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THE USE OF INTERNET TECHNOLOGIES AND EXPORT PERFORMANCE: THE MODERATING ROLE OF INTERNATIONAL EXPERIENCE¹

Abstract

- Goal the objective of the present study is to examine the moderating effect that internationalisation has on the relationship between the use of Internet technology on export performance.
- ► Research methodology the study uses data on 500 Polish manufacturing companies with grounded foreign activities for the period between 2017 and 2019. To test our hypotheses a fixed-effects regression analysis was employed.
- Score/results the relationship between the implemented internet technologies and operational efficiency is visible only for highly internationalised companies, supporting the hypothesised moderating effect of the international experience. The implemented passive internet technologies may, contrary to expectations, even have a negative impact on the company's efficiency.

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 Originality/value – This study contributes to extant research by adopting a broader concept of export model, including the use of modern marketing and sales concepts, in addition to the previous understanding of market strategy used in export research.

Keywords: export performance, business models, digitalisation, internet technologies, international experience.

1. Introduction

While export is a primary mode of firm internationalisation, its success cannot be taken for granted, as firms also happen to withdraw from exit operations [Sousa, Tan, 2015; Trąpczyński, 2016]. Therefore, the issue of export performance determinants is of vital importance for firms and entire economies alike. And yet, the related research into firm-level exporting has been criticised for its lack of consistency and completeness [Leonidou et al., 2010; Sousa, Lengler, 2009; Tan, Sousa, 2013]. Although a range of theories have been considered, each individual theory only provides a fragmented view of export performance [Lages et al., 2008; Tan, Sousa, 2013].

For instance, despite the theoretical progress made in this field, still little empirical work has assessed whether firm capabilities are supportive in the application of Internet technologies [Prasad, Ramamurthy, Naidu, 2001]. Given the relevance for export managers to concentrate on developing the skills and capabilities such as those related to e-commerce, an interesting gap in research on exporting pertains to how the leverage of IT-related capabilities enhances export performance [Gregory et al., 2019]. Moreover, while the role of digitalisation as a vehicle for internationalisation has been discussed in the context of service firms [Banalieva, Dhanaraj, 2019; Hennart, 2019], the importance of modern technologies in the export growth of traditional manufacturing firms has been less explored.

Accordingly, the objective of the present study is to examine the moderating effect that internationalisation has on the relationship between the use of Internet technology on export performance. We address these objectives by studying companies from a post-transition economy of Poland. This paper is structured as follows. In the first section, the overall nature of the relationship between firm resources and performance is discussed in the light of earlier research. Subsequently, the intermediate role of internationalisation is analysed in order to

formulate the moderation hypothesis. Further, the research design is described in detail and followed by a presentation of results. The ensuing part of the paper is devoted to discussion of the obtained findings and their implications.

2. Theory and hypotheses

2.1. Integration of Internet-based technologies into the business model of the firm

The resource-based view (RBV) presents a firm as a unique bundle of valuable tangible and intangible resources which determine a firm's competitive advantage and performance in export market [Barney et al., 2001]. The fundamental assumption of the RBV is that product markets are stable and constant, since the resources cannot be perfectly imitated and transferred [Barney, 1991]. In the context of export research, for instance Cadogan et al. [2009] point to the crucial role of market orientation capabilities in improving export performance. However, many studies devoted to firm internationalisation have focused on firm capabilities in the meaning of intangible assets, with a specific focus on product innovation or brand equity, devoting less attention to other pillars of competitive advantage, such as the organisation of export activities, the ability to adjust export behaviour to foreign market conditions, or experience-based advantage, which may be a relevant asset for firms from post-transition economies [Cuervo-Cazurra, Genc, 2008].

In general, these strategic aspects of exporting have long been regarded as a key area of research interest [Cieślik et al., 2015; Leonidou et al., 2010]. In extant export literature there have been several attempts at conceptualising foreign market strategy. According to authors like Peng, Zhou, York [2006], firms sell their offerings to foreign customers or foreign middlemen/agents/distributors directly located overseas (direct channel) or to distributors who export for them (indirect channel). Klein and Roth [1990] distinguished the market mode, intermediate mode, and hierarchical mode (including integrated channels with offices at home and/or in foreign markets) according to the degree of integration [also see: Li, He, Sousa, 2017].

