



INTERNATIONAL RISK AND EXPORT PERFORMANCE: ORGANIZATIONAL IMPLICATIONS FOR MOROCCAN EXPORTING SMES.

Soukaina SAAD¹, AbdelKamal ALJ², Youssef BELHAJ³

¹ PhD student in Management Sciences at EMI-Lab, Moulay Ismail University- Faculty of Legal, Economic and Social Sciences, MOROCCO

² Professor of Economics and Management, Moulay Ismail University- Faculty of Legal, Economic and Social Sciences, MOROCCO

³ Professor of Economics and Management, Moulay Ismail University- Faculty of Legal, Economic and Social Sciences, MOROCCO

Abstract: In an increasingly uncertain global environment, fostering a favorable business climate remains essential, but not sufficient, for improving the export performance of firms. Small and medium-sized enterprises (SMEs), in particular, face heightened challenges in managing international risks due to their limited resources and capabilities. This exploratory study investigates the relationship between international risks, export capabilities, and export performance among Moroccan exporting firms, with a focus on SMEs, micro-, and very small enterprises. A quantitative approach is adopted, using a structured questionnaire administered to a sample of 51 Moroccan exporters. Initially distributed in 2022, the survey process was temporarily interrupted, after which the questionnaire was revised and re-administered from late March to mid-June 2025. International risks were assessed using the average score of severity of each risk. Results show that logistics risks, quality risks, and payment risks are rated as the most critical threats to international activity. Structural equation modeling via PLS-SEM is used to examine hypothesis. Findings indicate that international risks have a significant negative effect on export performance, particularly among the sub-group of smaller firms. International capabilities exert a significant positive influence on export performance, yet no significant moderating effect was found on the risk-performance relationship. Although the small sample size limits the generalizability of the findings, the study offers useful insights and practical recommendations.

Key Words: International risks, Export performance, SMEs, International Capabilities

1. INTRODUCTION

In the era of globalization, where competition and crises extend on worldwide scale, it is no longer acceptable to conceive business management in isolation from its global environment. In this evolving and complex environment, companies must recognize the importance of internationalization. Undoubtedly, this strategy allows companies to access foreign markets that can contribute positively to their profitability. However, it would be unrealistic to claim that it always guarantees favorable outcomes. Indeed, if a company fails to adapt its capabilities to the internationalization requirements, the results can be quite the opposite.

Internationalization strategy implies facing complex and ever-changing international risks (Chaigneau, 2001), which have the potential to undermine a company's operations and hold back its internationalization process. Surely, the rise of globalization, and the complex environment characterized by the occurrence of several crises across the fields of economics (inflation), politics (Russo-Ukrainian war), environmental (water crisis) and health (Covid 19) etc., requires continuously update of risks and their management practices (Chaigneau, 2001). Furthermore, expanding a company's operations internationally can be particularly challenging due to the substantial resource requirements involved. This is especially true for small and medium-sized enterprises (SMEs) that may have limited resources and capabilities.

This study addresses the following overarching research problem: **How do international risks affect the export performance of Moroccan SMEs?**

To address this research problem, the article first reviews the theoretical foundations of international risk and export performance, in order to identify the main categories of risks relevant to Moroccan exporters. These risks are then evaluated using the Average Severity Score, which provides an overall ranking based on severity ratings from respondents. This method allows for a more robust prioritization of risks by validating perceptions of severity across respondents. The analysis then focuses on the highest-ranked risks, testing their impact on export performance through PLS-SEM for the full sample of Moroccan exporters as well as for sub-groups by firm size (medium, small, very small, and micro-enterprises) to examine size-related vulnerabilities. The article concludes with a discussion of the results, managerial implications, limitations, and directions for future research.

2. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

This article is based on the risk management process literature to identify and evaluate international risk and draws on the Uppsala Model and the Resource-Based View to explain the relationship between export performance and international risk, and the moderating role of international capabilities.

2.1 International risk management process

In the literature, risk management is frequently defined with the focus on its processual criteria. According to Ebondo Wa Mandzila and Zeghal (2009), risk management takes shape through a set of interdependent and complementary processes that involve evaluating, formalizing and exploiting risks. The first process takes form through identifying risk factors, evaluating their impact and classifying them based on their severity. To achieve this, the information system should be dynamic in order to remain informed about the emerging sources of risks and enable detecting and classifying risks in an effective manner, and by doing so it contributes to an optimal risk management.

After preparing a checklist of risks, the second process of risk formalization aims firstly to dress a risk map, based on historical data and experts opinions, in order to model correlation between risks. Then, secondly, to link risk factors to financial indicators by measuring the impact on profitability and risk management capacity. According to Masmoudi and Dhiaf (2018) risk severity can be calculated by multiplying the likelihood/probability of risk and its impact/consequence, which is defined as follow:

$$\text{Risk Severity} = \text{Likelihood} \times \text{Impact}$$

Finally, in the last stage, the manager can devise innovative strategies to leverage risks in ways that may transform them into opportunities, providing the company with a competitive advantage. According to Miller (1992), international risk management typically encompasses five generic strategies, that are notably: avoidance, control, cooperation, limitation, and flexibility. Instead of focusing solely on eliminating or avoiding risks, enterprises should cultivate internal resources and capabilities that enable them to seize the opportunities embedded within those risks. Moreover, international risk management process also implies to establish appropriate performance indicators that allows monitoring strategies effectiveness and underlying risks (Lavastre & Spalanzani, 2010). Thereby, promoting a cycle of continuous improvement through business continuity management (Norrmann & Jansson, 2004).

This study focus only on the first two steps of the process related to identifying and evaluating international risks for Moroccan exporting enterprises.

2.2.1. International risk identification:

There is no universally agreed-upon definition of international risk in the literature (Bouveret-Rivat et al., 2020; Miller, 1992). Etemad (2004) highlights three driving forces shaping the internationalization process of SMEs: pull factors related to the firm's internal resources and capabilities; push factors stemming from the local environment, including regulations, macroeconomic conditions, and political context of the home country; and mediating factors that influence SMEs' responses to these forces. Expanding this framework, Bouveret-Rivat et al. (2020) incorporate additional exogenous elements, such as

country risk in the international environment, alongside endogenous factors reflecting SMEs' experience in managing international risks.

Miller (1992) categorizes international risks into three groups: uncertainties in the overall environment (political, policy, macroeconomic), industry-specific uncertainties (import market conditions, competition), and firm-specific uncertainties (operations, legal liabilities, R&D). More recently, Rodriguez et al. (2010) identify 73 risk factors grouped into nine main categories, encompassing organizational strategy and culture, logistics infrastructure, project management, relationship systems, and the socioeconomic, political, legal, market, and cultural contexts of the destination country. To sum up, international risks encompass a wide range of categories, each described by multiple specific factors in the literature (Asgary et al., 2020; Kassem, 2022). The wide range of international risks highlighted in the literature underscores the need for a deep understanding of how these diverse factors influence export performance, thereby laying the groundwork for examining the link between international risks and firms' export outcomes.

2.2.2. Export performance of SMEs

Export performance is defined as the outcome of a firm's activities in foreign markets (J. Chen et al., 2016; Katsikeas et al., 2000). Literature uses different terms to describe export performance, including international performance, export development, export success, among others (El Makrini, 2017). High export performance is crucial for both firms, and countries, as it enhances economic growth, job creation, and strengthens the international competitiveness and sustainability of business (Sousa et al., 2008).

Overall, export performance measured through various parameters, encompassing both strategic and economic dimensions (Cavusgil & Zou, 1994). It particularly includes financial metrics like export sales, export intensity, export profitability, growth rate and strategic metrics like competitiveness, strategic position and market share (Cavusgil & Zou, 1994; Lages et al., 2005). Export intensity is acknowledged to be the most widely used measures to assess firms export performance (Reis & Forte, 2016). Lu and Beamish (2001) defined it as the ratio of international sales of the company to its total sales. Its widespread use among researchers is largely due to the challenges in obtaining financial data (export sales and profitability), especially from small businesses (Brouthers et al., 2009). However, export intensity remains a valuable and relatively reliable metric that offers insights into a firm's export activities.

Export performance of SMEs' have been addressed by many authors in different contexts (Calheiros-Lobo et al., 2023; Majlesara et al., 2014). The majority of these studies recognize the difficulties that SMEs face in their internationalization process, due to their limited resources and experience abroad. Therefore, they stressed on the importance of uncovering the key drivers of export performance of these companies (Majlesara et al., 2014).

Numerous models are created within the framework of behaviorist, in order to explain international behavior of

SMEs. From behaviorist perspective, more specifically the Uppsala model perspective, internationalization is assimilated to "linear process which corresponds to sequential and responsive progression" (Khayat, 2004). They suggest that enterprises can penetrate the foreign markets gradually via the acquisition of export experience over time. This approach is suitable for companies with limited resources like SMEs. However, international involvement degree is usually considered as a determinant of export performance rather than as a direct measure of it (Torrens et al., 2014).

Instead, export performance can also be measured through the international geographic diversity, as it represents one of the desired international trade objectives (Brenton et al., 2009). Cabral et al. (2020) defined it as the scope of firms' internationalization, measured by the number of countries to which it extends its sales. They emphasized the need to consider both the breadth of international presence, reflected by the number of countries reached, and the depth, indicated by the volume of export sales, when evaluating a firm's level of internationalization.

2.2.3. International risk and export performance

Given the broad spectrum of international risk factors, it is essential to concentrate on those most frequently cited in the literature as having a significant impact on export performance. According to Sousa et al. (2008) among international market characteristics, legal and political environment is the most commonly reported factor affecting export performance. Numerous studies have demonstrated the negative relationship between geopolitical risks and export performance. For example, Guo (2024) found in his empirical study that geopolitical risks related to wars, terrorist attacks and political tensions between countries severely hinder firms' internationalization strategies and discourage multinational enterprises from investing and trading overseas.

Rising global political instability has made firms more aware of political risks, prompting them to take measures to limit their impact. Since 2020, the Multilateral Investment Guarantee Agency (MIGA) has issued \$30.2 billion in guarantees to cover political risk and credit issues — a 75% increase compared to the previous five years (Avsar & Batmaz, 2025). The international economy and its key players, including SMEs, are becoming more exposed and vulnerable to existing and emerging geopolitical risks and uncertainties (Pascual-Ramsay, 2015).

