RESEARCH ARTICLE

Determinants of Export Competitiveness in Developing Economies: A Study of the Agricultural Sector

Zineb Himeur	University of El-Oued
	Algeria
	E-mail: himeur-zineb@univ-eloued.dz

Abstract

This study aims to estimate and measure the factors affecting export competitiveness in twenty developing countries over a period of twenty-seven years. The study focuses on the agricultural sector and employs a descriptive-analytical approach to describe and analyze the most important determinants of export competitiveness. An experimental approach is used for the econometric study, utilizing the STATA15 software to estimate static models and perform related tests. The study's findings include a positive impact of both export quality and economic openness on export competitiveness, and a negative impact of currency devaluation and tax burden on the competitiveness of agricultural goods and products. The export quality index is the most influential factor in export competitiveness in developing economies, indicating that these products adhere to a set of required standards, specifications, and health measures that are essential for accessing international markets, particularly those of developed countries.

I. Introduction:

In a world characterized by increasing economic interdependence and accelerating globalization, export competitiveness has become a cornerstone of economic development and national prosperity, particularly in the agricultural sector. Exports are no longer merely a means of generating additional revenue; they have transformed into a vital indicator reflecting the efficiency of a nation's production structure and its ability to effectively integrate into the global economy, increase its share of international trade, achieve higher rates of economic growth, and create jobs. However, this competitiveness is not achieved automatically. It is influenced by a range of interconnected and multifaceted factors, including economic and technological determinants, the efficiency of production institutions and the quality of their products, production costs, the suitability of the legislative environment and institutional support, the strength of infrastructure and supporting services, and the role of innovation and technology. This integrated network of internal and external factors must work harmoniously to create a competitive advantage for agricultural products, serving as a fundamental pillar for achieving sustainable economic development and enhancing a nation's position in the global market.

In this context, the need arises to study the determinants of export competitiveness in the agricultural sector. This will allow us to understand the nature of the relationships between these determinants, identify strengths that can be

enhanced, weaknesses that need addressing, opportunities that can be exploited, and challenges that must be overcome. The ultimate goal is to strengthen the export competitiveness of agricultural products in developing economies.

Study Problem: What are the most important factors that contribute to enhancing export competitiveness in developing economies?

To answer this research question, we will employ a descriptive-analytical approach and a standard experimental approach, measuring the relationship between variables using various statistical tests.

II. Previous Studies: There are many studies that have addressed the topic of export competitiveness and its determinants, including:

1. The study by Ahmad et al. (2024) entitled "Export Competitiveness of Major Agricultural Products in Pakistan: An Assessment Through Revealed Comparative Advantage Indices." This paper focuses on measuring the competitiveness of Pakistani agricultural exports (2001–2021) using three indicators: the Revealed Competitive Advantage (RCA) Index, the Relative Competitive Advantage (RC), and the Relative Trade Advantage (RTA) Index. It examines different categories of agricultural exports and analyzes the competitiveness of Pakistani agricultural commodities. The results show that rice, dates, mangoes, and citrus fruits have strong competitive advantages, while corn and dairy products suffer from disadvantages. The clear comparative advantage of agricultural products indicates untapped potential. Reorganizing agricultural exports according to modern standards is essential to increasing export competitiveness. The study recommended improving value chains, developing storage and transportation, and diversifying export products. (Ahmad et al., 2024).

2. The study by Yadav & Chattopadhyay (2024), entitled "Identifying the Factors of Export Competitiveness for Agricultural Products," aimed to identify the factors that contribute to the competitiveness of agricultural product exports. The study contributed to clarifying the competitiveness of Indian agricultural products in the global market through a comprehensive review of the literature. It is one of the most recent studies that presents an analytical framework for the economic variables affecting export competitiveness at the agricultural sector level. This study concluded that market size, production volume, production cost, export price, in addition to the local currency exchange rate and trade openness, are among the main factors that can enhance the competitiveness of Indian agricultural products, as trade openness encourages more efficient allocation of resources. In short, trade liberalization positively impacts the competitiveness of agricultural exports by expanding market access, enhancing efficiency, and enabling better resource allocation (Yadav and Chattopadhyay, 2024).

