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Submitted 30.09.2017. Approved 11.04.2018.

Evaluated by double blind review process.

DOI: <http://dx.doi/10.12660/joscmv11n1p53-63>

INTERNATIONALIZATION PATTERNS AND THEIR EFFECTS ON COMPANY PERFORMANCE

ABSTRACT

The goal of this article is to identify internationalization patterns and analyze their effects on company performance. This is a quantitative study with a sample of 343 Brazilian companies that have had export operations for more than three years. Results indicate that companies choose between two distinct paths to internationalization. In the first group are firms that seek to enter the global market proactively. They are present in more countries, have an in-house department of internationalization and a better economic-financial performance. The second group consists of companies that approach internationalization reactively. They outsource part of the process, succeed only in entering markets that are less demanding and do not perform as well as the first group.

KEYWORDS | Internationalization, strategies, export, performance, Brazil.

Augusto Dalmoro Costa

augustocosta28@gmail.com

Guilherme Freitas Camboim

guilhermecamboim@hotmail.com

Aurora Carneiro Zen

aurora.zen@ufrgs.br

Universidade Federal do Rio Grande do Sul, Porto Alegre, RS, Brazil

INTRODUCTION

Since the technological-economic paradigm change involving information technology and the internet (Freeman & Perez, 1988), competition has become global, as well as operation ways, consumer demandingness and institutional requirements, among other factors that have influenced the business world. Thus, the opening of markets which were previously protected for political-economic reasons has become easier for companies from many countries.

Thus, innovation has become a condition for survival in a globalized, highly competitive world (Freeman & Soete, 2006). Therefore, seeking to differentiate from competition by using specific knowledge that can yield solutions both feasible in technical and economic terms and capable of meeting even more demanding requirements has demanded of companies a series of prerequisites that only the fittest can achieve. In addition, increased operation levels due to companies' entering new markets allowed them to increase their earnings. Therefore, companies' internationalization process has become easier because of the opening of several markets to foreign businesses, real-time information exchange, safer economic transactions and a more efficient and relatively cheaper logistics capacity.

In order to enter new markets, and considering markets' demandingness, firms are expected to change how their production factors combine (Schumpeter, 1912) to create a solution that can meet the expectations of new consumers in other markets. Thus, innovation is likely a condition for a company to succeed (Freeman and Soete, 2008), and internationalization is likely a process that can validate a solution beyond the company's domestic boundaries (Kafouros et al., 2008).

Therefore, this article aims to identify internationalization patterns and analyze their effects on company performance. This is a quantitative study with a sample of 343 Brazilian companies that have export operations for more than three years. The article is organized in four parts, in addition to this introduction. The next section presents the review of the literature on internationalization, among other correlated subjects. Then, we address the method used, considering the goals of the study. Results are presented in the third section, and we close the article by presenting our final considerations, as well as subjects for further research.

LITERATURE REVIEW

This section presents the main the literature sources which guide our study. The first subsection discusses internationalization and its various currents. The second subsection addresses the effects of internationalization on firms.

Companies' Internationalization

Internationalization is the process through which companies from a given country start developing activities outside their country of origin (Deresky, 1994). Such activities can range from the relationship with suppliers and customers to the physical presence of production units abroad. The liberalization of markets, the growth of globalization and the advances in information technology, particularly in the Internet, have increased companies' speed, scope and degree of access to foreign markets (Yip, 1989; Yenyurt, Cavusgil, & Hult, 2005). Internationalization provides a number of benefits for companies in international markets. Caves (1971) says that establishing operations in other countries allows the company to develop specific knowledge that might give a competitive edge to the company's activities.

The form and degree of a firm's international presence can vary according to its entry strategy into different markets. According to Root (1994), the way firms enter a foreign market is an institutional arrangement through which they seek to introduce products, technology, human skills, management or other resources into nations other than where they are based. The different internationalization strategies encompass different objectives, goals, policies and resources that will guide companies' actions during a certain period in order to achieve the expected growth.

The process of internationalization allows companies to reach other markets so they can generate new business activities in order to achieve extraordinary profits. In addition to its financial benefits, internationalization allows companies to aggregate new knowledge arising from their presence in other countries for later dissemination in other sectors of the organization (Zahra, Ireland, & Hitt, 2000; Castellani & Zanfei, 2004; Frenz et al., 2005).

