1. Economic Growth and Job Creation

Global supply chains facilitate foreign direct investment (FDI), which allows the establishment of multinational companies in Nigeria and as such resulting in both vertical and horizontal expansion of organisations, assist in opening the economic causing growth in the nation Gross Domestic Product (GDP). The advent of Global Supply Chain spurred economic growth through the creation employment opportunities in several sectors, particularly in sectors such as manufacturing, agribusiness and logistics. It also encourages collaboration of business organisations in order to maximise profit apart from Job creation.

2. Technology and Knowledge Transfer

Participation in global supply chains exposes Nigerian businesses to advanced technologies and best practices from international partners through strategic partnership and international networking which also allows the transfer of skills and knowledge geographically. This knowledge sharing and transfer enhances productivity and efficiency amongst members as well as helping local industries improve their competitiveness.

3. Market Expansion

By integrating into global supply chains, Nigerian businesses can access international markets, expanding their consumer base beyond domestic boundaries. This is particularly beneficial for industries such as agriculture, leather and textiles, where exports have grown due to global demand for such products.

4. Infrastructure Development

The need for efficient transportation and logistics to support supply chain operations has encouraged infrastructure investments, including road networks, ports, transportation and communication systems, which benefit both businesses and the general population. This infrastructural development could be carried out by both the public and the private sectors of the economy, but it is objectively to facilitate economic growth as well as ease the social life of citizens of the country.

Challenges of Global Supply Chains in Nigeria

The flaws and constraints for members are majorly globally and universal, as such it is shortly lived, because the general group most often go all out to solving their challenge since it is universal. Some of the common challenges experienced are thus;

1. Supply Chain Disruptions and Vulnerability

Nigeria's dependence on global supply chains makes the country's economy vulnerable to external crisis, due to the existence of external link any disruption in the international community will surely affect the country, such as geopolitical tensions, pandemics, and trade restrictions. For example, the COVID-19 pandemic disrupted supply chains, leading to shortages and scarcity of products and increased costs.

2. Infrastructural Deficiencies

Despite some of the progress recorded internationally in terms of availability of infrastructure, Nigeria's infrastructure remains inadequate for seamless global supply chain integration due to the political instability, poor leadership style, poor road networks, unreliable power supply, and congested ports which hinder efficient trade and logistics operations in the country.

3. Regulatory and Policy Challenges

Nigerian businesses are challenged by faults caused by the Government structures and policies such as Bureaucratic red tape, inconsistent in Government policies, and trade restrictions which create barriers for businesses looking to engage in global supply chains. These Regulatory deficiencies include multiple taxation often increase costs and discourage foreign investment. Inconsistent or poor government fiscal policies such as withdrawal of incentives from the businesses, poor infrastructural amenities to reduce cost of operation or production cost.

4. Limited Value Addition and Industrialization

Nigeria primarily exports unprocessed agricultural materials rather than processed goods, which is low in value, limiting the country's economic benefits in global supply chain participation. This lack of industrialization goods causes the country missing out on higher-value manufacturing and processing activities.

5. Poor Environmental and Social Concerns for Workforce

Global supply chains in developing countries that only contribute to the unprocessed products can lead to exploitative labour practices and environmental degradation of such countries, since their products is of low value. For instance, countries with mining industries and agriculture suffer deforestation, pollution, and poor working conditions for their workforce because of the low cost of their products

METHODOLOGY

This research study adapts a social survey research design method whereby questionnaires were administered for strategic Primary data collection on a sample population of 160 workers from different companies in varying sectors such as manufacturing sector, transportation sector, communication sector and logistics. In order to get the required information for the research study quantitative method of data analysis was applied.

Having regard of the characteristics of our research population and considering the size of the population where respondents were drawn to complete our questionnaires, we draw our sample size using the Krejcie and Morgan (1970) method of determining sample size for research activities using the Table 1 below.

Form the Table 1; it shows that we administered 160 Questionnaires to three section of the Global Supply Chain group that is the Manufacturing Sector, Suppliers, Transport and Logistics. We received 60% of the questionnaires out of which 10% were invalid and 90% were utilized for the study. Therefore, we had respondents for the 87 questionnaires. The breakdown to the three sections were Manufacturing with 36 results, suppliers with 23 results and Transport and logistics 14 each.

