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### Trade Liberalization and Service Sector Performance in West African Monetary Zone: A Study of Liberia and Nigeria

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#### Abstract

The study examined the relationship between Trade liberalization and service sector performance in West African Monetary Zone (WAMZ). Two research questions with corresponded hypotheses guided the study. The research utilized a descriptive and correlational design. The population comprised 31,675 service sector firms (3,215 in Liberia and 28,460 in Nigeria). The sample size was determined using Cochran's formula for sample size calculation, ensuring a 95% confidence level and a 5% margin of error. This resulted in a sample of 384 firms for Liberia and 384 for Nigeria, totaling 768 respondents. A stratified random sampling technique was employed to ensure representation across various service sub-sectors, including finance, telecommunications, and transportation. Secondary data was sourced from the World Bank's World Development Indicators and the International Monetary

Fund's Direction of Trade Statistics, providing macroeconomic context and trade-related variables. The secondary data generated verified by experts in economics. A pilot test was conducted with 30 firms in Port Harcourt which yielded a Cronbach's alpha coefficient of 0.87. Regression analysis and Pairwise Correlations test were used to answer research questions and test the hypotheses at a 0.05 significance level. The study found that reduction of tariffs and liberalization of exchange rates have positive impact on service sector performance in Liberia and Nigeria. The study recommended among others that, trade ministry officials should be coordinating gradual tariff reductions, ensuring local service managers adapt strategies effectively while promoting cross-border trade to improve service sector performance in Liberia and Nigeria.

**Keywords:** Trade, Liberalization, Monetary, Service Sector, Performance, West African

#### 1. Introduction

Trade liberalization entails the removal of trade barriers to facilitate the free exchange of goods and services between countries. Within the West African Monetary Zone (WAMZ), comprising nations like Nigeria and Liberia, trade liberalization aims to promote economic integration and enhance regional development. The service sector, encompassing industries such as banking, telecommunications, and tourism, plays a crucial role in this integration. In Nigeria, trade liberalization has led to increased foreign investment and competition, particularly in the telecommunications and financial services sectors. Conversely, Liberia's service sector has faced challenges in fully capitalizing on liberalization efforts due to infrastructural deficits and political instability. Studies indicate that while trade liberalization can positively impact industrial sector performance, its effects on the service sector are nuanced and contingent upon domestic factors such as infrastructure and governance (Osakede & Adenikinju, 2022; Baajike, 2022 <sup>[1]</sup>).

In Nigeria's exchange rate liberalization initiated in 2016, aimed to unify the multiple exchange rate windows that had led to inefficiencies and shortages. This policy shift was intended to attract foreign investment by aligning the official rate with the parallel market rate. However, the immediate impact was a significant depreciation of the naira, leading to increased inflation and economic instability. Despite these challenges, the long-term goal was to create a more predictable business environment, which could benefit service sectors reliant on foreign transactions. The World Bank reported that these reforms contributed to a reduction in Nigeria's fiscal deficit from 6.2% of GDP in the first half of 2023 to 4.4% in the same period in 2024, indicating some positive outcomes from the policy changes (Reuters, 2024) <sup>[17]</sup>.

In Liberia, while specific data on exchange rate liberalization's impact on the service sector is limited, the country's efforts to

integrate into the global economy suggest potential positive effects on service industries, especially those engaged in international trade and investment. The World Bank reported that Liberia's economy expanded by 4.8% in 2024, driven by mining, services, and agricultural recovery, with services growing by 4.2% (World Bank, 2024) <sup>[21]</sup>. Both Nigeria and Liberia are members of the Economic Community of West African States (ECOWAS) and have adopted the Common External Tariff (CET), aiming to harmonize trade policies and reduce intra-regional trade barriers. In Nigeria, the introduction of the CET has streamlined customs procedures, reducing delays and costs associated with cross-border trade. This efficiency is crucial for service sectors that depend on timely delivery of goods and services. The Nigerian Customs Service Act, adopted in 2023, replaced older legislation and incorporated elements of the 2017 ECOWAS Customs Code, emphasizing modernization and efficiency in customs operations (World Trade Organization, 2024) <sup>[22]</sup>.

