

# Quantifying Export Potential and Barriers of SMEs in V4

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*Abstract: The article aims at quantifying the export potential and barriers of SMEs in V4 using specific criteria. The research took place in SMEs in Visegrad countries from September 2019 to April 2020, including a questionnaire survey of 478 managers and business owners using logic regression. The results showed differences in export activities of SMEs regarding their legal form, province, size, type of management, legislative obstacles and tax policies. Language and cultural differences were not a barrier to SMEs' export activities. Micro enterprises' likelihood of export was 70% smaller than medium-sized firms. Small companies' prospect of trade abroad was 42% smaller than medium-scale organizations. The export potential grew with the size of an enterprise, indicating an increased export likelihood in limited liability and joint-stock companies with the highest chance in the transport and production sector. The type of management (an owner) was hugely impactful on the company's exporting activities. Our results give valuable*

*information about effective strategies for export marketing and national exporter development programmes.*

*Keywords: micro enterprises, small and medium-sized enterprises, exporting activities, export policies, export barriers, support for exporters*

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## **1 Introduction**

Small and medium-sized enterprises (SMEs) are an engine of the European economy [1] because they play important roles in the creation of GDP, employment and the supply of goods and services. Varga also emphasises their ability to produce (supply) for export markets [2].

The driving forces behind globalization make SMEs indispensable for territorial development. Fierce market competition with large multinational and supra-national firms requires SMEs to generate sustainable competitive advantage. Large companies invest their funds and abilities in managers' know-how and high-quality export departments for managing export activities. The SMEs' lack of equal opportunities and resources calls for research in multinational trade and the multinationalization of SMEs.

We still need to unveil the SMEs' strategies when entering the multinational markets and mark their effectiveness while knowing that small enterprises' export processes are more complex than large companies [3] [4] [5]. Global thinking also creates ample opportunities for trading abroad, allowing governments to encourage multinationalization and export ventures [6]. Available scientific studies discriminate between export barriers and other companies' challenges - exporters. The former involves factors preventing firms from exporting, appealing for careful generalization of studied phenomena and consistency of the terms related to firms' multinationalization.

Research studies on SMEs' multinationalization are unclear, showing no content, theoretical or methodological consistency. We thereby need to integrate their outcomes, refer to previous studies on various business aspects and implement findings essential for corporate practice and policy. The topic deserves devising quality methodologies for territorial selection involving careful data collection, sampling equivalence and criteria of analysed dimensions. Future opportunities will also favour a network of research teams spanning through territories and cooperating with interested innovative agencies and associations. The development of new multinational databases would allow the creation of up-to-date qualitative/quantitative approaches, methods and sophisticated analytical instruments.

These circumstances prompted us to quantify the export potential and barriers in SMEs in V4 using specific criteria.

## 2 Literature Review and Theoretical Framework Development

Various studies have been tackling companies' multinationalization and export for the last five decades, discussing both issues and the impacts of globalization on the business sphere. Many inquiries are heterogeneous, dealing with partial problems of multinationalization or export in a country, region or company, comprising samples in multiple economic and political environments. Despite obvious shortcomings, the studies inspired us to explore how different managers and entrepreneurs perceive export activities. Many analyses also provide information on corporate and public policies and institutions examining the business environment.

Petrovito and Pozzolo inspected the relationship between credit constraints and exports of SMEs in 65 emerging and developing countries between 2003 and 2014, gathering intelligence on credit evaluation through firms' self-evaluation. The authors revealed a close link between severe, statistically and economically significant financial restrictions and the company's outlook for export, including the export's contribution to the overall sales (extensive and intensive margin). The impact on both export margins was enormous for small enterprises and firms operating in territories with a less developed financial system, inhibited economic freedom and poor-quality institutions [7]. Chaney warned about fixed input costs of companies entering foreign markets, disrupting their liquidity. In such a case, the export only rewards enterprises with smooth cash flow, including firms profiting from home sales and giant corporations [8].

Gabaix and Maggiori emphasized the export's susceptibility to variations in the rate of exchange, producing a theory of assessing exchange rates by capital flows in imperfect financial markets. The authors argue that foreign exchange is sensitive to the imbalance in money markets, insufficiently reducing economic shocks, which should be a cornerstone of traditional macroeconomic analysis [9]. Breckova aimed to better understand exporters' behaviour of Czech SMEs through a year's systematic monitoring of exporting models of SMEs. Government and regional authorities' failure to sufficiently inform small and medium-sized enterprises leaves untapped many export aids, which would otherwise come in handy to the firms concerned [10]. Civelek et al. compared international differences between SMEs' perceiving export barriers and firm-level characteristics in European Countries. The authors worked on the premise that all small and medium-sized enterprises have the same size, province or legal form, allowing them to inspect multiple export barriers given by the specific territorial layout [11].

Virglerova et al. quantified the impacts of multinationalization barriers on how SMEs see their future, collecting samples from countries of V4. Enterprises able to manage export risks will be more successful in the market irrespective of costs of multinationalization, tax policy, legislation and language or cultural differences

[12]. Some authors suggest that other geographical localities may witness a different situation given various sectoral policies [13] [14] [15]. Ayob and Freixanet analyzed SMEs' support for multinationalization and the effects of government programmes, revealing that national schemes for exporters' support are imperative in the discussed matter. The project involves multiple factors determining the firm's global marketing efficiency. The study advises effectively securing the exporter's aid and maintaining a positive attitude toward export and educational systems [16].