Beside political risks, exchange rate volatility or currency risk is a critical risk recognized as a significant factor influencing the expansion of export-oriented firms into foreign markets (Fornes & Cardoza, 2019). This volatility introduces uncertainty in revenue streams and production costs, directly affecting export performance. Additionally, unfavorable exchange rate introduce difficulties in matching competitor prices in the foreign market, which represent one of the most severe problems for SMEs (Leonidou, 2004).

Macro-economic risk in the other hand, can, encompass a range of economic conditions, including inflation, interest rates, and GDP growth, all of which can profoundly affect export success. macroeconomic instability, especially fluctuations in GDP and inflation, can reduce the predictability of export revenues and increase foreign market risk (Ghosh & Ostry, 1994). Those risks can result in a sharp drops of demand, due to their direct influence on foreign consumer purchase power and per capita income, which can affect exporting companies all over the world (Aithal, 2017).

Moreover, the existence of trade barriers was also found to have a significant effect on the export performance of the firm (Sousa et al., 2008; Yadav et al., 2021). In particular, firms in developing countries are affected by quality standards imposed in developed countries, in both their propensity to export and diversification of markets (M. X. Chen et al., 2006). Focusing on sub-Saharan Africa, Czubala et al. (2009) found that EU standards, act as major barrier to manufacturing factories exports. It is also crucial for other sectors, including food factory (Yadav et al., 2021), and chemical factory (Al-Aali, 1995), among others.

Small and medium-sized enterprises face distinct challenges related to product quality acceptance, logistics management, country-specific differences, and broader general business risks when engaging in international trade (Neupert et al., 2006). In this context, Sousa et al. (2008) note that cultural differences risk is proved as one of the most critical risks by multiple empirical studies.

Miller (1992) identified also natural disaster risk as one of non-controllable risks that can have a severe effect on exporting firms. Finally, the COVID-19 pandemic has recently demonstrated that health risk is among the most critical international risks affecting global trade (Lin, 2023).

Based on the critical effect of the above-mentioned risks in the international business on enterprises trading overseas' propensity of export, competitiveness, market diversification, we can formulate the following hypothesis:

H1: *Moroccan SMEs frequently exposed to high-level international risks exhibit significantly lower export performance compared to those less exposed.*

H2: *Small and very small Moroccan exporting enterprises experience a greater negative impact of high-level international risks on their export performance compared to large and medium-sized ones.*

2.3. International capabilities moderating role

The internationalization of firms is influenced not only by external conditions but also heavily relies on the internal resources and capabilities that firms can cultivate and deploy. In today's increasingly volatile and complex global environment, the ability to navigate international risks while sustaining competitive advantage requires more than static resources, it demands dynamic and adaptive capabilities.

The Resource-Based View (RBV) of the firm, which posits that a firm's competitive advantage and performance are primarily determined by its internal

resources and capabilities. Drawing on on penrose's definition wherein a firm is a collection of physical and human resources, Barney (1991) argues that sustained competitive advantage and international performance can only be achieved if a firm possesses resources that are valuable, rare, inimitable, and non-substitutable (El Makrini, 2017). This perspective suggests that firms with superior resources are better equipped to navigate international risks and achieve higher export performance.

The core capabilities required by exporters to ensure long-term success include the development and effective use of export-related skills (Ross & Whalen, 1999). Building on this perspective, Xu et al. (2015) conducted an empirical study of 420 Chinese exporting enterprises samples, and found that international experience moderate the negative relationship between export performance and the perceived international risks. This aligns with the Uppsala approach that suggest that experiential learning facilitate acquiring information and knowledge on foreign market, which enhance the ability of firms to manage international risks (Escandon-Barbosa et al., 2019).

Majlesara et al. (2014) have noticed that, despite the high awareness about its importance, the lack of export knowledge and market information remains for companies in many countries. Therefore, enterprises should improve their capabilities of acquiring information and knowledge and the ability to identify international opportunities, which enables a higher internationalization degree and better export performance (Morgan et al., 2004).

In the other hand, the network approach suggest that enterprises can skip many stages of their internationalization process by leveraging strong collaborative relationship with their foreign partners (Johanson & Mattsson, 1988). This perspective highlights the importance of acquiring the capability to create and maintain strong relationship with their foreign partners, as it build their capability to understand overseas customer's requirements (Catanzaro & Teyssier, 2021; Morgan et al., 2004).

Moreover, many scholars have pointed out organizational and technological capabilities as pivotal determinants in fostering superior export performance among companies engaged in global trade (Catanzaro & Teyssier, 2021; Oura et al., 2016). According to El Makrini (2017), "SMEs in developing countries avoid to undertake risky activities like exporting, because of the financial and technological constraints". These limitations often hinder firms' ability to respond effectively to the complexities of international markets and to build resilience against external shocks. Therefore, we argue that:

H3: *Exporting enterprises with stronger international capabilities achieve superior export performance compared to those with weaker capabilities*

H4: *Acquiring international capabilities moderate the relationship between high-level international risk and export performance of Moroccan exporting SMEs.*

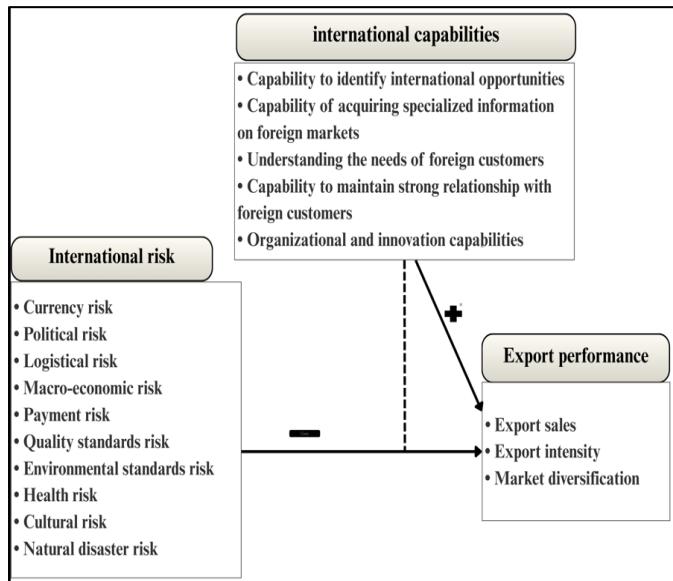


Figure 1: Conceptual Framework

3. METHODOLOGY OF RESEARCH.

In this study, the constructs were directly drawn from established literature and applied to the targeted population. Based on these constructs, a structured questionnaire was designed to capture the different dimensions of the conceptual framework. Once the questionnaire was finalized, it was initially distributed to Moroccan exporting SMEs in 2022. After the survey process was temporarily interrupted, the questionnaire was revised and re-administered from late March to mid-June 2025.

A quantitative approach was adopted to analyze the data collected from the respondents. The analysis began with a descriptive examination of the participants' demographic characteristics, followed by statistical analysis to assess the relationships between the independent and dependent variables. The research hypotheses were tested using the Structural Equation Modeling (SEM) approach through Partial Least Squares (PLS-SEM), using the SmartPLS 4 software.

3.1. Development of the survey instrument

In this study, to accurately test the conceptual framework hypotheses, a structured questionnaire was designed to capture key insights from the population under study. It resulted from an extensive review of the relevant literature and survey pretest was conducted with a small group of individuals to assess the clarity, wording, and structure of the items. This step helped ensure that the questionnaire was understandable and relevant to the target population.

The questionnaire is structured into several distinct sections. It begins with general questions concerning the characteristics of the firm and the profile of the respondent. This follows measurement scales evaluating the export performance, the frequency and impact of international risks, and the export-related skills and capabilities of the firm. Additional items are included to

allow for a more comprehensive analysis of the factors influencing export performance.

3.2. Qualitative Risk Assessment:

To prioritize international risks, this study adopts a Qualitative Risk Assessment (QRA) approach. Focusing on the first two steps of the risk management process—identification and assessment—it evaluates international risks by calculating their average risk severity scores.

Qualitative risk assessment is among the most commonly employed methods due to its affordability, simplicity, and the speed with which it can be carried out (Asgary et al., 2020). It uses subjective likelihood and impact collected from experts and decision makers, that are assessed using well-known five-scale risk evaluation grid (Asgary et al., 2020; Baharmand et al., 2017).

The obtained evaluations are usually charted in a two-axis risk matrix, a tool widely employed in literature to illustrate and rank risks by their matrix placement (Asgary et al., 2020). Color coding is mostly used to show the importance of each risk, typically using colors—such as green, yellow, and red—to indicate levels of risk ranging from low to high (Duijm, 2015).

Table 1: color-coding of risk matrix

Risk assessment						
Likelihood Rating	5-very high	VL, VH	L, VH	M, VH	H, VH	VH, VH
	4- high	VL, H	L, H	M, H	H, H	VH, H
	3- Moderate	VL, M	L, M	M, M	H, M	VH, M
	2- Low	VL, L	L, L	M, L	H, L	VH, L
	1-Very low	VL, VL	L, VL	M, VL	H, VL	VH, VL
		1- Very low	2- Low	3- Moderate	4- high	5-very high
Impact rating						

3.3. Data collection:

Data for this study were collected from a sample of Moroccan exporting enterprises in different sectors of activity. While Moroccan companies are officially classified based on a combination of annual turnover, workforce size, and age, this study adopts a simplified approach by using annual turnover only as the criterion for categorizing firms, in line with the focus of the research.

According to the 2020–2021 annual report on Moroccan enterprises, firms are classified as follows based on revenue:

- **Microenterprises (MICRO)** : turnover \leq 3 million dirhams

- **Very Small Enterprises (VSE):** turnover between 3 and 10 million dirhams
- **Small Enterprises (SE):** turnover between 10 and 50 million dirhams
- **Medium-sized Enterprises (MSE):** turnover between 50 and 175 million dirhams
- **Large Enterprises (LE) :** turnover > 175 million dirhams.