The administered questionnaires are proportionate to the total population of the sampled sites of the program. To determine the number of respondents from each of the sites, Taro Yamane's (1967) method was utilized. The Method is given as:

$$Pr = \frac{n \times SS}{N}$$

Where:

Pr = Proportion of respondents

n = Population of each of the selected area

SS = Sample Size; and

N = Total Population of all the selected areas

According to Odoh (1995), simple random sampling technique ensures that each element within the population has an equal chance of being represented i.e. each element has an equal probability of being represented. To this end, any employee in the various section as mentioned above, who is willing to respond to our questionnaire is sampled though he/she must be working under any of the mentioned organization in the different section of Global Supply Chain. This means every employee have the probability of being sampled in so far as he/she is within the Selected Companies staff member either in the manufacturing section or Distribution or Supplier section or the Transport and Logistics section.

The questionnaire information was tested in order to ascertain its reliability of the questionnaire using Cronbach's Alpha test with Statistical Package for Social Sciences (SPSS) version 27, so that we

will ascertain that the internal contents of the questionnaire would enable us to achieve the objectives of the research study.

The Cronbach's Alpha for the research questionnaire is 0.9, and it Is made of 16 questions; this gave confidence to the researcher to proceed with research technique selected for the study. The questionnaire is sub-divided into four sections, namely section one: Demography of the despondent, section two: The effects of Global Supply Chain Practices, section three: The impact of GSCM on the selected sector and economic growth of the country and section four: The Challenges associated with GSC practices and possible recommendations. In totality every aspect of the questionnaire contributed to achieving the objectives of the research study as the questions were all aligned toward the objectives of the study.

The Pearson product moment correlation coefficient test was calculated at 5% level of significance with 95% confidence level. To answer the research questions as well, the researcher adopted the mean score, with a group mean.

Decision Rule

The answering of research questions have it at Where; $\overline{X}$ is the average and the 5-Likert scale average for decision making = 3.0, the decision rule is given as;

- High if the item statement and group mean is greater than 3.0
- Average or Medium if the item statement and group mean is 3.0
- Low if the item statement and group mean is less than 3.0

The decision rule on the postulated hypotheses stated that, if p-value is less than alpha (p-value <a), we reject the null hypothesis, while if p-value is greater than alpha (p-value >a), we accept the null hypothesis. For purpose of this study, alpha was taken at 5% level of significance.

RESEARCH DATA

Primary data is collected through the distribution of instrument questionnaires to the sample workers in the different organisations from the manufacturing sector, marketing sector, transport and logistics sectors.

The data was analysed quantitatively using tables and descriptive statistics such as frequency distribution tables and simple percentages while hypotheses were tested using the inferential statistics (correlation analysis) on SPSS version 27 statistical tools which are basically quantitative methods.

The data was extracted from 90 questionnaires distributed to four selected sectors of the Global Supply Chain group, which serve as random samples for the population under study.

RESULTS AND DISCUSSION

A total of 160 questionnaires were distributed for the collection of information, however, only 90 were well completed which is 57% for the analysis. But, 96 questionnaires were returned which is 60% of the sample size. For each section of the group namely Manufacturing sector, Supplies sectors, Transportation and Logistics the no. and percent of valid questionnaires received are thus Manufacturing has 38 questionnaires which is 63%, Suppliers has 24 Nos which is 48%, Transportation and Logistics has 14 Questionnaires each that is 56%. This signifies that the division

with the lowest respondents from percent is Suppliers / Distribution, while the highest is Manufacturing division with 63%. The over all mean for the distribution is 55.75% which shows that the distribution is slightly right skew. Therefore, we can go ahead to do the analysis for Global supply chain practice. To ascertain effect of the GSCM practice on the productivity of the organization.

Table 3 from the research study display the level of effect the Global Supply Chain Management practice has on the vary selected organization operation. This measurement is shown as thus:

Likert Scale 1 = N.A – Not at all meaning the practice has no impact on the organization operation, scale 2 = V.M – Very Moderate means the practice effect is very moderate on the organization operation. The scale 3 = S.M – Slightly Moderate is average, while the Likert scale 4 = H. – Highly Significant meaning the effect is more, and the scale 5 = V.H. – Very Highly Significant is the highest level of impact. This effect is thus for Manufacturing the lowest is 8% while the highest is 43%, for the Suppliers the lowest is 5% and the highest is 43%, for transport and logistics the least is 0% and the highest is 36%. The over all mean for Manufacturing is 3.24, which is moderate, Suppliers is 4.17, which is high, transport is 4.0 is also high, while Logistics is 3.86 which is slightly high.

Table 4 from the research study the effectiveness of Global Supply Chain on the economic growth or productivity of the sectors selected.

Using the Likert scale 1 represents V.IN means very ineffective to the selected sector's economic growth or productivity. Likert scale 2 - INEF represents ineffective, scale 3 – M is moderately effective, scale 4 – EFF means effective and scale 5 – V.EFF means Very effective. The Table 4 analysis is thus for the different selected sectors; Manufacturing sector lowest percent, highest percent and the group mean score are 5%, 48% and 3.05 respectively which is moderate. The suppliers scores are 0%, 46% and 4.25 group mean respectively, this shows that the sector is very effective. Transport sector scores are 0%, 50% and 4.0 group mean respectively which signifies that it is effective and Logistics scores are o%, 34% and group mean of 4.29 which is very effective. Form the research findings Logistics is the most effective of the four selected sector.