Companies are known to differ and have distinct results and processes even in the same industry (Nelson, 1991), since knowledge basis, technologies and even products certainly vary from company to company. Therefore, it is to be expected that companies

seeking to reach new markets will do so in different ways and under different conditions. In other words, internationalization process goals, form and results can vary from company to company, since it is necessary to consider factors such as industry, product type and complexity, distribution channels, internationalization strategies and interests in a global positioning, as well as the role of internationalization in the company's value chain (Guan & Ma, 2003; Barber & Alegre, 2007) and Kafourous et al. (2008) and Abecassis-Moedas et al.

As concerns how foreign markets can be entered into, there are different ways a company internationalizes which can be divided in: direct foreign investment (FDI) with the creation of a branch, acquisition or merger with a local company; joint venture; direct or indirect export; and being represented by third parties through licensing, franchising and cooperation agreements (Root, 1994). For each of these forms, it is necessary to consider several factors to understand the internationalization process, such as: size, position in the value chain, industry standard, type of technology and firm innovation capacity. According to Banalieva and Eddleston (2011), the way the firm is going to enter a foreign market is one of the most important decisions to be made concerning internationalization. Su (2013) says that internationalization processes can vary according to these factors: internationalization strategies, the company's operational capacity and customer relationships. Therefore, in considering how to enter a foreign market, companies need also to consider such internal aspects of the organization.

The main theories regarding the process of internationalization of companies are basically divided in two parts. On the one hand, the behavioral approach assumes that companies will seek to develop their international activities in an incremental way (Johanson & Vahlne, 1977), based on the experience they have gained during the process (Rocha, 2002). On the other hand, the economic approach, which encompasses theories such as the eclectic paradigm and transaction costs, assumes that firms seek the internationalization process in a more planned and structured way (Gao, 2004; Whitelock, 2002). Since economic theories consider that corporate decision makers have all the information they need to decide in the best interests of the company and that they always do so rationally – which in practice is not always the case – and because such theories focus mainly on the internationalization of large multinationals, in

this study we chose to use behavioral theory to explain firms' internationalization processes.

On the behavioral side of internationalization theories, the Uppsala school (Johanson & Vahlne, 1977) starts by assuming that internationalization is a process guided by organizational learning. Thus, entering international markets is seen as a consequence of corporate growth (Rocha, 2002). This school affirms that companies initially export to countries with a small psychic distance. As experience increases, the firm starts serving markets with greater barriers to entry. In other words, it is only as the company grows that more distant markets become accessible (Johanson & Vahlne, 1977; 2009). Psychic distance is defined as the set of factors that distort the information flow in the internationalization process, i.e., factors such as language, culture, education and political system differences (Melin, 1992). However, this model does not accept that companies may, through their own strategies, skip steps in the internationalization process, e.g., going straight for direct foreign investment (Rocha, 2002). Nor does it consider determinants such as the effect of the market, competition and products marketed in the internationalization process. The Uppsala model and its more contemporary approaches have been widely used, particularly to explain the internationalization process of Small and Medium Enterprises (SMEs) in the export sector.

Effects of Internationalization on Firms

The relationship between internationalization and performance was explored in the study of Lu and Beamish (2001) in the context of Japanese small and medium export companies. Their findings indicate that firms with direct foreign investment performed better than export ones. According to Lu and Beamish (2001), the relationship between internationalization and business performance can be described by a U-shaped curve. In the initial phase of internationalization, it has a negative impact on performance, as the company needs to take risks and invest to develop new knowledge and resources. However, a greater degree of internationalization where the company has already developed such knowledge and resources, will have a positive impact on performance (Lu & Beamish, 2001).

The U-shaped relationship between internationalization and performance was also identified by Ruigrok and Wagner (2003); however, they point out that the U-shape of the curve may vary. This may

be due to differences in the opportunities for international expansion that emerge when entering different countries. Ruigrok and Wagner (2003) show the importance of knowledge acquisition in the internationalization process, as well as its impact on company performance. Similar results were found by Contractor et al. (2007), who examined the impact of internationalization on the profitability of 291 Indian companies from 1997 to 2001, and by Capar and Kotabe (2012), who analyzed data from 81 German companies in the service industries.

Several studies about the influence of internationalization on firm innovation have been developed in recent years. Kotabe (1990) was a precursor of empirical research on the direction of the internationalization-innovation relationship, publishing results that indicate improvements in companies' innovation capacity due to internationalization. The study of Kumar and Saqib (1996) shows that companies' export activities can positively impact R&D investments. Along the same lines, Hitt, Hoskisson and Kim (1997) show the positive relationship between international expansion and technological innovation.

