



## **Choice of Distribution Channels in the Internationalization Process of Companies Belonging to Medellin's Clusters**

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# TABLE OF CONTENTS

1.	INTRODUCTION .....	4
2.	LITERATURE REVIEW .....	5
3.	METHODOLOGY .....	12
4.	FINDINGS .....	14
4.1	Data Distribution .....	15
4.2	Total Sample .....	16
4.3	Construction Cluster .....	17
4.4	Information Technology and Communication Cluster .....	17
4.5	Business Tourism, Fairs and Conventions Cluster .....	17
4.6	Electricity Cluster.....	18
4.7	Textile – Design and Fashion Cluster .....	19
4.8	Medicine and Dental Services Cluster .....	20
4.9	Variables.....	21
4.9.1	Asset specificity .....	21
4.9.2	Technological uncertainty.....	23
4.9.3	Volume uncertainty.....	24
4.9.4	Behavioral uncertainty .....	26
4.9.5	Transaction frequency .....	28
5	DISCUSSION AND CONCLUSIONS .....	29
6	APPENDIX .....	32
6.1	Interview .....	32
6.2	Answers: Construction Cluster .....	35
6.3	Answers: Electricity Cluster .....	36
6.4	Answers: Textile – Design and Fashion Cluster .....	37
6.5	Answers: Information Technology and Communication Cluster .....	38
6.6	Answers: Medicine and Dental Services Cluster (I) .....	39
6.7	Answers: Medicine and Dental Services Cluster (II) .....	40
6.8	Answers: Business Tourism, Fairs and Conventions Cluster .....	41
7	BIBLIOGRAPHY .....	42

## **TABLES**

Table 1. Companies by sector .....	<b>13</b>
Table 2. Data distribution .....	<b>15</b>
Table 3. Summarized answers of the total sample .....	<b>16</b>
Table 4. Answers in Electricity Cluster (2 Companies) .....	<b>18</b>
Table 5. Answers in Textile – Design and Fashion Cluster (3 Companies) .....	<b>19</b>
Table 6. Answers in Medicine and Dental Service Cluster (5 Companies) .....	<b>20</b>
Table 7. Answers in Construction Cluster .....	<b>35</b>
Table 8. Answers in Electricity Cluster .....	<b>36</b>
Table 9. Answers in Textile – Desging and Fashion Cluster .....	<b>37</b>
Table 10. Answers in Information Technology and Communication Cluster .....	<b>38</b>
Table 11. Answers in Medicine and Dental Services Cluster (I) .....	<b>39</b>
Table 12. Answers in Medicine and Dental Services Cluster (II) .....	<b>40</b>
Table 13. Answers in Business Tourism, Fairs and Conventions Cluster .....	<b>41</b>

## **ABSTRACT**

In an internationalization process, companies have to choose the distribution channels in order to develop successful strategies and reach goals in monetary and sales terms. Five variables (asset specificity, technological uncertainty, volume uncertainty, behavioral uncertainty and transaction frequency), developed in Transaction Costs Economy Theory, are a way to understand the impacts of foreign sales in internal procedures and the reasons why companies apply or not a specific distribution channel. In the case of companies belonging to Medellin Ciudad Cluster initiative, these variables highlight the lack of company's internal preparation (own resources and technology) and the low diversity of distribution channels.

## **KEY WORDS**

Distribution channels, Medellin Ciudad Cluster, Transaction cost economy theory, internationalization process.

## **1. INTRODUCTION**

The internationalization process implies the distribution channel selection in a wide range of possibilities; additionally, asset specificity, technological uncertainty, volume uncertainty, behavioral uncertainty and transaction frequency variables, have been exposed in Transaction Costs Economy Theory as a way to explain the effects of international activities within companies. This research aims to find if this theory can be fit into Medellin Ciudad Cluster companies and if tendencies can be stressed in order to create possible choices explanation of distribution channels. The methodology will be based on making short tests in distribution channel decisions and exploring the performance implications in six economic sectors.

This work is divided in 5 sections. The first one is the Literature Review, which is an overview of the theory by diverse authors in the main topics: type and characteristics of distribution channels, a transaction cost economy theory's explanation about the variables that impact the final decision of distribution channel and, finally, e-commerce as an alternative distribution channel. Next, the

Methodology section shows the process of collecting information, sources, time and questions sent to the companies. In the Findings section, information is crossed (if the amount of companies allows it) and organized according to cluster and variable. The fourth section, Discussion and Conclusion, seeks to support the theory with numbers and to create generalizations and explanations. Finally, in the Appendix section, the interview and respective answers are described in detail by each company and cluster.

## **2. LITERATURE REVIEW**

There are two basic entry models on distribution channel decision: direct export (exporter has the entire control of the activities) and independent exporter channels (low control in distribution, market, customers and uncertain relationships with distributors) (Pinzon, Sanches and others, 2011) and the best option choice does not have consensus due to multiple variables that can affect the strategic corporate purposes. Regarding direct sales, Tsay and Agrawal (2001) highlighted motivations that companies in the industries (regardless of the sector) have when they need to select direct sales. Those motivations are “(1) resellers carry only small assortments of a manufacturer’s products, (2) direct control of distribution and pricing can lead to higher profit margins, (3) resellers can use their power to extract various concessions from the manufacturers, (4) manufacturers can provide a broader product selection in a better ambience with higher service in direct outlets, (5) more flexibility in experimenting with product attributes, (6) closer contact with customers, and (7) protection from crises faced by resellers”, nevertheless, the authors recognize the important role of intermediaries in efficiency, brand building, market coverage and sales effort. They conclude with a Stern, El-Ansary, and Coughlan statement: “It is an old axiom of marketing that it is possible to eliminate wholesalers (or any middlemen, for that matter) but impossible to eliminate their functions.”

Intermediary sales are the opposite side of direct sales, and they can be categorized as export merchants and export agents. “Export merchants are those

intermediaries that take title to their goods, buying and selling at their own risk. Export agents perform a number of services on behalf of their suppliers but they do not take title to the goods they carry. Export intermediaries provide services to both suppliers and customers. They identify suppliers or customers, offer financing and credit, provide distribution infrastructure, and collect payment on behalf of suppliers” (Li, 2004). Meanwhile, Money (2008) argues that companies select independent distributors in order “to minimize such internal costs and to provide greater flexibility to the manufacturer”. The midpoint could be a partnership with the distributors as a “source of long-term strategy advantage in a consolidating industry” (Adam and Sandy, 2009) if these partner has a strong position within the market. This kind of relationships are not necessarily based on exclusiveness, which allows the producer to reach more customers in diverse markets with diverse partners; however it is mandatory that both value the same goals, in order for them to have a balanced share of efforts.

A critical variable in distribution channel choice is the transaction costs and the benefits that the selected channel means in saving money, time and human resources. Coase (1937) and Williamson (1975) developed the Transaction Costs Economic theory (TCE), which has been applied over many years within universities and companies in order to understand why and how companies endure regarding human resources, market conditions and capabilities. The “main premise on which their theory rests is that transaction cost economizing is the most important explanatory variable underlying the emergence and evolution of hierarchies” (Meramveliotakis and Milonakis, 2010). Coase developed his idea about the function of the firm as unlimited minimization of costs through hierarchical structures based on power and coercion within the context of four spheres (Vasiliauskiene, Snieska and Venclauskiene, 2011): “1) production organization considering limiting factors of the company; 2) international trade while considering multiple aspects of transaction costs differentiating them from transport, institutional and cultural costs; 3) direct foreign investment considering outsourcing and business organization on a world scale; 4) trade nets considering social and regional role of the nets and international standards which facilitate resource

interchange.” Williamson adds the concepts of efficiency and cost as critical aspects in the emergence of firms.