This study signifies that the productivity effect of Global Supply Chain on the various sectors align with GSCM practices operational activities. The studies highlighting the positive correlation between GSCM practices and improved organizational performance, including environmental and financial benefits. Which partly the conclusion of the first test.

The Second part of the test is the Hypothesis testing where the Impact of GSCM is tested on the various sector to ascertain its effectiveness.

Some of the basic assumptions of the correlation analysis were met. The variables used for the analysis were extracted from the questionnaires and all the analysis were carried out using Statistical Package for Social Science (SPSS) version 27.

The decision rules applied in this study are;

- Reject H_0 if P-value is less than or equal the level of significant = *0.05*.
- Accept H_0 if P-value is greater than the level of significant = *0.05*

Hypothesis one:

H0: The Global Supply Chain Management (GSCM) practices has no significant impact on the economic growth and productivity of various organisations

HI: The Global Supply Chain Management (GSCM) practices has significant impact on the economic growth and productivity of various organisations

Dependent Variable: Economic Growth

Independent variable: Global Supply Chain Management (GSCM)

Different Sectors or Divisions	GSCM Practices Grades	Economic Growth or Productivity
Manufacturing Sectors	3.24	3.05
Suppliers	4.17	4.25
Transport Sector	4.00	4.00
Logistics	3.86	4.29

The Pearson Correlation Coefficient (r) = 0.95, indicating a strong positive linear relationship between Global Supply Chain Management (GSCM) practices and economic growth and productivity of the sectors.

The t – Statistics testing (t) = 3.88

The p-value P = 0.06.

The sample No. N = 90

Hypothesis Testing

- **Null Hypothesis (H_o):** GSCM practices have no significant effect on economic growth.
- **Alternative Hypothesis (H_1):** GSCM practices have a significant effect on economic growth.

Given that the p-value (0.06) is slightly above the common significance level of 0.05, we fail to reject the null hypothesis. This suggests that, based on this data, there isn't sufficient statistical evidence to conclude a significant effect of GSCM practices on economic growth. Therefore, while the Pearson correlation coefficient indicates a strong positive relationship between GSCM practices and economic growth, the p-value suggests that this relationship isn't statistically significant at the 0.05 level. It's important to note that the small sample size (n=4) may have limit the power of this analysis. Further research with a larger dataset is recommended to draw more definitive conclusions.

RECOMMENDATION FOR ENHANCING THE GLOBAL SUPPLY CHAIN PRACTICES

To maximize the benefits of global supply chains while mitigating challenges, Nigeria should adopt the following strategies:

1. **Strengthen Infrastructure**: Government should Invest in roads construction, ports expansion and construction, and constant energy supply to facilitate, seamless trade and logistics

operations. The government can also encourage the private sector to partner with the government in providing infrastructural amenities.

2. **Enhance Industrialization**: The Government should encourage building of industries by provide the necessary resource and encouragement to investor through the provision of incentives. This Promote value addition to materials by encouraging local manufacturing and processing industries to research on products manufacturing.

3. **Improve Regulatory Frameworks**: The government should introduce policies that will improve the regulatory framework to check the excesses of agencies and to Simplify trade regulations and ensure policy consistency to attract investors. Implement consistent and transparent trade policies to attract foreign investments. Streamline customs procedures and reduce bureaucratic delays to facilitate smoother cross-border trade. Encourage fair labour practices and corporate social responsibility initiatives.

4. **Develop Human Capital**: The government should Invest in education and skills development centres as well as encourage private sector to invest in educational institution and also create and train workforce capable of handling advanced supply chain processes or skills.

   The government should foster public-private partnerships to provide specific - industry training programs.

   The encouragement of research and development (R&D), logistics and supply chain management training will also help to increase the acceptance of GSCs in the country.

5. **Promote Sustainability**: Organisation should be encouraged to carry out project that will promote environmental law and labour regulations to ensure responsible business practices.

   Strengthen intellectual property rights and contract enforcement to foster a reliable business environment.

6. Enhancing Regional and International Trade Agreements

Strengthen Nigeria's participation in regional trade agreements such as the African Continental Free Trade Area (AfCFTA).

Foster diplomatic relations to ease trade restrictions and improve international or global market access.

Promote integration with global supply networks through strategic partnerships.

7. Promoting Sustainable and Ethical Supply Chain Practices

Implement policies that ensure environmental sustainability in supply chain operations.

