

**Levers for Export Performance:
A Study on the Agri-Food Sector in Algeria**

Nadira BESSOUH ^{1*}, Sofia BENMOUHOUB ²

¹ Higher School of Management Tlemcen –LEREMA Laboratory (Algeria),

bessouh_nadira@yahoo.fr

² Higher School of Management Tlemcen (Algeria),

Sofibenmouhoub@gmail.com

Received:20./09/2023

Accepted:14./01/2024

Published:27/01/2024

Abstract:

The present study aims at examining the determinants of export performance of small and medium-sized agri-food enterprises in foreign markets, as the agri-food sector has become an important export area in Algeria.

For the purpose of achieving this objective, an empirical study was conducted on a sample of 30 exporting companies in order to better understand the links between the different factors favorable to export and export performance. The results of the study confirm that favorable export conditions have a positive effect on export performance.

Keywords: Success parameters; Export performance; SMEs; Algeria.

**Corresponding author*

1. INTRODUCTION

Nowadays, the business environment is characterized by complexity, hostility, the omnipresence of information and communication technologies, and above all globalization of markets. This reality creates intense competition that forces all companies, regardless of their size, sector of activity, or nationality, to constantly adapt to the environment. The development of these companies can only be envisaged beyond national borders (Ristovska, 2014).

As a result, today, the internationalization of small and medium-sized enterprises (SMEs) has become crucial if they want to ensure their survival and promote their growth in the face of global competition (Sanyal, 2020). For this reason, exporting ought to be viewed as one of the main internationalization strategies for SMEs. It should be emphasized that this is a relatively simple operation to implement (Hassan, 2022). It is widely admitted that exporting offers these SMEs the opportunity to access new markets, expand their customer base, and stimulate their growth. There is broad agreement that, by entering international markets, these SMEs can diversify their sources of income and improve their competitiveness (Sousa, 2004).

However, exporting success for SMEs does not depend solely on geographic expansion; it is also contingent to its ability to perform effectively in international markets. On the other hand, export performance (EP) refers to the degree of a company's success in its export activities (Shoham, 1998). It encompasses different aspects that are related to the capacity of a company to achieve its business objectives, position itself in international markets, and achieve positive results through its export activities (Safari, 2020).

Furthermore, export performance can be assessed using various indicators and criteria such as export turnover, international market share, overseas sales growth, profitability of export operations, diversification of target markets, satisfaction of international customers, and company's reputation in international markets (Zou & Stan, 1998).

It is worth pointing out that export performance can vary according to the characteristics specific to each company, and also to its sector of activity (Cheriet, 2020). These key characteristics, which influence export

performance, may include the size of the company, its capacity and readiness for innovation, its growth in foreign markets, its competitiveness, its ability to adapt to international regulatory requirements, its actual financial and human resources, as well as its networks of commercial partners and distributors abroad.

Therefore, the Algerian SME sought to understand and put into practice all the above essential issues so they can increase their chances of success in international markets and thus contribute to the country's economic growth. This work aims to answer the following research question, based on the elements previously presented.

To what extent do export success factors have an impact on the export performance of Algerian SMEs?

Consequently, in order to better clarify the problem addressed in the present study, it was decided to establish a hypothesis divided into two sub-hypotheses.

H1: Export success factors have an impact on export performance,

H1.1: *Export success factors have an effect on the export performance of Algerian SMEs,*

H1.2: *The performance of exporting companies has an effect on the export challenges of Algerian SMEs.*

2. Export performance

It is widely acknowledged that export performance is a topic that is frequently discussed in academic economics literature (Amor, 2022). It is noteworthy that international trade and export are key elements that play an essential role in the economic growth of countries and in their integration in international markets. For this, many researchers have studied the factors that can influence the export performance of companies and countries (Hill, 2020).