Wilkinson and Brouthers explored exporters' support in SMEs through export performance, outlining the role of the firm's resources, trade shows and programmes in this aiding process [17]. Tkacova *et al.*, and Kocisova *et al.* argued that not all tools for the export scheme are the same effective, claiming that their efficiency depends on the corporate nature and business procedures [18] [19]. Leonidou inspected multiple export barriers, including systematic reviews of 39 obstacles from 32 empirical studies. The author splits internal (incorporating, informational, functional and marketing) from external (comprising, procedural, governmental, tasks and environmental) barriers, declaring that although export barriers emerge from different situations, they mainly hinge on the idiosyncratic managerial, organizational, and natural background of the firm [20] [21].

Tesfom and Lutz examined the export problems of SMEs in developing countries, compiling 40 studies published over 25 years. The authors classified export barriers into the company, product, industry, export market, and macro environment impediments, identifying similarities and differences in developed and developing countries [22]. Kahiyo warned about the lack of surveys exploring the relationship between the firm's multinationalization strategies and problems of trading abroad, revealing that successful multinationalization largely rests on export barriers. The author distinguishes rapid and gradual multinationalization. The former stems from a positive managerial orientation and a lack of confidence in the host market, while the latter arises from limited knowledge and the need for skills. The study also appeals to proper business education [23].

Leonidou *et al.* pointed out that although many SMEs show massive export potential, they lack the stimuli to use it. The authors suggested compelling reasons for SMEs to engage in export activities. The study involved 40 incentives for export: internal, external, reactive and proactive, depending on various factors, including time, space and industry. Apart from huge sales and profits, corporate growth and unique products, small companies want to expand their production capacity, be independent of the oversaturated domestic market and promptly respond to worldwide demand. The authors also include other motivating factors not dependent on export [21].

Altıntaş *et al.* claimed that specific barriers might significantly weaken export performance, analyzing 2,000 Turkish SMEs through a questionnaire. The results showed procedural impediments and fierce foreign market competition undermines the output. Eliminating these obstructions would lead to higher export efficiency [24].

Virglerova et al. found that companies able to manage export risks will be more successful in the market, advising not to underestimate export-unrelated stimuli, whose role might increase in significance in time [12]. Mataveli et al. explored the impact of four groups of causally conditioned barriers, including human capital, cultural, administrative and financial obstacles, on the product export barrier. Except for administrative obstructions, all impediments were hugely impactful [25].

Arteaga-Ortiz and Fernández-Ortiz argued that specific firms export more than others because their managers think of the barriers differently. The authors researched 2,590 SMEs, revealing that knowledge barriers and ignorance of export processes, potential exporting benefits and markets were highly impactful in avoiding foreign trade [26].

Narayanan assumed that we should not only understand the restraints SMEs are facing on their way to multinationalization but also find optimum approaches to success. The author reviewed new methods for eliminating the barriers based on Leonidou's Model of export barrier classification, concluding that modern techniques are highly effective for prosperous multinationalization [27].

Although companies are looking hard for a dynamic in-house solution to eliminate internal export barriers, overcoming external impediments requires support from the government and policymakers. Kahiya argued that most empirical studies explore the driving forces behind the export barriers. The author suggested 36 variables, including the firm's demography, nature of exporting companies, management, environmental, transport and multinational business factors [28]. The study formulates explicit theories (fund allocation, gradual multinationalization, network and institutional hypotheses) and implicit ones (rationalization), aligning all decisive criteria of export barriers. SMEs' exporting activities closely relate to sectoral policies integrating novelties and system development, methodologies and instruments [29] [30] [31]. Love and Roper pointed out interconnecting export and innovations, claiming that appropriate measures for supporting access to finance will stimulate the SMEs' cash flow and encourage investments in innovations and export development. The authors also suggested counselling and mentoring hereof [32].

Roy et al. perceived the imperativeness of SMEs in economic growth, arguing that SMEs face fierce international competition and must often move mountains to succeed in cut-throat global markets. The authors classify the obstacles into two groups: external barriers (governmental and economic, political-legal, procedural and currency and task and socio-cultural) and internal restraints (informational, managerial, financial and marketing). Both categories indicated a slight correlation. The analysis showed the hugest trade barrier for SMEs in the process of multinationalization of the procedural and currency impediment, followed by task and socio-cultural obstructions. The inquiry also blamed the managers' poor command of exchange rate variations [33].

Chandra *et al.* argue that SMEs' multinationalization processes in developing countries depend on different factors than in developed states, calling for a detailed inspection. The authors claim that future research will focus on understanding the needs of underserved markets [34]. Haddoud *et al.* confirm that SMEs in developing countries can be a source of active business firms and sustainable economic growth, analyzing exporting intentions of companies from developing countries [35].

Mendy and Rahman explore relations between people, institutions and SMEs' multinationalization in developing countries, mentioning barriers related to attractive employment. The authors suggest integrating cultural and other obstacles people must face into universal models for further studies of SMEs' multinationalization [36]. Kahiya and Dean argue that many export impediments arise from export stages, examining the process of export obstructions. The authors conclude that resource constraints, marketing, knowledge and experience and export procedure barriers are dependent on the export stage, assuming that differences are only perceptible in early to advanced stages of development [37].

Paul *et al.* devised other methods and theories, including qualitative analysis. Its comparative counterpart focused on multinationalization processes will always have limited access to public data, depending on the managers' willingness to impart the information. The authors prefer exploring SMEs' multinationalization outside companies, i.e. their regional origin. The SMEs' province involves multiple factors shaping their export activities [38].