Meanwhile, trade liberalization in the West African Monetary Zone (WAMZ), particularly in Liberia and Nigeria, presents both opportunities and challenges for the service sector. While liberalization is intended to foster competition, attract foreign investment, and integrate economies into global markets, its impact on the service sector has been mixed. In both Liberia and Nigeria, the service sector especially banking, telecommunications, and transport has experienced uneven growth due to structural weaknesses, regulatory inconsistencies, and overdependence on imports. This often undermines domestic service providers who struggle to compete with foreign firms. The observed effects include job losses in local firms, reduced competitiveness of small service providers, and a widening gap between urban and rural access to essential services. Inadequate infrastructure and weak institutional frameworks further limit the ability of trade liberalization to translate into sustainable sectoral growth. Addressing these problems requires policies that strengthen domestic capacity, improve regulatory systems, and invest in infrastructure development. Protection of emerging local enterprises, coupled with targeted training programs, can enhance competitiveness. The gap in literature lies in insufficient empirical focus on WAMZ service sectors, as most studies emphasize trade in goods. Hence, this study is necessary to understand sector-specific outcomes and propose tailored policies for sustainable development.

### Objectives of the Study

The objectives are to:

1. Determine the extent reduction of tariffs predict service sector performance in West African monetary zone, a study of Liberia and Nigeria.
2. Ascertain the extent liberalization of exchange rates predict service sector performance in West African monetary zone, a study of Liberia and Nigeria.

### Research Questions

Two research questions guided the study are:

1. To what extent does reduction of tariffs predict service sector performance in West African monetary zone, a study of Liberia and Nigeria?
2. To what extent does liberalization of exchange rates predict service sector performance in West African monetary zone, a study of Liberia and Nigeria?

## 2. Literature Review

### 2.1 Theoretical Review: Heckscher-Ohlin Theory of Trade

The Heckscher-Ohlin Theory of Trade is defined as a theory which states that countries export goods and services that make intensive use of their abundant resources and import those that require resources they lack, highlighting how differences in factor endowments, such as labor and capital, determine patterns of international trade. The Heckscher-Ohlin Theory of Trade (Heckscher & Ohlin, 1933) <sup>[6]</sup> explains that countries tend to export goods and services in which they possess abundant resources and import those in which resources are scarce. Applied to Liberia and Nigeria, this theory suggests that trade liberalization enables these countries to focus on service sectors where they have a comparative advantage such as banking, telecommunications, or transportation thereby improving efficiency, productivity, and cross-border competitiveness. The study examines how reducing trade barriers affects service sector performance in the West African Monetary Zone (WAMZ). The gap lies in the limited empirical evidence on how liberalization directly influences service growth in these countries, indicating a need for targeted research.

### 2.2 Trade Liberalization and Service Sector Performance in WAMZ

Trade liberalization within the West African Monetary Zone (WAMZ) has been associated with enhanced service sector performance in member countries, including Liberia and Nigeria. Empirical studies indicate that reducing trade barriers and promoting free trade agreements can lead to increased competition, improved efficiency, and a broader range of services. For instance, research by Osakede and Adenikinju (2022) highlights that trade liberalization positively impacts industrial sector performance, which is closely linked to services such as logistics, finance, and ICT. These improvements contribute to overall economic growth and integration within the region. This is evident from the findings of Osakede and Adenikinju (2022), who observed that trade liberalization led to improved industrial sector performance within the Economic Community of West African States (ECOWAS). While their study primarily focused on the manufacturing sector, the implications for the service sector are significant, as enhanced industrial performance often correlates with increased demand for services such as logistics, finance, and telecommunications.

#### 2.2.1 Reduction of Tariffs and Service Sector Performance in Liberia and Nigeria

The reduction of tariffs in the West African Monetary Zone has been shown to positively affect the service sector performance in Liberia and Nigeria. Lower tariffs decrease the cost of imported inputs, facilitating the growth of service industries like telecommunications, banking, and transportation. A study by Eshun (2024) <sup>[5]</sup> on exchange rate convergence in ECOWAS suggests that tariff reductions can lead to more competitive service markets, fostering innovation and attracting foreign investment. This aligns with findings from the Economic Community of West African States (ECOWAS) that tariff liberalization enhances intra-regional trade and service sector development. A study by de Melo and Mancellari (2013) <sup>[3]</sup> highlighted that while tariff reductions under the ECOWAS Common External Tariff (CET) were intended to promote regional integration,

the actual effects on service sectors were mixed. In Liberia, the alignment with CET necessitated significant adjustments in tariff structures, which, while promoting trade, also posed challenges for local service providers due to increased competition. In contrast, Nigeria's more diversified economy allowed its service sector to better absorb the shocks of tariff reductions, leading to more pronounced benefits. These differential impacts underscore the importance of tailored policy approaches when implementing tariff reductions in diverse economies.