Considering another perspective, Zahra, Ireland and Hitt (2000) present the effects of internationalization on technological learning, as well as the strong relationship between them. Likewise, Filippetti, Frenz and Ietto-Gillies (2013) suggest that exports increase the scope of learning and the need to innovate.

According to Filipescu (2010), there are strong arguments suggesting that increased international activities can lead to innovation. Because of internationalization, according to Kafourous et al. (2008), in addition to enriching its knowledge sources, the company can capture new ideas from diverse markets and cultural perspectives, and these factors allow an increase in organizational learning. The same authors argue that international diversification provides access to vast scientific knowledge which can be integrated into an internationalizing firm, thus increasing its innovation capacity.

Similarly, Castellani et al. (2016) provide a new conceptualization of the relationship between multinationality and productivity. They investigate the potentially differential effects of the breadth and depth of multinationality on business productivity, as well as the mediating (and not moderating) role of R&D. Their results show that multinational depth has a direct positive effect on productivity, while an increase in multinational breadth is associated with lower

productivity. In contrast, both multinational breadth and depth are positively correlated with R&D investments, although the relationship is stronger for multinational breadth.

RESEARCH METHOD

The present work is a quantitative cross-sectional study with Brazilian export companies. We used the database from a study titled *Grau de internacionalização e desempenho inovativo de empresas exportadoras* ["Export Companies' Degree of Internationalization and Innovative Performance", translator's note.] developed at the Federal University of Rio Grande do Sul (UFRGS) for academic purposes with the support of funds from a federal government agency.

The database had 350 respondent companies. Of the total of questionnaires answered, six were excluded: two for being insufficiently answered for the study, and four for being repeated for the same companies. In the case of repeated responses for the same organizations, we decided to use the questionnaires containing the most complete answers. Thus, the final sample we used for our statistical analysis had 344 companies. The study included companies located in several Brazilian municipalities and states, represented by the heads of foreign trade departments.

Research Instrument

The data collection instrument consisted of six blocks with different statements in a 1 to 5 Likert scale, eleven (11) dichotomous/categorical questions, seven (7) nominal questions and a categorical question with ten options, with the possibility of multiple answers.

The first block of questions aimed to identify the main environments where innovation originates. The second block aimed to identify the companies' degree of international performance.

In turn, the third block of questions sought to determine the importance of several actions for companies considered as internationalized. As to the fourth block, it sought to identify the importance of several factors for companies' internationalization process.

The fifth block measured the satisfaction of firms about the main outcomes of their internationalization process. Finally, the sixth block sought to understand the effects of internationalization on the company's performance.

In the first two blocks, respondents were encouraged to answer whether they disagreed completely (answer 1) until whether they completely agreed (answer 5). The next two blocks asked what the importance of certain factors was, with 1 being not important and 5 very important. Block 5 measured the degree of satisfaction, 1 being totally dissatisfied, and 5 totally satisfied. Finally, block 6 aimed to measure the effect of internationalization on the companies' innovative performance, 1 being no effect, and 5 a very positive effect.

Statistic Procedures and Data Analysis

The first statistical phase of the study consisted of organizing the database and adapting it to the requirements of the software we would use for the analysis. For the sake of practicality, we decided to use *Microsoft Excel* software to carry out preliminary data organization. For statistical analysis, we used the *Statistical Package for the Social Sciences* (SPSS) version 20.

Initially, to characterize the sample, we conducted descriptive analyzes so as to allow analyzing the general characteristics of the database. After this characterization, a chi-square test and a mean comparison test (ANOVA) were performed to analyze the dependence relationship between the variables and the level of significance of the mean difference for the variables in question.

Subsequently, we conducted a factor analysis test on the performance block to summarize the information we had for many variables into a smaller number of variables or factors, in order to facilitate understanding the data by identifying underlying factors or patterns (Hair et al., 2005). Finally, we performed a cluster test which allowed us to characterize the differences between the companies concerning their internationalization strategies and where

these firms export to, and then show if there were economic-financial differences between the firms.

RESULTS

This section was organized in three parts. Firstly, we present the sample characteristics. Then, we describe the process of factorial analysis to assess performance. Finally, we present the cluster analysis and the formation of company clusters.