In this respect, (Shoham, 1998) has, for example, defined export performance as the measure of the effectiveness and efficiency with which a company manages its export activities. According to (Cavusgil, 1994), export performance can be defined as the ability of a company to achieve its

commercial objectives in foreign markets in terms of sales, market share, and profitability, as well as its capacity to adapt to the specific conditions of these markets and to mobilize the necessary resources to support its export activities. Other definitions of export performance also include others dimensions like product quality, customer satisfaction, firm reputation, and ability to innovate (Jiménez-Jiménez, 2010).

Although export performance is currently a much-studied area, it is however subject to a lack of consensus and synthesis with regard to its conceptualization, operationalization, methodology, as well as its determinants and performance measures (Zou & Stan, 1998).

3. Export performance measurement indicators

Export performance metrics are measures that are used to assess the effectiveness and level of success of a company's export activities. They help understand why a company is doing well in the international marketplace and identify areas that need improvement. In this context, authors generally divide export performance measures into economic, non-economic, and generic measures, in order to operationalize the concept. It should be emphasized that there are also economic measurement indicators such as sales, as well as non-economic (non-financial) profits and market share. Regarding the economic indicators, they can be divided into three categories, namely sales related indicators, profit related indicators, and market share related indicators. The table below shows the classification of economic indicators.

Table 1: Classification of economic measurement indicators

Sales indicators	Profit indicators	Market share indicators
Export sales rate	Export profitability	Export market share
Export sales growth	Export profitability growth	Export market share growth
Export sales volume	Export profit rate	
Export sales ratio growth	Export profit margin	

*Levers for Export Performance:
A Study on the Agri-Food Sector in Algeria*

Export transaction size	sales	Contribution of exports to profits	
Product intensity	export sales	Export profit margin	growth
Export sales per employee			
Export sales per export manager			
Contribution of exports to the stability of sales			
Export sales volume of new products			
Growth in export sales of new products			
Return on assets from export sales			
Return on investment in export sales			
Growth in export sales return on assets			
Growth in export sales return on investment			

Source: Katsikeas, Leonidou and Morgan (2000). "Firm-Level Export Performance Assessment: Review, Evaluation, and Development". *Journal of the Academy of Marketing Science*. Volume 28(4). p 499.

It is widely acknowledged that non-economic indicators are product, market and other related indicators.

It has been reported that economic indicators are used much more than non-economic and generic indicators. However, they can be considered as complementary because the yellow having a global and precise analysis on the export performance of the company.

In this regard, (Atabay, 2008) carried out a study and proposed another classification of export performance measurement indicators which he divided into 3 categories:

- Financial measures, also called objective measures, such as the export intensity,
- Non-financial measures, also called subjective measures, which are linked to the perceived success rates,
- Mixed measures.

With regard to (Zou & Stan, 1998), they conducted a study in 1998 on export performance measures for which they proposed another classification. According to these authors, export performance can be assessed through three types of measurements:

- Measures related to financial results,
- Measures linked to strategic results,
- Measures related to satisfaction with export operations.

The most common methods for measuring the export performance of a company are based on its financial results.

As for (Sousa, 2004), he proposed different objective indicators that are used to measure export performance. This author tried to evaluate the effectiveness of these indicators by examining the empirical research found in the literature on the subject. The study conducted by Sousa offers a critical and in-depth analysis of export performance. This author has grouped the indicators in the following table.

Table 2: Classification of measurement indicators according to Sousa

Export intensity	This is the share of total turnover achieved in foreign markets.
The growth of export turnover	This is the evolution of export turnover over a given period of time.
Number of country-export market pairs	This is the number of countries and markets where the company is present and with which it has commercial relationships
Number of new export(country-markets) pairs	This corresponds to the variation in the number of (country-markets) pairs over a given period. It can be either positive, if the company obtains new (country-markets) pairs, negative in the

event of loss of (country-markets) pairs, or stable if this number remains unchanged.

Source: Sousa. Carlos. (2004). *Export Performance Measurement: An Evaluation of the Empirical Research in the Literature*», *Academy of Marketing Science Review*, N° 9. P 6.

However, it should be noted that despite the use of these export performance measurement indicators, some limitations to their effectiveness still exist. Contextual factors, such as culture, politics and sectoral dynamics, can play a crucial role in export performance. They might also be difficult to incorporate in to models.