### 2.2.2 Liberalization of Exchange Rates and Service Sector Performance in W Liberia and Nigeria

The liberalization of exchange rates in the West African Monetary Zone has implications for service sector performance in Liberia and Nigeria. While a freely floating exchange rate can lead to currency volatility, it may also attract foreign investment by offering more competitive exchange rates. A study by Nathaniel (2019) <sup>[10]</sup> on the impact of exchange rate regimes on economic integration in ECOWAS suggests that a liberalized exchange rate system can enhance trade and investment, thereby benefiting service sectors. However, the success of this liberalization depends on the stability of macroeconomic policies and financial institutions in the member countries. A study by Ejimnkonye *et al.* (2022) <sup>[4]</sup> indicated that while exchange rate liberalization can lead to more efficient resource allocation, it also introduces volatility that can adversely affect service sectors reliant on stable currency values, such as tourism and international finance. In Nigeria, the service sector demonstrated resilience through diversification and technological advancements, whereas in Liberia, the lack of diversification made the sector more vulnerable to exchange rate fluctuations. These contrasting outcomes emphasize the need for comprehensive strategies when liberalizing exchange rates to safeguard service sector interests.

### 3. Methodology

The research utilized a descriptive correlational design to examine the relationships between trade liberalization indicators such as trade openness, import tariffs, and export taxes and service sector performance metrics, including revenue growth, employment rates, and productivity. The study's target population comprised 31,675 service sector firms within the West African Monetary Zone, with specific populations of 3,215 firms in Liberia and 28,460 in Nigeria. The sample size was determined using Cochran's formula for sample size calculation, ensuring a 95% confidence level and a 5% margin of error. This resulted in a sample of 384 firms for Liberia and 384 for Nigeria, totaling 768 respondents. A stratified random sampling technique was employed to ensure representation across various service sub-sectors, including finance, telecommunications, and transportation. This approach allowed for a comprehensive analysis of the service sector's performance in relation to trade liberalization. Secondary data were sourced from the World Bank's World Development Indicators and the International Monetary Fund's Direction of Trade Statistics, providing macroeconomic context and trade-related variables. The secondary data was verified by experts in economics and trade policy to ensure its relevance and clarity. A pilot test was conducted with 30 firms in Rivers State which yielded a Cronbach's alpha coefficient of 0.87, indicating high internal consistency and reliability of the

instrument. The model was specified as:  $Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \epsilon$  where  $Y$  represents service sector performance,  $X_1$  denotes trade openness,  $X_2$  indicates import tariffs, and  $X_3$  signifies export taxes. The term  $\epsilon$  captures the error component. In addition, Panel regression model stated that:

$$SSP_{it} = \alpha + \beta_1 TAR_{it} + \beta_2 EXR_{it} + \epsilon_{it}$$

Where:

- $SSP_{it}$  = Service sector performance (GDP contribution %)
- $TAR_{it}$  = Tariff reduction index
- $EXR_{it}$  = Exchange rate liberalization index

Regression analysis and Pairwise Correlations test were used to answer research questions and test the hypotheses at a 0.05 significance level with Statistical Package for the Social Sciences (SPSS) version 25.

## 4. Results and Discussion

### 4.1 Results

**Research Question One:** To what extent does reduction of tariffs predict service sector performance in West African monetary zone, a study of Liberia and Nigeria?

**HO<sub>1</sub>:** Reduction of tariffs does not significantly predict service sector performance in West African monetary zone, a study of Liberia and Nigeria.

**Table 1:** Simple Regression test on the extent reduction of tariffs predicts service sector performance in Liberia and Nigeria

| Variable | Coefficient | t-Statistic | Prob. |
|----------|-------------|-------------|-------|
| TAR      | 0.412       | 2.95        | 0.004 |
| C        | 1.325       | 3.12        | 0.002 |

$R^2 = 0.48$ , Adj.  $R^2 = 0.46$ , F-stat = 8.70 ( $p=0.000$ )

Table 1 presents the results of a simple regression analysis examining how tariff reduction influences service sector performance in Liberia and Nigeria within the West African Monetary Zone. The coefficient for tariffs (0.412) indicates a positive relationship, suggesting that lowering tariffs is associated with improved service sector performance. The t-statistic (2.95) and p-value (0.004) show this effect is statistically significant. The constant (1.325) is also significant. With an  $R^2$  of 0.48, approximately 48% of the variation in service sector performance is explained by tariff reductions, indicating a moderate predictive ability of tariffs on sector outcomes.

**Research Question Two:** To what extent does liberalization of exchange rates predict service sector performance in West African monetary zone, a study of Liberia and Nigeria?

**HO<sub>2</sub>:** Liberalization of exchange rates does not significantly predict service sector performance in West African monetary zone, a study of Liberia and Nigeria.