Entry modes and relocation decisions are studied by Coase and Williamson, but their statements are disputed by other authors. Rugman and Verbeke (2005) argue that Williamson’s arguments fail to explain decision-making regarding the impact of geographic scope, entry modes and regional capabilities. Zhao, Luo and Suh (2004), found that several “contributions to our understanding of the nature of entry mode choice, it is only one perspective among others, and it has its limitations. In particular, our main findings suggest that future empirical studies using TCE logic to articulate international expansion should improve specification, replication and extension”. According to Williamson, “transaction costs create market failures, which, in turn, lead to an inefficient allocation of resources. Firms, then, are devices that internalize these failures, leading the whole economic system toward an efficient allocation of resources.” (Meramveliotakis and Milonakis, 2010). Finally, even though Dyer (1997) accepts that “transaction costs increase with increases in asset specificity”, he reports that the results of Transaction Costs Economy (TCE) can vary depending on the place and the nature of local government. “The point is that while transaction costs may increase with asset specificity, they will also vary independently of asset specificity. Further, the transactors’ choice of governance will influence not only transaction costs but also the incentives to engage in value creation initiatives”, and he finds that Japanese auto-makers suffer lower transaction costs than US auto-makers due to “differences in their commitment to suppliers to engage in repeated exchange, differences in the scale and scope of exchanges between the supplier and automaker, differences in interfirm information sharing, differences in the mix of safeguards chosen to govern the exchange, notably a reliance on self-enforcing safeguards which are efficacious over an indefinite time horizon (as opposed to contracts which are only effective for a finite time horizon), and differences in investments in cospecialized assets.”

Analyses of the internationalization process conclude that Transaction Costs Economy theory is based on uncertainties. Bettel, Englen and Muller (2010) select and deep five of them in order to explain the SMEs distribution channel choices: Asset specificity (“It is often a result of investing in human capital; the time and effort employed to acquire the firm-specific knowledge needed for downstream activities is among the most common forms of these investments found in distribution channels. In indirect distribution, specific assets make an intermediary difficult to replace. Given the high switching cost, independent intermediaries may behave opportunistically. The ultimate safeguard for specific assets is therefore to internalize the transaction in question. Superior monitoring and surveillance properties of direct distribution channels tend to reduce the threat of opportunistic behavior” Ibid., 2010); technological uncertainty (“unpredictable changes in the standards of components or end products, or by general technological developments” Ibid., 2010; this variable should be handed through indirect distribution because partners assume costs of invest in technological capabilities in order to retain the business relationships); volume uncertainty (refers to future sales and output; direct distribution allows faster solutions of conflicts and adjustments of markets needs); behavioral uncertainty (“refers to difficulties in evaluating certain performance aspects of distribution channels” Ibid., 2010; vertical integration or direct channel is the way to make measures about internal capabilities) and transaction frequency (associated with the bureaucracy costs and hierarchical changes depending the amount of sales in the companies, which prefer direct forms of distribution); Chircu and Mahajan (2006) support this selection coding as: “combination of channel(s), product(s), customer(s), and shopping occasion(s) for which it can offer value”. In Hendershott and Zhang’s (2006) point of view, intermediaries appear in indirect distribution channels, and with “different transaction costs purchase a good from the upstream firm at a wholesale price” because they act as price makers to the consumers; in the market “all players are risk neutral and optimize their expected gains.” Anderson and Gaiton (1986) conclude “that international entry mode choices are most usefully

and tractably viewed as a tradeoff between control and the cost of resource commitments, often under conditions of considerable risk and uncertainty”.

In a similar way, Hadaya and DeSerres (2008) consider that companies should take into account other variables when they are choosing the distribution channel because “the choice between channels does not involve technological considerations alone but also contracting issues” and the Transaction Costs Economy provide important assumptions like bounded rationality: “no decision maker could ever produce a decision tree that would map recourse for every possible change in the environment of an exchange between trading partners”; opportunism: “trading partners may opt to pursue their own personal interests rather than the common interests of all members of an exchange, a reality decision makers must address when considering different governance options”; and risk neutrality, which in economic terms implies that under the same expected returns, companies don’t have particular preferences between high risk or low risk alternatives. Bettel, Englen and Muller (2010) conclude that there is a “very limited knowledge on what factors determine the channel choice” due to the assumption that there is no possibility to transfer experiences between companies; it means, experiences are not taken into account within sectors.

An alternative option is the e-commerce and the use of new technology in International Business. In general terms, e-commerce is defined as “the buying and selling of information, products, and services via computer networks” (Kartiwi and McGregor, 2007) with a business model based on a “company’s intention to create and capture value by linking new technological environments to business strategies” impacted by critical factors. Kshetri 2007 notes that “while economic and sociopolitical factors focus primarily on the environmental characteristics, the cognitive component reflects organizational and individual behaviors” and states that economic barriers include unavailability of credit cards, infrastructure, market void, and lower bandwidth which means that “a longer time is needed to transfer data and hence a lower relative advantage of the Internet”. Palvia and Grover (2011) recognize that customer attitudes play an important role in applying this

strategy, as “having a favorable attitude toward business employees (i.e., face-to-face service) can actually decrease self-service technology usage”, meaning that internet and e-commerce could be rejected by a focus group because customers make decisions according to three attributes: purchasing costs, product preference and comparative risk preference, which can have different weights depending on personal preferences.

A distribution channel for the electronic market has three types of exchange: of goods, of money and of information; in Webb’s words (2002): “the Internet is quite capable of replacing conventional distribution channels when it comes to communicating information and conducting transactions. However, the Internet is unable to provide for the physical exchange of tangible goods”. According to Palvia and Grover (2011), “in an online shopping environment, users can choose to make purchases at different sales channels, whereas their choices of technology are limited in the workplace. Organizations, in general, have limited resources and cannot provide many choices or flexibility to users. In addition, the incompatibility across different technologies exacerbates this problem, rendering a smaller set of alternatives”. Kartiwi and McGregor (2007) find that as e-commerce is based on low costs, access to global customers and equal conditions in front of large companies. SMEs have taken this as a source of competitive advantage; however, as Roman and Rolf (2005) warn, SMEs don’t have the monetary resources for applying new web applications due to high costs (management systems and web-based shopping systems). Finally, Dube, Liu and Wynter (2006) highlight, “the success of firms engaged in e-commerce depends on their ability to understand the dynamics of the market and also to efficiently exploit the knowledge for improved strategic decisions”.

Xia and Zhang (2010) focus their arguments on the company, that is, how the internet and new technologies impact sales and internal performance, concluding that “mere online presence does not necessarily yield significant performance improvement” and that “it could be the firm’s capability and efforts, not just the online channel itself, that ultimately lead to superior performance. Several

researchers have argued that the role and impact of the internet is more in supplementing the existing business, rather than in fundamentally transforming the nature of business". Chang, Jackson and Gover (2006) argue that "if e-commerce is not adopted and integrated at the top, firms may not garner the appropriate resources in order to create the unique capabilities necessary to compete in the virtual market. In such cases it could yield a potentially useless appendage to the business".

Regardless the kind of distribution channel selected, Hendershott and Zhang (2006) find that "the upstream firm may continue to use the intermediated channel because the intermediaries may provide a more efficient channel in terms of transaction and return costs as well as allow price discrimination. When the intermediated discount factor (relative to the direct discount factor) and the upstream firm's transaction and return costs (relative to the intermediaries' transaction costs) are both high enough, the intermediated channel is used exclusively. When the upstream firm's transactions and return costs are not too high and the intermediated discount factor is sufficiently low, both channels are used simultaneously" and the simply suggestion would be to design a combination of distribution channels in order to take advantage of each model. As Webb (2002) said "the primary motivations for supplier firms establishing more and more complex distribution arrangements are the desire to increase market share and reduce costs", also companies reach adaptation in customer and market patterns, internet fits in all kind of products, it is a way to sale manufacturing capacity due to saturated channels and it can improve competitiveness.

In short, "in order to assist the customers in decision-making, businesses may wish to adopt a mechanism which facilitates price comparison across various sales channels, thus preventing possible loss of a sale" (Palvia and Grover, 2011). In Ramaseshan and Patton's words (1994), the mechanism has to respond to the crucial question of whether the new product should be distributed indirectly or directly, with both methods bringing particular characteristics: the indirect option "provides very little or no control over its international distribution", while the later provides more control, commitment and responsibilities. In sum, there is much at

stake in this decision and firms need “to evaluate the alternative arrangements and select the optimal channel structure”, finally the authors suggest a third alternative: a mix between direct and indirect modes, which “would be an optimum solution to their specific situation”.

### **3. METHODOLOGY**

Medellin Ciudad Cluster is a public-private initiative developed 10 years ago to enhance competitive advantages in companies belonging to six local sectors<sup>1</sup>:

- Electricity.
- Construction.
- Business tourism, fairs and conventions.
- Medicine and dental services.
- Information technology and communication.
- Textile-design and fashion.