3. The study by Liew et al. (2021) entitled "Determinants of Export Competitiveness of Agricultural Products in Malaysia" aims to evaluate the competitiveness of exports of 186 agricultural products in Malaysia during the year (1988–2014), using the ARDL model to measure long-term and short-term determinants. The study also used Balasa's (1965) Apparent Comparative Advantage (RCA) index to measure competitiveness and examined the following determinants: export prices, production volume, GDP per capita, employment, and capital formation. The most important results were as follows: 56 products have a comparative advantage. The results also show that commodity prices, GDP per capita, and the economic crisis of 2008 are negatively correlated with competitiveness, while employment and capital formation are positively correlated with it and improve the competitiveness of exports. (Liew et al., 2021).

4. The study by Narayan & Bhattacharya (2019), entitled "Relative export competitiveness of agricultural commodities and its determinants: Some evidence from India," aimed to measure the relative competitiveness of Indian agricultural exports (rice, wheat, cotton, and sugar). It also examined the determinants of relative competitiveness for these products, relying on long-term data and econometric models from 1981 to 2012. The study used the Relative Export Competitiveness (REC) index instead of the traditional RCA index and focused on the most important factors affecting export competitiveness, such as total available resources (including production volume and labor), domestic prices of agricultural products, export prices of agricultural products, per capita GDP, preferential trade agreements, and restrictions on agricultural exports in India. The most important findings were that India has a clear competitive advantage in some products (rice and cotton) and that its export competitiveness improves with increased production and openness, while it is negatively affected by export restrictions and price fluctuations. (Narayan et Bhattacharya, 2019)

5. The study (2021) by Tamás Mizik, entitled "Agri-Food Trade Competitiveness: A Review of the Literature," was a systematic review of international literature on competitiveness in agricultural and food trade. It aimed to highlight

332 – www.imcra.az.org, | Issue 1, Vol. 9, 2026
Determinants of Export Competitiveness in Developing Economies: A Study of the Agricultural Sector
Zineb Himeur

the measurement tools used globally in analyzing the competitiveness of agricultural exports and to identify the main factors affecting countries' ability to compete in international markets. The researcher used data from Scopus and Web of Science databases and followed the PRISMA methodology to select articles related to competitiveness in agricultural trade. The most important findings were that the globally used metrics for assessing the competitiveness of agricultural exports, which are applied at different levels such as product, country, or region, include: the Revealed Comparative Advantage (RCA) index and its derivatives; adjusted competitiveness indices such as Revealed Trade Advantage, Normalized RCA, and Revealed Symmetric Comparative Advantage; and other indices such as the Grubel-Lloyd index and the balance of trade index. The study also found that international studies tend to agree on a set of fundamental factors affecting the competitiveness of agricultural exports. These include: supportive policies and trade legislation (such as trade agreements, export subsidies, and export facilities), which have a strong impact on enhancing competitiveness; the added value of agricultural products, which in turn increases the ability to maintain competitive advantages in target markets; productivity and production efficiency; and research, development, and innovation, which enhance quality and increase opportunities to access markets with higher standards. Furthermore, a developed export infrastructure, represented by advanced logistics infrastructure (ports, cold chains, and integrated transport), improves logistics services, reduces costs and losses, and enhances overall efficiency. Product quality upon reaching foreign markets, and finally trade support such as the existence of governmental or institutional support programs for exports such as financing policies, credit facilities, joint marketing, etc., increase the competitiveness of products. (Mizik, 2021)

