



## DETERMINANTS OF AGRO-BASED MANUFACTURING FIRMS' DECISION TO EXPORT TO DIFFERENT DESTINATIONS

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### ABSTRACT

The study analysed the determinants influencing agro-based manufacturing firms' decisions to export to different destinations. A simple random sampling technique was employed to select 127 firms from a population of 186 accessible agro-based exporting firms in Nigeria. Primary data were collected using structured questionnaires and analysed using Multinomial Logistic Regression (MLR). Results of the Multinomial Logistic Regression revealed that export to the EU and the USA was consistently and significantly determined by firm size (0.103,  $p=0.000$ ), education (0.132,  $p=0.050$ ), experience (0.089,  $p=0.050$ ), management characteristics (0.573,  $p=0.000$ ), export marketing strategy (-1.692,  $p=0.000$ ) and domestic market characteristics (-1.272,  $p=0.000$ ). Export to Asian countries showed that export sales (0.0929,  $p=0.071$ ), firm size (-0.1950,  $p=0.053$ ), education (0.0889,  $p=0.014$ ), age of the firm (0.2394,  $p=0.001$ ), export market characteristics (-2.0812,  $p=0.000$ ) and foreign market characteristics (-0.0438,  $p=0.000$ ) are the prime and significant determinants of agro-based export to Asia. Export to East Africa was influenced by export sales (0.946), education (0.060), management characteristics (0.396), export marketing strategy (1.185) and domestic market characteristics (-1.514) while export to North African destinations is influenced by education (1.112), age of firm (0.184), firm characteristics (3.003), export marketing strategy (1.1843) and domestic market characteristics (-2.150). The study concluded that, export decisions are primarily driven by firm-specific capabilities and market conditions. Managerial education and management characteristics were consistently significant across all destinations, highlighting the importance of human capital in export performance. The study recommends policies aimed at strengthening firm capacity and improving trade relations, particularly with developed markets like the EU member countries.

**Keywords:** Agro-based, Destination, Export, Firms and Multinomial

### INTRODUCTION

Agro-based manufacturing firms are often constrained by limited resources, which restrict their ability to exploit multiple export market opportunities simultaneously. Consequently, these firms must make strategic decisions regarding which export markets to enter. Early international business scholars, such as Hymer (1976), argued that firms invest in locations where firm-specific advantages provide a competitive edge over local firms. Similarly, Dunning (1988), through the eclectic theory, posited that firms are attracted to locations offering specific advantages that enhance competitiveness. In developing economies like Nigeria, agro-based exports play a vital role in economic growth, employment generation, and foreign exchange earnings.

Exports—defined as goods and services produced domestically and consumed abroad—are critical drivers of economic development. These are goods or commodities transported from one country to another country in a legitimate fashion typically for use in trade (Noko, 2017). Exports generally and agro-based product export have become increasingly significant in developing economies including Nigeria, especially with the presence of knowledgeable private sector. Exports are needed to improve revenue and economic growth, and this has led to the idea of export-led growth. On this basis, exports are catalysts needed to boost the growth process of an economy. High levels of exports have the potentials to boost intra-industry trade and integrate the domestic economy into the world



economy. A proper functioning export sector will provide employment opportunity for the people as a higher demand for exports would require more production with attendant reduction in the social cost of unemployment. A good export drive can turn around a weak economy into a prosperous economy.

Export markets for agro-based goods include the East African countries, the European Union, the Gulf States, and the Asia countries. A vibrant agro-based industry would not just add value to products from the farm but would also create attractiveness for the processed and packaged products for not just Nigerians but also foreign consumers, therefore, capable of propelling exports (Arman, 2015). There are countries such as Chile and Malaysia that have built strong agriculture and agro-based industries and has expanded their export base, which as is a supplement to other key pillars of economic growth and development. The growth experiences of these countries have shown that agro-based industries can successfully lead to natural resource-based growth. Both countries are now large world suppliers of agro-based product (Kjöllerström, 2007).

Therefore, this study is highly relevant to the public, agro-based firms and the government as it attempts to identify the significant export determinants of the agro-based industry for policy frameworks and action plans, which could potentially contribute massively to the nation's export earnings and Gross Domestic Product (GDP). Conducting this kind of research would help refine our knowledge about how the strategy-performance relationship depends on internal and external factors.