Apart from the issue of organisation of exporting activities, most studies focused on whether to standardise or adapt the export marketing strategy [Morgan et al., 2012; Theodosiou, Leonidou, 2003]. In fact, most studies examined

merely a few components of the marketing mix, thus ignoring potential interrelationships in or adapting them. For instance, Tan & Sousa [2013] find that product standardisation has a negative effect on international performance, promotion standardisation has a non-significant impact on international performance, while price and distribution standardisation have a positive effect on export performance.

Moreover, the degree of adaptation was in most cases examined at a generic level, failing to investigate the finer dimensions of each component separately. For instance, promotion was in some cases decomposed into advertising, sales promotions, public relations, personal selling, yet scholars have unsuccessfully called for more fine-grained conceptualisations [Theodosiou, Leonidou, 2003]. Therefore, overall it is not surprising that this research has not shown consistent support for factors leading either to adaptation or standardisation of export marketing strategy, nor for their overall consequences for the exporting firm [Sousa et al., 2008; Chen et al., 2016].

In conceptualising export strategy, little research has referred to the concept of the business model thus far [Zott, Amit, Massa, 2011; Hennart, 2014], instead focusing on selected marketing strategy aspects. The business model depicts "the content, structure, and governance of transactions designed so as to create value through the exploitation of business opportunities" [Amit, Zott, 2001: 511]. Osterwalder (2004) distinguishes value proposition, customer segments, partners' network, relationships, delivery channels, revenue streams, cost structure, value configuration, and firm capability in the concept of a business model.

The aforesaid organisational aspects, as well as the ability of the exporter to reach foreign markets, have been significantly affected by the emergence of a new category of capabilities related to information and communication technologies, and Internet technologies in particular. A growing number of studies investigate how the Internet and other information technologies influence international strategies of firms [e.g. Ekeledo, Sivakumar, 2004; Petersen, Lawrence, Liesch, 2002] suggesting that it facilitates internationalisation, for instance through better and easy acquisition of information about foreign markets [Mathews, Healy, 2007] or through decreasing costs associated with spatial distance, for example, remote customer service or fewer travel costs [Arenius, Sasi, Gabrielsson, 2006]. However, the determinants of the use of specific e-commerce or information tools for export development in different locations, have not been studied to date. Therefore, we posit:

H1: There is a positive relationship between the use of Internet technologies and export performance.

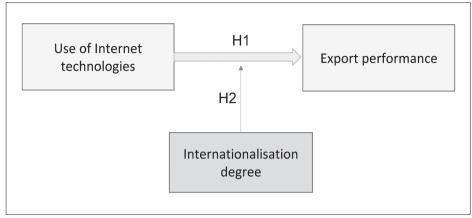


Figure 1. The conceptual framework of the study

Source: author's own work.

2.2. The moderating role of international experience

Furthermore, the competitive advantage derived from a firm's capabilities, in particular its ability to design and adjust its exporting behaviour, and influenced by institutions in various locations, is neither fixed nor infallible. Instead, it is conditioned by the co-alignment between internal resources and external forces. Contingency theory indicates that export performance is affected by the contingent compatibility, which is changeable and individualised to each firm or export venture. For instance, Hultman et al. [2011] find that the effectiveness of export promotion is contingent on a complex interaction between export experience and sociocultural distance. In addition, firms' exporting activities are continuing operations and in line with organisational learning theory there is a connection between an organisation's previous operations and its future behaviour and outcomes [Santos-Vijande et al., 2012]. In the exporting context, export managers learn from past exporting activities and gain a better understanding of the causality among export strategies, surrounding conditions and corresponding export performance [Lages et al., 2008]. Hence, such knowledge leverages current strategic decisions, and influences future export performance [Lages et al., 2008].

Accordingly, we propose the following:

H2: The internationalisation degree of the firm positively moderates the relationship in H1.

We summarise our conceptual logic in Figure 1.

3. Theory and hypotheses

3.1. Data collection

The study uses data on 500 Polish manufacturing companies with grounded foreign activities for the period between 2017 and 2019. The selection for the sample was based on the following criteria:

- a) majority share of Polish shareholders;
- b) activity in the manufacturing processing sectors;
- c) exports to at least 2 countries and at least 10 percent of foreign sales in relation to total sales (FSTS);
- d) employment of at least 10 people;
- e) financial stability in 2017-2019.