Sample Characteristics

Initially, we sought to identify general characteristics about the sample formed by 343 valid questionnaires for companies that have had export operations for more than three. The study population comprised four (4) Brazilian states: Rio Grande do Sul, Santa Catarina, Minas Gerais and Pernambuco. We chose these states because they were ranked intermediate among Brazilian states in terms of exports. Due to this selection, the sample has a predominance of companies based in the states of Rio Grande do Sul (47%) and Santa Catarina (26%), totaling 73% of firms in the southern region of Brazil.

With regard to size, the companies were divided in turnover groups according to their classification by the Brazilian National Bank for Economic and Social Development (BNDES). Being an optional question, only 146 companies provided information about their turnover. Figure 1 shows that 56% of the companies in the sample are classified as Medium-Large (31%) and Large firms (25%). This can be explained by the fact that larger companies have more financial and human resources, as well as greater economies of scale (Wagner, 1995). Likewise, these companies are less affected by the risks of operating globally as they can dilute those risks within all activities of the firm (Leonidou, 1995; Pla-Barber & Alegre, 2007; Cavusgil et al., 2013).

Figure 1. Company size classification by turnover (n=146)

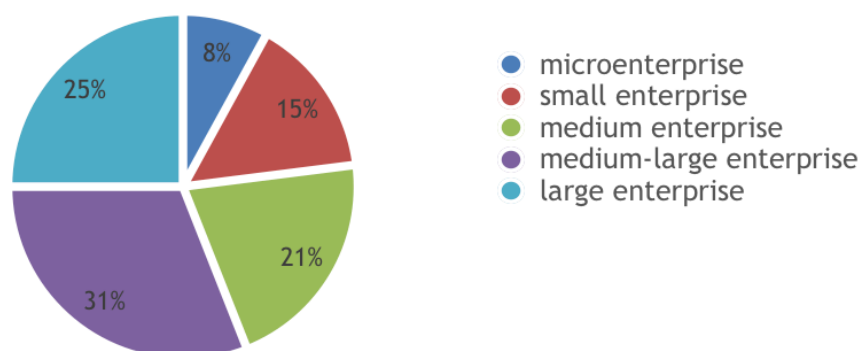


Table 1 presents information describing the age of companies, their experience in the international market and their participation in other countries. The sample has companies aged from four to 176 years old, i.e., it is diverse in terms of both size and age. The average age of the companies is 44 years old. With regard to their presence in foreign markets,

some firms started operating internationally three years ago, while others started 144 years ago, with an average of 25 years. The average number of countries where companies have a stake is 19 different nations and the share of income from international operations is, on average, 36%. The company with the largest global presence operates in 150 countries.

Table 1. General characteristics of the export companies

	No. of Companies	Minimum	Maximum	Mean	Standard Deviation
Year of internationalization	329	1872	2012	1990.90	17.754
No. of countries to which it exports	342	1	150	19.42	22.612
Year of establishment	342	1840	2012	1971.71	31.195

Of the companies studied, around two-thirds have an in-house department dedicated to internationalization activities (Table 2). Although these are the majority, it is clear that many Brazilian companies still outsource their internationalization process to contracted firms. This is evidenced by the fact that roughly 40% of respondents said that export operations occurred through third parties (trading companies and agents). Among the continents where the companies operate, the most common destination is South America, which can be explained by the geographical and cultural proximity, as well as the small psychic distance (Johanson and Vahlne, 1977).

Table 2. Existence of an internationalization-dedicated department

Existence of a sector (in-house department) dedicated to internationalization		No.	Percentage (%)
	Yes	227	66.2
	No	116	33.8
	Total	343	100.0

According to Table 3, of the 343 valid responses, 67.6% of the companies invested in product and process research and development activities. Of the

firms that invest, the average percentage of turnover invested is 6%.

Table 3. Investment in R&D

Investment in new product and process research and development		No.	Valid Percentage (%)
	Yes	232	67.6
	No	111	32.4
	Total	343	100.0

Based on the characteristics analyzed, we found a considerable diversity among firms concerning size, operation in the market and international experience.

Factor Analysis

To achieve the goal of this article, we conducted a factor analysis of the variables about the effects of internationalization on the performance of the export firms (Table 4). Data adequacy was analyzed using the Kaiser-Meyer-Olkin Measurement of Sampling Adequacy (KMO) and Bartlett's sphericity tests, which produced satisfactory results, presenting optimal (Pestana & Gageiro, 2003) and significant correlations (Hair et al., 2010).