Exports of agro-based firms can play a crucial role in guaranteeing a vibrant economy and improving the livelihoods of individuals. However, Nigeria lacks empirical studies on the determinants that influenced agro-based firms decision to export to different destinations, this study is of the view that most agro-based firms are export capable and by identifying the determinants that influence their decision to export to different destinations export promotion efforts directed at both exporting and non-exporting firms would serve as a catalyst for their involvement in export and growth in export activities. Therefore, empirical evidence is needed in focusing on the determinants of the decision to export to different destinations. Thus, this study contributes to the literature by providing empirical evidence on the determinants that influenced agro-based firms decision to export to different destinations by focusing on the specific case of Nigeria, on which no study is directly done.

## **MATERIALS AND METHODS**

### **The Study Area**

The study area is Nigeria. Nigeria is a sovereign country in West Africa, officially known as the Federal Republic of Nigeria, with thirty-six states and the federal capital territory, Abuja. Nigeria got her independence on October 1<sup>st</sup>, 1960, and is made up of more than 450 ethnic groups with Hausa, Igbo, and Yoruba being the major tribes. Nigeria is divided roughly in half between Christians and Muslims, while a minority of the population practices religions indigenous to Nigeria. The official language is English. Most often, Nigeria is referred to as the "Giant of Africa" because of its large population and economy. With about 223.8 million people (United Nations Population Fund, UNFPA, 2023), Nigeria is the most populous nation in Africa and the seventh most populous country in the World. Nigeria also has the third-largest youth population in the World, following India and China, with more than 90 million of its population under age.

The agricultural products of Nigeria can be divided into two main groups: food crops, produced for home consumption, and export products. Major crops include sesame, beans, cassava, cashew nuts, cocoa beans, groundnuts, kola nut, melon, maize (corn), millet, palm kernels, palm oil, plantains, rice, rubber, sorghum, soybeans, and yam. The most important food crops are yams and manioc (cassava) in the southern part and sorghum (Guinea corn) and

millet in the northern part. Whereas, cocoa is the principal non-oil foreign exchange earner, while rubber is the second leading non-oil foreign exchange earner in Nigeria.

### **Population of the Study**

The population of this study comprises all registered agro-based exporting firms in Nigeria. It includes among others, firms exporting agro-processed food, beverage and tobacco, wood and wood products, textile apparel and footwear, plastic and rubber products, and pulp paper and paper products. The total number of registered agro-based exporting firms (as at the time of writing this section), according to the Nigerian Export Promotion Council (NEPC), was 325. However, 186 agro-based exporting firms were accessible during the course of this study.

### **Sampling Technique and Data Collection**

Simple random sampling technique was employed to randomly select the 127 agro-based exporting firms out of the 186 firms. Data for this study were collected from primary sources which was sourced from the selected agro-based manufacturing firms using on-line questionnaire (Google form).

### **Analytical Techniques**

The data collected were subjected to econometric analysis. Multinomial Logistic Regression was used to analyse the determinants of agro based export to different destinations. MLR is the extension for the (binary) logistic regression when the categorical dependent outcome has more than two levels. The Multinomial Logistic Regression model which was used in this study to estimate the effect of the individual variables on the probability of choosing a particular export destination by agro-based manufacturing firms.

The Multinomial Logistic Model as used for the study is stated according to Greene (2003) as;

$$P_j(Y = 1) = \frac{e^{\beta_j' X_i}}{\sum_k e^{\beta_k' X_i}} \quad j = 0, 1, 2, 3, 4 \quad \dots(1)$$

### **Where,**

J = the agro based firms' choice of export destination (1 = USA and EU, 2 = Asia, 3 = East Africa and 4 = North Africa), while 0 = West Africa (the base region),

X<sub>i</sub> = Vector describing the explanatory variables (export sales, firm size, years of education of the manager, Firm's international/foreign experience, firm age, management characteristics, firm characteristics, export marketing strategy, foreign market characteristics and domestic market characteristics).

β<sub>j</sub> = the vector coefficients of X<sub>i</sub> to be estimated.