Table 1. Structure of the research sample

Variable	Total, N=500			
Variable	In numbers	In %		
Employment as of 2019				
10-49 employees	168	34%		
50-249	167	33%		
> 250	165	33%		
Revenue as of 2019				
< 10 m PLN	59	12%		
10-20 mPLN	109	22%		
20-50 mPLN	130	26%		
50-200 mPLN	134	27%		
> 200 mPLN	68	14%		
Manufacturing sectors				
Low-tech	170	34%		
Mid-tech	165	33%		
High-tech	165	33%		

Variable	Total, N=500			
variable	In numbers	In %		
FSTS				
10–19%	226	45%		
20–30%	188	38%		
> 30%	86	17%		
# export markets				
1–10	351	70%		
11–20	104	21%		
> 20	45	9%		

Source: author's own work.

The initial database created contains 2166 randomly selected companies with an equal share of small, medium and large enterprises as well as low, medium and high technology manufacturing companies. In the second stage, primary survey data on 500 firms was collected (return rate of 23 percent) using CATI method (Computer Assisted Telephone Interviewing). The structure of the research sample is presented in Table 1.

Regardless of the company size, the distribution of low, medium and high-tech companies was similar, as was the share of the B2B/B2C markets as shown in Table 2. However, along with the increase in the size of the sample company, the average number of foreign markets served grew.

Table 2. Sample characteristics

Size	N	Low-	Medium-	High- Tech	Av. # of foreign – markets	Market	
		Tech	Tech			B2B	B2C
Small	168	35.1%	32.1%	32.7%	4,05	71.4%	28.6%
Medium	167	33.5%	32.9%	33.5%	7,07	76.6%	23.4%
Large	165	33.3%	33.9%	32.7%	14,28	78.2%	21.8%

Source: author's own work.

The questionnaire consisted of questions relating to technological complexity of product offering, technological and marketing resources possessed, usage of Internet technologies, financial and operational firm performance and industry competitiveness. The survey was conducted under the author's supervision by an external research agency.

3.2. Data operationalisation

Dependent variables

There are nine types of performance measures relating to firms' performance in foreign markets which were used in the study as dependent variables. These are presented in the Table 3 below.

Table 3. Dependent variables

No.	Variable	Code	Definition
1	Sales	PERF_1	Increase in sales on foreign markets
2	Profit margin	PERF_2	Gross margin on sales
3	ROI	PERF_3	Return on investment in foreign markets
4	Financial liquidity	PERF_4	Financial liquidity regardless of how it might be measured
5	Market share	PERF_5	Growth in market share in foreign markets
6	Marketing performance	PERF_6	Overall performance of marketing activities performed in foreign markets
7	Distribution performance	PERF_7	Overall performance of logistics and distribution in foreign markets
8	Firm reputation	PERF_8	The company's reputation from the perspective of customers
9	Overall performance	PERF_9	Overall satisfaction with the company's performance on foreign markets

Source: author's own work.

Export performance is perceived through the lenses of its financial and operational performance. The first group comprises of accounting measures mostly

used in international business research mainly due to easy access to data and because they are commonly accepted.

Because there is no agreement on the best way to assess export performance [He et al., 2013; Sousa et al., 2008] and managers are often unwilling to offer objective data [Brouthers, Xu, 2002], in line with previous export studies (Sousa et al., 2008) we used subjective indicators to measure our dependent variable export performance. Respondents were asked to indicate (on a 7-point Likert-type scale) the level of satisfaction over the past three years since the moment of the study (see Table 3).

Independent and moderating variables

The major explanatory variable used in this study is the degree of the Internet technologies used. An extensive list of 16 technologies were included in the study as shown in the Table 4. Similar to the dependent variable, responses were given by the respondents on a 7-point Likert scale. In line with earlier studies on the integration of the Internet into marketing activities, we followed Prasad et al. [2001] and Gregory et al. [2019] in the operationalisation of Internet technologies.

Internet technologies do not constitute a homogeneous aggregate as they have different applications, influence on the organisation and are used in different ways in organisations. To facilitate understanding of our data and to get better insights, we decided to group the observed variables (technologies) into fewer number of non-observable latent factors using Principal Factor Analysis (PCA) with Kaiser normalisation. Based on the conducted analysis, we distinguished five factors as presented in Table 4.