III. Theoretical Literature:

Porter argues that competitiveness is linked to a country's ability to achieve high productivity, enabling the creation of high added value, which directly impacts export performance (Porter, M. E., 1990). Krugman and Obstfeld define it as the economy's ability to produce internationally tradable products at a lower relative cost or higher quality compared to competing countries (Krugman & Obstfeld, 2009). The United Nations Conference on Trade and Development (UNCTAD) indicates that export competitiveness is a country's ability to sustainably increase its exports and improve its market share in international trade (UNCTAD, 2018). Export competitiveness can be defined as the ability of a country, economic sector, or production facility to produce and export products that can penetrate foreign markets and maintain their position therein by achieving suitable levels of price, quality, productivity, and innovation compared to international competitors, thus ensuring sustainable economic returns. Export competitiveness has several determinants, including economic and productive ones. Technology and innovation, quality and specifications determinants, marketing and logistics determinants, institutional and political determinants, as the economic and productive determinants are the basis on which export competitiveness is based, as the cost of production directly affects the price power of agricultural exports. Lower costs of production inputs, particularly labor and raw materials, contribute to enhancing a country's comparative advantage. Increased productivity, resulting from improved resource efficiency, is a crucial factor in reducing average costs and increasing competitiveness in international markets. Furthermore, exchange rate stability influences price competitiveness; a depreciation of the local currency makes exports more attractive in terms of price, provided this does not negatively impact the cost of imported inputs (Krugman & Obstfeld, 2009). Technological advancements and innovation play a pivotal role in enhancing export competitiveness by improving product quality and reducing production costs. Investment in research, development, and innovation is a key factor enabling countries to transition from price-based competition to value-added competition. Innovation also contributes to export diversification and increases resilience to fluctuations in global demand (Porter, M. E., 1990). Moreover, quality is a fundamental requirement for accessing international markets, especially for agricultural products, as importing countries impose stringent standards related to technical specifications and safety. Food safety, health, and phytosanitary standards are among the most important requirements. Restrictions impact agricultural exports (FAO & WHO, 2020), as non-compliance leads to the rejection of agricultural shipments in international markets. Adherence to these standards enhances consumer confidence, improves a country's export reputation, and boosts the competitiveness of exported agricultural products (ISO, 2018). Marketing and logistics factors also play a significant role, as the efficiency of marketing and logistics services directly affects export competitiveness. High transportation costs and inadequate infrastructure erode price advantages. Packaging, delivery speed, and the availability of information about foreign markets are crucial for enhancing competitiveness in international markets (World Bank, 2018). Furthermore, government policies enhance export competitiveness by providing a favorable legislative and regulatory environment, simplifying customs procedures, and offering incentives and support to exporters. Regional and international trade agreements also contribute to improved access to international markets (UNCTAD, 2018).

IV. Standard Study:

333 – www.imcra.az.org, | Issue 1, Vol. 9, 2026
Determinants of Export Competitiveness in Developing Economies: A Study of the Agricultural Sector
Zineb Himeur

Study Population: This study examines the agricultural sector in a group of developing countries between 1992 and 2018. We selected 20 developing countries: Algeria, Egypt, Saudi Arabia, Morocco, Tunisia, Jordan, the United Arab Emirates, Oman, Lebanon, Kuwait, Bahrain, Ivory Coast, Ghana, Kenya, Ethiopia, Nigeria, South Africa, Cameroon, Tanzania, and Mozambique. Our selection of these developing countries was based on a number of considerations, as follows:

• Agricultural Production: Most of the selected countries are developing countries that are among the largest producers of agricultural products, according to 2018 statistics from the Food and Agriculture Organization of the United Nations (FAO).

• Agricultural Exports: The sample countries are characterized as the top developing exporters of agricultural products, according to 2018 statistics from the Food and Agriculture Organization of the United Nations (FAO).

• Geographical Characteristics: Most of the selected countries share a similar geographical character, meaning they possess similar natural resources for agriculture.

Study Variables: The study variables were selected based on economic theory and previous studies, as shown in the following table:

Table 1:Study Variables and Data Sources

	Dependent variable		
Source	Definition	The symbol	variable
https://mec.worldbank.org/	Changes in a region's exports are related to changes in global exports. If global exports rise and the region's exports rise by a similar amount, there is no change in its export competitiveness. However, if the region's exports rise more than global exports, the region becomes more competitive.	MEC	Export Competitiveness
	Independent variables		
Source	Definition	The symbol	variables
http://www.fao.org	The logarithm of agricultural production refers to the total agricultural output, both plant and animal, whether this output is used for direct consumption or processed into various food products.	LAP	Agricultural Production
https://data.albankaldawli.org/indicator/AG.LND.AGRI.K2	Agricultural land refers to the proportion of land that is arable and planted with permanent crops or covered by permanent farms. According to the Food and Agriculture Organization (FAO), arable land includes land planted with temporary crops (dual-crop areas are counted once), temporary meadows for	LAL	Agricultural lands