4. Empirical study

4.1. Method used for data collection

This study is based on an exploratory methodological approach which aims to examine the export performance of Algerian SMEs. For this, it was decided to use a questionnaire that was specifically designed to collect data on the export practices, the challenges encountered, and the results obtained by these companies on international markets. By adopting this approach, the goal was to discover new elements and generate in-depth knowledge on the factors capable of influencing the export performance of Algerian SMEs. Thus, a sample of Algerian SMEs specialized in the agri-food industry and oriented towards export was selected for this study. Hence, a total number of more than 80 companies were solicited for participation in our survey. Of these 80 companies, only 30 SMEs responded and generously agreed to contribute to our research by sharing their information and perspectives on export performance.

For the purpose of solving the problem posed, two major variables were selected. First, the factors that contribute to the success of export activities

and, second, the performance demonstrated by the companies engaged in these activities. These variables are detailed in Table 3 given below.

4.2. Formulation of items

The items most detailed for the present study are summarized in the following table.

Table 3: Items of the two research variables

<i>Variables/axes</i>	<i>Items</i>
Export Success Factors (ESF)	<p><i>The company has the capacity to innovate and adapt to market needs</i></p> <p><i>The quality of products and services comply with international standards</i></p> <p><i>The company has the ability to adapt to the needs of the target market</i></p> <p><i>Sufficient skills in international trade</i></p> <p><i>Adequate government support for export development</i></p> <p><i>Establishing partnerships with foreign companies to access new markets</i></p>
Performance of Exporting Companies (PEC)	<p><i>The ability of the company to compete with other companies in the same foreign market</i></p> <p><i>Brand recognition in the foreign market</i></p> <p><i>Profitability of export activities</i></p> <p><i>Satisfaction of foreign customers with the quality of exported products</i></p> <p><i>Loyalty of foreign customers</i></p>

Source: Elaborated by the authors referring to the literature review on the export performance of SMEs.

4.3. Analysis and interpretation of results

4.3.1. Number of years of international activity.

Table 4: Agri-food SMEs under study and number of years of international activity

SME	Export experience
Algerian Green Materials	Five years
Cevital Agro-Industrie	More than ten years
Condis Algérie Group	Ten years
Datol	Three years

*Levers for Export Performance:
A Study on the Agri-Food Sector in Algeria*

Ela	Less than one year
EpeAgrodiv	Five years
EtsBenseghir-Agbio	Ten years
EtsExpral	Three years
EtsHaddoud Salim	More than ten years
Ets Topy	Three years
Eurl Agro Bio Sami Litassdir	Five years
Eurl Zerig New World Export Import	Eight years
Green Path	Four years
GroupeBimo	More than ten years
HamoudBoualem	Ten years
Mehiri Dattes	Three years
Nova Agro	Five years
Pro cheese	Nine years
Raja Food	Three years
Rkm Trading	Less than one year
RouissiSelami Import-Export	Five years
Sarl Gold Marque	Less than one year
Sarl Adromex	Six years
Sarl Boublenza	More than ten years
Sarl Chefa Ingredients	<i>Two years and a half</i>
Sarl Fadiplait	Eight years
Sarl Kadior	Seven years
Sarl Tifra Lait	Four years
Spa Tchín-Lait	More than ten years
Tex Export	Three years

Source: Survey results

It is noted that three companies (10% of the total) started exporting less than one year ago, seven companies (23.33%) have experience in exporting between one year and 3 years, seven companies (23.33%) started exporting 3 to 5 years ago, eight companies (26.66%) started exporting 5 to 10 year ago, and finally five companies (16.66%) have experience in exporting of more than 10 years.

4.4. Evaluation of the structural model and testing of hypotheses

4.4.1. Evaluation of model quality

The second step in the SEM-PLS procedure consists of evaluating the model by examining and determining the extent to which the causal relationships agree with the available data.

The measure most commonly used to evaluate the structural model is the coefficient of determination (R²). Indeed, this coefficient allows evaluating the predictive accuracy of the model. It is expressed as the squared correlation between the actual values and the predicted values of a specific endogenous construct.