Explicitly, the MLR is stated expressed as;

$$Y_i^* = \beta_0 + \sum_{i=1}^k \beta_i X_{ij} + \varepsilon_i \quad \dots(2)$$

$$Y_i^* = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \dots \dots \beta_{11} X_{11} + \varepsilon_i \quad \dots(3)$$

Where

Y<sub>i</sub> = Export destinations (Y<sub>USA/EU</sub>, Y<sub>Asia</sub>, Y<sub>E/Africa</sub>, Y<sub>N/Africa</sub>).

β<sub>0</sub> = constant term

β<sub>1</sub>–β<sub>11</sub> = parameters to be estimated

X<sub>1</sub> = Export sales (Volume of sales in Naira equivalence)

X<sub>2</sub> = Firm size (No. of employees/sales employees' ratio)

$X_3$  = Educational level of the manager (No. of years of formal education spent by the firm's manager)

$X_4$  = Firm's years of foreign/international experience (No. of years foreign or international experience of the firm in export business)

$X_5$  = Firm age (Business experience the firm has acquired over a given period of time)

$X_6$  = Management characteristics (Four-point Likert rating of attitudinal, skilled-based and behavioural characteristics)

$X_7$  = Firm characteristics (Four-point Likert rating of firm characteristics such as ownership, foreign networking, international experience etc)

$X_8$  = Export marketing strategy (Four-point Likert rating of marketing mix, product, distribution and promotion capabilities)

$X_9$  = Foreign market characteristics (Four-point Likert rating of cultural similarities, government regulations and market competitiveness)

$X_{10}$  = Domestic market characteristics (Four-point Likert rating of export assistance and environmental hostility)

$\varepsilon_i$  = error term.

## RESULTS AND DISCUSSION

### Determinants of Agro-based Manufacturing Firms Export to Different Destinations

Table 1 presents the determining factors influencing the exportation of agro-based commodities from Nigeria to other destinations of the world using Multinomial Logistic Regression (MLR). The model showed five (5) export destinations namely: USA and Europe (as a block because of marked similarities of export requirements); Asian region; East Africa; North Africa, and West Africa which was used as a referenced category given the volume of products that is usually exported to West African countries. Worthy of note is the fact that the MLR generates  $R^2$  which is the proportion of variance that can be explained by the model as in ordinary least-squares linear regression, though, these are pseudo- $R^2$  measures that are not easily interpretable. The pseudo- $R^2$  (Nagelkerke) of 0.4713 ( $p < 0.001$ ) shows that 47.13% of the variation is explained by the model. In addition, the -2 log-likelihood that compares the model fit of the two models (the model with only intercept and the one with independent variables) shows that the final -2 log-likelihood for the model is -94.0476 while the intercept-only model has a -2-log likelihood of -117.899. The chi-square test statistic  $\{LR - \chi^2(44)\}$  of -23.8414 is statistically different ( $p < 0.0000$ ) between the two -2 log-likelihoods, implying that the model fits better than a model with just an intercept i.e. all the variables are statistically jointly significant.

Also, the coefficients generated have no direct interpretation or meaning, but the coefficient estimates indicate the direction and significance of the relationship between the determinants and export destinations. Sufficient evidence is provided by the model that export determinants that drive the export of agro-based communities differ between and across export destinations. However, some factors such as education level of the firms' managers and management characteristics, are shown to be prime determinants that were consistently significant across all export destinations.

*Firm size:* Firm Size on the other hand showed a positive and significant relationship at 1% with USA and EU ( $\beta = 0.1034$ ) as favoured destinations using West Africa as a reference point. Firm size embodies the number of employees, sales volume or total sales, sales-employee ratio, and investment level in research and development and an increase in any of these factors impact differently to export decision to different destinations. As posited by Shepherd (2020), there is a strong association between export performance and firm size and these two indicators have a positive impact on trade participation including the choice of export

destination. Therefore, the findings in this study clearly indicate that firm size is an important determinant of export especially to the USA and EU. The clear implication of this finding is that small-size agro-based exports companies are less likely to engage in export activity than large firms, especially with large and complicated markets like the USA/EU. This assertion is strongly supported by Abdul-Talib *et al.* (2011) that the larger firms with greater resources and capabilities will be able to compete more efficiently and effectively than smaller firms. Likewise, smaller firms, especially in their early phase of internationalization, suffer from a lack of experience operating in the foreign market (Nadkarni and Perez, 2007). Since the influence of firm size on export destination is directly linked to a firm's resource capabilities, it can be inferred that bigger firms are better off compared to their smaller counterparts because of their greater resource availability in such areas as management, finance, research and development, and marketing (Abdul-Talib *et al.*, 2011). Thus, it is argued that smaller firms are not able to compete effectively with larger and more resourceful firms.