Adopt circular economy principles to minimize waste and enhance resource efficiency as well as encourage ethical practices will go a long way in boosting the businesses.

8. Leveraging Digitalization and Technology

Data and digital record collection and storage as well as Adopt block chain technology for supply chain transparency and fraud prevention. Also permit the utilization artificial intelligence and big data analytics for demand forecasting and risk management, to enable

Promotion of e-commerce platforms to connect local producers with international buyers. This will enable the global system to become a unified system of operation.

CONCLUSION

Global supply chains present both opportunities and challenges for Nigeria. While they contribute to economic growth, job creation, and technology transfer, issues such as infrastructure deficiencies, regulatory hurdles, and supply chain vulnerabilities must be addressed. By implementing strategic policies and investments, Nigeria can optimize its participation in global supply chains, ensuring sustainable economic development.

The literature underscores that while global supply chain management offers significant opportunities for Nigeria in terms of economic growth, technology transfer, and trade expansion, challenges such as infrastructural weaknesses, policy inefficiencies, and supply chain vulnerabilities persist. Addressing these challenges through strategic policy interventions, investment in infrastructure, and sustainable practices can enhance Nigeria's position in global supply chains.

Improving global supply chain management in Nigeria requires a multifaceted approach, incorporating infrastructure development, policy reforms, technology adoption, and capacity building. By addressing these key areas, Nigeria can strengthen its global supply chain position, attract investments, and drive long-term economic growth.

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Table 1 – Quantities of Questionnaire Distributed, Collected and Utilised as Sample for the Global Supply Chain Management

Source/Sectors	Total Sample	Proportional Sample – (Returned)	Approximated Proportional Sample (Useful)
Manufacturing Sector			
Unique Leather Co. Lrd	10	8	8
N-Sama Global Industries	10	6	6
Salient Industrial Ltd	10	7	7
Fas Agro Industries Ltd	10	5	5
M.C. Plastics Co. Ltd.	10	6	6
Tower Nig. Ltd	10	4	4

	60	36	36
Suppliers			
Avery Nig. Ltd	10	4	2
TekniTeed Nig. Ltd	10	7	3
Fouani Nig. Ltd	10	6	5
Mikano Nig. Ltd.	10	8	8
Jubaili Bros	10	5	5
	50	30	23
Transport and Logistics Company			
DHL Int' Ltd.	10	7	6
Fedex Couriers Services	10	5	5
A.A. Rano Airlines	10	6	6
UAS Airlines	10	5	5
Max Airlines	10	7	6
	50	30	28
Grand Total	**160**	**96**	**87**

Table 2 – Analysis of the Distribution of Questionnaires

Category of respondents	**Questionnaire administered**	**Questionnaire returned**	**% returned**	**Questionnaire duly filled**	**% duly filled**
Manufacturing	60	40	67.0%	38	63.3.0%
Distribution / Supplier	50	25	50.0%	24	48.0%
Transport	25	16	64.0%	14	56.0%
Logistics	25	15	60.0%	14	56.0%
Total	**160**	**96**	**60.0 %**	**90**	**57.0%**

Table 3 – Analysis of Global Supply Chain Management Practices

S/No	To what Extent the Organisation engage in GSCM	N.A 1	V.M 2	S.M 3	H 4	V. H 5	Total	Mean Score	Decision or Comments
1	Manufacturers	3 (8%)	7 (17%)	9 (24%)	16 (43%)	3 (8%)	38	3.24	Moderate
2	Suppliers	1 (5%)	1 (5%)	2 (9%)	9 (38%)	11 (43%)	24	4.17	High
3	Transporters	0 (0%)	1 (8%)	3 (22%)	5 (36%)	5 (36%)	14	4.00	High
4	Logistics	0 (0%)	1 (8%)	4 (29%)	5 (36%)	4 (29%)	14	3.86	High

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S/Nos	The Impact of GSCM on Economic Growth or Productivity scales			RESPONDENCE – Impact of GSCM on Sectors					
		V.IN 1	INEF 2	M 3	EFF 4	V.EF 5	Total	Mean score	Decision or Comment
1	Manufacturers	2 (5%)	8 (21%)	8 (21%)	18 (48%)	2 (5%)	38	3.05	Moderate
2	Suppliers	0 (0%)	0 (0%)	3 (12%)	10 (42%)	11 (46%)	24	4.25	Very Effective
3	Transporters	0 (0%)	1 (8%)	2 (15%)	7 (50%)	5 (27%)	14	4.00	Effective
4	Logistics	0 (0%)	0 (0%)	4 (32%)	5 (34%)	5 (34%)	14	4.29	Very Effective

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