Table 5: Explained variance and relevant prediction test

Endogenous constructs	Explained variance (R ²)	Relevant prediction(Q ²)
Export success factors	0.718	0.836
Performance of exporting companies	0.752	0.904

Source: Survey results using Smart-PLS 3 software

The second criterion for evaluating the model is its predictive ability. For this, the method based on the Stone-Geisser Q² test was used. This method states that the values of Q² must be greater than zero for the model to be relevant. Thus, the Q² values shown in the table are greater than zero, indicating that the exogenous variables have predictive power. In the structural model, Q² values greater than zero for a specific endogenous latent variable confirm the predictive relevance of the model for that particular construct.

It is noticed that our model presents some relevant prediction with Q² values of 0.836 for the export success factors and 0.904 for the performance of exporting companies. The two values are greater than zero.

4.4.2. Testing hypotheses

The simplest mediation analysis involves:

Bootstrap: Perform a bootstrap analysis to obtain a more precise estimate of the regression coefficients, and also to assess the significance of indirect effects. The bootstrap method generates bootstrap samples and helps to calculate bootstrap confidence intervals and P values to assess the significance of indirect effects.

The results obtained are given below:

*Levers for Export Performance:
A Study on the Agri-Food Sector in Algeria*

Source: Survey results using Smart-PLS 3 software

	Original Simple Mean	Simple Mean	STDEV	T Statistique	P values
FSE---- > PEE	0.162	0.162	0.062	30.855	0.000
FSE---- > DEE	0.168	0.182	0.066	33.655	0.000
PEE---- > DEE	0.562	0.504	0.041	13.119	0.000

4.4.3. Direct impact

The above table allows the researcher to observe that there is one statistically significant direct relationship between export success factors (ESF) and the performance of exporting companies (PEC), and another one between the performance of exporting companies and the challenges to the export of exporting companies (CEC). Likewise, it is noted that a statistically significant direct relationship exists between export success factors and export challenges of exporting companies.

4.4.4. Confidence intervals

	Original Simple Mean	Simple Mean	2.5%	97.5%
ESF---- >PEC	0.162	0.162	0.031	0.289
ESF---- >CEC	0.062	0.082	0.097	0.119
PEC---- >CEC	0.562	0.504	0.041	0.584

Source: Survey results using Smart-PLS 3 software

The table above shows that the confidence intervals of the relationship between export success factors and export challenges of exporting companies do not include 0, which indicates that there is a significant effect relationship.

4.4.5. Indirect impact

	Original Simple Mean	Simple Mean	TDEV	T Statistique	P values
ESF---- >PEC					
ESF---- >CEC	0.282	0.082	0.034	22.392	0.000
PEC-->CEC					

Source: Survey results using Smart-PLS 3 software

The above table helps the researcher to notice that a statistically significant indirect relationship exists between export success factors and export challenges of exporting companies.

4.4.6. Confidence intervals

	Original Simple Mean	Simple Mean	2.5%	97.5%
ESF---- >PEC				
ESF---- >CEC	0.282	0.082	0.016	0.151
PEC---- >CEC				

Source: Survey results using Smart-PLS 3 software

The table above indicates that the confidence intervals of the relationship between export success factors and export challenges of exporting companies do not include 0, which indicates that there is a significant effect relationship. Furthermore, the Bootstrap analysis makes it possible to obtain results that indicate the presence of a complete mediation of the variable *Export challenges of exporting companies*.

Close examination of the results of the study allows identifying, through items 1, 3, 4, 5, 6, and 7, the following export success factors:

- Innovation
- Business agility
- Export skills
- Mastery of the target market
- Government support
- Foreign partnerships.

These factors have a positive and significant impact on export performance (EP), which confirms hypothesis H1.

It can also be concluded that access to export, which represents the first export challenge (CEC1), is influenced by the export success factors (ESFs). This helps to confirm hypothesis

H.1. In addition, it is possible to confirm that the exporting SMEs under study do face the problem of lack of information on foreign markets.