334 – www.imcra.az.org, | Issue 1, Vol. 9, 2026
Determinants of Export Competitiveness in Developing Economies: A Study of the Agricultural Sector
Zineb Himeur

	harvesting or grazing, flower and vegetable gardens, and land undergoing a resting cycle.		
https://data.albankalda wli.org/indicator/SL.A GR.EMPL.ZS	It refers to people of working age who engage in agricultural activity in exchange for wages or profit.	WAG	Workers in agriculture
https://data.albankalda wli.org/indicator/NV.A GR.TOTL.CD	The logarithm of value added for agriculture is the net output of the agricultural sector after summing all outputs and subtracting intermediate inputs. It is calculated without making any deductions for depreciation of manufactured assets or for the depletion or degradation of natural resources. The origin of value added is determined according to the International Standard Industrial Classification, Revision 3.	LAVA	Added value in agriculture
www.unido.org	The Industrial Competitiveness Index (ICI) is published annually by the United Nations Industrial Development Organization (UNIDO). This index aims to measure and determine a country's ability to produce and develop competitively priced manufactured goods, their high added value and advanced technology, and their capacity to market their products and increase their presence in domestic and international markets. This is based on eight economic and trade sub-indicators related to industry, value added, national income, and exports. These sub-indicators are grouped into three levels.	CPI	Industrial Competitiveness Index
www.unido.org		EQ	Export quality
https://www.globalinno vationindex.org/	It is a composite index consisting of more than 81 individual variables. The overall Innovation Index is calculated by determining the Innovation Efficiency Ratio, which represents the simple average of the Innovation Outputs and Innovation Inputs sub-indices. The Innovation Inputs sub-index is constructed based on five sub-indices: institutions, human capital and scientific research, infrastructure, market sophistication, and business sophistication. The Innovation Outputs sub-index comprises knowledge and technology outputs, as well as creative outputs.	GII	Global Innovation Index
https://data.albankalda wli.org/indicator/PA.N US.FCRF	The official exchange rate refers to the exchange rate set by national authorities or the rate determined in the legally permitted exchange market, and is expressed in units of the local currency against the US dollar.	Exch	Exchange rate

335 – www.imcra.az.org, | Issue 1, Vol. 9, 2026
Determinants of Export Competitiveness in Developing Economies: A Study of the Agricultural Sector
Zineb Himeur

http://perspective.usHErbrooke.ca/bilan/stats/0/2016/fr/9/carte/HFI.COMMERCE/x.html	This index ranges from 0 to 100, where a score close to 100 indicates that trading is easy and free from significant legislative or regulatory restrictions, while a score close to 0 indicates low or nonexistent commercial freedom. The index was developed in 1973 by The Wall Street Journal in collaboration with the Heritage Foundation, whose mission is to develop and promote conservation policies based on free-market principles.	FTD	Index of economic openness
https://www.heritage.org/index/visualize	A sub-index of economic freedom that can be expressed is pricing, because taxes raise costs.	TB	taxburden
http://unctadstat.unctad.org/wds/TableViewer/tableView.aspx?ReportId=120	Also called the Herfindahl-Hirschmann Index, it is a measure of product concentration and is used to obtain values between 0 and 1. An index value closer to 1 indicates that a country's exports are highly concentrated on a small number of products. Conversely, values closer to 0 reflect exports that are more uniformly distributed across a range of products.	EC	Export concentration index
International Telecommunication Union, World Telecommunication/ICT Development Report and database	It refers to the logarithm of the ratio of fixed telephone subscriptions to the total number of active fixed telephone lines.	LFT	Infrastructure: Information and Communication Technology Fixed Telephone SubscriptionsFixed telephone subscriptions

Source: Prepared by the researcher.

Statistical Tools and Software Used in Data Processing

- Statistical Software: The Stata15 program was used to estimate stationary models and perform related tests.