The targeted sample frame of this study consisted of Moroccan exporting enterprises engaged in export activities. Given the absence of a comprehensive and centralized database, a non-probability sampling approach was adopted. The questionnaire was created using Google Forms and distributed via LinkedIn, targeting professionals active in export-related positions, and also distributed directly via email to company representatives whose contact information was publicly available on company websites. The data collection process was conducted over a period of three to four months, with reminder messages sent periodically to increase participation.

Out of the total outreach, 60 responses were received, and after data screening for completeness and consistency, 51 valid responses were retained for analysis. The low response rate is common in studies involving senior-level professionals due to their limited availability and time constraints (J. Chen et al., 2013). Based on the "10-times rule," the minimum required sample size should be at least ten times the highest number of structural paths pointing to any latent construct in the model. Nonetheless, the sample obtained is considered sufficient for exploratory analysis and provides valuable insights into the perception of international risks among Moroccan exporting enterprises.

4. Results and discussion:

4.1. Questionnaire Pre-test and refinement:

Before launching the full-scale data collection, a pre-test of the questionnaire was conducted to verify the clarity, wording, and logical structure of the items. It particularly aimed to ensure the instrument met basic academic standards and was well-adapted to the target population.

The pre-test was carried out with a small group of five individuals, including two university professors specialized in international trade and data analysis, and three potential respondents representing the profile of participants in the main study. These individuals were asked to review the questionnaire in detail, focusing on the comprehensibility of the questions, the relevance of the terminology, and the structure and flow of the sections.

Feedback from the pre-test led to several improvements, notably rewording of certain items to eliminate ambiguity or overly technical language, simplification of terminology to ensure accessibility for non-specialist respondents and minor adjustments to the order of the questions to enhance the logical sequence.

No items were removed at this stage, but this preliminary validation helped ensure that the

questionnaire was both understandable and contextually relevant for Moroccan exporting SMEs. As a result, the risk of misinterpretation or confusion during the actual data collection phase was minimized, thereby increasing the overall reliability of the responses.

4.2. Reliability Test for latent variables:

Table 2: Construct, items and statistic tests

Latent variables measurements	Number of items	Cronbach alpha	Item-total correlation
International risks frequency:	10 items	0.847	-
<i>Currency risk (CRR)</i>	-	-	0.227
<i>Political risk (PR)</i>	-	-	0.563
<i>Logistical risk (LR)</i>	-	-	0.784
<i>Macroeconomic risk (MER)</i>	-	-	0.614
<i>Payment risk (PayR)</i>	-	-	0.645
<i>Quality standards risk (QR)</i>	-	-	0.672
<i>Environment standards risk (ER)</i>	-	-	0.752
<i>Health risk (HR)</i>	-	-	0.527
<i>Cultural risk (CR)</i>	-	-	0.301
<i>Natural disaster risk (NR)</i>	-	-	0.334
Export capabilities	5 items	0.854	
<i>Identify international opportunities (EC1)</i>	-	-	0.591
<i>Acquisition of specialized information on foreign markets (EC2)</i>	-	-	0.700
<i>Understanding the needs of foreign customers (EC3)</i>	-	-	0.752
<i>Ability to maintain strong relationships with foreign partners (EC4)</i>	-	-	0.651
<i>Organizational and technological innovation (EC5)</i>	-	-	0.651
Export performance (EXPERF)	3 items	0.629	-
<i>Export turnover (EXTO)</i>	-	-	0.593
<i>Export intensity (EXINT)</i>	-	-	0.274
<i>Geographic diversification (GD)</i>	-	-	0.549

Source: SPSS Output.

The reliability analysis of the measurement constructs revealed satisfactory internal consistency for the first two constructs. The Cronbach's alpha values for the latent variables, including international risks frequency ($\alpha = 0.847$), export capabilities ($\alpha = 0.854$), exceeded the commonly accepted threshold of 0.70, indicating a good level of reliability. However, the export performance is below the threshold, with a value of ($\alpha = 0.629$).

As it is clearly manifested in (Table 4), the correlation between export intensity is relatively low (0.274), indicating a weak relationship between the proportion of exports in total revenue and the absolute value of export

sales and the geographic diversification. This could be explained by the heterogeneity of firm profiles in the sample. For instance, some small enterprises may exhibit high export intensity due to their exclusive focus on foreign markets, despite generating relatively low absolute export revenues. Conversely, larger or medium-sized firms that primarily serve the domestic market may display low export intensity while achieving high export turnover in absolute terms.

Therefore, to enhance the internal consistency of the construct and align the measurement model with the constraints imposed by the sample size, we decided to remove the item related to export intensity. This refinement aims to improve the robustness and reliability of the analysis by eliminating weakly correlated variables. Following the removal of low-performing item, the internal consistency of the export performance composite variable improved significantly, with Cronbach's alpha increasing to ($\alpha = 0.861$), indicating a satisfactory level of reliability.

4.3. Descriptive analysis of the samples:

4.3.1. Overall traits of the samples:

The sample comprises 51 enterprises of different sizes engaged in exporting, operating in different sectors and across various regions in Morocco. Notably, 47.1% of the firms are located in the Casablanca-Settat region, 19.6% in Souss-Massa, and 9.8% each in Tangier-Tetouan-Al-Hoceima and Rabat-Kénitra-Salé, with the remaining enterprises distributed across other regions.

The survey's respondents represent a wide range of crucial positions inside export organizations, including export managers (33.3%), CEO/ Managing Director (19.6%), import export managers (11.8%), Sales managers (7.8%), supply chain managers, marketing specialists among others. These participants come from a variety of exporting businesses that operate throughout several Moroccan regions.

According to size of enterprises, 30.6% of the sample is made up of large businesses, which yearly contribute more than 150 million MADs. Subsequently, both medium sized enterprises and small enterprises each encompass 26.5 % of the surveyed entities, and finally very small enterprises and microenterprises, together account 16.3% of the surveyed entities.

Regarding the sectors of activity, 40% of the enterprises surveyed operate in the agri-food industry, followed by 14% in the broader agro-industrial sector. The automotive and electrical/electronics industries each represent 6% of the sample, while 12% belong to various other industrial sectors. The remaining companies are distributed across textile, construction (BTP), transport and logistics, technologies and services.

The analysis of the data reveals that significant portion of enterprises are primarily focused on their domestic market. This is evidenced by the fact that 42.4% of the sample have export sales constituting less than 10% of their total revenue, while an additional 12% of the sample falls within the range of 11% to 30% of export sales. However, it is important to mention that 30.3% of the

samples are oriented to the foreign market with export sales more than 70% of their total revenue, and the majority of them are small and medium-sized enterprises.

In terms of export experience, 41.2% of the enterprises surveyed have been engaged in international markets for 6 to 10 years. A smaller portion, 7.8%, are relatively new to exporting, with less than 6 years of experience. Meanwhile, 19.6% have a more established presence, with 11 to 20 years of international activity, and 31.4% are considered fully experienced, having operated in foreign markets for over two decades.

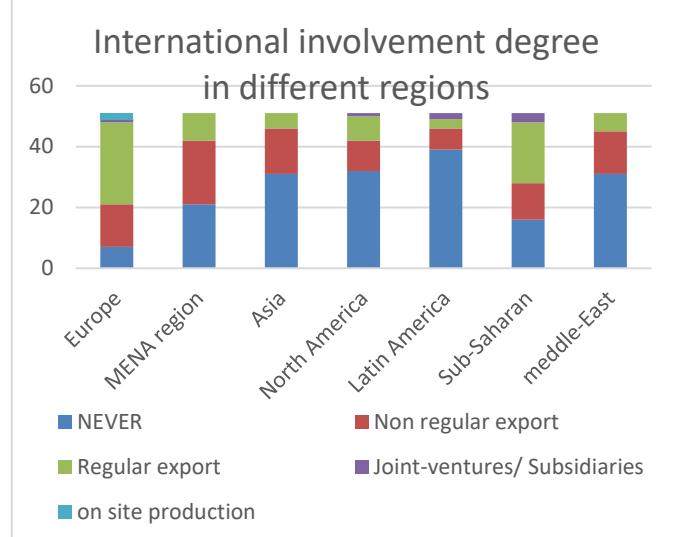


Figure 2: Foreign Markets diversification and degree of involvement

Regarding export destinations, the findings reveal that Europe stands out as the primary target market for the firms surveyed. Only seven firms do not export to this region, while 27 engage in regular export operations to Europe, and three have established more capital-intensive forms of presence there. Sub-Saharan Africa also emerges as a significant destination, with 20 companies reporting regular exports to the region. In contrast, Latin America, followed by North America and Asia, are the least targeted markets, with 39, 32, and 31 enterprises respectively having never exported to those areas.

4.3.2. International risk assessment:

To ascertain the influence of international risks on export performance, it was imperative to initially assess the magnitude of these risks. The established formula of risk severity, obtained by combining risk likelihood and risk impact is employed, leading to the categorization of risks through the widely recognized risk assessment matrix visualization.

➤ Qualitative risk assessment matrix:

The qualitative risk assessment method was used by Asgary et al. (2020) to capture the perceptions of a diverse group of respondents regarding the likelihood and impact of each risk category, using a structured Likert scale (1 to 5). This approach enabled the aggregation of individual assessments into average scores. Therefore, we opted for

this approach in this study to capture the average risk severity perceived by the sample.

The results reveal that small, very small, and micro-enterprises tend to perceive both the likelihood and impact of international risks as slightly higher compared to the overall sample, which also includes medium and large enterprises. Specifically, the risk perception scores for these smaller enterprises fall between 2.36 and 3.82, while the scores for the full sample range from 2.196 to 3.353..

Consequently, the international severity scores are notably higher for small, very small, and micro-enterprises. These include three values categorized as high (highlighted in orange), six values as moderate, and only one value as low. In contrast, the overall sample shows three low values (green) and the rest is moderate (yellow).