Manolopoulos *et al.* analyzed the role of resources in SMEs' export, focusing on the institutional quality, deducing that formal, informal and regulatory institutions should control export behaviour. The authors surveyed 150 companies, concluding that formal and informal establishments hugely, yet differently, impact SMEs' export activities. The resource allocation for exporting ventures depends on the business reception of the domestic institutional context, which is imperative in export decision-making [39].

Paul, and Puig *et al.* apply the lack of capital, resources, global experience, negotiating skills, knowledge of foreign markets and governmental protection, insufficient information, poor choice of reliable partners and distributors and sluggish demand for SMEs' products to the main export impediments [40] [41].

Musteen *et al.* accentuate a human factor and familiarity with SMEs' multinationalization processes. The authors analyzed 169 SMEs from the Czech Republic, concluding that strong and diverse global networks rely on the extensive knowledge of SMEs' managing directors. Although the study did not explore possible links between the density of worldwide networks and business expertise, it confirms the firms' performance rewards a good command of foreign markets [42].

Terjesen *et al.* surveyed studies on business, contrasting their comparison potential with ambitions for policy-making and recommendations for professional

experience. The authors classified results into individuals, companies, industries and territories. They revealed immense business diversity throughout the regions and the firms' profound impact in interpreting the financial and export performance and economic growth. The survey calls for extensive research extending dominant theoretical perspectives (culture, resource allocation, economic advancement, human capital, transaction cost economy etc.) by management, global trade and business by integrating various theories [43].

Leonidou argues that perceiving export barriers is contingent on the company's size and suggests a long-term investigation of the firms' exporting behaviour, structure and conceptual problems and framing of new theoretical concepts [20]. Paul, Soriano and Dobon, and Paul et al. point to a genuine difference of opinion between experts, each of them bringing in new findings [40] [44] [38]. The cited studies have broken new ground in exploring further dimensions, relationships, aspects, factors and contextual relations, setting a conceptual framework for the continuous development of theories, methods and systems. The industry is long-term short of relevant studies on developing markets, multidimensional analyses of territorial exporting policies, global comparisons and works using analytical tools. Global inquiries require relevant international databases, quality research teams and institutional cooperation. The presented article fervently supports all efforts of the studies cited.

### **3 Data and Methodology**

Data set was collected from September 2019 to April 2020 in V4 countries. A random sample of 8,250 SMEs in the Czech Republic, 10,100 SMEs in Slovakia, 7,680 SMEs in Poland and 8,750 SMEs in Hungary were selected. In order to use the random sampling method, information on SMEs was obtained from the CRIBIS database for firms operating in the Czech Republic and Slovakia and from the Central Statistical Office of Poland. Data collection in Hungary was provided by the project partner Óbuda University in Budapest. The random selection technique was ensured by the following set of steps: defining the research sample (firms with less than 250 employees); listing all firms and assigning a unique number to each firm using the "Randbetween" function in Microsoft Excel; sorting the dataset according to this unique number; sending an e-mail to the selected firms with a request to fill in the questionnaire. In the second phase of data collection, firms were contacted by telephone to arrange completion of the questionnaire. The questionnaire was filled by the manager or owner of the business.

The questionnaire consisted of over 60 questions focused on barriers to doing business, macroeconomic environment of the companies, risk assessment methods, export activities, marketing mix management, bankruptcy risks, corporate social responsibility, managerial attitudes, strategic management goals, innovative potential of companies etc.

The presented analysis aims to identify the determinants of export capacities of companies operating in the Visegrad business area. To do so, the following 5 questions were selected that concern the issue of export:

- 1) Does your company export products and services abroad?
- 2) Higher export costs are no obstacle to the export of our products.
- 3) Legislative differences are not an obstacle to the export of our products.
- 4) The differences in tax policy are not an obstacle to the export of our products.
- 5) Language and cultural differences are not an obstacle to the export of our products.

The respondents of the survey expressed their level of agreement with abovementioned statements on a five-point Likert scale with following scaling: 1: Strongly agree, 2: Agree, 3: Neither agree nor disagree, 4: Disagree, 5: Strongly disagree.

## 4 Analysis and Results

First, it needs to be said that out of 1,585 companies that participated in survey, only 30 % export their products abroad. Table 1 presents a brief overview of export activities of companies by the legal form and the company's size.

Table 1  
Export activity

		Does your company export its products and services abroad?	
		Yes	No
Legal form	Sole trader	18.2%	81.8%
	Limited liability company	35.7%	64.3%
	Joint-stock company	46.3%	53.7%
	Another legal form	23.0%	77.0%
Company size	micro	19.7%	80.3%
	small	39.3%	60.7%
	medium	54.3%	45.7%
Business sectors	Manufacturing	61.3%	38.7%
	Retailing	29.1%	70.9%
	Construction	22.6%	77.4%
	Transportation	65.4%	34.6%

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	Another legal form	23.0%	77.0%
Company size	micro	19.7%	80.3%
	small	39.3%	60.7%
	medium	54.3%	45.7%
	Agriculture	29.9%	70.1%
	Tourism	31.8%	68.2%
	Services	14.3%	85.7%
	Another area	30.7%	69.3%

*Source: Authors*

In terms of legal form, it can be said that the smallest volume of export activities was recorded in the case of sole traders and other legal forms and that export activities are primarily performed by limited liability companies and joint-stock companies. In terms of company's size, more than half of the medium-sized enterprises and more than 40 % of small enterprises export their goods and services abroad, compared to only 19.7 % of micro enterprises. In terms of business sector, more than 60% of manufacturing companies and transportation companies export their goods and services abroad.