- Statistical Tools and Methods: The econometric literature for panel data requires conducting cross-sectional effects tests before estimating models. The question is whether the estimated models are homogeneous with respect to the cross-section, or whether they exhibit fixed effects, as opposed to random effects.

Therefore, we will initially verify the presence or absence of fixed effects using Fisher's test. The null hypothesis assumes homogeneity in the estimated parameters with respect to the cross-section, while the alternative hypothesis states that the model contains variations in the fixed term at the cross-sectional level. These variations are referred to as fixed effects.

This result is only confirmed if the alternative hypothesis is accepted, which occurs when the calculated statistic exceeds the critical value at one of the three significance levels. The second step is to perform a comparison between fixed and random effects using the Hausman test. The null hypothesis assumes the random effects estimator is more effective than the fixed effects estimator, while the alternative hypothesis assumes the fixed effects are more effective. (Djouadi, 2021) Next, we move to analyzing the robustness of the estimated model. Statistical robustness requires

336 – www.imcra.az.org, | Issue 1, Vol. 9, 2026
Determinants of Export Competitiveness in Developing Economies: A Study of the Agricultural Sector
Zineb Himeur

performing cross-sectional residual correlation tests using the Pesaran CD test and the Fridman test to ensure the absence of cross-sectional residual correlation. The null hypothesis states that there is no cross-sectional correlation.

Pesaran (2004) confirmed that the presence of cross-sectional residual correlation creates a bias problem. We then use the Wooldridge test to ensure the absence of autocorrelation of residuals at the time-sectional level. The null hypothesis of this test states that there is no autocorrelation of residuals. (Pesaran, 2004)

We will also use the Modified Wald test to ensure the homogeneity of error variances in fixed-effects models, and the Wald test to ensure the homogeneity of error variances in random-effects models. The null hypothesis of both tests is that error variances are homogeneous.

If one or all three of these problems—cross-sectional correlation, autocorrelation, and heterogeneity of variance—are present in the model, we address these defects using either the Generalized Least Possible Squads (FGLS) or Prais-Winsten (PCSE) methods. (Baltagi, 2005(

- Model Evaluation, Discussion, and Analysis of Results:

 •Export Competitiveness Determinant Function: Export competitiveness is a function of: agricultural production, agricultural land, agricultural workers, value added in agriculture, industrial competitiveness, export quality, exchange rate, economic openness, tax burden, export concentration, and infrastructure: information and communication technology. The model is written in the following mathematical formula:

MEC = f(AP, AL, WAG, AVA, CPI, EQ, Exch, FTD, TB, EC, FT)

 •Estimating and Testing the Validity and Robustness of the Export Competitiveness Model:

To conduct an economic analysis of the estimated model, its statistical validity and robustness must first be verified. The results in the table below show the validity of the fixed effects (FE) model compared to the pooled model. This means that the results of the fixed effects model are more valid and robust than those of the pooled model. Furthermore, the Hausman test demonstrated the effectiveness of the fixed effects model compared to the random effects (RE) model. Therefore, we will adopt the fixed effects model to complete the remaining robustness tests.

Table 2: Validity and robustness of the Export Competitiveness Determinants (MEC) model

Test	Wooldridge	Modified Wald	Pesaran CD	Hausman	Fisher
Statistics	17.44***	4582.53***	¨2.045	***23.88	***14.08

Source: Prepared by the researcher using STATA15.1 outputs.

The PesaranCD test results show a correlation of residuals at the cross-sectional level at a significance level of 5%. The Wooldridge test also showed an autocorrelation of residuals at the time level. However, the Modified Wald test results indicate a heterogeneity problem in the error variances of the fixed-effects model. This necessitates addressing these problems by estimating the fixed-effects model using the Prais-Winsten (PCSE) method.