Using the average scores of likelihoods and impact, a risk assessment visualization is created. While the axes theoretically range from 0 to 5, they were limited to a scale of 1.5 to 4.5 to improve visual clarity. The graph is structured according to the following legend:

Table 3: Qualitative Risk Assessment Legend

Values	Less than 3	3-5	5-10	10-15	16-25
Color coding	Very low	Low	Moderate	High	Very high

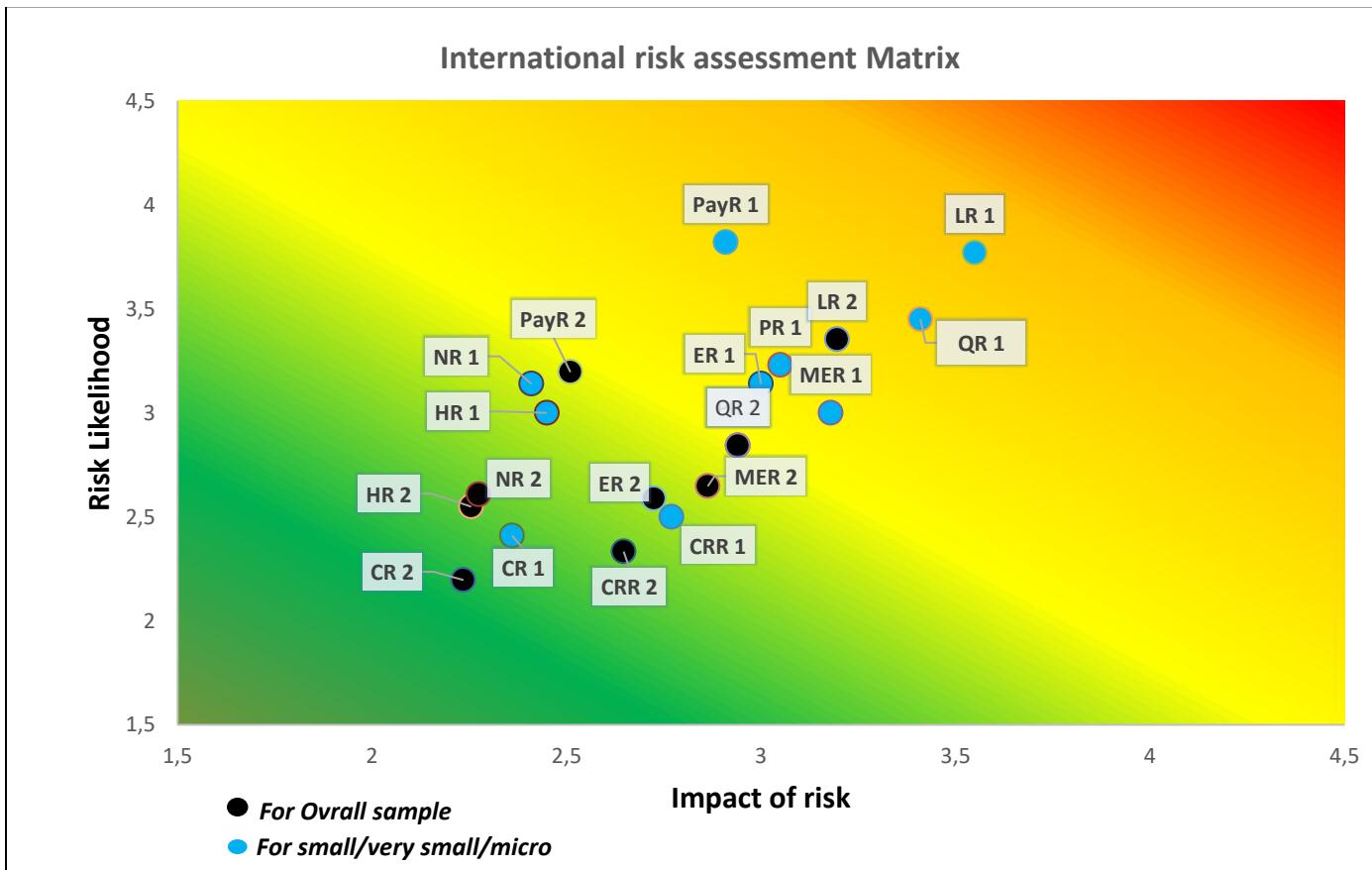


Figure 3: International risk Matrix visualisation

The matrix visualization shows that logistics risk (LR1), quality risk (QR1), and macroeconomic risk (MER1), represented by blue points for small, very small, and micro-enterprises, are perceived as the highest risks, as they are located near the red zone. Conversely, cultural risk (CR1) and currency risk (CRR1) are considered the least significant, positioned closer to the green zone.

On the other hand, for the overall sample, represented by black points, logistics risk (LR2) appears to be the most critical, nearing the orange zone. This is followed by payment risk (PR2), quality risk (QR2), and macroeconomic risk (MER2), which fall within the moderate range. The lowest perceived risks in the overall assessment are cultural risk, health risk, and natural risk, all located closer to the green area.

Given the levels of severity identified in the matrix, it is recommended that SMEs avoid or transfer the most critical risks, such as logistics and quality-related risks, which exhibit the highest likelihood and impact. For risks assessed as moderate, such as political and macroeconomic risks, efforts should focus on reducing both their frequency and potential consequences. Conversely, low-level risks, such as cultural and health risks, may be appropriately accepted and monitored (Aqlan & Lam, 2015).

Nevertheless, it is crucial to assess the degree to which these highly rated risks affect the export performance of the sampled enterprises in order to plan appropriate mitigation strategies, as outlined in Section 4.4.

4.4. Partial Least Squares Structural Equation Modeling (PLS-SEM)

The study uses partial least square developed by Wold (1966), particularly Smart PLS 4.0, to assess the relationship between international risk, international capabilities and export performance. It is considered the most advanced and complete approach among variance-based estimators for structural equation modeling (Henseler, 2018). It is particularly suitable for situations with non-normal data distributions, small sample sizes, and formative constructs, making it a flexible choice for diverse research contexts (Sarstedt et al., 2014). Therefore, this technique is preferable among different disciplines including international business (Catanzaro & Teyssier, 2021), international marketing (O'Cass & Julian, 2003), and supply chain management (Bavarsad et al., 2014) etc.

PLS-SEM involves two main phases: the assessment of the measurement model and the evaluation of the structural model. (J. F. Hair et al., 2011). The former carries out further analysis the construct with good indicators' loadings, convergent validity, composite reliability and discriminant validity, while the latter weighs path coefficient and test their significance.

4.4.1. Measurement Model Evaluation

The measurement model evaluates the reliability and validity. According to Hair et al. (2011), in reflective measurement models, several criteria are used to ensure the quality and validity of the constructs. First internal consistency reliability assessed through composite reliability, which should exceed 0.70. However, in exploratory research, values between 0.60 and 0.70 are still acceptable (J. F. Hair et al., 2011). Second, indicator reliability that requires that each indicator loading be greater than 0.70, indicating that the indicator strongly reflects the underlying construct. Third, convergent validity is evaluated using the average variance extracted (AVE), which should be above 0.50, demonstrating that the construct explains more than half of the variance of its indicators. Finally, discriminant validity must be confirmed through two key tests: the Fornell-Larcker criterion, which states that a construct's AVE should be greater than the squared correlations with any other construct, and the comparison of indicator loadings, where each indicator should load more strongly on its associated construct than on any other construct (i.e., higher than all cross-loadings).

➤ Internal consistency reliability:

The construct's internal consistency reliability is established by Cronbach' Alpha and Composite Reliability (CR), which are presented in Table 4. The Cronbach' Alpha values of our endogenous construct of Export performance, and exogenous constructs of international risk particularly high-level risks are beyond 0.700 for the overall sample, which are acceptable. For the sub group sample of SMEs has one only indicator which is slightly below the threshold suggested by (Chin, 1998), while the remaining ones surpass it. Nonetheless, this value may still be considered acceptable in exploratory research, particularly when the composite reliability (CR) meets the required standard (J. Hair & Alamer, 2022).

The composite reliability of all constructs is higher than the recommended threshold of 0.70 for the overall sample and the sub-group sample, which make it acceptable. Although Cronbach's alpha of quality standards risk indicator (QR) for the sub-group sample is slightly below 0.70, the construct's Composite Reliability exceeds the threshold, suggesting acceptable internal consistency. This is consistent with Hair et al (2018), who recommend interpreting CR as an upper bound and alpha as a lower bound of reliability (J. Hair & Alamer, 2022).

➤ The indicator loadings:

As noted by J. F. Hair et al. (2011), the standardized loadings of indicators should ideally exceed 0.70. In general, indicators with loadings ranging from 0.40 to 0.70 may be candidates for removal, but only if their exclusion results in an improvement of the composite reliability beyond the recommended threshold.

In this study, the indicator loadings values of the overall sample and the sub-group sample shown in Table 4 for high-level risks, export performance, and international capabilities all exceed 0.70, indicating their acceptability.

➤ Convergent validity:

The convergent validity is examined by the Average Variance Extracted (AVE) (J. F. Hair et al., 2011). An AVE value of 0.50 or above indicates that the construct accounts for more than half of the variance in its indicators (J. F. Hair et al., 2011; Kassem, 2022). In this study, it is clearly manifested in table 4 that the AVE values for all constructs of both the overall sample and the sub-group sample exceed 0.500, thereby supporting their convergent validity.

➤ Discriminant Validity:

Discriminant validity is assessed using two main approaches: the Fornell-Larcker criterion and cross loadings (Hair et al., 2011). The Fornell-Larcker criterion (Fornell & Larcker, 1981) suggests that a latent construct should explain more variance in its own indicators than it shares with any other construct in the model. Statistically, this means that the AVE of a construct must exceed its highest squared correlation with any other latent variable (J. F. Hair et al., 2011). The second method involves analyzing cross loadings. Discriminant validity is demonstrated when each item has a low correlation with all constructs other than the one it is intended to measure (Henseler et al., 2015).