Support is offered to companies in three phases: start up, strengthening and consolidation. Also, this program provides valuable information for understanding how and why Medellin has changed over the past decade. According to the Medellin Ciudad Cluster web page, the textile-design and fashion cluster has the biggest share with 2,022 companies (48%) and information technology and communication has the lowest with 83 (2%).

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<sup>1</sup> [www.medellinciudadcluster.com](http://www.medellinciudadcluster.com)

Table 1. Companies by sector  
Source: Medellin Ciudad Cluster' web page

CLUSTER	QUANTITY OF COMPANIES
Electricity	328
Textile - Design and Fashion	2,022
Construction	744
Business Tourism, Fairs and Conventions	794
Medicine and Dental Services	223
Information Technology and Communication	83

This research focused on distribution channels selection in the case of companies with international business processes, based on the weight of these channels in the internal exports (in each company and cluster). As Xia and Zhang (2010) state, “the current consensus is that control firms should be as close to sample firms as possible and should be selected based on industry, size, and prior performance”. A qualitative analysis was applied with the purpose of highlight the main characteristic in the selected companies about the variables related with the distribution channel process. Data were collected for 5 months through interviews with export managers or international division managers in each company, which have different size, belong to diverse sectors and have not equal internationalization processes states in order to avoid bias final result due to focus on a single sector. The sample frame consisted of 125 companies from Medellin, which were collected randomly, based on information from diverse sources: Medellin Ciudad Cluster web page, Medellin's Chamber of Commerce internal reports, and clusters directors. As a result of e-mailing and calling approaches, the sample ended up being 13 companies.

The steps to obtain the information and the objective in each one were:

1. Calls: To get direct contact's name, mail, telephone and appointment for interview.

2. Mail: To explain the purpose of the search, the kind of questions, the presentation of master program and the information required. Also, the interview was attached and a personal interview was requested.
3. Personal Interview or call to remember the interview.

Interviews aimed to collect data in: export experience, volume of exports, international heritage, kind and age of technology, profit expectation in exports, product knowledge (know how), importance of post-sale service, past growth of export market, expectation regarding future growth, market proximity, kind of human resources training, kind and quantity of channel distribution and e-commerce activity. The analysis will look for implications regarding the five variables proposed by Bretel, Engelen and Muller (2010): asset specificity, technological uncertainty, volume uncertainty, behavioral uncertainty and transaction frequency. In short, two forms of data were used: historical data for conceptual development and business responses for framework validation. This study, as proposed by Chircu and Mahajan (2006), will increase its validity and reliability through data and investigator triangulation.

Finally, charts were built with no companies' names due to confidentiality on that topic asked by a large portion of the sample. This even was a pre-condition for the interview and a confidentiality clause was signed. Then, in Findings and Appendix section, companies were denoted with numbers, Clusters are named as such.

#### **4. FINDINGS**

The sample in Information Technology and Communication Cluster, Business Tourism, Fairs and Conventions Cluster and Construction Cluster contain one company each. Therefore, it is not relevant to make analysis inside these Clusters (between companies within the cluster). Nevertheless, in the next sections, information of these companies were exposed in order to recognize specific characteristics.

#### 4.1 Data Distribution

The next chart summarizes the data collection process and the answers in each Cluster. There were 20 companies contacted without internationalization process but belonging to the Clusters and 15 which not belong to Medellin Ciudad Cluster. The low availability to provide information (confidentiality) and the perception of time loss because of answering the interview were the main reasons about the low quantity of effective results.

Table 2. Data distribution

Cluster	No Information given	Answers	Rejected Answer	Total Contacted Companies
Electricity	4	2	10	16
Textile-Design and Fashion	6	3	6	15
Construction	11	1	5	17
Business Tourism, Fairs and Conventions	8	1	6	15
Medicine and Dental Services	5	5	5	15
Information Technology and Communication	5	1	6	12
<b>Total</b>	<b>39</b>	<b>13</b>	<b>38</b>	<b>90</b>
<b>Percentage</b>	<b>43%</b>	<b>14%</b>	<b>42%</b>	<b>100%</b>

Charts of Construction Cluster, Information Technology and Communication Cluster and Business Tourism, Fairs and Convention Cluster can be viewed in appendix sections, because individual sample contain one company. In 4.3, 4.4 and 4.5 sections a general overview will be presented.

## 4.2 Total Sample

This chart shows the percentages of the total sample by question. The questions 4, 9, 11, 14, 16 and 21 are open questions and will support the final analysis. It means, there is not a measure in the next chart. Additionally, despite that one of the objectives of this paper was to analyze the use of e-commerce, the overall result was negative in this topic, and then, these questions are not included in the charts but in the discussion and conclusions section.

Table 3. Summarized answers of the total sample

TOTAL SAMPLE		ANSWER						TOTAL
QUESTION		a	b	c	d	e	f	
1	For how many years has your firm been in the export market?	23%	31%	38%	8%			100%
2	How many percent represents your company's exports of the total sales volume of your company?	69%	31%	0%	0%			100%
3	What most accurately describes the level of international heritage of your company's main export decision maker?	62%	0%	0%	38%			100%
5	How many years have you been using each of these technologies?	31%	38%	8%	23%			100%
6	How many times has your company changed the technology or processes in order to export?	31%	23%	46%				100%
7	Does your organization expect foreign sales to be more profitable than domestic sales?	8%	31%	46%	15%			100%
8	How much product knowledge (know-how) is required to sell your firm's product?	0%	0%	8%	15%	77%		100%
10	Does your product require post-sale service?	92%	8%					100%
12	What best describes the rate of export sales growth versus domestic sales growth over the past ten years?. In terms of volume	23%	38%	8%	23%	8%		100%
13	In the future, do you expect your export markets to grow faster (more than 50%) or slower (less than 50%) than your domestic markets?	38%	62%	0%	0%	0%		100%
15	How would you describe the proximity of your export market?	77%	23%					100%
17	How did your company acquire the human capital resources in order to export your products?	0%	31%	69%	0%			100%
18	What percent change in international sales volume typically occurs on a monthly basis?	54%	23%	23%				100%
19	How many kinds of distribution channel have you used?	31%	8%	31%	8%	8%	15%	100%
20	What are the effects of increases in international sales on managerial costs?	46%	0%	0%	8%	38%	8%	100%
21	Describe the distribution channel your company currently uses	69%	8%	8%	8%	8%		100%
22	Describe the distribution channel your company has used previously but not today (if any)	31%	8%	8%	8%	38%	8%	100%

### **4.3 Construction Cluster**

In this Cluster one company is the sample. This company has exported for more than 11 years with 25% share of international sales against the total volume sales. Currently, it uses direct sales as distribution channel and it used to have intermediaries, but not now any more anymore.

### **4.4 Information Technology and Communication Cluster**

This is a one company sample. This company exports since five years ago. The volume of international sales is at least 5% of the total sales volume and it sells through direct sales, even though it tried to commercialize through a subsidiary but it did not work.

### **4.5 Business Tourism, Fairs and Conventions Cluster**

The only company in this Cluster has exported since 6 to 10 years ago, and the international sales have been almost 50% of the domestic sales. It used e-commerce distribution a long time ago without achieving any good results; currently, it sells through an international wholesaler.

## 4.6 Electricity Cluster

The sample has two companies. Company 1 has not had continuous exporter activity, and Company 2 has exported since, at least, 5 years ago. The level of international sales is low (less than 10%) and is based only on direct sales. Company 1 used to have a subsidiary channel, but it did not work.