Table 4. Measure	ment of the us	e of Internet	technologies

IMI 1	IMI 2	IMI 3	IMI 4	IMI 5
Provision of online product catalogs	Using an external sales platform	Keeping an active profile in social media	Better coordination and communication between employees	Product support for distributors or business partners
Online access to information about product availability, order status, etc.	Online payment by customers	Analysis of activity in social media for marketing purposes	_	_

IMI 1	IMI 2	IMI 3	IMI 4	IMI 5
CRM support for customer relationship management	Online access to components from suppliers	Analysis of visits to the website for marketing purposes. Sales	_	_
_	Gathering infor- mation about customers and competitors	_	_	_
Promotion and advertising of the company's products and services on the website	Online customer ordering	_	_	_
-	Online webinars and conferences	_	_	-

Source: author's own work.

Furthermore, for IMI1, IMI2 and IMI3 we measured Cronbach's alpha to verify internal consistency of the items grouped within those factors. The coefficient alpha was ranging reasonably strong between 0.84 and 0.95. Based on that, we conclude that the items analysed exhibit strong validity and belong to the same constructs of Internet technologies groupings.

The moderating variable was FSTS, which was operationalised as the ratio of foreign sales to total sales. There were two groups created. The first one with FSTS between 10 percent and 25 percent and the second one with FSTS above 25 percent.

Control and moderating variables

The first control variable was firm size – small, medium and large companies. The size of the company relates to the number of employees. A small company was defined as the one with the number of employees between 10 and 49. A medium company with 50 to 249 employees and a large company with 250 or more employees. The second control variable was firm age, which was controlled for by dummy variables representing young firms (equal to or below 12 years) and old firms (above 12 years). The third variable was geographical dispersion

of foreign expansion, which was measured by number of foreign countries in which a given company was present. The next variable was the technological intensity of the industry. The fifth variable is institutional distance, which has been calculated on a firm level as an average difference between the Heritage Index of Economic Freedom values for the home country (Poland) and target foreign countries. If the average distance was bigger than zero, then we would presum that the target countries exhibit higher level of institutional development than the home country. If the measure was below zero, we would conclud that the target countries are less developed. This effect was controlled for by dummy variables.

The sixth variable was product complexity to reflect not the technological intensity of the industry, but the technological development of the products and services provided by a company in foreign markets. For this purpose, a construct comprising seven items was designed and measured on a 7-point Likert scale (Cronbach alfa greater than 0.6). The last two variables include managerial and technological resources on a company level. Similarly, compound indices were designed and calculated to control for these variables. It was expected that companies with more abundant resources would benefit more from new Internet technologies.

Specification of econometric model

To test the hypothesis put forward in the previous section, a fixed-effects regression analysis was employed. Based on the discussion presented in the previous section, the regression equation to be estimated is as follows:

PERF_i=
$$\beta_1$$
+ β_2 IMI1_i + β_3 IMI2_i + β_4 IMI3_i + β_5 IMI4_i + β_6 IMI5_i + + $\sum \beta_c$ Control variables_{ci}

where PERFi is the performance of i company in the sample, IMIni usage of grouped Internet technologies by the i company and Control variables represent the eight control variables defined in the section above. Taking into account the theoretical, we expected a linear relationship. Prior to the analysis, we examined the dataset to verify if the assumptions for using regression analysis were met. For this purpose we confirmed that the variables are normally distributed (first examined visually and then verified with Kolmogorov-Smirnov test); next we analysed the scattergrams of standardised residuals to confirm that there is no

presence of heteroscedasticity issue. Lack of multicollinearity issue was examined with Pearson's r correlation and VIF coefficient. The correlation coefficient did not exceed 0.7 and the value of VIF did not exceed 10, which would imply a potential multicollinearity issue.

4. Results and discussion

The results of the regression analysis are reported in Table 5. For the sake of clarity, only the dependent variables with significant statistical effects were presented. Additionally, the analysis was performed in subgroups, i.e. for low and highly internationalised companies separately. We found out that relationships between implemented Internet technologies and foreign operations performance were visible only for highly internationalised companies and no significant statistical effects were identified for the low internationalised subgroup. Searching for a possible explanation, it might be presumed that the firms from this group might not have introduced new processes and tools, including new technologies, to improve the efficiency of operations conducted abroad only, but the enterprise as a whole. This may also relate to reporting frameworks allowing for monitoring of the results of foreign operations. Thus, the respondents of low internationalised companies might not have sufficient knowledge to verify performance in foreign markets in details.