The following table shows the estimation of the Export Competitiveness Determinants (MEC) model:

Table 3: Estimation of the Export Competitiveness Determinants (MEC) Model

337 – www.imcra.az.org, | Issue 1, Vol. 9, 2026
Determinants of Export Competitiveness in Developing Economies: A Study of the Agricultural Sector
Zineb Himeur

Variable	pooled	fixed	random	PCSEs
lap	-6.7323491	3.0302653	-3.0894853	-5.7703191
lal	-11.405535***	48.715837	-9.2414266	-.67982891
wag	.78966302**	1.8262919*	-.12704292	-.27228158
lava	5.8169409	7.349055**	7.2664319*	.81610493
eq	33.623639	131.17284***	101.85472**	28.123278*
cpi	19.414989	-1908.7331***	-1252.6801***	-51.772038
exch	-.03327945***	.02379748	-.01364702	-.04727967**
tb	-3.0841143***	-2.9079987***	-2.9399303***	-1.3891526***
ftd	3.4928222***	3.0390335***	3.2828652***	1.5371667***
ec	274.35735***	88.635529*	153.56936***	162.73602***
lft	14.123176**	-5.6614475	-3.0862399	-8.5534742*
_cons	-129.54957	-569.92319	118.73796	154.2315**

legend: * p<.1; ** p<.05; *** p<.01

Source: STATA15.1 Program Outputs

•Analysis and Interpretation of Results:

From the outputs of the Export Competitiveness Determinants Model Estimation, a number of conclusions can be drawn, as follows:

 Export quality is considered the most influential variable in the competitiveness of agricultural exports. A one-unit change in the independent variable contributes to a 28.12 increase in the competitiveness of agricultural exports. This result aligns with modern economic theory and policies, as product quality is a crucial requirement for export goods, especially agricultural products, in addition to price advantages. Adherence to quality standards and possession of various quality certifications, such as ISO 9000 (Quality Management), ISO 22000 (Food Safety Management), and ISO 14000 (Environmental Management), facilitates the entry of goods into foreign markets. Furthermore, the quality of goods in terms of health and safety standards—such as the number of regulated pesticides per product and the level of Allowing these pesticides for each importer would facilitate targeting markets in developed countries, increase exports, and reduce the rejection rates that agricultural goods and food products from developing countries often face. Furthermore, reducing losses and waste enhances price competitiveness, making domestic agricultural and food products more attractive for export and enabling them to capture market share in international markets.

Conversely, currency devaluation has a negative impact on the competitiveness of agricultural goods and products. Economic theory dictates that currency devaluation can provide price advantages for domestic exports. The lower the currency value (the higher the exchange rate), the more competitive domestic goods become, leading to a decrease in the competitiveness of foreign goods compared to domestic products in both the domestic and international markets. This results in reduced imports. Conversely, currency devaluation (the higher the exchange rate) increases the competitiveness of export goods in foreign markets, leading to increased exports.

From an economic theory perspective, devaluing the local currency increases a country's competitiveness and boosts its exports due to lower export prices for the rest of the world. Conversely, this policy leads to higher import prices for domestic residents, which shifts demand towards domestically produced goods instead of imported ones, thus enhancing economies of scale. However, this is not always the case, as a higher exchange rate does not necessarily lead to the aforementioned outcome in every instance. Currency devaluation can have the opposite effect, reducing competitiveness, especially when there is a heavy reliance on imports of intermediate goods necessary for production, as well as foreign capital equipment and machinery. This is exacerbated when foreign technology is required, leading to higher agricultural production costs and reduced competitiveness.

The study's findings also confirm the negative impact of the tax burden on the competitiveness of agricultural goods and products, which aligns with economic theory. The tax burden increases the cost of the product, as producers pass the tax burden on to the end consumer, thus reducing the competitiveness of agricultural products intended for export. The tax burden may also be linked to the cost of services related to the export process, such as packaging, supply chain operations (shipping, transportation, and insurance), and the costs of conforming to various quality specifications.

338 – www.imcra.az.org, | Issue 1, Vol. 9, 2026
Determinants of Export Competitiveness in Developing Economies: A Study of the Agricultural Sector
Zineb Himeur

The study's results indicate a positive impact of economic liberalization on increasing export competitiveness. In the case of developing countries, this is linked to the price advantages they can gain from a heavy reliance on imports of foreign intermediate goods necessary for the production process, foreign capital equipment and machinery, and imported technology. Furthermore, increased market access and improved infrastructure quality—a sub-indicator of economic openness—effectively enable the production and delivery of goods and services to customers. An improved investment climate, wider access to domestic and foreign financing, and institutional frameworks that ensure competitive markets free from burdensome regulations, along with governance underpinned by the rule of law and characterized by government integrity and effectiveness, all contribute to enhanced competitiveness when these factors are realized and developing countries improve their performance across the sub-indicators of the economic openness index.