Table 4. Factor Analysis of the effects of internationalization on performance for the last 3 years

		Components	
		1	2
Economic-Financial Performance	Company total turnover	.482	.766
	Company profitability	.557	.741
	Market share	.557	.600
Operational Performance	Client satisfaction	.692	.468
	Development of new trade channels (agreements and partnerships)	.641	
	Increase in the company's knowledge base	.780	
	Use of new firm management tools	.690	-.323
	Change in production processes	.751	-.390
	Internal process enhancement	.745	-.357
	New product development	.816	
	Collaborators' qualification	.808	-.306
	Cost reduction	.774	-.322

Based on the factor analysis, one can infer that two dimensions must be considered to assess firm performance. The first is the economic-financial factor expressed by turnover, profitability and market share figures which we use to indicate the performance of the company in relation to its industry. The second factor was denominated operational performance as it aggregates variables related to internal development, operations, management and trade processes.

Based on this differentiation, two new variables were created to indicate both the economic-financial and the operational performance. The first variable was calculated from the arithmetic mean of the first three variables (total company turnover, company profitability and market share). For the second variable, we also calculated the mean of the other nine variables (Customer satisfaction, Development of new trade channels, Increase in the company's knowledge base, Use of new firm management tools, Change in productive processes, Internal process enhancement, New product development, Collaborators' qualification, Cost reduction).

Using these two new variables, we can analyze whether companies will perform differently, considering their internationalization strategy, the continent they export to and a dedicated department or the lack thereof.

Cluster Analysis

To identify firm internationalization patterns so as to infer and analyze the configurations and behaviors that show similarities and differences between the companies, and thereby determine how they will perform, we conducted a cluster analysis. This test helped divide the companies in the sample through statistical calculation, which grouped together the ones with similar variances among the variables chosen.

To determine which variables to choose and in how many clusters the model would be most adequate, we performed a preliminary test with 20 variables, 18 of which being nominal with two categories, while the other two were the mean of the 1-5 Likert scale variables relating to the performance block that was divided in two factors, as described in the previous section.

This preliminary cluster division provided an important configuration in which the internationalization mode relation was evidenced. All companies analyzed responded that they only carry out "direct export to customers, without intermediaries". Thus, we conducted a new test in order to improve the Cluster test quality by removing the questions with negative answers for the different operation regions. After decreasing the number of variables from 20 to 14, a new Two-Step Cluster test was performed which improved cluster quality; the total number of valid companies also increased from 234 to 273.

The companies were evenly distributed between the clusters, with 136 companies (49.8%) in Cluster 1, which we denominated ‘Consolidated Internationalization Companies’, and 137 companies (50.2%) in Cluster 2, which we called “Developing International-

alization Companies, totaling 273 firms. The difference between the total sample and the number of companies in the test is due to our decision to only include in the clustering test the firms that had answered all questions chosen. Thus, after this test, we reached the final division of clusters (Table 5).

Table 5. Cluster Test

Variables	Cluster	
	Consolidated Internationalization Companies	Developing Internationalization Companies
Is there a sector (in-house department) dedicated to internationalization?	Yes	No
Was direct export to clients, without intermediaries, the internationalization mode your company chose?	Yes	Yes
Does the company operate in North America?	Yes	No
Does the company operate in Central America?	Yes	Yes
Does the company operate in South America?	Yes	Yes
Does the company operate in Eastern Europe?	Yes	No
Does the company operate in Western Europe?	Yes	No
Does the company operate in Africa?	Yes	No
Does the company operate in Oceania?	Yes	No
Does the company operate in East Asia?	Yes	No
Does the company operate in the Middle East?	Yes	No
Does the company operate in Central Asia?	Yes	No
Mean Economic-Financial Performance *	4.11	3.54
Mean Internal Activities Performance*	4.19	3.59
No. of Companies	136	137

*At 0.001 significance level (ANOVA Test)

From these results, we can infer the existence of two types of companies: those that have an internationalization-dedicated sector, are present in a greater number of continents and whose economic-financial and internal activities performance is significantly better than those that have no internationalization-dedicated department and a more limited geographical scope.

DISCUSSION

Based on the sample characteristics, it is worth stressing that the companies have a turnover above the na-

tional average and they have been operating for some time in the global market. This corroborates Rocha’s (2002) affirmation that entering international markets is seen as a consequence of corporate growth and that it is a process related to organizational learning. At the same time, firms consider internationalization important so they can have a world-class corporate image, access to funds and raw materials, use new distribution channels and dilute risks over more markets, which is in line with Cavusgil et al. (2013).