Table 4: Item loadings, Reliability and Convergent Validity

Construct And items	Items id	loadings	Alpha	CR	AVE
Overall sample: N=51					
High level international risk :			0.842	0.887	0.613
Logistic risk	LR	0.873			
Payment risk	PAY.R	0.816			
Quality standard Risk	QR	0.741			
Macro-economic risk	MER	0.816			
Political risk	PR	0.713			
Export performant			0.864	0.936	0.779
Exp_turnover	EXTO	0.951			
Geographic diversification	GD	0.924			
International capabilities			0.855	0.895	0.632
International opportunities identification	EC1	0.703			
Acquisition of information on foreign markets	EC2	0.800			
Understand customer needs	EC3	0.862			
Maintain strong relationship with partner	EC4	0.769			
Organizational and technological innovation	EC5	0.830			
SMEs VSE and MCE Sample N=22					
High level international risk :			0.845	0.880	0.595
Logistic risk	LR	0.785			
Payment risk	PAY.R	0.766			
Quality standard Risk	QR	0.694			
Macro-economic risk	MER	0.827			
Political risk	PR	0.777			
Export performant			0.772	0.898	0.814
Exp_turnover	EXTO	0.901			
Geographic diversification	GD	0.904			
International capabilities			0.876	0.908	0.664
International opportunities identification	EC1	0.832			
Acquisition of information on foreign markets	EC2	0.876			
Understand customer needs	EC3	0.830			
Maintain strong relationship with partner	EC4	0.705			
Organizational and technological innovation	EC5	0.821			

Source: Smart PLS 4 output.

Table 5: Cross loadings and discriminant validity (Fornell and Larcker, 1981)

	Export performance	high level risk	International capabilities	International capabilities x high level risk
Cross loadings for Overall sample : N=51				
EXP_COUNTRIES_Nbr	0.924	-0.407	0.555	0.177
EXP_TURNOVER	0.951	-0.565	0.681	0.270
LR	-0.506	0.873	-0.447	-0.204
PAY. R	-0.412	0.816	-0.473	-0.233
PR	-0.400	0.713	-0.406	-0.206
QR	-0.258	0.741	-0.394	-0.166
MER	-0.420	0.760	-0.567	-0.155
Cap_Market_Info	0.449	-0.382	0.800	0.217
Cap_Innovation	0.698	-0.537	0.830	0.276
Cap_Opportunity_Iden	0.403	-0.630	0.703	0.281
Cap_Partner_Relation	0.445	-0.420	0.769	0.085
Cap_Customer_Needs	0.558	-0.381	0.862	0.161
International capacities x high level risk	0.243	-0.247	0.260	1.000
Cross loadings for Sub-group Sample (SMEs, VSE and MCE) N=22				
EXP_COUNTRIES_Nbr	0.906	-0.617	0.484	0.289
EXP_TURNOVER	0.899	-0.532	0.579	0.283
LR	-0.402	0.785	-0.450	-0.120
PAY. R	-0.423	0.767	-0.599	-0.242
PR	-0.528	0.777	-0.328	-0.039
QR	-0.086	0.694	-0.233	-0.163
MER	-0.650	0.826	-0.581	-0.209
Cap_Market_Info	0.455	-0.465	0.876	0.379
Cap_Innovation	0.348	-0.550	0.821	0.361
Cap_Opportunity_Iden	0.409	-0.586	0.832	0.500
Cap_Partner_Relation	0.327	-0.535	0.705	0.102
Cap_Customer_Needs	0.687	-0.431	0.830	0.356
International capacities x high level risk	0.317	-0.195	0.427	1.000
Discriminant validity (Fornell and Larcker, 1981) - Overall sample : N=51				
Export performance	0.938			—
High level Risk	-0.527	0.783		—
International capabilities	0.665	-0.587	0.797	—
Discriminant validity (Fornell and Larcker, 1981) - Sub-group sample : N=22				
Export Performance	0.902			—
High level Risks	-0.637	0.771		—
International capabilities	0.588	-0.610	0.815	—

Source: Smart PLS 4 output.

Table 4 indicates that the AVE for each construct for both the overall sample and the sub-group sample exceeds the absolute value of its correlations with other latent variables. Furthermore, in table 5, each indicator loads more strongly on its associated construct than on any other construct, indicating that the items are well differentiated and measure distinct underlying concepts as intended. Thus, confirming that discriminant validity is established for both the overall sample and the sub-group sample.

4.4.2. Structural equation assessment

Separate PLS-SEM models were estimated for the overall sample ($N = 51$) and the subgroup ($N = 22$) to explore potential differences in structural relationships. Although a formal multi-group analysis was not conducted, comparative interpretation of the path coefficients, significance levels, and confidence intervals allows for an initial exploration of subgroup-specific effects.

To assess the significance of path coefficients and moderation effects, bootstrapping was conducted using 5,000 subsamples, following recommendations by Hair et al. (2017). Given the relatively small sample size of the overall sample ($N = 51$) and the sub-group sample ($N=22$), the bias-corrected and accelerated (BCa) method was used to compute confidence intervals, which helps adjust for skewness and bias in the resampling distribution. A two-tailed test was applied with a significance level of ($p < 0.10$). Confidence intervals were examined to determine significance: a path was considered significant if zero was not included in the 90% confidence interval. Additionally, coefficient determination (R^2 values) and effect sizes (f^2), were reported to complement the significance testing, in line with recommendations for small-sample PLS-SEM analyses.

➤ Path analysis:

Considering the analysis presented in Table 7, the **first hypothesis**, proposing a negative relationship between international risks and export performance, is supported across both groups. In the subgroup, the path coefficient is negative and statistically significant ($\beta = -0.454$, $t = 2.108$, $p = 0.035$), indicating a significant inverse relationship between the exogenous and endogenous variables. This negative relationship is also observed in the overall sample, albeit with a smaller effect size and marginal significance ($\beta = -0.200$, $t = 1.676$, $p = 0.094$), further supporting the proposed **second hypothesis**.

Although a significant positive relationship between international capabilities and export performance is confirmed for the overall sample ($\beta = 0.534$, $t = 3.845$, $p = 0.000$), this relationship is not supported in the subgroup sample composed of SMEs, very small enterprises, and micro-enterprises, which support the **third hypothesis**. Nonetheless, the moderating role of international capabilities on the relationship between international risks and export performance is not confirmed for either the overall sample or the subgroup, as the p-values associated with the interaction effect exceed the 0.10 threshold. Therefore, the **fourth hypothesis** suggesting a significant moderation effect is not supported.

➤ Coefficient of Determination (R^2):

The R^2 values of the endogenous constructs were analyzed to evaluate the explanatory power of the structural model. The construct of export performance showed an R^2 of 0.475 for the overall sample and 0.480 for the Sub-group sample, indicating that approximately 47.5% and 48% of its variance is accounted for by its predictor variables. While Chin (1998) considers this level to reflect moderate-to-low explanatory power, other scholars suggest that such values remain acceptable in social science research. Ozili (2023) argues that an R^2 value of 0.10 or higher can be regarded as acceptable, as long as some or most of the predictor variables are statistically significant. This view is based on the understanding that, in many social science studies, the primary objective is not to achieve precise prediction, but rather to identify and understand significant relationships between constructs. Moreover, Moksony and Heged (1990) emphasize that R^2 should not be used to validate or invalidate a model, as a low R^2 simply indicates that the dependent variable is influenced by additional factors not included in the analysis. Based on these arguments, we consider the R^2 value of our model to be acceptable.

➤ Effect sizes (f^2):

According to Cohen (1998) The 0.35 (Strong Effect), 0.15 (Moderate Effect), and 0.02 (Weak Effect) values are based on the criteria (Kassem, 2022). The evaluation of Effect Size (f^2) is shown in Table 6.

Table 6: Effect size.

	Sub-group sample		Overall sample	
	f^2	Effect	f^2	Effect
High level risks -> EXPORT PERFORMANCE	0.247	Moderate	0.049	weak
International capabilities -> EXPORT PERFORMANCE	0.070	Weak	0.348	Moderate to high
International capabilities x High level risks -> EXPORT PERFORMANCE	0.021	weak	0.005	Very weak

Note: Smart PLS output

4.5. Discussion

In this study, 10 main international risks were identified from the literature. They were evaluated in multiple methods to obtain ranking of their severity according to our sample and to examine the effect of the prioritized risks on their export performance.

The literature reveals multiple categories of international risks, including political risks (Guo, 2024; Pascual-Ramsay, 2015), currency risk (Leonidou, 2004), macroeconomic risk (Ghosh & Ostry, 1994), logistics risk (Elock Son et al., 2019), quality standards risks (M. X. Chen et al., 2006), environmental standards risks (M. X. Chen et al., 2006), natural risk (Miller, 1992), cultural risk (Sousa et al., 2008) and health risk (Lin, 2023). Those risks can be classified into high level risk, moderate level risk and low-level risk, that could support decision making and strategic management.

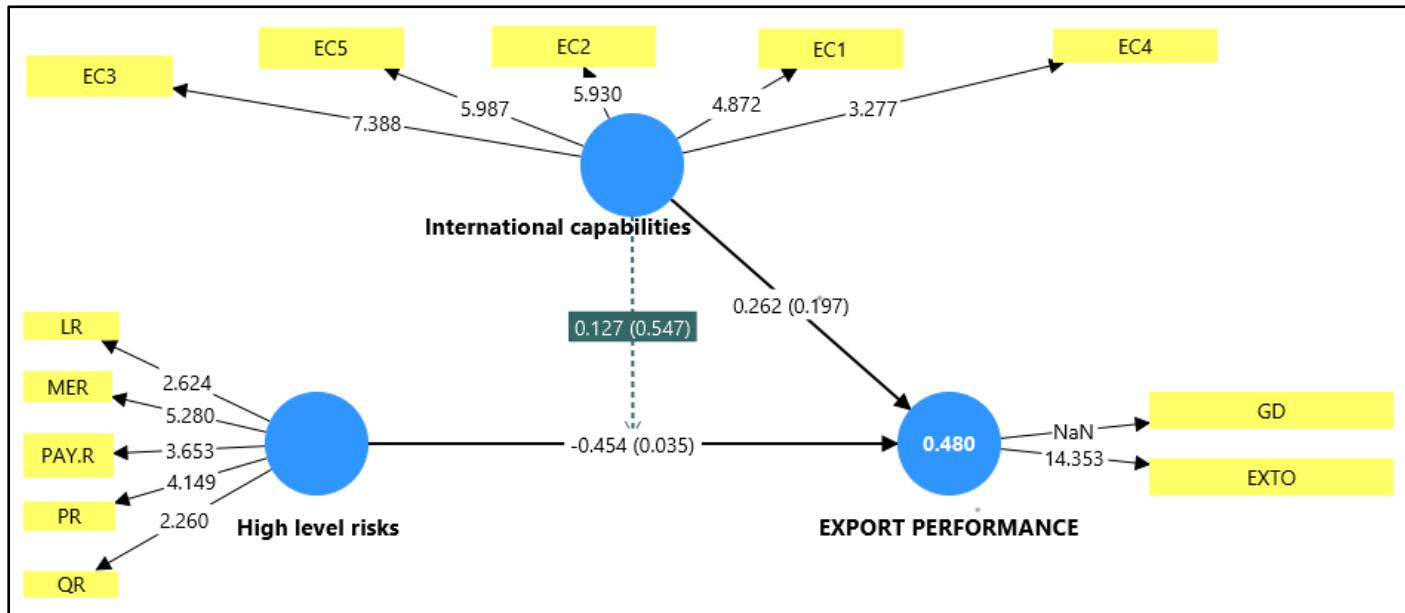


Figure 4: Path Analysis of the Research Hypotheses – Subgroup Model (N = 22)