*Years of education of the firm's manager:* The coefficient of education was consistently significant to all destinations. In particular, education exerted positive influence on the firms decision to export to USA and EU ( $p=0.016$ ), Asia ( $p=0.014$ ), East Africa ( $p=0.053$ ) and North Africa ( $p=0.000$ ) as export destinations, using West African sub-region as a reference base. This implies that increase in education level of the firms' managers will increase export to USA and EU, Asia East Africa and North Africa by 13.12%, 22.56%, 6.05% and 11.19%, respectively. Education is considered as a skilled-based characteristic, and has inherent tendency of enhancing export propensity (the firm's choice of whether or not to export) and intensity (the proportion of firms' sales that are exported). This means that export to all destinations requires substantial level of education among other skills by the firms' managers. This result is supported by the general opinion that the educational level of the firm decision maker has positive relationship with the export propensity and decision of the firm to export. This view agrees with the submission of Nakos *et al.* (1998) that educated managers are assumed to be more "cosmopolitan" and more willing to deal with foreigners than less educated managers. Therefore, more educated managers are expected to perform better than less educated managers in the international market.

*Years of international/foreign experience:* The years of the firm in exporting business is somewhat related to the age of the firms in the international market. According to Ruz *et al.* (2011) and Sui and Baum (2014), age and experience help firms develop the important capabilities needed to adapt to export marketing strategies to create a competitive advantage in foreign markets. Thus, the marginal influence of firms' experience on the decision to export agro-based commodities was positive ( $\beta = 0.0839$ ) and significant ( $p<0.05$ ) only to USA and EU as preferred export destinations when West Africa was considered a reference base in the study. This implies that agro-based manufacturing firms that have stayed longer in the export business have a strong inclination to export their products to USA and EU. This finding is not surprising because it requires competency, detail to standards and legal requirements which can only be gotten from firms that have substantial years of experience in the export market. To support this assertion, Marco-Lajara *et al.* (2023) posited that international experience does not necessarily have a direct and immediate effect on global economic performance and by extension, export destination. However, international experience positively influences eco-innovation in internationalized firms, which are exposed to more demanding environmental pressures (for instance, the USA and EU markets) and are able to assume this riskier type of innovation with greater guarantees. Thus, firms whose managers are immigrants or have extensive overseas experience are more likely to export to the USA and EU.

*Age of firm:* The marginal effect of the firm's age (number of years in business, especially international business) on export destination was positively related to the choice of agro-based

manufacturing firms to export to Asia and North Africa, using West Africa as a reference category. The magnitude of the influence of the firm's age to export to Asia was however negative ( $\beta = -0.2394$ ) while it was positively related to export to North Africa ( $\beta = 0.18376$ ) and significant at 1% level, respectively. This implies that an increase in the age of agro-based manufacturing firms will favour and increase agricultural commodity export to the Asian region and North Africa. Common to *a priori* expectation, it is expected that the older a firm is, the more the financial and human resources holdings and higher economies of scale, which facilitate their acceleration into international markets (Arteaga-Ortiz and Fernández-Ortiz, 2010).

*Management characteristics:* Management characteristics as determinants of export destination were found to have a positive relationship with USA and EU ( $\beta = 0.5731$ ) and East Africa ( $\beta = 0.3957$ ) and were significant at 1% level each, with reference to West Africa as a reference category. This signifies that management characteristics increased the probability to export to USA/EU and East Africa as compared to West Africa (the reference category) as well as other regions. The implication is that perceptions about export barriers (such as expected risk, costs involved and intricacy of export), perceived export advantages, export commitment, international vision, and orientation, the fashion of managers' involvement in export sales, planning, export sales presentation, adaptive selling and sales support, language proficiency, education level, international or export experience are prime management characteristics that informed the choice of export to USA/EU and East Africa. This result shows semblance with the findings of Nakos *et al.* (1998) that managerial characteristics are important in analysing a firm's export performance because a company's decision to extend its marketing activities to markets abroad is ultimately taken by the individual decision-maker.