Table 4. Answers in Electricity Cluster (2 Companies)

<b>ELECTRICITY (2 COMPANIES)</b>		<b>ANSWER</b>					
<b>QUESTION</b>	<b>a</b>	<b>b</b>	<b>c</b>	<b>d</b>	<b>e</b>	<b>f</b>	<b>TOTAL</b>
For how many years has your firm been in the export market?	50%	0%	0%	50%			100%
How many percent represents your company's exports of the total sales volume of your company?	100%	0%	0%	0%			100%
What most accurately describes the level of international heritage of your company's main export decision maker?	100%	0%	0%	0%			100%
How many years have you been using each of these technologies?	50%	0%	0%	50%			100%
How many times has your company changed the technology or processes in order to export?	50%	0%	50%				100%
Does your organization expect foreign sales to be more profitable than domestic sales?	50%	0%	0%	50%			100%
How much product knowledge (know-how) is required to sell your firm's product?	0%	0%	50%	0%	0%		100%
Does your product require post-sale service?	50%	50%					100%
What best describes the rate of export sales growth versus domestic sales growth over the past ten years?. In terms of volume	0%	100%	0%	0%	0%		100%
In the future, do you expect your export markets to grow faster (more than 50%) or slower (less than 50%) than your domestic markets?	50%	50%	0%	0%	0%		100%
How would you describe the proximity of your export market?	100%	0%					100%
How did your company acquire the human capital resources in order to export your products?	0%	100%	0%				100%
What percent change in international sales volume typically occurs on a monthly basis?	50%	0%	50%				100%
How many kinds of distribution channel have you used?	50%	50%	0%	0%	0%	0%	100%
What are the effects of increases in international sales on managerial costs?	50%	0%	0%	0%	0%	0%	100%
Describe the distribution channel your company currently uses	50%	0%	0%	0%	0%		100%
Describe the distribution channel your company has used previously but not today (if any)	50%	0%	50%	0%	0%	0%	100%

## 4.7 Textile – Design and Fashion Cluster

The sample contains three companies. Two of them (1 and 3) have exported since almost 10 years ago, Company 2 has exported since almost 5 years ago, and the percentage of international sales compared to the total sales volume is from 26% to 50% in all the cases. They have used up to 5 types of distribution channels and, currently, Companies 1 and 2 use direct sales (which Company 3 has not used) and Company 3 an intermediary (which Company 2 has never used).

Table 5. Answers in Textile – Design and Fashion Cluster (3 Companies)

TEXTILE, DESIGN AND FASHION (3 COMPANIES)		ANSWER						TOTAL
	QUESTION	a	b	c	d	e	f	
1	For how many years has your firm been in the export market?	0%	67%	33%	0%			100%
2	How many percent represents your company's exports of the total sales volume of your company?	0%	100%	0%	0%			100%
3	What most accurately describes the level of international heritage of your company's main export decision maker?	33%	0%	0%	67%			100%
5	How many years have you been using each of these technologies?	0%	100%	0%				100%
6	How many times has your company changed the technology or processes in order to export?	33%	33%	33%				100%
7	Does your organization expect foreign sales to be more profitable than domestic sales?	0%	33%	33%	33%			100%
8	How much product knowledge (know-how) is required to sell your firm's product?	0%	0%	0%	67%	33%		100%
10	Does your product require post-sale service?	100%	0%					100%
12	What best describes the rate of export sales growth versus domestic sales growth over the past ten years?. In terms of volume	0%	0%	33%	33%	33%		100%
13	In the future, do you expect your export markets to grow faster (more than 50%) or slower (less than 50%) than your domestic markets?	33%	67%		0%			100%
15	How would you describe the proximity of your export market?	67%	33%					100%
17	How did your company acquire the human capital resources in order to export your products?	0%	0%	100%				100%
18	What percent change in international sales volume typically occurs on a monthly basis?	33%	67%	0%				100%
19	How many kinds of distribution channel have you used?	0%	0%	67%	0%	33%	0%	100%
20	What are the effects of increases in international sales on managerial costs?	33%	0%	0%	33%	0%	33%	100%
21	Describe the distribution channel your company currently uses	67%	0%	33%	0%	0%		100%
22	Describe the distribution channel your company has used previously but not today (if any)	33%	33%	0%	33%	0%	0%	100%

## 4.8 Medicine and Dental Services Cluster

Five companies answered the interview, and all they use a unique way to internationalize services: patients come to Colombia. One of the companies has an international office in order to make commercial activities, but surgical procedures are not performed there. Company 1 has exported since 1 to 5 years ago; Companies 2, 4 and 5 since 11 to 20 years ago and Company 3 since 6 to 10 years ago. International sales do not have significant share of the total sales, in fact, measures of international patients (statistically) vary depending on the company standards. And despite that the Cluster has a definition; there is no consensus about what an international patient is.

Table 6. Answers in Medicine and Dental Service Cluster (5 Companies)

MEDICINE AND DENTAL SERVICES (5 COMPANIES)		ANSWERS						TOTAL
	QUESTION	a	b	c	d	e	f	
1	For how many years has your firm been in the export market?	20%	20%	60%	0%			100%
2	How many percent represents your company's exports of the total sales volume of your company?	100%	0%	0%	0%			100%
3	What most accurately describes the level of international heritage of your company's main export decision maker?	80%	0%	0%	20%			100%
5	How many years have you been using each of these technologies?	40%	20%	20%				80%
6	How many times has your company changed the technology or processes in order to export?	40%	0%	60%				100%
7	Does your organization expect foreign sales to be more profitable than domestic sales?	0%	40%	60%	0%			100%
8	How much product knowledge (know-how) is required to sell your firm's product?	0%	0%	0%	0%	100%		100%
10	Does your product require post-sale service?	100%	0%					100%
12	What best describes the rate of export sales growth versus domestic sales growth over the past ten years?. In terms of volume	40%	60%	0%	0%	0%		100%
13	In the future, do you expect your export markets to grow faster (more than 50%) or slower (less than 50%) than your domestic markets?	40%	60%					100%
15	How would you describe the proximity of your export market?	80%	20%					100%
17	How did your company acquire the human capital resources in order to export your products?	0%	40%	60%				100%
18	What percent change in international sales volume typically occurs on a monthly basis?	100%	0%	0%				100%
19	How many kinds of distribution channel have you used?	20%	0%	20%	20%	0%	40%	100%
20	What are the effects of increases in international sales on managerial costs?	60%	0%	0%	0%	40%	0%	100%
21	Describe the distribution channel your company currently uses	80%	20%	0%	0%	0%		100%
22	Describe the distribution channel your company has used previously but not today (if any)	0%	0%	0%	0%	100%	0%	100%

## 4.9 Variables

The variables were classified based on the interview, Literature Review section and analysis variables exposed in the previous section: asset specificity (questions 3, 8, 9, 17), technological uncertainty (4, 5, 6), volume uncertainty (7, 12, 13, 14), behavioral uncertainty (10, 11, 15, 16, 20), transaction frequency (18) and general information (1, 2, 19, 21, 22).

### 4.9.1 Asset specificity

#### 4.9.1.1 Total Sample

77% of the companies described themselves as strong in the specific knowledge or “know-how” variable in the entire sector. 15% rated medium and their arguments are: the differentiation in the service or product, uses of particular technology, and specialization and professionalization of services. In human resources acquisition, the tendency is to make a mix between hiring new employees and training current employees (69%), 31% of the companies only train current employees. 62% managers and decision makers have lived most of their life in Colombia, while 38% has had significant international experience. According to Williamson’s point of view, asset specificity has a strong impact in the distribution channel selection. Results reflect direct distribution (69%) as the most popular channel and, in many cases (39%), a distribution channel has not been applied. A possible explanation can be, the use of a direct channel as a way to protect this specific knowledge through current employees training.

#### 4.9.1.2 Construction Cluster

In a general view and with one company, results have the same type of answers that the total sample. It has a strong know-how with specific knowledge based on engineering studies and design. About the human capital, the company is weak in the sales department due to production capacity, this means, employees can’t make aggressive international advertising campaigns because the national demand is enough in capacity terms.

#### 4.9.1.3 Information Technology and Communication Cluster

This company has a strong know-how based on quality certifications and experience in successful and satisfactory technology commercialization process. In the company's words, it is because sales in technology are based on intangible final products and customer trust in previous clients. Human resources are trained or hired (if current employees do not have the required skills) in order to face international activity. Managers have lived in other country than Colombia in academic and labor stages.

#### 4.9.1.4 Business Tourism, Fairs and Conventions Cluster

Strong know-how consists in the intangible resources that the company has: public relations, languages skills and geographical knowledge, which allow it to advise the client and satisfy the individual needs and pleasures. Employees required in international activities are trained or hired if current staff does not have skills. General Directors lived in foreign countries before they manage the company.

#### 4.9.1.5 Electricity Cluster

Companies in this Electricity Cluster have opposite behavior about asset specificity. While Company 1 does not have a specific know-how, the Company 2 considers it has a strong knowledge in terms of technical offer. In both companies, human resources are trained. In the short-term, it is not required to hire external employees with additional skills when international processes are taking place.

