INTERNATIONAL COUNCIL ON KNOWLEDGE MANAGEMENT – ICKM 2018

INNOVATION IN THE INTERNATIONALIZATION PROCESSS OF BRAZILIAN EXPORTING COMPANIES

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INTRODUCTION

The internalization process carried out in interaction with innovation is an alternative to organizational performance when facing a competitive scenario. Putting both together form a strategic pair in the pursuit of international competitiveness.

Considering such scenario, this study aimed to ***identify the role of innovation in the process of internationalization of the exporting companies of southern Santa Catarina state / Brazil***.

METHODOLOGICAL PROCEDURES

This study was characterized, for purposes of investigation as a descriptive research. As for the research design, it comprises secondary data analysis and field survey through a quantitative analyses approach based on the guidelines of Diehl and Tatim (2004).

The population was based on exporting companies belonging to several sectors linked to the economy of southern Santa Catarina, more precisely the Associação dos Municípios da Região Carbonífera - AMREC (Association of Municipalities of the Coal Region), one of the three microregions that make up the southern part of the state.

METHODOLOGICAL PROCEDURES

In order to determine the population, a list of exporting companies for the year 2016 of the AMREC region, prepared and made available by the Brazilian Ministry of Industry, Foreign Trade and Services (MDIC) has been used.

Since the overall objective of this paper is to identify the role of innovation in the process of internationalization of the exporting companies of the southern Santa Catarina, it was understood that it would be relevant and proper for the reaserch to only consider companies where innovation directly affects products and services. Thus, international trade consulting firms and trading organizations were removed from the list, leaving a balance of 121 exporting companies.

METHODOLOGICAL PROCEDURES

Regarding sampling, Lakatos and Marconi (2003) define it as a small part of the original population, chosen in a timely manner. Thus, the research collection instrument was applied in 75 companies taking into account their accessibility and availability. Reinforcing this idea, Gil (2008) defines the non-probabilistic sampling of accessibility as the selection of elements in which they have access, representing, thus, the universe of the research.

The research was applied using a questionnaire (Mathias; Sakai, 2013) via Google Docs with the 75 companies selected, from June 1 to 15, 2017, effectively obtaining 12 returns, representing 9.92% of the population (121 exporting companies).

METHODOLOGICAL PROCEDURES

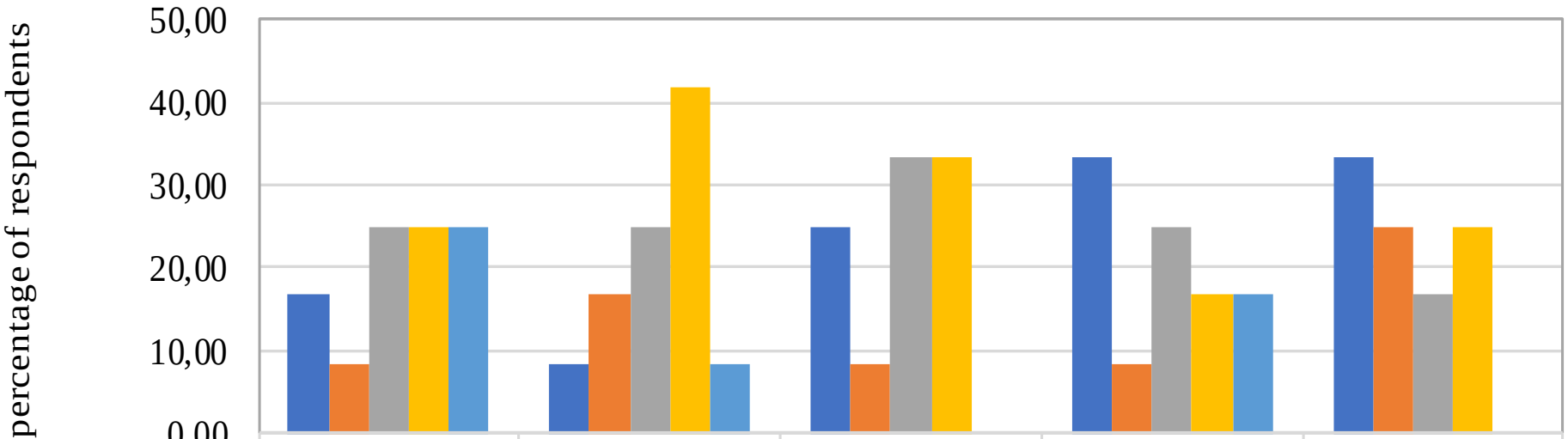
For the analysis of the data, the technique of simple frequency analysis of the answers was used and following the guidance of Duarte and Furtado (2014, p.142), which indicates that "more important than pointing out the representativeness of the quantitative results is to reflect and interpret what they mean, extrapolating to other sources and information at work and making inferences."