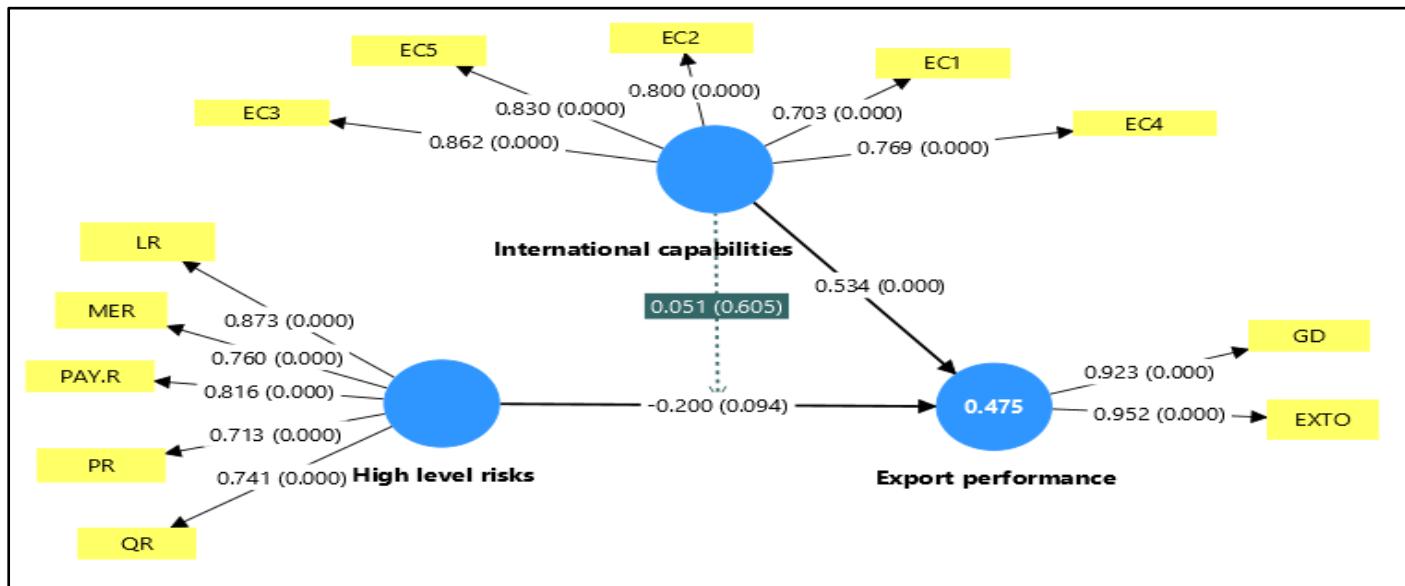


Figure 5: Path Analysis of the Research Hypotheses – Subgroup Model (N = 51)

Table 7: The research hypothesis path coefficient.

Colonne1	Original sample (0)	Sample mean (M)	Standard deviation (STDEV)	T statistics (0/STDEV)	P values
Sub-group Sample N=22					
High level risks -> EXPORT PERFORMANCE	-0.454	-0.490	0.216	2.108	0.035
International capabilities -> EXPORT PERFORMANCE	0.262	0.298	0.203	1.291	0.197
International capabilities x High level risks -> EXPORT PERFORMANCE	0.127	0.092	0.211	0.602	0.547
Overall Sample N=51					
High level risks -> EXPORT PERFORMANCE	-0.200	-0.216	0.119	1.676	0.094
International capabilities -> EXPORT PERFORMANCE	0.534	0.544	0.139	3.845	0.000
International capabilities x High level risks -> EXPORT PERFORMANCE	0.051	0.052	0.099	0.517	0.605

Note: (p-value < 0.10)

➤ Low level risks:

Based on the result of the qualitative risk assessment, cultural risk was considered as the lowest level risk, among other risks assessed, for both the Overall sample and the Sub-group sample (AVS = 4.90) composed of SMEs very small enterprises and micro-enterprises (AVS = 5.688). This contradict with the literature that consider this risk as the most pronounced international risk (Sousa et al., 2008).

Within the overall sample, cultural risk ranks the lowest, followed by health risk and natural risks. While this finding aligns with the literature in suggesting that such risks generally have a low likelihood of occurrence, it diverges from existing studies regarding their impact. In the literature, these risks are typically assumed to have a high impact, whereas the sample in this study perceives their impact as low. This discrepancy can be explained by the fact that the consequences of natural disasters, as well as health-related crises, are not evenly distributed worldwide, and their severity can vary significantly depending on regional exposure and resilience levels. According to Shen et al. (2023), countries with large populations or rapid industrialization, like China and India, face higher risks. Therefore, we argue that those risks can be tolerable in the studied context.

➤ Moderate risks:

For the overall sample, risks such as logistics, macroeconomic, environmental and quality standards, payment, and currency are rated as moderate, with average scores between 6.175 and 10.72. In the sub-group, currency risk, political risk, macroeconomic risk, environmental standard risk, health risk, and natural risk, were assessed as moderate (Average Scores AVS: 7.35–9.852), with other risks deemed highly important. Both groups agree on the moderate level of currency, environmental, political and macroeconomic risks. In the overall sample, we consider risks scoring below 9.5 (e.g., currency, environmental) to be low-moderate, while those above (e.g., political, macroeconomic) reflect high-moderate concern.

While the Resource-Based View suggests that SMEs with limited resources are more vulnerable to international risks (J. Chen et al., 2016), our results show that both SMEs and large firms give approximate evaluations for the pre-mentioned risks.

Some empirical studies argue that SMEs are more exposed to currency fluctuation risk than larger exporters due to their limited access to financial hedging mechanisms and higher dependence on single foreign markets (Yeo & Lai, 2004). In contrast, others suggest the opposite, that SMEs might be less affected because they often serve markets with stable demand, unlike large firms that operate in more price-sensitive markets, or due to limited investor understanding of their exposure. (Williamson et al., 2002). In the other hand, Badshah and Borgersen (2020) found that regardless of firm size, exchange rate fluctuations pose a significant risk to international operations. They argue that While large firms often implement structured FX-hedging strategies and adjust prices based on long-term exchange rate expectations, SMEs face greater exposure due to weaker hedging

capacities and financial constraints (Badshah & Borgersen, 2020). The result in our study can be attributed to the low intensity of exchange rate fluctuations in developing economies with managed currencies, as well as to the limited awareness among investors regarding firms' exposure, which could explain the similar risk perception across firm sizes.

Interestingly, a similar pattern is observed for environmental standards risk, which is evaluated at comparable levels by both large firms and SMEs. Although such regulations are typically seen as costly and potentially hindering international competitiveness in developing countries (Pratt & Mauri, 2005), respondents in both the overall and subgroup samples rated this risk as moderate. This evaluation may vary across sectors, given that some industries are subject to stricter environmental regulations than others (Stanić, 2015). Additionally, the destination of firm's export, as this regulation are more likely to be applied in the developed countries than the developing ones (Ding et al., 2022). Moreover, firms' evaluation of such risks could also be influenced by the degree of their involvement in these green practices. Nonetheless, in our study, the risk was evaluated as moderate regardless of sector or export destination, which may suggest a relatively low level of environmental engagement among the surveyed firms.

➤ High level risks and export performance:

The most significant risks identified by the subgroup include logistics risk (AVS = 13.38), quality risk (AVS = 11.765), and payment risk (AVS = 11.116). Additionally, political and macroeconomic risks were also rated at a highly moderate level in both samples, with political and quality risks sharing the same average score (AVS = 8.361) in the overall sample. Given these findings, the study considers the influence of international risks—whether rated as high or high moderate—on firms' export performance.

The comparative analysis between the overall sample and the sub-group reveals notable distinctions in the structural relationships. While the negative relationship between high-level risks and export performance is confirmed in both groups, it is more pronounced and statistically significant within the sub-group ($\beta = -0.454$; $p = 0.035$), accompanied by a moderate effect size ($f^2 = 0.247$) compared to a smaller and marginally significant effect in the overall sample ($\beta = -0.200$; $p = 0.094$; $f^2 = 0.049$). This suggests that export performance in smaller firms or those within the subgroup is more sensitive to international risks. Conversely, the influence of international capabilities is strong in the overall sample ($f^2 = 0.348$) but relatively weak in the sub-group ($f^2 = 0.070$), indicating that such capabilities may play a less decisive role in enhancing performance among smaller or more vulnerable firms.