#### 4.9.1.6 Textile – Design and Fashion Cluster

While two companies (2 and 3) consider they have some know-how, the other one considers it has a strong know-how; for example in variety of fabrics (clothing and finishes) and markets trends. Company 2 highlights the impact of language as an asset in business terms. International heritage is based on international managers (studied and lived a long time in foreign countries) and employees needed for international activities are trained or hired depending on the internal human resources availability.

#### 4.9.1.7 Medicine and Dental Services Cluster

All companies had unanimously answered that they have a strong know-how, focused in two ways: specific medical knowledge and specific sector dynamic. This means, medical procedures, technology, Colombian medical system and health market. In human resources assets two companies (3 and 5) train their employees; Companies 1, 2 and 4 train current staff or hire new employees depending on the particular skill. General directors and managers lived and studied most of the time in Colombia.

#### 4.9.2 Technological uncertainty

##### 4.9.2.1 Total Sample

Apart from the medicine Cluster, the results reflect that companies do not support their sales on technology. Information and communication technologies (ICT) are used by 38% of the companies; machines or hard technology (Femtosecond, Laser EX500, Topolyser, laboratories, prosthesis, PET) support services in the medicine companies and those are changed in short periods to ensure constant innovation forefront of health services. Technology (hard and soft) has been used for 6 to 10 years in 38% of the total cases, and 31% of the companies have never made a change their technology in order to improve export processes.

##### 4.9.2.2 Construction Cluster

This company offers services based on common software and equipment. It does not apply any high technology despite its Cluster requires and promotes high technological standards and innovation. Here, highly skilled human resources, getting them through training and hiring, are the key.

##### 4.9.2.3 Information Technology and Communication Cluster

Soft technology is constantly improving and it is linked to customer requirements in order to satisfy all the necessities and particular developments. Thus, this company argues that in five years they have been developing international business, technology has changed 5 times.

#### 4.9.2.4 Business Tourism, Fairs and Conventions Cluster

The company uses technology focused on improving the communication and fastening the responses. It has been used almost for 6 years and it has been updated 5 times in order to be competitive in the international environment.

#### 4.9.2.5 Electricity Cluster

According to asset specificity, the companies do not use technology in order to offer its services. Company 2 does it in techniques terms (not in I+D or high tech technology) and it has been used for by five years without any changes (the same time they have been exporting).

#### 4.9.2.6 Textile – Design and Fashion Cluster

Technology has been used from 6 to 10 years. Company 1 has changed almost 5 times the type of technology being used, while Company 2 and 3 has used the same technology all the time.

#### 4.9.2.7 Medicine and Dental Services Cluster

The high technology used in these companies does not depend on the international sales; they are improving continuously in machines and procedures because of the local demand, which has created additional capacities to offer in the international markets. In this way, changes cannot be considered as a result of international market share gaining but as a market independent need from the client.

### 4.9.3 Volume uncertainty

#### 4.9.3.1 Total sample

In the last 10 years, the increase in international sales has been 0%-50% slower than the increase in domestic sales in 38% of the companies. In less measure (23% of the companies), international sales have grown up 0% - 50% faster. The expectation in the medium run trend remains and 62% of the companies expect that international sales will grow 0% - 50% slower than domestic sales; despite that 46% of the companies thinks international sales are more profitable than domestic ones and 35% thinks both ways are equally profitable.

#### 4.9.3.2 Construction Cluster

This company has had lower increases in international sales in the last 10 years (compared to the national ones). This trend is expected to continue due to the low international promotion and high domestic demand, despite of international sales being more profitable than domestic sales.

#### 4.9.3.3 Information Technology and Communication Cluster

Trading in the technology sector (national and international) is a long and slow process because internal customer validation takes a lot of stages. Then, company expects exported sales to grow 50% slower than domestic sales, which is the current level.

#### 4.9.3.4 Electricity Cluster

While Company 1 does not care about the profit in the international sales, Company 2 expects this to be less profitable than the domestic ones. Both companies have projected growth in national sales in the highest level because the local market is undersupplied. Even though, they both accept they have not done strong international marketing and promotion.

#### 4.9.3.5 Textile – Design and Fashion Cluster

The profit in international sales is diverse. Company 1 expects the same profits with the current international sales growing faster than the domestic sales, however it could expects that the international sales increase 50% slower than local ones. Company 2 does not care about profits, and the sales level (nationally and internationally) have grown at the same rate with budgeted foreign sales, which is lower than domestic sales. Company 3 expects more profits with international sales growing more than 50% of the domestic sales in the last 10 years. However, they expect an increase in the profits in the future. In all the cases, the companies seem not to have positive expectations about the future international sales. This is because of the costs of marketing, strong international competitors, and logistics processes.

#### 4.9.3.6 Medicine and Dental Services Cluster

The profit in medical services is a debate that companies explained based on the tradeoff between getting additional benefits because of the patient is from abroad and because of the patient is a human being regardless of his nationality. Then, two companies expect international sales to be equally profitable than local sales, while three (2, 3, 5) expect the international ones to be more profitable. In all cases, the international sales have a minimal share in the whole volume of sales and the perspective looks set to continue due to external variables (Colombian violence<sup>2</sup>, Cluster local strategy and in each company: revaluation, international costs and unskilled employees in terms of languages).

#### 4.9.4 Behavioral uncertainty

##### 4.9.4.1 Total sample

Companies prefer to use direct sales as distribution channel and to offer post sale service. 92% of services and goods require these. The biggest diversity is at the Fashion and Medicine Clusters with 3 through 5 channel distribution. However, hospitals and medical institution managers highlighted that the current way to export is to attend the patients in Colombia. It means, companies do not have infrastructure in foreign countries. They promote the services there but the final service is held in Colombia. Nevertheless, companies prefer to explore close countries. 77% argues that geographical proximity is a critical factor due to culture, low costs and fast clients' solutions even though the effect in managerial costs is 0%-25% in 46% of the companies and 0% in 38% of the cases. This tendency is the same within each Cluster.

##### 4.9.4.2 Construction Cluster

This company has designed post sale services focused on customers understanding the service and the final product. Also, it creates loyalty through support and final personalized adjustment. Peru, Ecuador and Dominican Republic are its international market, it means, geographical proximity is a fact. Finally, and

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<sup>2</sup> These interviews were done before news of peace talks

despite of the transportation cost assumed in order to support the clients, international sales do not have effects in managerial costs.

#### 4.9.4.3 Information Technology and Communication Cluster

Post sale service is indispensable due to required training process of clients' employees. It is provided through "*mesa de ayuda*" (personally), e-mail, social network or a mixture of them. Even though geographical proximity is not important, company exports to nearby countries: Chile, Costa Rica, Peru, Ecuador, Puerto Rico, Salvador, Dominican Republic, Venezuela, and Guatemala. Finally, international sales do not have effects in managerial costs.

#### 4.9.4.4 Business Tourism, Fairs and Conventions Cluster

Post-sale service is offered parallel to the sale, because there is a permanent control about the clients' satisfaction while the service is consumed. Geographical proximity is focus on Ecuador and Peru, due to its importance in the regional market not only to Colombia but to any place in the world.

#### 4.9.4.5 Electricity Cluster

Companies have looked for foreign opportunities in neighboring countries: Ecuador, Venezuela, Costa Rica, and Honduras, due to the importance of proximity to make successful international business based on required post sale service.

#### 4.9.4.6 Textile – Design and Fashion Cluster

Fashion companies offer post sale service based on customer satisfaction and changes of products with nonconformities. About proximity, Company 1 does not consider it important, in fact, this company exports to 13 countries (5 of them in Europe: Spain, France, Greece, Sweden and Malaysia); Companies 2 and 3 export to nearby countries: United States, Mexico, Costa Rica, Peru, Chile, Ecuador, as Company 1 as well. Finally, the effect of international sales in managerial costs is diverse. While in Company 1 an increase in the sales has an inverse effect in the costs, in Company 3 sales increases them between 76% and 100%; international sales in Company 2 have a moderate effect (from 0% to 25%).

#### 4.9.4.7 Medicine and Dental Services Cluster

Medical service requires post sale service in all the companies. It consists in diagnostic test, postoperative controls, periodic reviews, and outpatient appointments. However, Companies 3 and 4 do not offer this because it implies high logistics costs. In geographical proximity terms, Company 5 does not consider it important, but all the companies have international activities in neighboring countries: Netherlands Antilles, Canada, United States, Caribbean, and Aruba; one of the companies also provides services in Spain and Germany. Finally, the effects in managerial costs are nonexistent in two companies (2 and 5) and low (no more than 25%) in companies 1, 3 and 4.