Once a given significant internationalisation degree is reached, the company may focus much more attention on foreign markets as well as processes and tools developed to support its presence in those countries. Subsequently, those companies may start to analyse the performance of foreign operations more in details. Only then could it be possible to plan and take actions targeted specifically at foreign markets as well as to determine their outcomes.

For the selected dependent variables, the size effect measured by adjusted R2 was moderate and ranging between 8.9 percent and 17.4 percent. No effects were observed for the following variables: Revenue from sales, Overall performance satisfaction, Financial liquidity, and Firms reputation. For the last two variables, it might be explained by the fact that the use of new Internet technologies with the major objective to improve firm's image and financial liquidity might be questionable as there is hardly any direct cause-effect link to be found here. However, lack of size effects for Sales and Overall satisfaction might be perceived as a little surprising.

Table 5. Results of regression analysis

High FSTS High FSTS ROI Market share Marketing performance Distribution performance S.256*** S.361*** 3.942*** 2.135*** 4.158***		Model 1	Model 2	Model 3	Model 4	Model 5
Independent variables Gross margin ROI Market share Marketing performance Distribution performance Intercept 5.256*** 5.361*** 3.942*** 2.135*** 4.158*** Firm Size -0.048 0.367 † 0.342* 0.592 0.124 Firm Age 0.251 0.118 0.179 0.047 0.286 Geographical dispersion 0.282 0.068 0.046 -0.082 0.284 † Product complexity 0.159 0.179 0.195 † 0.144 0.218 † Technological resources -0.183 -0.294 -0.305 -0.407 † -0.173 Managerial resources 0.570** 0.567* 0.655** 0.624* 0.482 † Industry technological intensity -0.186 † -0.216 -0.229 † -0.109 -0.199						
Name				HIGH FS15		51
Firm Size			ROI		perfor-	tion per-
Firm Age 0.251 0.118 0.179 0.047 0.286 Geographical dispersion 0.282 0.068 0.046 -0.082 0.284 † Product complexity 0.159 0.179 0.195 † 0.144 0.218 † Technological resources -0.183 -0.294 -0.305 -0.407 † -0.173 Managerial resources 0.570** 0.567* 0.655** 0.624* 0.482 † Industry technological intensity -0.186 † -0.216 -0.229 † -0.109 -0.199	Intercept	5.256***	5.361***	3.942***	2.135***	4.158***
Geographical dispersion 0.282 0.068 0.046 -0.082 0.284 † Product complexity 0.159 0.179 0.195 † 0.144 0.218 † Technological resources -0.183 -0.294 -0.305 -0.407 † -0.173 Managerial resources 0.570** 0.567* 0.655** 0.624* 0.482 † Industry technological intensity -0.186 † -0.216 -0.229 † -0.109 -0.199	Firm Size	-0.048	0.367 †	0.342*	0.592	0.124
Product complexity 0.159 0.179 0.195 † 0.144 0.218 † Technological resources -0.183 -0.294 -0.305 -0.407 † -0.173 Managerial resources 0.570** 0.567* 0.655** 0.624* 0.482 † Industry technological intensity -0.186 † -0.216 -0.229 † -0.109 -0.199	Firm Age	0.251	0.118	0.179	0.047	0.286
Technological resources -0.183 -0.294 -0.305 -0.407 † -0.173 Managerial resources 0.570** 0.567* 0.655** 0.624* 0.482 † Industry technological intensity -0.186 † -0.216 -0.229 † -0.109 -0.199	Geographical dispersion	0.282	0.068	0.046	-0.082	0.284†
Managerial resources 0.570** 0.567* 0.655** 0.624* 0.482 † Industry technological intensity -0.186 † -0.216 -0.229 † -0.109 -0.199	Product complexity	0.159	0.179	0.195†	0.144	0.218 †
Industry technological -0.186 † -0.216 -0.229 † -0.109 -0.199	Technological resources	-0.183	-0.294	-0.305	-0.407 †	-0.173
intensity -0.1861 -0.216 -0.2291 -0.109 -0.199	Managerial resources	0.570**	0.567*	0.655**	0.624*	0.482 †
Institutional distance -0.237 -0.029 -0.221 -0.061 -0.007		-0.186†	-0.216	-0.229 †	-0.109	-0.199
	Institutional distance	-0.237	-0.029	-0.221	-0.061	-0.007
IMI1 – Access to information -0.148 0.179 0.267 0.424* 0.078		-0.148	0.179	0.267	0.424*	0.078
IMI2 – Sales supporting services -0.175 -0.393* -0.383* -0.495** -0.217		-0.175	-0.393*	-0.383*	-0.495**	-0.217
IMI3 – Customer traffic tools -0.014107 -0.168 † -0.091 -0.153 †		-0.014	107	-0.168 †	-0.091	-0.153†
IMI4 – Efficient data flow -0.201 † -0.265 † -0.073 0.080 -0.097	IMI4 – Efficient data flow	-0.201 †	-0.265 †	-0.073	0.080	-0.097
IMI5 – Distribution retwork tools -0.063 -0.098 -0.141 -0.097 -0.149		-0.063	-0.098	-0.141	-0.097	-0.149
N 121 121 121 121 121	N	121	121	121	121	121
R ² 0.514 0.433 0.499 0.483 0.215	R ²	0.514	0.433	0.499	0.483	0.215
R ² adj. 17.4% 8.9% 15.8% 14.0% 12.0%	R² adj.	17.4%	8.9%	15.8%	14.0%	12.0%
F of change 1.898 † 2.155 † 2.274 † 2.257 † 1.694	F of change	1.898 †	2.155 †	2.274 †	2.257 †	1.694