➤ High level risks and export performance Vs international capabilities:

Although international capabilities show a positive effect on export performance, their role as a moderator in the relationship between international risk and export performance remains limited. In both the overall sample (β

$= 0.051$; $p = 0.605$; $t = 0.517$; $f^2 = 0.05$) and the sub-group ($\beta = 0.127$; $p = 0.547$; $t = 0.602$; $f^2 = 0.021$), the interaction term lacks statistical significance and exhibits a weak effect size. This suggests that, while capabilities may enhance performance directly, they do not significantly buffer or alter the negative impact of international risks. These findings point to the need for a more nuanced understanding of how capabilities function in risk-intensive environments and imply that other mechanisms may be required to mitigate the adverse effects of risk exposure

5. CONCLUSION

This study aimed to evaluate international risks faced by Moroccan exporting firms and to assess the extent to which high-level rated risks influence export performance, with particular attention to differences across firm sizes. By applying qualitative risk assessment, the analysis identified logistics risks, quality standards risks, and payment risks as the most significant threats perceived by the surveyed firms.

The results provide empirical evidence that international risks do have a measurable influence on export performance across the full sample. However, this negative effect is more pronounced among smaller firms, suggesting that SMEs, very small enterprises and microenterprises are more vulnerable to such risks and thus require more sophisticated risk management strategies. On the other hand, international capabilities positively influence export performance, yet they do not moderate the relationship between risk exposure and export performance in this context. This finding raises important questions about the type of internal capabilities currently mobilized by Moroccan exporters, and calls for further investigation into which specific capabilities might enhance firms' resilience to international risks.

Based on these insights, several recommendations can be drawn. First, export-oriented SMEs should be encouraged to invest in strengthening their internal capabilities—especially in areas such as supply chain agility and resilience, besides applying secure payment methods and finally proactive quality management aligned with internationally recognized certifications. Moreover, logistics infrastructure, payment security systems, and quality compliance mechanisms should be further enhanced at the national level to address the most critical external risks identified by this study.

In terms of future research, expanding the analysis to a larger and more diversified sample would help validate and generalize the findings. Additionally, the present research focused on broad categories of international risk, without delving into the specific sub-factors within each category. Future studies should explore how exporters understand and manage the nuances of risks within each dimension, and examine how these are perceived and mitigated across firm types and sectors.

ACKNOWLEDGEMENTS:

We wish to express profound gratitude to the late **Abdelrhani Bouayad**, whose guidance, insightful

comments, and encouragement greatly shaped the early stages of this research. Although he passed away before the publication of this work, his intellectual legacy remains deeply embedded in its content.

The author also acknowledges the use of the AI tool ChatGPT and Scispace for limited assistance in paraphrasing certain sentences for clarity and in identifying relevant academic sources to support and justify the results. All AI-generated outputs were critically reviewed, verified, and integrated by the author to ensure accuracy and scholarly integrity.

REFERENCES

Aithal, P. S. (2017). Impact of Domestic, Foreign, and Global Environments on International Business Decisions of Multinational Firms: A Systematic Study. *International Journal of Management, Technology, and Social Sciences (IJMTS)*, 2(2), 93-104.

Al-Aali, A. (1995). Obstacles facing Saudi Arabian food and chemical exporters. *International Journal of Commerce and Management*, 5(3), 17-31. <https://doi.org/10.1108/eb047311>

Aqlan, F., & Lam, S. S. (2015). Supply chain risk modelling and mitigation. *International Journal of Production Research*, 53(18), 5640-5656. <https://doi.org/10.1080/00207543.2015.1047975>

Asgary, A., Ozdemir, A. I., & Özyürek, H. (2020). Small and medium enterprises and global risks: evidence from manufacturing SMEs in Turkey. *International Journal of Disaster Risk Science*, 11(1), 59-73. <https://doi.org/10.1007/s13753-020-00247-0>

Avsar, V., & Batmaz, O. (2025). Exporting Under Political Risk: Payment Term Selection in Global Trade. *Journal of Risk and Financial Management*, 18(6), 298. <https://doi.org/10.3390/jrfm18060298>

Badshah, I., & Borgersen, T.-A. (2020). Management of exchange rate risk in SMEs: Reflections on exchange rate pass-through and hedging of currency risk. *SEISENSE Journal of Management*, 3(6), 35-49. <https://doi.org/10.33215/sjom.v3i6.474>

Baharmand, H., Comes, T., & Lauras, M. (2017). Managing in-country transportation risks in humanitarian supply chains by logistics service providers: Insights from the 2015 Nepal earthquake. *International Journal of Disaster Risk Reduction*, 24, 549-559. <https://doi.org/10.1016/j.ijdrr.2017.07.007>

Barney, J. (1991). Firm Resources and Sustained Competitive Advantage. *Journal of Management*, 17(1), 99-120. <https://doi.org/10.1177/014920639101700108>

Bavarsad, B., Boshagh, M., & Kayedian, A. (2014). A study on supply chain risk factors and their impact on organizational Performance. *International Journal*

of Operations and Logistics Management, 3(3), 192-211.

Bouveret-Rivat, C., Mercier-Suissa, C., & Saoudi, L. (2020). Risques et internationalisation des PME: Proposition d'un cadre d'analyse. Revue internationale PME, 33(1), 147-175. <https://doi.org/10.7202/1069286ar>

Brenton, P., Newfarmer, R., & Walkenhorst, P. (2009). Avenues for export diversification: Issues for low-income countries. *MPRA Paper*, No. 22758.

Brouthers, L. E., Nakos, G., Hadjimarcou, J., & Brouthers, K. D. (2009). Key factors for successful export performance for small firms. *Journal of International Marketing*, 17(3), 21-38. <https://doi.org/10.1509/jimk.17.3.21>

Cabral, Á. M. R., Carvalho, F. M. P. O., & Ferreira, J. A. V. (2020). International Strategic Management: A Conceptual Model with Top Managers' Emotional Intelligence, Cultural Intelligence, and Networking. *Information*, 11(12), 577. <https://doi.org/10.3390/info11120577>

Calheiros-Lobo, N., Vasconcelos Ferreira, J., & Au-Yong-Oliveira, M. (2023). SME internationalization and export performance: A systematic review with bibliometric analysis. *Sustainability*, 15(11), 8473. <https://doi.org/10.3390/su15118473>

Catanzaro, A., & Teyssier, C. (2021). Export promotion programs, export capabilities, and risk management practices of internationalized SMEs. *Small Business Economics*, 57(3), 1479-1503. <https://doi.org/10.1007/s11187-020-00358-4>

Cavusgil, S. T., & Zou, S. (1994). Marketing Strategy-Performance Relationship: An Investigation of the Empirical Link in Export Market Ventures. *Journal of Marketing*, 58(1), 1-21. <https://doi.org/10.1177/002224299405800101>

Chaigneau, P. (Ed.). (2001). *Gestion des risques internationaux*. Economica.

Chen, J., Sohal, A. S., & Prajogo, D. I. (2013). Supply chain operational risk mitigation: A collaborative approach. *International Journal of Production Research*, 51(7), 2186-2199. <https://doi.org/10.1080/00207543.2012.727490>

Chen, J., Sousa, C. M., & He, X. (2016). The determinants of export performance: A review of the literature 2006-2014. *International Marketing Review*, 33(5), 626-670. <https://doi.org/10.1108/IMR-10-2015-0212>

Chen, M. X., Otsuki, T., & Wilson, J. S. (2006). *Do standards matter for export success?* (Vol. 3809). World Bank Publications.

Chin, W. W. (1998). The partial least squares approach to structural equation modeling. In G. A. Marcoulides (Ed.), *Modern methods for business research* (pp. 295-336). Mahwah: Lawrence Erlbaum associates publisher.

Czubala, W., Shepherd, B., & Wilson, J. S. (2009). Help or hindrance? The impact of harmonised standards on African exports. *Journal of African Economies*, 18(5), 711-744. <https://doi.org/10.1093/jae/ejp003>

Ding, L., Wu, Y., Ma, Y., & Zhang, L. (2022). Environmental regulation and the innovation performance of Chinese export firms: A quasi-natural experiment based on the law of promoting cleaner production. *Sage Open*, 12(4), 1-13. <https://doi.org/10.1177/21582440221129257>

Duijm, N. J. (2015). Recommendations on the use and design of risk matrices. *Safety Science*, 76, 21-31. <https://doi.org/10.1016/j.ssci.2015.02.014>

Ebondo Wa Mandzila, E., & Zéghal, D. (2009). Management des risques de l'entreprise: Ne prenez pas le risque de ne pas le faire! *La Revue des Sciences de Gestion*, 237238(3), 5-14. <https://doi.org/10.3917/rsg.237.0005>

El Makrini, H. (2017). Predictors of export performance in developing economies: A longitudinal analysis of Moroccan SMEs. *Journal of Strategic Marketing*, 25(7), 530-546. <https://doi.org/10.1080/0965254X.2016.1148765>

Elock Son, C., Müller, J., & Djuatio, E. (2019). Logistic outsourcing risks management and performance under the mediation of customer service in agribusiness. *Supply Chain Forum: An International Journal*, 20(4), 280-298. <https://doi.org/10.1080/16258312.2019.1652545>

Escandon-Barbosa, D., Rialp-Criado, J., Fuerst, S., Rodriguez-Orejuela, A., & Castro-Aristizabal, G. (2019). Born global: The influence of international orientation on export performance. *Helijon*, 5(11). <https://doi.org/10.1016/j.helijon.2019.e02688>

Etemad, H. (2004). Internationalization of small and medium-sized enterprises: A grounded theoretical framework and an overview. *Canadian Journal of Administrative Sciences*, 21(1), 1-21.