#### 4.9.5 Transaction frequency

##### 4.9.5.1 Total Sample

Fluctuation in international sales are low (0% - 10%) according to 54% of the companies. These results, based on answer 14, are supported in the weak ties and low international diffusion that companies can build. Local market and levels of production monopolize production capacities. Companies have to make huge efforts (financial and promotional) in order to gain a share in international market where there is strong competition.

##### 4.9.5.2 Construction Cluster

This company does not have data in international sales behavior to allow to understand the transaction frequency. In manager's words: "it is a fact that it is a minimal rate".

##### 4.9.5.3 Information Technology and Communication Cluster

This company does not have data in international sales behavior which allows to understand the transaction frequency. Its business strategy is not focus on its international activity; therefore, data is not used separately from the local ones.

##### 4.9.5.4 Business Tourism, Fairs and Conventions Cluster

Changes in international sales volume are about 20% per month.

#### 4.9.5.5 Electricity Cluster

Changes in international sales do not have a trend because these companies, as it has been said, do not have made an effort to encourage these markets. However, Company 1 argues that international sales can change 1% to 10% monthly.

#### 4.9.5.6 Textile – Design and Fashion Cluster

Monthly volume in international sales changes from 11% to 20% in Companies 1 and 3. Company 2 has minimal changes, less than 10%.

#### 4.9.5.7 Medicine and Dental Services Cluster

Monthly changes in international sales are low in all the companies. The explanation was based on the regional strategy based on local demand; even though the Director of the Cluster and Medellín's Mayor have highlighted the international strategy that has been developed within the Cluster. Companies are not prepared and aligned in this way. They do not have bilingual staffs and that is a critical limitation.

## **5 DISCUSSION AND CONCLUSIONS**

In general terms, companies belonging to Medellín Ciudad Cluster initiative do not have a clear internationalization strategy. Their focus is in the local market because they recognize the uncovered demand. However, they do not show further studies in order to take advantages of the Free Trade Agreements, international agencies (Proexport, for example) or sectorial guilds which allow them to reach economies of scale and biggest utilities. In other way, the most popular distribution channel, direct sales, is a sign of the lack of trust or strong relationships with foreign stakeholders. However, according to Tsay and Agrawal's (2011) arguments, with direct sales, companies would have higher profit margins, higher services (including post sale services), more flexibility, contact and control; instead companies' answers (besides Textile – Design and Fashion Cluster) reflect low expectation about margins, flexibility, and high quality in post-sale service.

About relocation resources (Williamson, 1975 and Transaction Cost Economy Theory), in Medicine and Dental Services Cluster, one company decided to renounce the Cluster and currently it has international representation through

foreign agencies in terms of commercializing its services. It allowed them to internalize their international strategic sector failures and the company decided to relocate resources through their own resources. On the overall Cluster, the unwillingness to share commissions, the idea to cover the diffusion and promotion of the companies and the final services, and the abolition of intermediaries has had a slow international path.

It is relevant to take into account Engelen, Muler and Schilke's conclusions in their paper "Distribution Channel Choice of New Entrepreneurial Ventures" (2010). They highlighted the role of market complexity, specialization, and human resources in the success of the sales internationalization. Also, they mentioned the strategy of recognizing the "importance of customer retention" and "product customization" in the choice of the distribution channel and to take into account that "differentiation through the core offering turns out not to be a significant driver of distribution channel choice." About transaction frequency, they concluded that companies "with a low transaction frequency may be forced to distribute their products on their own until they have created a critical mass or a sound reputation in the market that makes them an attractive partner for potential distributors" but it is required to encourage the ties. This is an important question to develop in future studies or to Cluster's directors. Authors go on saying, "firms that sell products that have strong synergies with complementary products tend to choose indirect channels of distribution. By combining the products of several suppliers, indirect channels are better able to offer comprehensive solutions to customers".

About asset specificity, companies have unprepared assets, it means, lack of human resources skills in languages and international experiences (academic and professional), the low use of high technology does not match the expectation of more sales and highest profitable rates and the low data base which support strategic decisions. In Medicine and Dental Services Cluster, the use of technology and strong know-how are local consequences based on growing domestic demand, it is not an international strategy supported in data and patients classification.

Textile – Design and Fashion Cluster is the exception in the sample; this cluster has reached important goals in terms of international variables with diverse use in distribution channel and the bases about expectation in exceptional sales profit in next year. A high international heritage in decisions makers, more international markets without care for geographical proximity, skilled human resources and high quality in post-sale services could be the reasons about the successful processes in this sector,

The general negative answer about the use of e-commerce should generate a question in order to know if reasons are derived from companies, market or international environment. In the literature review, the use of e-commerce was taken for granted due to author's arguments: low costs, flexibility, access to global customers and equal condition with big companies. Companies arguments were focused in the e-commerce as best second option because its new and traditional distribution channels provide comfort and safety in exploratory international process.

Finally, public policies' impacts may be evaluated in order to recognize facts where companies have to be encouraged and if Medellin Ciudad Cluster initiative has to be focused in internationalization terms. This work is a first draft about the perspective of the companies and an important conclusion is that internationalization is weak and there are significant gaps to fill. Maybe, local entrepreneurs are in national comfortable states and foreign markets represent huge risk in terms of money, time, and resources. There is a real governmental opportunity to design efficient and effective economic and trade policies.

Further and future research is required in order to identify clearly the unseen purposes of these companies when developing international strategies. Some questions should be answered:

- Is it important the international heritage in the international strategy decision in the company?
- Does geographical proximity perception depend on the effective business done?
- Is the technology a key factor in the internationalization process?

- Should be mandatory, that a governmental program has to be designed with an international perspective? Or is it enough to promote the local development?

## 6 APPENDIX

### 6.1 Interview

1. For how many years has your firm been in the export market?
  - a. 1 to 5 years
  - b. 6 to 10 years
  - c. 11 to 20 years
  - d. Noncontinuous periods
2. How many percent represents your company's exports of the total sales volume of your company?
  - a. 0% - 25%
  - b. 26% - 50%
  - c. 51% - 75%
  - d. 76% - 100%
3. What most accurately describes the level of international heritage of your company's main export decision maker?
  - a. Decision maker, parents and grand-parents were all born in and have lived full-time in Colombia.
  - b. One or more than of decision maker's grand-parents were born in or lived for more than a year in another country.
  - c. One or both of decision maker's parents were born in or lived for more than a year in another country.
  - d. Decision maker was born in or lived for more than a year in another country.
4. Name up to three key technologies you are using today to export your products/services.
5. How many years have you been using each of these technologies?
  - a. 1 to 5 years
  - b. 6 to 10 years
  - c. 11 to 20 years
  - d. NA
6. How many times has your company changed the technology or processes in order to export?
  - a. Never
  - b. 1 to 5 times

- c. NA
- 7. Does your organization expect foreign sales to be more profitable than domestic sales?
  - a. Foreign sales less profitable
  - b. Foreign sales equally profitable
  - c. Foreign sales more profitable
  - d. It is not important
- 8. How much product knowledge (know-how) is required to sell your firm's product?
  - a. None
  - b. Low
  - c. Medium
  - d. High
  - e. Strong product knowledge
- 9. What specific product knowledge is required? Please specify
- 10. Does your product require post-sale service?
  - a. Yes
  - b. No
- 11. What kind of post-sale service is required?
- 12. What best describes the rate of export sales growth versus domestic sales growth over the past ten years?. In terms of volume
  - a. Exports have grown at less than half the rate of domestic sales.
  - b. Exports have grown 0 - 50% slower than domestic sales.
  - c. Exports have grown at the same rate as domestic sales.
  - d. Exports have grown 0 - 50% faster than domestic sales.
  - e. Exports have grown more than 50% faster than domestic sales.
- 13. In the future, do you expect your export markets to grow faster (more than 50%) or slower (less than 50%) than your domestic markets?
  - a. Exports have grown at less than half the rate of domestic sales.
  - b. Exports have grown 0 - 50% slower than domestic sales.
  - c. Exports have grown at the same rate as domestic sales.
  - d. Exports have grown 0 - 50% faster than domestic sales.
  - e. Exports have grown more than 50% faster than domestic sales.
- 14. Why?
- 15. How would you describe the proximity of your export market?
  - a. Important
  - b. No important