Only those firms that answered positively to the first question were included in the next part of the research. The sample consisted of 478 SMEs. Specifically, there were 163 questionnaires responded in the Czech Republic, 109 in Hungary, 107 in the Slovak Republic, and 99 in Poland.

Next, the authors focus on national differences in perceived barriers, or obstacles to exporting goods and services, as seen in Figure 1. Then, the focus is on the statement "Higher export costs are no obstacle to the export of our products." It can be seen that the perception of higher export costs as an obstacle for export is the most pronounced in the Slovak Republic, followed by the Czech Republic and Hungary. In Poland, higher export costs are seen as an export barrier to a much lesser extent. As for the statement "Legislative differences are not an obstacle to the export of our products.", it can be concluded that legislative burden is seen as a barrier to export more often in Poland and Slovakia, and to a lesser extent in the Czech Republic and Hungary. Tax policy impact on the export activities of companies was addressed in the statement "The differences in the tax policy are not an obstacle to the export of our products." As follows from Figure 1, the least significant effect of tax policy on export is recorded in the Czech Republic and Hungary, while there is an evident stronger negative impact of the tax policy on export in Slovakia and Poland.

The smallest impact on export activities in the Visegrad countries can be found in the field of culture and language, which was addressed in “Language and cultural differences are not an obstacle to the export of our products.” In the case of language and cultural differences, those are significantly less affecting export in all countries; however, its impact appears to be the smallest in the Czech Republic.

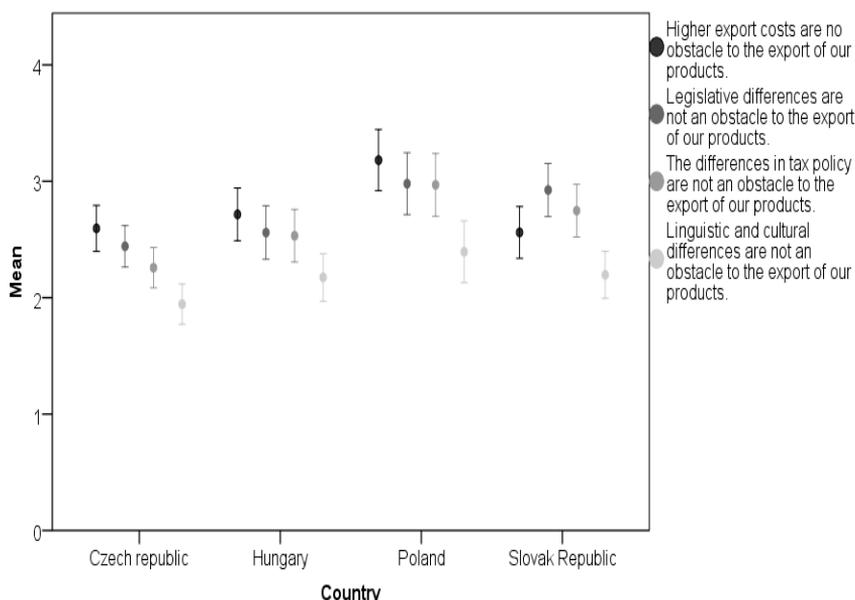


Figure 1  
Perception of export barriers

Source: Authors

To be able to identify the characteristics of a company that underlie its potential to export, binary logistic regression is used, where the binary dependent variable takes the value of 0 if the company does not export its goods and services, and 1 if yes. At the beginning of the analysis, all considered characteristics that might possibly affect the company’s export capacity, were integrated in the model, including the sector of activity, company’s size, legal form, length of the business activities, gender, age, and level of education of manager/owner. Final regression model, where only statistically significant regressors are considered, has the following form:

$$\ln \left( \frac{\Pr(\text{export})}{1-\Pr(\text{export})} \right) \left( \frac{\Pr(\text{export})}{1-\Pr(\text{export})} \right) = \beta_0 + \beta_1 \text{Company size}_i + \beta_2 \text{Legal form}_i + \beta_3 \text{Sector}_i + \beta_4 \text{Country}_i + \beta_5 \text{Gender of the manager/owner}_i$$

**exportexport**

not export its goods and services. According to the Likelihood ratio test, the model is well fitted and correctly predicts the observed phenomena. Regression analysis results are shown in Table 2.

Table 2  
Binary logistic regression – propensity to export

Export <sup>a</sup>	B	Sig.	Exp(B)	95% Confidence Interval for Exp(B)	
				Lower Bound	Upper Bound
Intercept	-.918	.00			
<b><u>Company size</u></b>					
Micro	-1.178	.000	.308	.218	.435
Small	-.540	.006	.583	.397	.855
Medium	0 <sup>b</sup>	.	.	.	.
<b><u>Legal form</u></b>					
Sole trader	.177	.538	1.193	.680	2.093
Limited liability company	.543	.042	1.721	1.021	2.902
Joint-stock company	.478	.165	1.613	.822	3.166
Another form of business	0 <sup>b</sup>	.	.	.	.
<b><u>Sector</u></b>					
Manufacturing	1.090	.000	2.974	1.895	4.668
Retailing	-.026	.913	.975	.614	1.548
Construction	-.533	.052	.587	.343	1.004
Transportation	1.348	.000	3.849	1.906	7.773
Agriculture	.167	.595	1.182	.638	2.190
Tourism	.107	.785	1.112	.518	2.389
Services	-.773	.001	.462	.296	.720
Another area of doing business	0 <sup>b</sup>	.	.	.	.
<b><u>Country</u></b>					
Czech Republic	.466	.006	1.593	1.145	2.217
Hungary	-.221	.262	.801	.545	1.180
Poland	.099	.612	1.104	.753	1.618
Slovak Republic	0 <sup>b</sup>	.	.	.	.
<b><u>Gender</u></b>					
Male	.469	.001	1.599	1.212	2.109
Female	0 <sup>b</sup>	.	.	.	.

a. The reference category is: No

b. This parameter is set to zero because it is redundant.