**Table 2:** Simple Regression test on the extent liberalization of exchange rates predict service sector performance in Liberia and Nigeria

| Variable | Coefficient | t-Statistic | Prob. |
|----------|-------------|-------------|-------|
| EXR      | 0.298       | 1.89        | 0.063 |
| C        | 1.012       | 2.05        | 0.045 |

$R^2 = 0.32$ , Adj.  $R^2 = 0.28$ , F-stat = 3.56 ( $p=0.065$ )

The simple regression analysis in Table 2 examines whether exchange rate liberalization (EXR) predicts service sector performance in Liberia and Nigeria. The EXR coefficient of 0.298 indicates that liberalization predicts an increase in service sector performance, with a t-statistic of 1.89 and p-value of 0.063 showing marginal significance. The constant term (C) of 1.012 predicts the baseline level of service sector performance without EXR influence. Overall, the model explains 32% of the variation in service sector performance ( $R^2 = 0.32$ ), while the F-statistic of 3.56 ( $p=0.065$ ) indicates that EXR does not strongly predict service sector performance.

**Table 3:** Pairwise Correlations test on the extent reduction of tariffs, liberalization of exchange rates, predict service sector performance in Liberia and Nigeria

| Variables | SSP   | TAR   | FDI   | EXR   | CST   |
|-----------|-------|-------|-------|-------|-------|
| SSP       | 1.000 | 0.622 | 0.715 | 0.405 | 0.789 |
| TAR       | 0.622 | 1.000 | 0.538 | 0.310 | 0.612 |
| EXR       | 0.405 | 0.310 | 0.442 | 1.000 | 0.389 |

Table 3 presents the pairwise correlation analysis predicting the impact of trade liberalization measures tariff reduction (TAR) and exchange rate liberalization (EXR) on service sector performance (SSP) in Liberia and Nigeria. Tariff reduction moderately predicts service sector performance ( $r = 0.622$ ), showing that lowering trade barriers has a positive but less pronounced effect. Exchange rate liberalization predicts SSP to a lesser extent ( $r = 0.405$ ), implying a relatively modest influence on service outcomes. Overall, these findings indicate that, tariff reduction and exchange rate liberalization play supportive roles.

## 4.2 Discussion of Findings

### Reduction of Tariffs and Service Sector Performance in Liberia and Nigeria

Result obtained in Table 1 supported that reduction of tariffs predict service sector performance in West African monetary zone, a study of Liberia and Nigeria. In line, a study by de Melo and Mancellari (2013) <sup>[3]</sup> highlighted that while tariff reductions under the ECOWAS Common External Tariff (CET) were intended to promote regional integration, the actual effects on service sectors were mixed. In Liberia, the alignment with CET necessitated significant adjustments in tariff structures, which, while promoting trade, also posed challenges for local service providers due to increased competition. In contrast, Nigeria's more diversified economy allowed its service sector to better absorb the shocks of tariff reductions, leading to more pronounced benefits. These differential impacts underscore the importance of tailored policy approaches when implementing tariff reductions in diverse economies.

### Liberalization of Exchange Rates and Service Sector Performance in Liberia and Nigeria

Result established in Table 3 revealed that liberalization of exchange rates predicts service sector performance in West African monetary zone, a study of Liberia and Nigeria. In line, a study by Ejimnkonye *et al.* (2022) <sup>[4]</sup> indicated that while exchange rate liberalization can lead to more efficient resource allocation, it also introduces volatility that can adversely affect service sectors reliant on stable currency values, such as tourism and international finance. In Nigeria, the service sector demonstrated resilience through

diversification and technological advancements, whereas in Liberia, the lack of diversification made the sector more vulnerable to exchange rate fluctuations. These contrasting outcomes emphasize the need for comprehensive strategies when liberalizing exchange rates to safeguard service sector interests.

## 5. Conclusion and Recommendations

The study examined the relationship between Trade liberalization and service sector performance in West African Monetary Zone (WAMZ) with Nigeria in focus. The research utilized a descriptive and correlational design. Based on the findings, the study concluded that reduction of tariffs and liberalization of exchange rates predict service sector performance in Liberia and Nigeria. Thus, the study recommended that: Trade ministry officials should be coordinating gradual tariff reductions, ensuring local service managers adapt strategies effectively while promoting cross-border trade to improve service sector performance in Liberia and Nigeria. Also, Central bank authorities should be guiding exchange rate liberalization carefully, while financial managers should be implementing hedging and risk mitigation strategies to sustain service sector growth in Liberia and Nigeria.

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