*Firm characteristics:* Firm characteristics determinants were only significant and positively correlated to North Africa as an export destination. With a coefficient of 3.0052, it is evident that increased firm characteristics would increase the probability to export to North Africa when compared to West Africa (the reference category). The implication is that firms' characteristics determinants such as firm size (the number of employees, sales volume or total sales, sales employee's ratio,) firm ownership (foreign ownership and domestic ownership), foreign contacts and networking (labour and supplier market (domestic networking) customer market and capital market (foreign networking), knowledge (firms' export market knowledge), firm age (number of years in business), international experience (number of years in exporting), and location (information centers and level of investment) are core constituents that promote export to North Africa. This result agrees with the submission of Nakos *et al.* (1998) that firm and managerial characteristics are extremely important in determining international performance of the firm.

*Export marketing strategy characteristics:* Export marketing strategy as determinants of export destination had significant influence, at varying levels, on all destinations. The marginal effects of export marketing strategy characteristics on the USA and EU as well as Asia as export destinations were negative ( $\beta = -1.692$  and  $\beta = -2.0812$ ) and significant at a 1% level, respectively. This implies that an increase in export characteristics will significantly decrease the probability to export to the United States of America, European Union, and Asia by 16.92% and 20.81%, respectively as compared to West Africa (the reference category). Conversely, export marketing strategy characteristics exerted a positive and significant influence on East Africa and North Africa as preferred export destinations. This means that increment of this variable will increase positively and significantly the probability of export to East and North Africa respectively. The implication is that export market strategy characteristics such as; marketing mix - the product, promotion, price adaptation, and channel adaptation (channel type - e.g., direct channels such as the use of corporate distribution channels, export sales

representative's office and direct buying in foreign markets, channel relationship, delivery time); pricing capabilities - firm's capability to adapt the prices and to offer low prices (that is, (i.e., penetration pricing strategy); promotion capabilities - firm's capability to use advertising, sales promotion, personal selling, promotion adaptation and use of export promotion programs in their export markets; product strengths - product uniqueness, patents, exposure to the market, distribution, after-sales service); product capabilities - warranty and customer services, (warranty and provisions for pre- and after-sales services) and product adaptation are inherent elements that influenced export destinations. The findings here are supported by the assertions of Zammit *et al.* (2019) that export market strategy characteristics such as export pricing policies provide more valuable insights on export performance, especially the decision to export.

*Foreign market characteristics:* Foreign market characteristics as determinants of export destination entails the cultural and economic similarity and legal and political frameworks that governed export markets. Contrary to *a priori* expectation, this variable was only significant ( $p < 0.000$ ) and negatively correlated ( $\beta = -0.4383$ ) to the Asian region as an export destination when compared with the based category (West Africa). It then means that an increase in foreign market characteristics tends to decline export to the Asian region. This result is not surprising because the recent export promotion initiatives in Nigeria seemed to favour trade agreements with other West African countries than other regions. In addition, the cultural and economic differences between Nigeria and Asia for instance, seem not to promote export to regions with cultural and economic disparities.