Source: Authors

First, it shall be stated that smaller enterprises are less likely to export than medium-sized enterprises. More specifically, micro-enterprises are almost 70% less likely to export than medium-sized enterprises, and small enterprises are 42% less likely to

export than medium-sized enterprises. It can thus be concluded that the probability of a company to be pro-export-oriented increases with the size.

As for the legal form of business as an explanatory variable, with another form of business used as the reference variable, the findings are as follows: the highest probability of export was identified in the case of limited liability companies, followed by joint-stock companies. The least probability of export is observed in the case of sole traders, although there is still a higher chance compared to the category “other forms of business”.

As for the sectoral analysis in the context of exports, the reference value is another area of business. Compared to other areas of business, the transport sector is almost 4 times more likely to export its services, and the manufacturing sector is up to 3 times more likely to export its products. In the services and construction sector, exporting activities are about half less likely than in other areas of business. For other sectors, regression coefficients are not statistically significant.

Regarding the country of origin of a company, the estimated coefficient is statistically significant only in the Czech Republic, where a 59% higher probability of export is observed compared to Slovakia.

It is interesting that the companies run or owned by men show 60% higher probability of being pro-export oriented compared to companies owned or managed by women.

## **5 Discussion**

The results indicated that only 30% of 1,585 investigated companies exported their products abroad. Analysing the firms' legal form, we found mainly limited liability and joint-stock companies engaged in export ventures. The company's size was also impactful on exporting, where more than 40% of small firms sold their goods and services abroad, leaving only 19.7% of foreign ventures for micro-enterprises. In terms of business sector, more than 60% of manufacturing companies and transportation companies export their goods and services abroad.

Along with our findings, Civilek *et al.* confirmed huge differences in enterprises' export activities regarding the legal form and size, revealing that diverse perception of barriers exists mainly among Czech and Slovak SMEs, which are older, smaller, and have limited liability [11].

We also found profound differences in the types of obstacles through countries. While high export costs were a grave impediment in Slovakia, followed by the Czech Republic and Hungary, Polish managers saw the biggest problem in legal restraints, pushing export expenses aside. The Czech Republic and Hungary felt disincentive effects of legislation to a lesser extent, followed by the tax policy,

whose impact was negligible in the countries concerned. Poland and Slovakia sensed the same negative influence of export tax policies and legislative impediments. None of the countries saw an obstacle in language and cultural differences, which relates to the outcomes of Virglerova et al., who proved no obstructions in different legislation, tax policy, culture or language of global activities of SMEs in V4 [12]. These findings clash with the verdict of Civelek et al., concluding that most SMEs encounter many obstacles in their exporting ventures. The authors argue that the main export barriers involve legal and tax burdens and language-cultural diversity, claiming that the country of SMEs' province is the main criterion of the different perceptions of export impediments [11]. Their analysis suggests that managers of SMEs of the same size, age, industry and legal form feel differently about exporting barriers in the country of their province. Belas et al., Dvorsky et al., Arteaga-Ortiz & Fernández-Ortiz and others arrived at a similar conclusion [45] [46] [26].

We also employed logistic regression to achieve the goals of the analytical part, obtaining different viewpoints of the SMEs' export activities regarding the size, legal form, industry, region and gender. Micro-companies had a 70% lower likelihood of exporting than medium-sized enterprises, while small organizations showed a 42% lower probability of foreign transactions than their medium-sized counterparts. We may conclude that the corporate growth scales with its export potential. Ključnikov et al., and Civelek et al. came to the same conclusion [47] [48] [11]. The legal form profoundly impacted the export undertakings of SMEs, indicating the best results in limited liability and joint-stock companies and the worst in sole traders. The industry saw the strongest export tendencies in the transport and manufacturing sector, while their halved numbers appeared in services and constructions, compared to the rest.

The country of the province also highly contributed to the pro-export orientation, indicating that Czech export undertakings surmounted Slovak efforts by 59%. Regarding gender, companies managed by males exported 60% more than companies directed by females. The results correspond with findings of other authors [49] [46].

Although the government support was subject to criticism, all SMEs in the surveyed countries can ask for aid for their export ventures. Breckova suggests that more than one-third of Czech exporters know about exporting support schemes used by managers participating in trade fairs and exhibitions. Contrary to the previous year, Czech entrepreneurs are slightly more aware of the government exporter's support schemes in the Czech Republic, including Single Contact Points or Anti-dumping Investigations, support for presentations abroad, information services, insurance, assistance services abroad etc. Business missions on behalf of the state administration proved ineffective [10]. The outcomes correlate with [19] [12].

Civelek et al. argue that managers and entrepreneurs of Slovak SMEs feel more relaxed about the surveyed barriers than their Czech counterparts [11].

They would appreciate better access to information and marketing services, export consultations, unlimited access to information on foreign business partners, personal support in the place of export etc. Ventures of state agencies, which should be principal business partners to SMEs, can also be helpful [18]. Export patterns applied by banks may also give valuable information for analyzing export activities and strategies. These theories comply with [48] [50] [51] [16] [52], and others.