With regard to the internationalization process, the great majority of the firms fulfill orders from abroad

through indirect exports, since few firms in the sample have subsidiaries, offices or contracts with other companies abroad. According to Root (1994), internationalization through indirect exports is a less risky form of operating internationally and may therefore be more interesting for smaller companies with less international experience. In contrast, large firms, usually multinationals, tend to choose internationalization methods with higher risks, such as direct foreign investment and greenfield investment (Cavusgil et al., 2013), which is characterized by the construction of new units without, for example, buying an existing plant. Larger firms find it more important to be pioneers in new markets as well as participate in larger markets. For smaller companies, these factors are significantly less relevant.

With regard to the continents where the firms operate, the most common destination is South America, which can be explained by the geographical and cultural proximity, as well as the small psychic distance (Johanson & Vahlne, 1977). One can infer that the companies that export to more demanding countries with possibly numerous legal, political, economic or cultural constraints, must have a department dedicated to conducting direct exports to customers without intermediaries. Moreover, since they are able to export to such countries, these companies with well-structured internal activities achieve superior economic and financial performance. This conclusion corroborates the study of Castellani et al. (2016) as it indicates that multinationality implies opportunities to access new sources of knowledge and engage in new learning processes.

The results of the cluster test corroborate studies related to the Uppsala school (Johanson & Vahlne, 1977; 2009) since we may infer that companies without an in-house department dedicated to foreign trade do not have the necessary capabilities to enter markets at a greater psychic distance such as the North American, European and Asian markets. In addition, results indicate that a lower economic performance internationally is also related to international presence. This result reinforces that developing an international process is a consequence of organizational growth and development (Rocha, 2002). Therefore, companies without a department to deal specifically with those activities inherent in an internationalization process can only reach customers psychically close and with lower barriers to entry.

FINAL CONSIDERATIONS

The goal of this article was to identify firm internationalization patterns and analyze their effects on

performance. To that end, first we sought to present the characteristics of the internationalization process of firms, as well as their strategies to enter foreign markets. In the second part of data analysis, we examined the relationship between different internationalization patterns and company performance.

Based on our results, we can say that the export firms in the sample consider two fundamental characteristics for their internationalization strategies, which concern their market credibility and their need to increase market share by entering new markets. The goal of both strategies is financial return, but the actions taken by the firms in each case are significantly different. In the former, the image and the relationship with the market are priorities. In the latter, increasing and diversifying the production to serve new markets is a priority. Therefore, the motivation for internationalization is linked first to economic and financial performance and then to internal issues related to development, operation, management and marketing.

Results also indicate that there are two types of export companies: those that have a sector dedicated to internationalization and are able to be present in more continents, and therefore, concerning their economic-financial results and internal activities, have a performance that is significantly superior to the other type, i.e., those that do not have a department dedicated to internationalization. In other words, companies exporting to developed countries with more demanding consumers and possibly many legal, political, economic or cultural constraints when compared to other, less developed countries, require a specialized department to carry out direct exports to customers without intermediaries. In addition, because they are able to export to such countries, these companies must have well-structured internal activities, therefore, they can achieve superior economic and financial performance. Thus, in line with previous research (Lu e Beamish, 2001; Capar and Kotabe, 2003; Ruigrok and Wagner, 2004; Contractor, et al, 2008), the results of the present study reinforce that a greater investment and risk in internationalization can lead to a better performance.

As a managerial implication, these findings show that internationalization will have a greater impact on the economic and financial performance of companies with a greater degree of internationalization. To that end, a greater investment in the internationalization structure and in the development of inter-

national markets at a greater psychic distance, may also bring greater economic gains to the firm.

Concerning the limitations of the present study, we point out that the sample companies were concentrated in the Southern region of Brazil and considered the domestic market as their main market. Moreover, the present study did not consider certain qualitative data, such as type of product and type of contract with the client, which could provide a more accurate analysis about export companies. In this respect, further research could investigate in depth companies with different internationalization patterns.

Thus, we suggest that future studies assess the impact of innovation for each type of company and whether this is a determining factor in exports to a particular type of country. Likewise, it is important that future studies analyze the impact of each cluster analysis variable on the internationalization process of companies.

ACKNOWLEDGEMENTS

The authors gratefully acknowledge the financial support provided by the National Council for Scientific and Technological Development (CNPq).

NOTE FROM THE EDITOR

This article was presented at the XX Simpósio de Administração da Produção, Logística e Operações Internacionais in 2017

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