**Table 1: Determinants of Agro-based manufacturing firms export to different destinations**

| Explanatory Variables                  | Coefficients      |                      |                   |                    |
|----------------------------------------|-------------------|----------------------|-------------------|--------------------|
|                                        | EU & USA          | Asian Region         | East Africa       | North Africa       |
| Export Sales                           | 0.5111 (-0.75)    | 0.9291(1.82)         | 0.9461 (1.89)     | -0.7951 (-0.64)    |
| Firm Size                              | 0.1034 (9.03)***  | 0.1950 (1.94)        | -0.0534(-0.56)    | -0.1800 (-1.24)    |
| Years of Education of firm's manager   | 0.1312 (2.41)**   | 0.2256 (2.54)**      | 0.0605 (1.91)     | 1.1119 (15.75)***  |
| Firm's foreign experience              | 0.0893 (2.45)**   | -0.0157(-0.20)       | 0.0256 (0.38)     | 0.0840 (1.26)      |
| Age of Firm                            | 0.0174 (0.27)     | -0.2393 (3.23)***    | 0.0122 (0.23)     | 0.1838 (2.89)***   |
| Management Characteristics (MCH)       | 0.5731 (4.06)***  | -0.0150 (-0.39)***   | 0.3957 (15.63)*** | 0.6079 (1.05)      |
| Firm Characteristics (FCH)             | 17.6859(0.01)     | 19.8973 (0.02)       | 18.7347 (0.01)    | 3.0036 (3.49)***   |
| Export Marketing Strategy (EMS)        | -1.6922(-2.62)*** | -2.0812 (-3.81)***   | 1.1849 (2.39)**   | 1.8427 (3.21)***   |
| Foreign Market Characteristics (FMCH)  | 0.2097 (0.40)     | -0.4383 (-3.22)***   | -0.3372 (-0.86)   | 0.4815 (0.97)      |
| Domestic Market Characteristics (DMCH) | 1.2774 (4.43)***  | -0.9879 (-1.47)      | -1.5136 (-2.44)** | -2.1501 (-3.39)*** |
| Constant                               | -73.7979 (0.993)  | -77.5545(0.984)      | -66.5632 (0.01)   | -11.0965 (-2.26)** |
| Log Likelihood                         |                   | -94.0476 (167.70)*** |                   |                    |
| Pseudo R <sup>2</sup>                  | 0.4713            |                      |                   |                    |

**Source:** Field Survey (2022). Reference category: West African Note: \*\*\*, and \*\* indicate levels of significant at 1% and 5%, respectively. The figures in parenthesis are z -statistical values.

The domains of foreign market characteristics include; culture, government regulations and policies as well as market completeness. As noted above, foreign market characteristics impacted negatively to firms' decision to export to Asia but was not significant to other regions. This result indicates the weak effect of government policies and regulations on export of agro-based products. Despite different export promotion agencies, policies, regulations, and procedures such as the Nigeria Single Window Trade (NSWTP) or the Federal Ministry of Industries, Trade, and Investments (FMITI), there are pronounced weaknesses of these regulatory agencies in strengthening export of agricultural and agro-allied materials from Nigeria (Nieuwsbericht, 2021).

*Domestic market characteristics:* Domestic market characteristics (export assistance and environmental hostility) as a determinant of export destination were significant to all regions except for Asia as a region. The variable had positive ( $\beta = 1.2773$ ) and significant ( $p < 0.000$ ) influence on USA and EU as a choice destination but negatively related to East Africa ( $\beta = -1.5136$ ) and North Africa ( $\beta = -2.1501$ ) at 1% and 5% levels, as compared to West Africa (the

reference category). The implication is that institutional support and national export policies that are driven principally by the domestic market can hardly support export to other regions.

## CONCLUSION AND RECOMMENDATIONS

The study concluded that, export decisions are primarily driven by firm-specific capabilities and market conditions. Managerial education and management characteristics were consistently significant across all destinations, highlighting the importance of human capital in export performance.

Firm size and export experience were particularly important for accessing developed markets such as the USA and the European Union, while export marketing strategy and domestic market conditions exhibited varying effects across regions. Additionally, firm age and accumulated experience were found to support export diversification, especially within regional markets.

Overall, the study underscores the need to strengthen firm-level capabilities and improve the domestic business environment to enhance export competitiveness. A coordinated approach to capacity building and market-oriented policies is essential for expanding Nigeria's agro-based exports and achieving sustainable economic growth.

The study recommends that the government should implement policies aimed at strengthening firm capacity through training and education, and should create enabling environment to enhance firm size and productivity to improve global competitiveness. Additionally, export promotion strategies should be tailored to specific regional market requirements to avoid upright rejections.