Significance levels: ***p < 0.01; **p < 0.01; *p < 0.05; †p < 0.1.

Source: author's own work.

It was expected that the major goal of Internet technologies developed to support or enable expansion into foreign markets, was indeed to increase revenue from sales. Presumably, the highly internationalised companies did not focus on sales in absolute value, but more on taking a competitively attractive position in the market as well as making the foreign operations more profitable. That conclusion would be supported by the results for other dependent variables, i.e. Gross Margin, ROI on foreign operations and Market share. However, it is quite interesting that the Beta coefficient for technologies supporting online transactions, analysis of customer traffic, as well as tools supporting workflow coordination within company have a negative value. We do not necessarily conclude that implementing them would lead to deteriorating the performance. There are a few potential explanations that might be considered.

First, there could not be sufficient time for new technologies to exhibit significant results for a company. Taking into account that a vast part of IT projects fails or takes longer time and cost than initially planned, it might be the case that the companies are in a "disillusionment stage" of new technologies adoption and presumably even partially disappointed as they could expect more direct and immediate results. Subsequently, those technologies did not exhibit their impact on business before the COVID-19 pandemic (the analysed period).

Secondly, we could also argue that respondents assessed their firms' performance, for the period analysed, as weaker compared to other players in the market. In consequence, those companies could be more determined to implement new technologies as a potentially viable way to improve returns from foreign markets. Here, unsatisfactory results would lead to adopting new technologies but the research would need to be repeated to determine if they brought expected outcome for the company.

Thirdly, the reasons can be found in the illusory hope that new technological tools will automatically solve the problems. In such conditions, companies could make decisions to limit traditional market activities. Subsequently, more time would be needed for the new technologies to demonstrate target performance impact while lack of traditional activities would lead directly to deteriorating results. In this case, the overall negative impact on performance should be only temporary.

Finally, regardless of the performance measure analysed we found out that a very significant positive impact was demonstrated by managerial resources possessed by a company. It may lead to the conclusion that new technologies and tools are only one factor in the performance equation. They may be a great

enabler and bring new opportunities for a company to improve results, but their impact can be offset by lack of proper management skills.

5. Conclusion

Our study allowed us to make a number of observations. The relationship between the implemented internet technologies and operational efficiency is visible only for highly internationalised companies, supporting the hypothesised moderating effect of the international experience. The implemented passive internet technologies may, contrary to expectations, even have a negative impact on the company's efficiency. The reasons for such situation can be found in the illusion that new technological tools will automatically solve all problems. In such conditions, companies can make decisions to limit traditional market activities. Significant control variable with a strong positive influence is the managerial skills of the managerial staff. In the case of low-internationalised companies, an important factor turned out to be the institutional distance between the domestic market and expansion target markets.

In the past research, export behaviour had been predominantly conceptualised with simple dimensions of marketing strategy or level of channel integration, neglecting further performance-affecting dimensions related to the implementation of exports, such as export logistics and the use of information technology for export development. This study contributes to extant research by adopting a broader concept of export model, including the use of modern marketing and sales concepts, in addition to the previous understanding of market strategy used in export research.

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