Conclusion:

In this study, we attempted to focus on the most important factors affecting export competitiveness in twenty developing countries. To answer the research question, the impact of a set of variables was measured as independent variables representing the study's independent variables over twenty-seven days, using the STATA15 program. This program was used to estimate static models and their related tests. The study concluded with several results, most notably that there is a strong positive impact of export quality on increasing the export competitiveness of developing countries.

339 – www.imcra.az.org, | Issue 1, Vol. 9, 2026
Determinants of Export Competitiveness in Developing Economies: A Study of the Agricultural Sector
Zineb Himeur

This reflects the adherence of these products to a set of required standards and specifications, technical specifications, and health measures, which are considered a necessary condition for the flow of these goods to international markets, especially the markets of developed countries. The study also concluded that economic openness positively affects the increase in export competitiveness of agricultural and food products. The result indicates the importance of eliminating quantitative and qualitative restrictions and customs and non-customs barriers in increasing trade flows, whether under the multilateral trade arrangements of the World Trade Organization or at a regional level within the context of economic blocs and bilateral trade agreements. Eliminating barriers and obstacles of all kinds facilitates the smooth flow of international trade according to competitive advantages of all kinds, avoiding the unfair advantages created by protectionism in many cases. Furthermore, the study found that currency devaluation has a negative impact on the competitiveness of agricultural exports. Currency devaluation can grant price advantages to domestic export goods. The lower the currency value (the higher the exchange rate), the more competitive price advantages domestic goods gain, leading to a decrease in the competitiveness of foreign goods compared to domestic products in both the domestic and international markets. This conclusion can be explained by the net effect of currency devaluation policies, as currency devaluation affects exports through several channels. The first channel is related to the price of agricultural products and food commodities at the cost of production factors (i.e., at the factory gate), resulting in price competitive advantages. The second factor is the cost of export-related services such as insurance, shipping, financial and banking services, and other logistical aspects. These costs increase when provided by foreign companies—a common occurrence in developing countries. The study also revealed that the tax burden negatively impacts export competitiveness. Taxes, whether direct or indirect, on production, profits, customs duties, or exports, raise the cost of domestic products and reduce the competitiveness of agricultural goods destined for export compared to foreign products in international markets.

Therefore, the following recommendations can be made:

1.Improve agricultural productivity by promoting the use of modern technologies, improved seeds, and efficient irrigation systems, thereby reducing costs and enhancing production quality.

2. Strengthen agricultural research and extension services, aligning their outputs with the needs of foreign markets, particularly regarding technical specifications and quality.

3. Adhere to international health and environmental standards (such as food safety and quality standards), facilitating access for agricultural products to global markets and boosting importers' confidence.

4. Develop agricultural value chains by supporting storage, packaging, and processing activities to increase added value and reduce post-harvest losses.

5. Improve infrastructure and logistics, particularly transportation, ports, and export markets, to reduce export costs and maintain product quality.

6.Diversify agricultural exports and shift from exporting raw materials to exporting processed agricultural products with higher added value.

7.Enhance agricultural sustainability by rationalizing the use of natural resources and addressing the effects of climate change, ensuring long-term competitiveness.

8.Simplify administrative and customs procedures and improve the business environment to enhance the ability of enterprises, especially small and medium-sized enterprises (SMEs), to access foreign markets.

9.Diversify the export base and shift towards high value-added products instead of relying on raw materials.

10.Adopt flexible and stable trade policies that ensure exchange rate stability and support the competitiveness of national products.

Ethical Considerations

340 – www.imcra.az.org, | Issue 1, Vol. 9, 2026
Determinants of Export Competitiveness in Developing Economies: A Study of the Agricultural Sector
Zineb Himeur

This study is based exclusively on secondary macroeconomic and trade data obtained from internationally recognized databases and publicly available statistical sources. No primary data were collected, and no human participants, animals, or sensitive personal information were involved. Consequently, ethical approval was not required. All data were handled in accordance with principles of academic integrity, transparency, and responsible research conduct. The empirical analysis was performed objectively, and results were reported without manipulation or selective omission.