## REFERENCES

- Abdul-Talib, A. N., Salleh, M., Faisol, M., Shamsuddin, F. M. and Ashari, H. (2011). "The effects of firm size and international business experience on export attitudes", *Advances in Competitiveness Research*, 2(1):4-14.
- Arman, S. (2015). Agro-based industries: Regulatory hindrances and government role. 24<sup>th</sup> Anniversary of The Daily Star (Part 1).  
<https://www.thedailystar.net/supplements/24th-anniversary-the-daily-star-part-1/agro-based-industries-regulatory-hindrances-and>
- Arteaga-Ortiz, J. and Fernández-Ortiz, R. (2010). why don't we use the same export barriers measurement scale? An empirical analysis of small and medium-sized enterprises. *Journal of Small Business Management*, 48(3):395 – 420.
- Hymer, S. H. (1976). The international operation of national firms: A study of direct foreign investment. MIT Press, Cambridge, MA, United States.
- Kjöllerström, M. (2007). Agro-based industries and growth: prospects for Sub-Saharan Africa. *Journal of Sustainable Development Innovation Brief*, 3(1):1-7. A publication of the Policy Integration and Analysis Branch of the Division for Sustainable Development
- Marco-Lajara, B., Úbeda-García, M., Zaragoza-Saez ' P. and Manresa-Marhuenda, E. (2023). The impact of international experience on firm economic performance. The double mediating effect of green knowledge acquisition & eco-innovation. *Journal of Business Research*, 15(7):9 – 10.
- Nadkarni, S. and Perez, P. D. (2007). "Prior condition and early international commitment: The mediating role of domestic mindset. *Journal of Business Studies*, 38(1), 160-176.
- Nakos, G., Brouthers, K. D. and Brouthers, L. E. (1998). "The impact of firm and managerial characteristics on small and medium-sized Greek firms' export performance", *Journal of Global Marketing*, 11(4):23-47.
- Nieuwsbericht (2021). Guidelines for exporting agro products from Nigeria. Available at [guidelines%20for%20exporting%20agro%20products%20from%20Nigeria%20\\_%20Nieuwsbericht%20\\_%20Agroberichten%20Buitenland.html](https://www.nieuwsbericht.nl/guidelines%20for%20exporting%20agro%20products%20from%20Nigeria%20_%20Nieuwsbericht%20_%20Agroberichten%20Buitenland.html)
- Noko, E. J. (2017). Impact Non-oil Export on Nigeria Economic growth. <https://educacinfo.com/impact-non-oil-export-nigeria-economic-growth/>
- OECD (2017). Nigeria's exports. <https://atlas.media.mit.edu/en/profile/country/nga/>
- OECD (2017). Nigeria's exports. <https://atlas.media.mit.edu/en/profile/country/nga/>
- PWC (2019). Unlocking Nigeria's agricultural potentials. Prince water house coopers limited, [www.pwc.com/ng](http://www.pwc.com/ng)



- Regmi, A. (2021). U.S. Agricultural Export Programs: Background and Issues. Congressional Research Service. <https://crsreports.congress.gov>
- Ruzo, E., Losada, F., Navarro, A. and Díez, J. A. (2011). Resources and international marketing strategy in export firms. *Management Research Review*, 34(5):496 – 518.
- Shepherd, B., Doytchinova, H. S. and Kravchenko, A. (2019). The gravity model of international trade: a user guide [R version]. Bangkok: United Nations ESCAP. <https://www.unescap.org/resources/gravity-model-international-trade-user-guide-r-version>.
- Sui, S. and Baum, M. (2014). Internationalisation strategy, firm resources and the survival of SMEs in the export market. *Journal of International Business Studies*, 1 – 21.
- Tesfaye, E. (2014). Determinants of agricultural export in sub -saharan africa: Evidence from panel study. *American Journal of Trade and Policy*, 1(2):62-70.
- UNFPA (2023). United Nations Population Fund Country Population for Nigeria. <http://www.unfpa.org>
- Ya, Z. and Pei, K. (2022). Factors influencing agricultural products trade between China and africa. *Sustainability* 2022, 14, 5589. <https://doi.org/10.3390/su14095589>
- Zammit, K., Boulton, C., Zhao, S. and Cao, L. (2019). Agricultural export price and volume indicators: Concepts, data sources and methods, ABARES research report, Canberra, May. CC BY 4.0. <https://doi.org/10.25814/5cd3c577afd83>