CURRENT AND FUTURE TRAINING NEEDS OF INTERNATIONAL BUSINESS GRADUATES REGARDING THE SUPPLY AND DEMAND OF HUMAN TALENT IN THE PORT SECTOR OF SANTA MARTA

NECESIDADES DE FORMACIÓN DEL PROFESIONAL EN NEGOCIOS INTERNACIONALES CON RESPECTO A LA DEMANDA EN EL SECTOR PORTUARIO DE SANTA MARTA

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\textbf{ABSTRACT}

This article intends to outline the current and future training needs of international business graduates regarding degree offerings and labor demand in the port sector of the Tourist, Historical and Cultural District of Santa Marta. Firstly, we analyze the numerous factors that affect competitiveness of the port sector. Then, we specify the role of human talent in the growth and development of port sectors and focus on Santa Marta and its port sector, using data and information provided by the primary stakeholders involved (port sector and educational institutions). We also determine the level of integration of these two stakeholders in the region and how it impacts competitiveness of the sector. Finally, once data, discussion and results are presented, we ponder on the current and future position of the port sector in Santa Marta.

\textbf{Keywords:} Seaports – universities – competitiveness - human talent - foreign trade.

\textbf{RESUMEN}

El objetivo del artículo es evidenciar las necesidades formativas, actuales y futuras, del profesional en negocios internacionales respecto a la oferta educativa y a la demanda laboral, en el sector portuario del Distrito Turístico, Histórico y Cultural de Santa Marta. En primer lugar, se realizó un análisis sobre los distintos factores que inciden en la competitividad del sector portuario. Luego, se procedió a especificar el rol del talento humano dentro del crecimiento y desarrollo de los distintos sectores portuarios; seguido a esto, se enfocó el objeto de estudio en Santa Marta y en su sector portuario, con datos e información proporcionada por los actores principales que intervienen (sector portuario y planteles educativos), y se reveló cuál es el nivel de integración de estos dos actores en la región y cómo afecta la competitividad del sector. Finalmente, una vez expuestos los datos, la discusión y los resultados, se reflexionó sobre la situación actual y futura del sector portuario en Santa Marta.

\textbf{Palabras clave:} puertos marítimos – universidades – competitividad - talento humano - comercio exterior.

\textbf{JEL:} I21.

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INTRODUCTION

In Colombia, the dynamism of economic sectors from trade openness in 1991 caused those sectors directly and indirectly related to international trade to sway global economic growth. However, none stimulated the economy as much as the port sector mainly because of the world trade liberalization process, added to production decentralization that accelerated the pace of global exchange of goods and, therefore, sea traffic and port activity (González, 2002). Consequently, seaports and the port sector as a whole play a key role in the development and improvement of the societies they influence, as ports allow economic growth through trade and move the highest percentage of exports and imports in a country (Cisneros, 2015). This results in the creation of wealth and a significant source of sustainable value added in the local economy and its zone of influence (Velarde, 2005).

It is imperative to analyze the variables that determine the level of competitiveness of a seaport. In this way, exploring the demand for job skills in the port sector of Santa Marta in relation to the training and supply of these skills by universities in the city allows to know and identify the current state of human talent requirements in this terminal. The study aims to describe the relationship between the supply of and demand for International Business graduates in terms of their job skills to identify their current and future training needs in the port sector of the Tourist, Historical and Cultural District of Santa Marta.

The analyses are based on surveys conducted at companies that carry on business directly related to the port sector of Santa Marta and educational institutions in the city with different levels of academic and practical depth, which may suggest how these sectors complement each other. Since the main reason for carrying out this study is the high growth and evolution of job positions in the port sector of the city, it is also discussed whether universities are aware of the continuous evolution of labor needs or, on the contrary, are falling behind.

This article presents a literature review and a that approaches the port and higher education sectors. Then, the method used is explained, followed by the results of the surveys conducted with stakeholders.

Theoretical Basis of Competitiveness in the Port Sector

As globalization reaches all corners of the world it has brought about an increase in the international trade of goods (De La Dehesa, 2000; Guerra, 2002; Krugman, Obstfeld, & Melitz, 2012). Thus, it has become essential for port terminals around the world to orient its operational models toward enhancing competitiveness (Estrada, 2007) because this is how they can be differentiated and attain more traffic in their terminals while contributing, as a strategic factor, to increasing the trade of a country (Rua, 2006).