SMEs' export and multinationalization arise from strategic choices anchored in a specific context. Studies compiled from surveys on SMEs from various sectors are only practical when helping understand the process and pace of SMEs' multinationalization. The articles illustrate differences in companies' behaviour and consequences. Our further research will explore destinations of SMEs' choice for multinationalization to examine local market challenges, institutional environment, socio-cultural diversity and local competitors [38] [47] [48]. The survey will expound upon export strategies of individual SMEs within a specific sector and identify consumer behaviour.

Despite plenty of studies on the multinationalization of SMEs and their potential competitiveness, there has not been a broad consensus on strategies guaranteeing success [15] [53]. Although most analyses confirm a close link between successful multinationalization and corporate performance, conflicting findings still prevent widespread agreement [18] [3]. Further research needs an effective model of successful corporate management, reflecting dimensions of multinationalization processes [54] [45] [15]. The design will require revising surveys of business and marketing strategies and exploring new determinants of performance and competitiveness [52] [51] [55].

Models developed decades ago ignore the current and future challenges of massive worldwide integration. Traditional methods of strategic management (SWOT, PESTEL, sensitivity analysis, scenario etc.) are obsolete and should give way to new corporate typologies observing effective strategies for SMEs to implement to be competitive in global markets [56] [57] [58]. Paul suggests using a SCOPE framework for a better orientation in the multinationalization process, helping low-technology SMEs withstand today's global pressures. This scheme allows SMEs to analyse their major problems and challenges, strengthening their long-term competitiveness [40]. We must delve into new issues and disputes SMEs face, evaluate applied theoretical models, strategies and tactics and compare the firms' growth with prevailing trends.

## **Conclusions**

Despite many available studies and findings hereof, the issue of SMEs' export still stirs up avid interest, requiring up-to-date inquiries and surveys in today's global tendencies. Since secondary data are hard to obtain (institutional problems, managers' and owners' reluctance to provide them etc.), primary inputs and outputs remain the priority, effectively mapping SMEs' processes and transferring their results into corporate policies. The research rewards continuously exploring export

barriers in individual regions. The presented study aimed to quantify the SMEs' export potential and barriers in V4, unveiling differences in SMEs' export activities regarding the legal form and country of the province. The effect of legislative restraints and tax policies varied over the countries concerned, while language and culture did not constitute an impediment to SMEs' exporting ventures. Limited liability and joint-stock companies showed the strongest tendencies to export, with the highest likelihood in the transport and construction industry.

Collecting data on SMEs' export issues in individual sectors and analysing procedural, internal, and government barriers may direct firm and public policymakers to adopt effective export marketing strategies and national exporter development programmes. The findings can support and improve export stimulation projects since many countries develop schemes to encourage exporting products and services. The efficiency of these stimuli depends on adequate corporate segmentation. Perceiving firms' actual needs allow focusing on enterprises wanting to overcome export barriers using specific exporters' programmes. The creation of the projects should reflect these requirements and ensure enough export opportunities in the macroeconomic and microeconomic sectors. Including other research variables, e.g. network development monitoring, institutional effects, firms' adaptive abilities and innovative potential, will give rise to research teams creating new models and raising the bar to new scientific dimensions. These additional aspects will help better understand the processes of SMEs' multinationalization throughout the economic and political environment. Our outcomes also provide managers, policymakers and teaching professionals with valuable information and suggestions for further research.

This research has some limitations. Conclusions were drawn based on the attitudes of 478 entrepreneurs/managers from V4 countries. Although the research was conducted on a representative sample of respondents, the results cannot provide fundamental scientific insights, but they can enrich this research issue. This is also because the research was conducted under good economic conditions in all the countries studied. However, it can be assumed that the trends in this area are slightly different nowadays, when the economies of the world are affected by the war in Ukraine, high energy prices and high inflation rates. On the other hand, it can be assumed that SMEs will be able to cope with these changes relatively successfully.

Future scientific research will focus on exploring in more detail the directions outlined for the internationalisation of SMEs.

## References

- [1] Korcsmáros, E.; Renáta Machová, R.: Challenges of Burnout Prevention in Slovak SMEs– Focus on Optimal Employment. *Acta Polytechnica Hungarica* 2021, Vol. 18, No. 2, 87-104

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- [2] Varga, J.: Defining the Economic Role and Benefits of Micro, Small and Medium-sized Enterprises in the 21<sup>st</sup> Century with a Systematic Review of the Literature. *Acta Polytechnica Hungarica*, 2021, Vol. 18, No. 11, 209-228
- [3] Ziolo, M.; Kluza, K.; Kozuba, J.; Kelemen, M.; Niedzielski, P.; Zinzak, P.: Patterns of Interdependence between Financial Development, Fiscal Instruments, and Environmental Degradation in Developed and Converging EU Countries. *Int. J. Environ. Res. Public Health* 2020, 17, 4425
- [4] Szabo, S.; Pilát, M.; Makó, S.; Korba, P.; Čičváková, M.; Kmec, L.: Increasing the efficiency of aircraft ground handling—A case study. *Aerospace*, 2021, 9(1), 2
- [5] Stehel, V.; Vochozka, M.: The Analysis of the Economical Value Added in Transport. *Nase more*, 2016, 63(3, SI), 185-188
- [6] Kelemen, M.; Jevčák, J.: Security Management Education and Training of Critical Infrastructure Sectors' Experts, 2018 XIII International Scientific Conference - New Trends in Aviation Development (NTAD), 2018, pp. 68-71
- [7] Pietrovito, F.; Pozzolo, A. F.: Credit constraints and exports of SMEs in emerging and developing countries. *Small Business Economics*, 2021, 56(1), 311-332
- [8] Chaney, T.: Liquidity constrained exporters. *Journal of Economic Dynamics and Control*, 2016, 72, 141-154
- [9] Gabaix, X.; Maggiori, M.: International liquidity and exchange rate dynamics. *The Quarterly Journal of Economics*, 2015, 130(3), 1369-1420
- [10] Breckova, P.: Export Patterns of Small and Medium Sized Enterprises. *European Research Studies Journal*, 2018, 21(1), 43-51
- [11] Civelek, M.; Polách, J.; Švihlíková, I.; Paták, M.: International Differences in the Perceptions of Export Obstacles By SMEs in the Same Firm-Level Characteristics: Evidence from European Countries. *Folia Oeconomica Stetinensia*, 2022, 22(1), 18-45
- [12] Virglerova, Z.; Kliestik, T.; Rowland, Z.; Rozsa, Z.: Barriers to Internationalisation of SMEs in Visegrad Group Countries. *Transformations in Business & Economics*, 2020, 19(3)
- [13] Petruf, M.; Korba, P.; Kolesár, J.: Roles of logistics in air transportation. *Naše more: znanstveni časopis za more i pomorstvo*, 2015, 62(3 Special Issue), 215-218
- [14] Kužma, D.; Korba, P.; Hovanec, M.; & Dulina, L.: The use of CAX systems as a tool for modeling construction element in the aviation industry. *Naše more: znanstveni časopis za more i pomorstvo*, 2016, 63(3 Special Issue), 134-139