However, the performance of the exporting companies under study, as confirmed by items 1, 2, 3, 6, 7, and 8, can be summarized in the following factors:

- Significant export expansion (or significant increase in foreign sales)

- Solid market position
- Export profitability
- Satisfaction of foreign customers
- Loyalty of international customers
- New markets explored

These factors positively influence export challenges (DEE), which confirms hypothesis H1.2.

Moreover, examination of the results obtained allows concluding that the testing of hypothesis H1, and sub-hypotheses H1.1 and H1.2, gives statistically significant values at the 5% threshold because the T-Student values exceed 1.96, which allows confirming the main hypothesis and the two sub-hypotheses mentioned above.

5. Conclusion

The present research work focuses on an empirical study that aims to analyze the impact of favorable export factors on the export performance of Algerian SMEs in the agri-food sector. It was revealed that export activity has a significant impact on business performance, particularly for small and medium-sized businesses which may be more vulnerable due to their limited resources. Furthermore, the survival and expansion of an exporting company largely depends on a better understanding of the factors that impact the speed, scale, and scope of its exports internationally. Therefore, the central issue for all businesses is to know how to become a successful exporter. This research provides responses to this question.

It can therefore be postulated that internal factors related to the company, namely innovation, agility, and international skills, as well as external factors, such as international marketing techniques and the national ecosystem, play a determining role in the success of the export activity. Indeed, the findings of the study highlight a positive correlation between favorable export conditions and the export performance of the companies, which suggests that when favorable factors exist, SMEs in the agri-food sector are more likely to succeed in international markets.

6. References

- Amor, J. a. (2022). Déterminants Internes Et Externes De La Performance A L'exportation : Analyse Conceptuelle. *International Journal of Accounting, Finance, Auditing, Management & Economics (IJAFAME)*, 3(1), 367-385.
- Atabay, I. (2008). The effect of the business manager's attributes on export performance. *The Social Sciences*, 3(7), 494-497.
- Cavusgil, S. a. (1994). Marketing Strategy-Performance Relationship: An Investigation Of The Empirical Link In Export Market Ventures. *Journal Of Marketing*, 58(1), 1-21.
- Cheriet, F. a. (2020). Etre petit et réussir à l'export : étude de dix cas d'entreprises vinicoles françaises. *Management International*, 24(6), 114-126.
- Hassan, M. S. (2022). Investigating export determinants: A time series evidence from Canada. *Sage Open*, 12(2).
doi:10.1177/21582440221101037
- Hill, C. (2020). *International Business: Competing In The Global Marketplace* (éd. 12^eédition). Mc Graw Hill Education.
- Jiménez-Jiménez, D. a.-V. (2010). Innovation, Organizational Learning, And Performance. *Journal of Business Research*, 64(4), 408-417.
- Katsikeas, C. L. (2000). Firm-Level Export Performance Assessment: Review, Evaluation, and Development. *Journal of the Academy of Marketing Science.*, 28(4), 493-511.
- Ristovska, K. a. (2014). The Impact of Globalisation on the Business. *Conference Paper*.
- Safari, A. &. (2020). Key determinants of SME's export performance : aresource based viw and contingency theory approach using potential mediators. *Journal of Business and Industrial Marketing.*, 35(4), 635-654.
- Sanyal, S. H. (2020). Challenges facing Internationalization of SME's in emerging economies : A study on OECD model. 17(2), 281-289.
- Shoham, A. (1998). Export Performance: A Conceptualization and Empirical Assessment. *Journal of International Marketing*, 6(3), 59-81.

*Levers for Export Performance:
A Study on the Agri-Food Sector in Algeria*

- Sousa, C. (2004). Export Performance Measurement: An Evaluation Of The Empirical In The Literature. *Academy Of Marketing Science Review*(9), 1-23.
- Zou, S., & Stan, S. (1998). The Determinants Of Export Performance: A Review Of The empirical Literature Between 1987 And 1997. *International Marketing Review*, 15(5), 333-356.