16. What countries is your company exporting to?
17. How did your company acquire the human capital resources in order to export your products?
- a. Hired new employees.
  - b. Trained current employees.
  - c. Both.
  - d. Other - Please specify.
18. What percent change in international sales volume typically occurs on a monthly basis?
- a. 0% - 10%
  - b. 11% - 20%
  - c. Detrended
19. How many kinds of distribution channel have you used?
- a. 1
  - b. 2
  - c. 3
  - d. 4
  - e. 5
  - f. 0
20. What are the effects of increases in international sales on managerial costs?
- a. 0% - 25%
  - b. 26% - 50%
  - c. 51% - 75%
  - d. 76% - 100%
  - e. None
  - f. Reduces
21. Describe the distribution channel your company currently uses
- a. Direct sales
  - b. Subsidiary
  - c. Intermediary
  - d. Wholesaler
  - e. Some of these
22. Describe the distribution channel your company has used previously but not today (if any)
- a. None
  - b. Direct sale
  - c. Subsidiary
  - d. Intermediary
  - e. NA
  - f. E-commerce

## 6.2 Answers: Construction Cluster

Table 7. Answers in Construction Cluster

CLUSTER	CONSTRUCTION
COMPANY	1
QUESTION	
For how many years has your firm been in the export market?	c
How many percent represents your company's exports of the total sales volume of your company?	a
What most accurately describes the level of international heritage of your company's main export decision maker?	a
Name up to three key technologies you are using today to export your products/services.	a
How many years have you been using each of these technologies?	d
How many times has your company changed the technology or processes in order to export?	c
Does your organization expect foreign sales to be more profitable than domestic sales?	c
How much product knowledge (know-how) is required to sell your firm's product?	e
What specific product knowledge is required? Please specify	Diseño y estudios de ingeniería, simulación de sistemas eléctricos y energéticos, conocimiento de teoría regulatoria de servicio públicos
Does your product require post-sale service?	a
What kind of post sales service is required?	Explicar los estudios en presentaciones presenciales y dar respuesta a inquietudes o ejecutar cambios sobre los proyectos presentados, con posterioridad a su entrega final
What best describes the rate of export sales growth versus domestic sales growth over the past ten years?. In terms of volume	d
In the future, do you expect your export markets to grow faster (more than 50%) or slower (less than 50%) than your domestic markets?	b
Why?	Existe una competencia cada vez más fuerte, las necesidades de expansión de los sistemas tiene límites, no se puede desatender el mercado nacional, se requiere una comercialización más agresiva
How would you describe the proximity of your export market?	a
What countries is your company exporting to?	Perú, Ecuador, República Dominicana
How did your company acquire the human capital resources in order to export your products?	c
What percent change in international sales volume typically occurs on a monthly basis?	d
How many kinds of distribution channel have you used?	a
What are the effects of increases in international sales on managerial costs?	e
Describe the distribution channel your company currently uses	a
Describe the distribution channel your company has used previously but not today (if any)	a

## 6.3 Answers: Electricity Cluster

Table 8. Answers in Electricity Cluster

CLUSTER	ELECTRICITY	
COMPANY	1	2
QUESTION		
For how many years has your firm been in the export market?	d	a
How many percent represents your company's exports of the total sales volume of your company?	a	a
What most accurately describes the level of international heritage of your company's main export decision maker?	a	a
Name up to three key technologies you are using today to export your products/services.	a	b
How many years have you been using each of these technologies?	d	a
How many times has your company changed the technology or processes in order to export?	c	a
Does your organization expect foreign sales to be more profitable than domestic sales?	d	a
How much product knowledge (know-how) is required to sell your firm's product?	c	e
What specific product knowledge is required? Please specify	Ninguno	Conocimiento técnico relacionado con el cálculo de elementos resistivos
Does your product require post-sale service?	a	b
What kind of post sales service is required?	Técnico para dar soluciones o mejorar la aplicación entregada	NA
What best describes the rate of export sales growth versus domestic sales growth over the past ten years?. In terms of volume	b	b
In the future, do you expect your export markets to grow faster (more than 50%) or slower (less than 50%) than your domestic markets?	b	a
Why?	Nuestro fuerte no son las exportaciones, aún el mercado regional y nacional tiene posibilidad de continuar y de buscar seguirlo atendiendo por nosotros.	Debido a un intenso trabajo de mercadeo electrónico.
How would you describe the proximity of your export market?	a	a
What countries is your company exporting to?	Ecuador	Venezuela, Ecuador, Costa Rica, Honduras
How did your company acquire the human capital resources in order to export your products?	b	b
What percent change in international sales volume typically occurs on a monthly basis?	d	a
How many kinds of distribution channel have you used?	b	a
What are the effects of increases in international sales on managerial costs?	a	e
Describe the distribution channel your company currently uses	e	a
Describe the distribution channel your company has used previously but not today (if any)	c	a

## 6.4 Answers: Textile – Design and Fashion Cluster

Table 9. Answers in Textile – Design and Fashion Cluster

CLUSTER	TEXTILE - DESIGN AND FASHION		
COMPANY	1	2	3
QUESTION			
For how many years has your firm been in the export market?	b	c	b
How many percent represents your company's exports of the total sales volume of your company?	b	b	b
What most accurately describes the level of international heritage of your company's main export decision maker?	d	d	a
Name up to three key technologies you are using today to export your products/services.	b	b	b
How many years have you been using each of these technologies?	b	b	b
How many times has your company changed the technology or processes in order to export?	b	c	a
Does your organization expect foreign sales to be more profitable than domestic sales?	b	d	c
How much product knowledge (know-how) is required to sell your firm's product?	e	d	d
What specific product knowledge is required? Please specify	Conocimiento del estilo de vida del cliente, bondades de las telas	Idioma	Telas inteligentes, confección y acabados
Does your product require post-sale service?	a	a	a
What kind of post sales service is required?	Saber la aceptación del producto, saber qué productos están demandando los clientes, entrega de catálogos con el estilo de vida de los clientes.	Un seguimiento permanente a lo ofrecido y despachado y verificación de que lo ofrecido concuerde con lo pedido.	Seguimiento a ventas del cliente final y probablemente cambios de mercancía.
What best describes the rate of export sales growth versus domestic sales growth over the past ten years?. In terms of volume	d	c	e
In the future, do you expect your export markets to grow faster (more than 50%) or slower (less than 50%) than your domestic markets?	b	b	a
Why?	Se vende marca y hacer marca en mercados nuevos toma tiempo.	Logística, menos costos,	Tenemos productos que los consumen mas fácilmente en el exterior
How would you describe the proximity of your export market?	b	a	a
What countries is your company exporting to?	Ecuador, Peru, Venezuela, Costa Rica, Puerto Rico, Trinidad y Tobago, Aruba, Curacao, USA, España, Francia, Grecia, Suecia, Malasia, EEU	Estados Unidos, México, Costa Rica, España, Perú, Ecuador y Chile	Estados Unidos
How did your company acquire the human capital resources in order to export your products?	c	c	c
What percent change in international sales volume typically occurs on a monthly basis?	b	a	b
How many kinds of distribution channel have you used?	e	c	c
What are the effects of increases in international sales on managerial costs?	f	a	d
Describe the distribution channel your company currently uses	a	a	c
Describe the distribution channel your company has used previously but not today (if any)	a	d	b