- [15] Gavurova, B.; Belas, J.; Bilan, Y.; Horak, J.: Study of legislative and administrative obstacles to SMEs business in the Czech Republic and Slovakia. *Oeconomia Copernicana*, 2020, 11(4), 689-719
- [16] Ayob, A. H.; Freixanet, J.: Insights into public export promotion programs in an emerging economy: The case of Malaysian SMEs. *Evaluation and program planning*, 2014, 46, 38-46
- [17] Wilkinson, T., & Brouthers, L. E. (2006) Trade promotion and SME export performance. *International Business Review*, 15(3), 233-252
- [18] Tkacova, A.; Gavurova, B.; Danko, J.; Cepel, M.: The importance of evaluation of economic determinants in public procurement processes in Slovakia in 2010?2016. *Oeconomia Copernicana*, 2017, 8(3), 367-382
- [19] Kocisova, K.; Gavurova, B.; Behun, M.: The evaluation of stability of Czech and Slovak banks. *Oeconomia Copernicana*, 2018, 9(2), 205-223
- [20] Leonidou, L. C.: An analysis of the barriers hindering small business export development. *Journal of small business management*, 2004, 42(3), pp. 279-302
- [21] Leonidou, L. C.; Katsikeas, C. S.; Palihawadana, D.; Spyropoulou, S.: An analytical review of the factors stimulating smaller firms to export: Implications for policy-makers. *International Marketing Review*, 2007, Vol. 24, No. 6, pp. 735-770
- [22] Tesfom, G.; Lutz, C.: A classification of export marketing problems of small and medium sized manufacturing firms in developing countries. *International journal of emerging markets*, 2006, Vol. 1, No. 3, pp. 262-281
- [23] Kahiya, E. T.: Export barriers and path to internationalization: A comparison of conventional enterprises and international new ventures. *Journal of International Entrepreneurship*, 2013, 11(1), 3-29
- [24] Altıntaş, M. H.; Tokol, T.; Harcar, T.: The effects of export barriers on perceived export performance: An empirical research on SMEs in Turkey. *EuroMed Journal of business*, 2007, Vol. 2, No. 1, pp. 36-56
- [25] Mataveli, M.; Ayala, J. C.; Gil, A. J.; Roldan, J. L.: An analysis of export barriers for firms in Brazil. *European Research on Management and Business Economics*, 2022, 28(3), 100200
- [26] Arteaga-Ortiz, J.; Fernández-Ortiz, R.: Why don't we use the same export barrier measurement scale? An empirical analysis in small and medium-sized enterprises. *Journal of Small Business Management*, 2010, 48(3), 395-420
- [27] Narayanan, V.: Export Barriers for Small and Medium-sized Enterprises: A Literature Review based on Leonidou's Model. *Entrepreneurial Business and Economics Review*, 2015, 3(2), 105-123