RESULTS : DESTINATIONS OF INVESTIMENT IN R&D ACTIVITIES

In its broadest definition, innovation is classified as something new, directly linked to the market and seeking to generate value for those who develop it, either by actually applying it to the organization or by selling it to others (Schumpeter, 1982, Tidd, Bessant and Pavitt, 2008).

This section seeks to define and analyze the most relevant elements linked to the innovative profile of the twelve companies inquired. The aim is to understand the areas in which they apply their innovation investments, their difficulties related to their application, and especially how they evaluate the impact of innovation in their international activities. Figure 1 shows the areas of investment in R&D activities of the companies analyzed.

RESULTS : DESTINATIONS OF INVESTIMENT IN R&D ACTIVITIES



	Product	Industrial processes	Processes linked to management	Marketing	Services
Never	16,67	8,33	25,00	33,33	33,33
rarely	8,33	16,67	8,33	8,33	25,00
sometimes	25,00	25,00	33,33	25,00	16,67
often	25,00	41,67	33,33	16,67	25,00
ever	25,00	8,33	0,00	16,67	0,00

Figure 1 - Main destinations for investment in R&D activities.

RESULTS : DESTINATIONS OF INVESTIMENT IN R&D ACTIVITIES

According to the Oslo Manual (OECD, 2007), the types of innovation focus on *i)* Product / Service Innovation *ii)* Process Innovation iii) Innovation in Marketing and iv) Organizational Innovation.

In the research it was found that the habit of investing in innovations is more representative in industrial processes, where 41.6% of companies report investing frequently, as well as in processes linked to management, also characterized as organizational innovation, with a total sum of 33.3%.

On the other hand, 33.3% of companies report never targeting their investments for innovation in services and marketing, making it clear that their focuses revolve around innovations in processes and products.

RESULTS: PROFILE OF INNOVATIVE PRACTICES

In order to identify the innovative profile of the twelve companies surveyed, Table 1 (A) discusses the internal instruments to stimulate innovations as well as whether the company uses public financial support to carry out these activities.

SECTOR	%	INTERNAL INSTRUMENTS	%	PUBLIC FINANCIAL SUPORT	%
Metalworking	41.67	No	41.67	No	41.70
Ceramic Tile	25.00	Yes	16.67	No	25.00
		No	8.33		
Agrifood	16.67	Yes	16.67	No	16.67
Nonmetallic Minerals	8.33	Yes	8.33	FINEP	8.33
Chemical and Plastic Products Industry	8.33	Yes	8.33	No	8.33

Table 1 (A) - Profile of innovative practices.

RESULTS: PROFILE OF INNOVATIVE PRACTICES

It is noticed that there is equality between companies that own (50%) and do not have (50.00%) internal instruments to stimulate internal innovations by their employees. According to Alencar (1995) provinding means for employees to exercise their ideas brings innumerable short and long term benefits to both the organization and the individual.

In terms of public financial support for the development of innovations, only 8.30% (one company) reported having made use of it in the last year, more specifically through FINEP, a fund agent linked to the Ministry of Science, Technology, Innovation and Communications (MCTIC).

RESULTS: PROFILE OF INNOVATIVE PRACTICES

Still talking about the innovative profile of the companies under study, Table 1 (B) presents issues pertaining to the ability to perceive opportunities, innovation itself and how R & D has been helping the company in external operations.