## 6.5 Answers: Information Technology and Communication Cluster

Table 10. Answers in Information Technology and Communication Cluster

CLUSTER	INFORMATION TECHNOLOGY AND COMMUNICATION
COMPANY	1
QUESTION	
For how many years has your firm been in the export market?	a
How many percent represents your company's exports of the total sales volume of your company?	a
What most accurately describes the level of international heritage of your company's main export decision maker?	d
Name up to three key technologies you are using today to export your products/services.	b
How many years have you been using each of these technologies?	a
How many times has your company changed the technology or processes in order to export?	b
Does your organization expect foreign sales to be more profitable than domestic sales?	b
How much product knowledge (know-how) is required to sell your firm's product?	e
What specific product knowledge is required? Please specify	Conocimiento especializado en procesos y tecnología, certificaciones en la implementación, despliegue y uso de las tecnologías que se comercializan, experiencia comprobada en la comercialización de dichos procesos y tecnologías
Does your product require post-sale service?	a
What kind of post sales service is required?	Atención personalizada, línea de atención al cliente, mesa de ayuda, correo electrónico, redes sociales. Dependiendo de cada producto, se usa uno u otro o una combinación de varios.
What best describes the rate of export sales growth versus domestic sales growth over the past ten years?. In terms of volume	a
In the future, do you expect your export markets to grow faster (more than 50%) or slower (less than 50%) than your domestic markets?	b
Why?	Porque el ciclo de ventas de nuestros servicios es largo.
How would you describe the proximity of your export market?	b
What countries is your company exporting to?	Chile, Costa Rica, Ecuador, Perú, Puerto Rico, Salvador, República Dominicana, Venezuela, Guatemala
How did your company acquire the human capital resources in order to export your products?	c
What percent change in international sales volume typically occurs on a monthly basis?	c
How many kinds of distribution channel have you used?	c
What are the effects of increases in international sales on managerial costs?	e
Describe the distribution channel your company currently uses	a
Describe the distribution channel your company has used previously but not today (if any)	a

## 6.6 Answers: Medicine and Dental Services Cluster (I)

Table 11. Answers in Medicine and Dental Services Cluster (I)

CLUSTER	MEDICINE AND DENTAL SERVICES		
COMPANY	1	2	3
QUESTION			
For how many years has your firm been in the export market?	a	c	b
How many percent represents your company's exports of the total sales volume of your company?	a	a	a
What most accurately describes the level of international heritage of your company's main export decision maker?	a	a	a
Name up to three key technologies you are using today to export your products/services.	b	b	b
How many years have you been using each of these technologies?	a	c	b
How many times has your company changed the technology or processes in order to export?	c	a	a
Does your organization expect foreign sales to be more profitable than domestic sales?	b	c	c
How much product knowledge (know-how) is required to sell your firm's product?	e	e	e
What specific product knowledge is required? Please specify	Conocimientos de mercado, conocimientos empresariales, análisis de mercados y estudios de comportamiento de pacientes internacionales, competencia internacional, adelantos tecnológicos	Prótesis, implantología, perodoncia, endodoncia, odontología estética o general	Conocer dinámica turismo salud, Funcionamiento sistema de salud colombiano, conocer profundamente el portafolio de servicios de la institución
Does your product require post-sale service?	a	a	a
What kind of post sales service is required?	Exámenes de diagnóstico, llamadas después del procedimiento para revisar resultados y controlar posibles riesgos de las cirugías que en nuestra especialidad son muy bajos casi mínimos.	Revisiones periódicas o información virtual de cómo evoluciona	No lo ofrecen
What best describes the rate of export sales growth versus domestic sales growth over the past ten years?. In terms of volume	b	b	a
In the future, do you expect your export markets to grow faster (more than 50%) or slower (less than 50%) than your domestic markets?	b	a	a
Why?	Existen muchos factores externos que afectan la comercialización de los servicios a nivel internacional para la atención de pacientes, bilingüismo, costos para el montaje de oficinas internacionales a partir de la situación del sector salud, reglamentación, trabajo en conjunto de turismo y salud, entre otros.	Por los resultados que se esperan con el cluster y la proyección internacional que tenemos en mente.	A pesar de la estrategia de ciudad si la mantiene eso cambia en 10 años del 10 al 15% de los ingresos internacionales. Va ganando fuerza y se mantiene, dependen de un variables externas, estrategia inamadura
How would you describe the proximity of your export market?	a	a	a
What countries is your company exporting to?	Antillas Holandesas	Estados Unidos, Canadá, España, Alemania y Aruba	
How did your company acquire the human capital resources in order to export your products?	c	c	b
What percent change in international sales volume typically occurs on a monthly basis?	a	a	a
How many kinds of distribution channel have you used?	c	f	a
What are the effects of increases in international sales on managerial costs?	a	e	a
Describe the distribution channel your company currently uses	a	a	a
Describe the distribution channel your company has used previously but not today (if any)	e	e	e

## 6.7 Answers: Medicine and Dental Services Cluster (II)

Table 12. Answers in Medicine and Dental Services Cluster (II)

CLUSTER	MEDICINE AND DENTAL SERVICES	
COMPANY	4	5
QUESTION		
For how many years has your firm been in the export market?	c	c
How many percent represents your company's exports of the total sales volume of your company?	a	a
What most accurately describes the level of international heritage of your company's main export decision maker?	d	a
Name up to three key technologies you are using today to export your products/services.	b	b
How many years have you been using each of these technologies?	d	a
How many times has your company changed the technology or processes in order to export?	c	c
Does your organization expect foreign sales to be more profitable than domestic sales?	b	c
How much product knowledge (know-how) is required to sell your firm's product?	e	e
What specific product knowledge is required? Please specify	Promoción: EEUU latinos (directa en eventos para colombiano en medios de comunicacione para colombianps consulado, restaurantes) SIGLA proexport o coomeva internacional. Proexport: destino Colombia y Medellin, aseguradora, prensa. Referiddos: por buen servicio.	Capacidad instalada y profesionales con que cuenta la institución y manejar completamente el lenguaje médico y tecnológico del medio para poder dar a conocer lo que realiza la institución.
Does your product require post-sale service?	a	a
What kind of post sales service is required?	No lo ofrecen	Seguimiento post egreso, Contar con oportunidad para asignación de citas ambulatorias, personal idóneo para el manejo de sus quejas, reclamos o sugerencias y estrategias publicitarias que posiciones a la Clínica en el medio
What best describes the rate of export sales growth versus domestic sales growth over the past ten years?. In terms of volume	a	b
In the future, do you expect your export markets to grow faster (more than 50%) or slower (less than 50%) than your domestic markets?	b	b
Why?	Revaluacion y violencia Colombiana	Para nosotros es claro que las ventas por atenciones a pacientes internacionales nunca serán iguales a las domésticas, ya que la prioridad de nuestra Clínica es nuestra ciudad, nuestro departamento y nuestro país. Somos responsables de la salud de los Colombianos y en ese sentido, todos nuestros esfuerzos deben primar en lograr que nuestros compatriotas logren alcanzar
How would you describe the proximity of your export market?	a	b
What countries is your company exporting to?	El Caribe, Aruba Curazao.	Estados Unidos, Islas del Caribe
How did your company acquire the human capital resources in order to export your products?	c	b
What percent change in international sales volume typically occurs on a monthly basis?	a	a
How many kinds of distribution channel have you used?	d	f
What are the effects of increases in international sales on managerial costs?	a	e
Describe the distribution channel your company currently uses	b	a
Describe the distribution channel your company has used previously but not today (if any)	e	e

## 6.8 Answers: Business Tourism, Fairs and Conventions Cluster

Table 13. Answers in Business Tourism, Fairs and Conventions Cluster

CLUSTER	BUSINESS, TOURISM, FAIRS AND CONVENTIONS
COMPANY	1
QUESTION	
For how many years has your firm been in the export market?	b
How many percent represents your company's exports of the total sales volume of your company?	b
What most accurately describes the level of international heritage of your company's main export decision maker?	d
Name up to three key technologies you are using today to export your products/services.	b
How many years have you been using each of these technologies?	b
How many times has your company changed the technology or processes in order to export?	b
Does your organization expect foreign sales to be more profitable than domestic sales?	c
How much product knowledge (know-how) is required to sell your firm's product?	e
What specific product knowledge is required? Please specify	Geografía, relaciones públicas, idiomas
Does your product require post-sale service?	a
What kind of post sales service is required?	Básicamente es durante la operación de los servicios, hacer seguimiento que los servicios solicitados por los pax. se cumplan.
What best describes the rate of export sales growth versus domestic sales growth over the past ten years?. In terms of volume	d
In the future, do you expect your export markets to grow faster (more than 50%) or slower (less than 50%) than your domestic markets?	a
Why?	Porque se amplió el portafolio de productos y se está buscando nuevos mercados internacionales.
How would you describe the proximity of your export market?	a
What countries is your company exporting to?	Ecuador y Perú
How did your company acquire the human capital resources in order to export your products?	c
What percent change in international sales volume typically occurs on a monthly basis?	b
How many kinds of distribution channel have you used?	a
What are the effects of increases in international sales on managerial costs?	a
Describe the distribution channel your company currently uses	d
Describe the distribution channel your company has used previously but not today (if any)	f

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