Fornes, G., & Cardoza, G. (2019). Internationalization of Chinese SMEs: The Perception of Disadvantages of Foreignness. *Emerging Markets Finance and Trade*, 55(9), 2086-2105. <https://doi.org/10.1080/1540496X.2018.1518218>

Ghosh, A. R., & Ostry, J. D. (1994). Export Instability and the External Balance in Developing Countries. *Staff Papers*, 41(2), 214-235. <https://doi.org/10.2307/3867507>

Guo, J. (2024). How geopolitical risk affect firms' internationalization performance: Evidence from China. *Helijon*, 10(9). <https://doi.org/10.1016/j.helijon.2024.e30152>

Hair, J., & Alamer, A. (2022). Partial Least Squares Structural Equation Modeling (PLS-SEM) in second language and education research: Guidelines using an applied example. *Research Methods in Applied Linguistics*, 1(3), 100027. <https://doi.org/10.1016/j.rmal.2022.100027>

Hair, J. F., Ringle, C. M., & Sarstedt, M. (2011). PLS-SEM : Indeed a Silver Bullet. *Journal of Marketing Theory and Practice*, 19(2), 139-152. <https://doi.org/10.2753/MTP1069-6679190202>

Henseler, J. (2018). Partial least squares path modeling : Quo vadis? *Quality & Quantity*, 52(1), 1-8. <https://doi.org/10.1007/s11135-018-0689-6>

Henseler, J., Ringle, C. M., & Sarstedt, M. (2015). A new criterion for assessing discriminant validity in variance-based structural equation modeling. *Journal of the Academy of Marketing Science*, 43(1), 115-135. <https://doi.org/10.1007/s11747-014-0403-8>

Johanson, J., & Mattsson, L.-G. (1988). Internationalisation in Industrial Systems—A Network Approach. In N. Hood & J.-E. Vahlne (Eds.) *Strategies in Global Competition* (pp. 287-314). Croom Helm.

Kassem, M. A. (2022). Risk management assessment in oil and gas construction projects using Structural Equation Modeling (PLS-SEM). *Gases*, 2(2), 33-60. <https://doi.org/10.3390/gases2020003>

Katsikeas, C. S., Leonidou, L. C., & Morgan, N. A. (2000). Firm-level export performance assessment : review, evaluation, and development. *Journal of the Academy of Marketing Science*, 28(4), 493-511. <https://doi.org/10.1177/0092070300284003>

Khayat, I. (2004). L'internationalisation des PME: vers une approche intégrative. *7ème Congrès international francophone en entreprenariat et PME*, Octobre, Montpellier.

Lages, C., Lages, C. R., & Lages, L. F. (2005). The RELQUAL scale : A measure of relationship quality in export market ventures. *Journal of Business Research*, 58(8), 1040-1048. <https://doi.org/10.1016/j.jbusres.2004.03.001>

Lavastre, O., & Spalanzani, A. (2010). Comment gérer les risques liés à la chaîne logistique ? Une réponse par les pratiques de SCRM. *XIXème Conférence Internationale de Management Stratégique*, Juin, Luxembourg.

Leonidou, L. C. (2004). An Analysis of the Barriers Hindering Small Business Export Development. *Journal of Small Business Management*, 42(3), 279-302. <https://doi.org/10.1111/j.1540-627X.2004.00112.x>

Lin, H. (2023). The Impact of COVID-19 on International Trade: Differences Between Importing and Exporting Countries. *Advances in Economics, Management and Political Sciences*, 3, 133-139.

Lu, J. W., & Beamish, P. W. (2001). The internationalization and performance of SMEs. *Strategic Management Journal*, 22(6-7), 565-586. <https://doi.org/10.1002/smj.184>

Majlesara, R., Afshari, R., Ghadimi, Z., Mohammadi, F., & Asadi, N. (2014). The Influence of Export Skills on Export Performance : A Case Study of Export Companies in East Azerbaijan. *International Journal of Organizational Leadership*, 3, 80-91. <https://doi.org/10.2139/ssrn.3329828>

Masmoudi, S., & Dhiab, M. M. (2018). Criticality assessment risk; contribution of fuzzy logic. *Yugoslav Journal of Operations Research*, 28(1), 93-105. <https://doi.org/10.2298/YJOR161113005M>

Miller, K. D. (1992). A Framework for Integrated Risk Management in International Business. *Journal of International Business Studies*, 23(2), 311-331. <https://doi.org/10.1057/palgrave.jibs.8490270>

Moksony, F., & Heged, R. (1990). Small is beautiful. The use and interpretation of R2 in social research. *Szociológiai Szemle, Special issue*, 130-138.

Morgan, N. A., Kaleka, A., & Katsikeas, C. S. (2004). Antecedents of Export Venture Performance : A Theoretical Model and Empirical Assessment. *Journal of Marketing*, 68(1), 90-108. <https://doi.org/10.1509/jmkg.68.1.90.24028>

Neupert, K. E., Baughn, C. C., & Thanh Lam Dao, T. (2006). SME exporting challenges in transitional and developed economies. *Journal of Small Business and Enterprise Development*, 13(4), 535-545. <https://doi.org/10.1108/14626000610705732>

Norrman, A., & Jansson, U. (2004). Ericsson's proactive supply chain risk management approach after a serious sub-supplier accident. *International journal of physical distribution & logistics management*, 34(5), 434-456. <https://doi.org/10.1108/09600030410545463>

O'Cass, A., & Julian, C. (2003). Examining firm and environmental influences on export marketing mix strategy and export performance of Australian exporters. *European journal of marketing*, 37(3/4), 366-384.

Oura, M. M., Zilber, S. N., & Lopes, E. L. (2016). Innovation capacity, international experience and export performance of SMEs in Brazil. *International Business Review*, 25(4), 921-932. <https://doi.org/10.1016/j.ibusrev.2015.12.002>

Ozili, P. K. (2023). The acceptable R-square in empirical modelling for social science research. In *Social research methodology and publishing results : A guide to non-native English speakers* (p. 134-143). IGI global. <https://doi.org/10.4018/978-1-6684-6859-3.ch009>

Pascual-Ramsay, A. (2015). Global risks and EU businesses. In. J. Solana & A. Saz-Carranza (Eds.) *The global context: How politics, investment, and institutions impact European businesses*, 10-37. EsadeGeo

Pratt, L., & Mauri, C. (2005). Environmental enforcement and compliance and its role in enhancing competitiveness in developing countries. In. *7th INECE Conference Proceedings*, 296.

Reis, J., & Forte, R. (2016). The impact of industry characteristics on firms' export intensity. *International Area Studies Review*, 19(3), 266-281. <https://doi.org/10.1177/2233865916646560>

Ringle, C. M., Sarstedt, M., Mitchell, R., & Gudergan, S. P. (2020). Partial least squares structural equation modeling in HRM research. *The International Journal of Human Resource Management*, 31(12),

1617-1643.
<https://doi.org/10.1080/09585192.2017.1416655>

Ross, D. G., & Whalen, M. P. (1999). The importance of practical export skills: Some evidence from Canadian agribusiness. *The International Food and Agribusiness Management Review*, 2(1), 9-27. [https://doi.org/10.1016/S1096-7508\(00\)00019-7](https://doi.org/10.1016/S1096-7508(00)00019-7)

Sarstedt, M., Hopkins, L., & Kuppelwieser, V. G. (2014). Partial least squares structural equation modeling (PLS-SEM): An emerging tool in business research. *European business review*, 26(2), 106-121. <https://doi.org/10.1108/EBR-10-2013-0128>

Shen, G., Zhou, L., Xue, X., & Zhou, Y. (2023). The risk impacts of global natural and technological disasters. *Socio-Economic Planning Sciences*, 88, 101653. <https://doi.org/10.1016/j.seps.2023.101653>

Sousa, C. M. P., Martínez-López, F. J., & Coelho, F. (2008). The determinants of export performance: A review of the research in the literature between 1998 and 2005. *International Journal of Management Reviews*, 10(4), 343-374. <https://doi.org/10.1111/j.1468-2370.2008.00232.x>

Stanić, B. (2015). The impact of environmental regulation on export of dirty industries in CEE Countries. In. *Nepoznat skup*, 7-21.

Torrens, E. W., Amal, M., & Tontini, G. (2014). Determinants of export performance of small and medium-sized manufacturing Brazilian enterprises from the perspective of resource-based view and Uppsala model. *Revista Brasileira de Gestão de Negócios*, 16, 511-539. <https://doi.org/10.7819/rbgn.v16i52.1601>

Verbruggen, H., Kuik, O., & Bennis, M. (1995). Environmental regulations as trade barriers for developing countries : Eco-labelling and the Dutch cut flower industry. CREED Working Paper No. 2, Free University, Amsterdam.

Williamson, R., Griffin, J. M., & Doidge, C. (2002). Does Exchange Rate Exposure Matter?. Available at SSRN 313060.

Wold, H. (1966). Nonlinear estimation by iterative least squares procedures. *Research papers in statistics*, 411444.

Xu, H., Taute, H. A., Dishman, P., & Guo, J. (2015). Examining causal relationships among international experience, perceived environmental uncertainty, market entry mode, and international performance. In B. Stöttinger, B. Schlegelmilch, & Z. Shaoming (Eds.), *International Marketing in the Fast Changing World* (pp. 135-156). Emerald Group. <https://doi.org/10.1108/S1474-797920150000026007>

Yadav, D., Dutta, G., & Kumar, S. (2021). Food safety standards adoption and its impact on firms' export performance: A systematic literature review. *Journal of Cleaner Production*, 329, 129708. <https://doi.org/10.1016/j.jclepro.2021.129708>

Yeo, K. T., & Lai, W. C. (2004). Risk management strategies for SME investing in China-a Singaporean perspective. In. *IEEE International Engineering Management Conference*, 2, 794-798. <https://doi.org/10.1109/IEMC.2004.1407489>

Appendix 1: items coding and measurement scale

Item code	Items	Measurement Scale
CRR	Currency Risk	How often do you encounter the following risks? Never Rare Sometimes Often Very often
PR	Political Risk	
LR	Logistics Risk	
MER	Macroeconomic Risk	
PayR	Payment Risk	
QR	Quality standards Risk	
ER	Environment standards Risk	
HR	Health Risk	
CR	Cultural Risk	
NR	Natural disaster Risk	
EXTO	Export Turnover	Your export revenue is: Less Than 3 MMAD; 3 to 9 MMAD; 10 to 39 MMAD; 40 to 149 MMAD; 150 or more
GD	Geographic diversification	In how many countries are your products currently exported? 1 to 3 countries; 4 to 8 countries; 9 to 15 Countries; 16 to 25 countries; More than 25 countries.
EC1	Identify international opportunities	To what extent are you satisfied with the following characteristics within your company?
EC2	Acquisition of special information on foreign markets	Very unsatisfied
EC3	Understanding the needs of foreign customers	Unsatisfied
EC4	Ability to maintain strong relationship with foreign partners	Medium
EC5	Organizational and technological innovation	Satisfied Very satisfied