RESULTS: PROFILE OF INNOVATIVE PRACTICES

SECTOR	%	PERCEIVING THE NEED FOR INNOVATION	%	CAPACITY TO VIEW OPPORTUNITIES	%	R&D AID IN EXTERNAL ACTIVITIES	%
Metalworking	41.67	Sometimes	33.33	Sometimes	16.67	Never	8.33
						Sometimes	16.67
				Often	8.33	Often	8.33
				Always	8.33	Always	8.33
		Often	8.33	Rarely	8.33		
Ceramic Tile	25.00	Rarely	16.67	Never	8.33	Often	16.67
		Always	8.33	Often	16.67	Always	8.33
Agrifood	16.67	Sometimes	16.67	Sometimes	16.67	Sometimes	16.67
Nonmetallic Minerals	8.33	Sometimes	8.33	Often	8.33	Often	8.33
Chemical and Plastic Products Industry	8.33	Rarely	8.33	Always	8.33	Always	8.33

Table 1 (B) - Profile of innovative practices.

RESULTS: PROFILE OF INNOVATIVE PRACTICES

The metalworking industry is the most difficult to perceive when innovations, both in products / services and in management / processes, are necessary, since 33.33% of them report experiencing such difficulties "sometimes" and 8.33% "often".

Porter (1989) reports that only companies that have the capacity to identify innovation needs that competitors did not perceive or choose ignore will be the companies that will create competitive advantages. It is also noticed that the ceramic tile industry was the most important, with 16.67% of companies rarely having difficulties to perceive the need for innovation.

RESULTS: PROFILE OF INNOVATIVE PRACTICES

When we question them about their ability to visualize opportunities and take advantage of them, 50% of them feel that they are always or frequently capable of doing so. On the contrary, 50.00% feel the opposite, demonstrating that there is still a division between the perception of the companies, in which, it must be stimulated and trained, as it becomes vital these days.

R&D aid in external activities has proved to be satisfactory, since 58.33% of companies feel that this aid has an "always" or "often" impact on cross-border operations. This point is reinforced by Mais (2010) since in order to overcome difficulties related to the country's bureaucratic structure; companies in Santa Catarina constantly invest in R & D in order to achieve a differentiated position when compared to those with a governmental culture of external incentive.

RESULTS: INTRODUCTION OF INNOVATIONS IN THE LAST YEAR

Intoduction of Innovations		Metalworking	Ceramic Tile	Agrifood	Nonmetallic Minerals	Chemical and Plastic Products	Total
New produtcs	Yes	41.67	25.00	16.67	0.00	8.33	91.67
	No	0.00	0.00	0.00	8.33	0.00	8.33
Design or packaging changes	Yes	25.00	25.00	16.67	0.00	8.33	75.00
	No	16.67	0.00	0.00	8.33	0.00	25.00
New selling methods	Yes	16.67	833	0.00	8.33	8.33	41.67
	No	25.00	16.67	16.67	0.00	0.00	58.33
New methods of logistics	Yes	8.33	25.00	8.33	8.33	0.00	50.00
	No	33.33	0.00	8.33	0.00	8.33	50.00
New support methods for systems	Yes	0.00	25.00	16.67	8.33	8.33	58.33
	No	16.67	0.00	0.00	0.00	0.00	16.67

Table 2 - Overview of the introduction of innovations in the last year.

RESULTS: INTRODUCTION OF INNOVATIONS IN THE LAST YEAR

Intoduction of Innovations		Metalworking	Ceramic Tile	Agrifood	Nonmetallic Minerals	Chemical and Plastic Products	Total
Creation or acquisition of trademarks	Yes	0.00	0.00	0.00	0.00	8.33	8.33
	No	41.67	25.00	16.67	8.33	0.00	91.67
New industrial process	Yes	25.00	25.00	16.67	0.00	8.33	75.00
	No	16.67	0.00	0.00	8.33	0.00	25.00
New forms of management	Yes	16.67	8.33	8.33	8.33	8.33	50.00
	No	25.00	16.67	8.33	0.00	0.00	50.00
Differentiated services	Yes	25.00	16.67	0.00	8.33	8.33	58.33
	No	16.67	8.33	16.67	0.00	0.00	41.67
Total		**41.67**	**25.00**	**16.67**	**8.33**	**8.33**	**100.00**

Table 2 - Overview of the introduction of innovations in the last year.