Conflict of Interest

The author declares no conflict of interest regarding the publication of this paper. The research was carried out independently, and there are no financial, institutional, or personal relationships that could have influenced the results or interpretations presented in this study.

References

1. Ahmad, I., Khan, M. A., & Ali, S. (2024). Export competitiveness of major agricultural products in Pakistan: An assessment through revealed comparative advantage indices. iRASD Journal of Economics, 6(2), 475–493.
2. Baltagi, B. H. (2005). Econometric analysis of panel data (3rd ed.). John Wiley & Sons.
3. Bhattacharya, P., & Narayan, P. S. (2019). Relative export competitiveness of agricultural commodities and its determinants: Evidence from India. World Development, 117, 29–47. https://doi.org/10.1016/j.worlddev.2019.01.004
4. FAO & WHO. (2020). Codex Alimentarius: International food standards. FAO & WHO.
5. Helpman, E., Melitz, M., & Rubinstein, Y. (2008). Estimating trade flows: Trading partners and trading volumes. Quarterly Journal of Economics, 123(2), 441–487. https://doi.org/10.1162/qjec.2008.123.2.441
6. ISO. (2018). International standards and global trade. International Organization for Standardization.
7. Krugman, P. R., & Obstfeld, M. (2009). International economics: Theory and policy (8th ed.). Pearson Education.
8. Liew, S. L., Rahman, A., & Yusoff, M. B. (2021). Determinants of export competitiveness of agricultural products in Malaysia. International Journal of Business and Society, 22(2), 618–636.
9. Melitz, M. J. (2003). The impact of trade on intra-industry reallocations and aggregate industry productivity. Econometrica, 71(6), 1695–1725. https://doi.org/10.1111/1468-0262.00467
10. Mizik, T. (2021). Agri-food trade competitiveness: A review of the literature. Sustainability, 13(20), 1–14. https://doi.org/10.3390/su132011213
11. OECD. (2019). Measuring competitiveness in international trade. OECD Publishing.
12. Pesaran, M. H., Schuermann, T., & Weiner, S. M. (2004). Modeling regional interdependencies using a global error-correcting macroeconometric model. Journal of Business & Economic Statistics, 22(2), 129–162. https://doi.org/10.1198/073500104000000019
13. Porter, M. E. (1990). The competitive advantage of nations. Free Press.
14. UNCTAD. (2018). Export competitiveness and development. United Nations.
15. Utpal Yadav, A. K., & Chattopadhyay, S. (2024). Identifying the factors of export competitiveness for agricultural products. Asian Journal of Agricultural Extension, Economics & Sociology, 42(6), 241–253.
16. World Bank. (2018). Logistics performance index. World Bank.
17. World Trade Organization. (2020). World trade report 2020: Government policies to promote innovation in agriculture. WTO.

341 – www.imcra.az.org, | Issue 1, Vol. 9, 2026
Determinants of Export Competitiveness in Developing Economies: A Study of the Agricultural Sector
Zineb Himeur

18. Balassa, B. (1965). Trade liberalization and revealed comparative advantage. The Manchester School, 33(2), 99–123.

19. Costinot, A., Donaldson, D., & Komunjer, I. (2012). What goods do countries trade? A quantitative exploration of Ricardo's ideas. Review of Economic Studies, 79(2), 581–608.

20. Hausmann, R., Hwang, J., & Rodrik, D. (2007). What you export matters. Journal of Economic Growth, 12(1), 1–25.

21. IMF. (2019). Trade competitiveness diagnostic toolkit. International Monetary Fund.

22. OECD & FAO. (2020). Agricultural outlook 2020–2029. OECD Publishing.

23. World Bank. (2021). World development report: Data for better lives. World Bank.

342 – www.imcra.az.org, | Issue 1, Vol. 9, 2026
Determinants of Export Competitiveness in Developing Economies: A Study of the Agricultural Sector
Zineb Himeur