- [28] Kahiya, E. T.: Five decades of research on export barriers: Review and future directions. *International Business Review*, 2018, 27(6), 1172-1188
- [29] Antosko, M.; Korba, P.; Sabo, J.: One runway airport separations. Informatics, geoinformatics and remote sensing, SGEM. *International Multidisciplinary Scientific GeoConference-SGEM*, 2015, 241-248
- [30] Džunda, M.; Dzurovčín, P.; Kal'avský, P.; Korba, P.; Cséfalvay, Z.; Hovanec, M.: The UWB radar application in the aviation security systems. *Applied Sciences*, 2021, 11(10), 4556
- [31] Föző, L.; Andoga, R.; Schreiner, M.; Beneda, K.; Hovanec, M.; Korba, P.: Simulation aspects of adaptive control design for small turbojet engines. In 2019 IEEE 23<sup>rd</sup> International Conference on Intelligent Engineering Systems (INES), 2019, 000101-000106
- [32] Love, J. H.; Roper, S.: SME innovation, exporting and growth: a review of existing evidence. *International Small Business Journal*, 2015, 33(1), 28-48
- [33] Roy, A.; Sekhar, C.; Vyas, V.: Barriers to internationalization: A study of small and medium enterprises in India. *Journal of International Entrepreneurship*, 2016, 14(4), 513-538
- [34] Chandra, A.; Paul, J.; Chavan, M.: Internationalization barriers of SMEs from developing countries: a review and research agenda. *International Journal of Entrepreneurial Behavior & Research*, 2020, 26(6), 1281-1310
- [35] Haddoud, M. Y.; Jones, P.; Newbery, R.: Export intention in developing countries: configuration approach to managerial success factors. *Journal of Small Business Management Plymouth*, 2020, pp. 1-29
- [36] Mendy, J.; Rahman, M.: Application of human resource management's universal model: an examination of people versus institutions as barriers of internationalization for SMEs in a small developing country. *Thunderbird International Business Review*, 2019, 61(2), 363-374
- [37] Kahiya, E. T.; Dean, D. L.: Export stages and export barriers: revisiting traditional export development. *Thunderbird International Business Review*, 2016, 58(1), 75-89
- [38] Paul, J.; Parthasarathy, S.; Gupta, P.: Exporting challenges of SMEs: a review and future research agenda. *Journal of World Business*, 2017, 52 (3), 327-342
- [39] Manolopoulos, D.; Chatzopoulou, E.; Kottaridi, C.: Resources, home institutional context and SMEs' exporting: direct relationships and contingency effects. *International Business Review*, 2018, 27(5), 993-1006
- [40] Paul, J.: SCOPE framework for SMEs: A new theoretical lens for success and internationalization. *European Management Journal*, 2020, 38(2), 219-230

- [41] Puig, F.; Gonzalez-Loureiro, M.; Ghauri, P. N.: Running faster and jumping higher? Survival and growth in international manufacturing new ventures. *International Small Business Journal*, 2018, 36(7), 829-850
- [42] Musteen, M.; Datta, D. K.; Butts, M. M.: Do international networks and foreign market knowledge facilitate SME internationalization? Evidence from the Czech Republic. *Entrepreneurship: Theory and Practice*, 2014, 38(4), 749-774
- [43] Terjesen, S.; Hessels, J.; Li, D.: Comparative international entrepreneurship: a review and research agenda. *Journal of Management*, 2016, 42(1), 299-344
- [44] Soriano, D. R.; Dobon, S. R.: Linking globalization of entrepreneurship in small organizations. *Small Bus Econ* 32, 2009, 233-239
- [45] Belas, J.; Strnad, Z.; Gavurova, B.; Cepel, M.: Business Environment Quality Factors Research - Sme Management's Platform. *Polish Journal of Management Studies*, 2019, Vol. 20, No. 1, pp. 64-77
- [46] Dvorsky, J.; Kozubikova, L.; Ključnikov, A.; Ivanova, E.: Owners vs. Managers. Disparities of Attitudes on the Business Risk in SME Segment. *Amfiteatru Economic*, 2022, 24(59), 174-193
- [47] Ključnikov A.; Belás J.; Kozubíková L.; Paseková P.: The Entrepreneurial Perception of SME Business Environment Quality in the Czech Republic. *Journal of Competitiveness*, 2016, 8(1), 66-78
- [48] Ključnikov, A.; Civelek, M.; Klimeš, C.; Farana, R.: Export risk perceptions of SMEs in selected Visegrad countries. *Equilibrium. Quarterly Journal of Economics and Economic Policy*, 2022, 17(1), 173-190
- [49] Sobeková Majková, M.: The Relationship between the Risk of a Change of the Interest Rate and the Age of Entrepreneurs among Slovak SMEs. *Journal of Competitiveness*, 2016, 8(3), 125-138
- [50] Kliuchnikava, Y.: The Impact of the Pandemic on Attitude to Innovations of SMEs in the Czech Republic. *International Journal of Entrepreneurial Knowledge*, 2022, 10(1), 34-45
- [51] Belás, J.; Sopková, G.: A Model of Entrepreneurial Orientation. *Transformation in Business & Economics*, 2016, 15(2B(38B)), 630-645
- [52] Belás, J.; Bilan, Y.; Ključnikov, A.; Vincúrová, Z.; Macháček, J.: Actual problems of business risk in segment SME. Case study from Slovakia. *International Journal of Entrepreneurial Knowledge*, 2015, 3(1), 46-56
- [53] Machova, V.; Vochozka, M.: Analysis of business companies based on artificial neural networks. In J. Horak (Ed.) *Innovative Economic Symposium 2018 - Milestones and Trends of World Economy (IES2018)*, 2019, 61, VŠTE

- [54] Sopko, J.; Kočíšová, K.: Key Indicators and Determinants in the Context of the Financial Aspects of Health Systems in Selected Countries. *Adiktologie*, 2019, 19(4), 189-202
- [55] Turisová, R.; Pačaiová, H.; Kotianová, Z.; Nagyová, A.; Hovanec, M.; Korba, P.: Evaluation of eMaintenance Application Based on the New Version of the EFQM Model. *Sustainability* 2021, 13, 3682
- [56] Briestenský, R.; Ključnikov, A.: Identification of the Key Factors for Successful Hospital Management in Slovakia. *Adiktologie*, 2019, 19(4), 203-211
- [57] Melnikova, L.; Cibereova, J.; Korba, P.: Building a training airport for pilots. Informatics, geoinformatics and remote sensing conference proceedings, SGEM 2016. 16<sup>th</sup> International Multidisciplinary Scientific Geoconference (SGEM 2016), pp. 109-116
- [58] Bartos, V.; Vochozka, M.; Janikova, J.: Fair value in squeeze-out of large mining companies. *Acta Montanistica Slovaca*, 2021, 26(4), 712-731