RESULTS: INTRODUCTION OF INNOVATIONS IN THE LAST YEAR

It can be noticed that 91.60% of the companies in southern Santa Catarina prioritize the orientation of their innovative activities to the creation of new products.

Then, both with a representativeness of 75.00%, are the new or significantly improved changes in design or packaging (excluding seasonal changes) and in industrial processes.

The introduction of new services is represented with 58.30%, and it should be mentioned that the agrifood sector in its entirety (100% of the companies) did not introduce new or significantly improved services during the last year and 58.30% for systems support, an indispensable resource for carrying out activities in organizations.

RESULTS: INTRODUCTION OF INNOVATIONS IN THE LAST YEAR

The introduction of new forms of management represented a medium impact, reaching 50% of companies, as well as the introduction of new methods of logistics (50%).

Regarding the creation or acquisition of brands, explained by Hrdlicka et al. (2008) as the practice with the highest degree of control, and consequently, with the highest degree of risk involved, it is noted that this was not performed by the majority of companies (91.67%), where only one company, of the chemicals and plastics industry reported having entered the creation or acquisition of brands in the last year.

RESULTS: INNOVATION IN THE EXTERNAL PROCESSES

SECTOR	%	PERCENTAGE OF REVENUE FOR INNOVATION	%	IMPACT OF INNOVATION IN EXTERNAL ACTION	%	STARTING POINT OF INNOVATIONS	%
Metalworking	41.67	Below 1%	25.00	0,00%	8.33	Matrix for the subsidiaries	41.67
		Between 1 and 5%	8.33	2% to 24%	16.67		
		Above 20%	8.33	25% to 49%	8.33		
				100,00%	8.33		
Ceramic Tile	25.00	Between 1 and 5%	25.00	2% to 24%	25.00	Matrix for the subsidiaries	16.67
						Both	8.33
Agrifood	16.67	Between 1 and 5%	16.67	2% to 24%	16.67	Both	8.33
						Matrix for the subsidiaries	8.33
Nonmetallic Minerals	8.33	Between 5 and 10%	8.33	2% to 24%	8.33	Matrix for the subsidiaries	8.33
Chemical and Plastic Products	8.33	Between 5 and 10%	8.33	50% to 74%	8.33	Matrix for the subsidiaries	8.33

Table 3 - Innovation in external processes.

RESULTS: INNOVATION IN THE EXTERNAL PROCESSES

When analyzing the percentage of revenue for innovation, the metalworking industry, an area known for demanding constant innovations, was the only one company (8.30%) mentioning allocating more than 20% of revenue towards innovation. Pintec (2014) points out that these investments, despite still being low, are linked to the high costs of innovation, to excessive risks as well as insecurity and the fear of the "new".

Regarding the impact of innovation on external performance, 66.67% of the companies in the last six years described having had a 2% to 24% impact on their international activities, representing on an international context a medium performance of innovation by the southern Santa Catarina firms.

FINAL CONSIDERATIONS

- As far as the universe of innovative practices is concerned, it can be noted that most of the analyzed companies invest mainly in **innovation of processes**, both **industria**l and related to **management**, as well as products.

- They claim, however, that they allocate between **1% and 5%** of their revenue towards innovation.

- The use of **public financial support** does not show as much representativeness in the analyzed companies, since only one of them has already made use of it.

- Similarly, the use and existence of internal instruments linked to innovation by employees are present in only half of the organizations. It is noted that many organizations find it difficult to perceive when changes in both **products / services and management / processes** are necessary, bringing with them competitive obstacles.

FINAL CONSIDERATIONS

- In the last year most companies introduced **new products, new industrial processes**, and **new services** as well as made significant changes in the **design of their products**.

- The surveyed organizations feel that in the last six years the use of innovation has generated an average impact on the company, increasing its performance in the foreign market by **2% to 24%.**

- It is suggested the continuous and consistent **implementation of an innovative culture for organizations** interested in competing at high levels in the world market, as well as the search for information on the existing financing lines for the development of innovation projects.

- Therefore, future studies can deepen the theme in question and extend it to other regions of both Santa Catarina and Brazil, in order to **outline the innovative and international profile** of local companies, as well as to apply it with a larger number of organizations, as this was a limitation of the current study.

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