To increase competitiveness, investments have traditionally been made to improve infrastructure, acquire state-of-the-art equipment, and optimize logistic coordination between transport and the port sector. These two crucial factors are well summarized by Christidis (2001), “for a port to be competitive, large investments and close cooperation with other stakeholders in the transport chain are needed” (p. 1). In this regard, one aspect that the economy has prioritized to improve port competitiveness has been the transport sector and, as mentioned by Aparisi, Giner and Ripoll (2008), ports should be set up so that their infrastructures are essential to the intermodal transport system, they become efficient interconnection hubs globally and add the greatest value to the transport chain.

As to infrastructure, efforts have been channeled to high capital investments to support the structural factors that define the minimum conditions for modernization of equipment, provision of value-added services and use of cutting-edge information and telecommunication technologies (Martner & Moreno, 2001). Yet, while maximized transport efficiency and optimized infrastructure conditions are relevant to increase the competitiveness of the sector, the field of study leaves aside the significance of a primary factor that directly affects the correct use of both transport and infrastructures—human capital,
since it is the ability to produce and manage knowledge what most catalyzes the development of an organization or a state (Ruiz, Jaraba, & Romero, 2005).

**Human Talent and its Role in the Port Sector**

In recent decades, human talent has become a central subject matter for economic sciences mainly because intangibles within organizations are giving rise to greater value and differentiation day by day, as Ballesteros and Bulla affirm (2016):

> Knowledge is being valued as a new form of capital with which states and companies can become more prosperous and productive, and the use of new tools to exploit knowledge is allowing value to be created inside and outside organizations (p. 13).

Intellectual capital gains importance by the end of the second decade of the new millennium as a element adopted by companies to differentiate themselves from competitors. Now, transferring the importance of this intellectual capital (i.e., human talent) to the port sector, we found that it helps greatly to tackle the problems of this sector because human talent plays an important role in these organizations (Rivera, 2015). Therefore, it is a pressing need for professionals in different branches of foreign trade whose occupational field is related to the port sector to be trained properly so that they have relevant abilities and create the value required by all companies taking part in the port sector.

University education becomes fundamental in the productive capacity of future graduates, because of the high dynamism produced by globalization that has influenced many areas, including educational institutions and higher education. This is clearly reaffirmed by Ruiz, Jaraba, and Romero (2005):

> Job skills is a central piece of a comprehensive approach to education that, from its design and operation, connects the labor market and society with education, directing its attention to the improvement of human capital as the main source of innovation, knowledge, differentiation and competitiveness (p. 73).

In this way, it is a challenge and a necessity for higher education institutions to tailor their academic standards to the needs of markets. Transforming the educational model is vital for the student and future graduate to approach the labor market and, specifically, the various jobs and activities related to foreign trade so that they can create the value desired by organizations.

**METHODOLOGY**

This is a descriptive research with a qualitative approach. Data gathered were based on articles and in-depth semi-structured interviews. The method for this study is divided into two parts: the first is a hermeneutical analysis of the documents collected and the second is a collection of data through interviews with the main stakeholders involved in the port of Santa Marta. Business managers, heads of HR departments, and directors of International Business programs were interviewed. Such interviews followed a model of questions that addressed the subject matter to reveal several aspects of the research and were analyzed hermeneutically.

In the search process, we found several notable authors and papers related to the keywords; however, once we tried to find scientific articles that group several of these keywords, there were few studies that relate competitiveness with human talent; therefore, we chose to work with these studies of varying topics and interrelate them using arguments of the authors of this article in a hermeneutic-deductive way.

**Labor Demand vs. Degree Offerings**

The research focuses on: 1) presenting the information about companies of the port sector in Santa Marta and what their business is, and listing higher education institutions in Santa Marta and the foreign trade-related programs they offer; 2) expounding the results of the variables chosen to analyze the results of the field studies; and 3)
discussing the results obtained.

For the analysis, ten representative companies of the port sector in Santa Marta were selected, which are contained in Table 1. These companies operate in various fields that directly impact the port sector: customs, transport, port operators, marine carriers and port terminals.

**Table 1. Companies of the Port Sector in Santa Marta**

<table>
<thead>
<tr>
<th>Name</th>
<th>Sector</th>
</tr>
</thead>
<tbody>
<tr>
<td>Almagrario S.A.</td>
<td>Customs and port logistics</td>
</tr>
<tr>
<td>Aras LTDA</td>
<td>Sea transport and port operations</td>
</tr>
<tr>
<td>Carbosan S.A.</td>
<td>Sea terminal</td>
</tr>
<tr>
<td>Eficarga Ltda.</td>
<td>Transport and port logistics</td>
</tr>
<tr>
<td>Estinorte LTDA.</td>
<td>Port logistics</td>
</tr>
<tr>
<td>Equimon Logistica S.A.S.</td>
<td>Port logistics</td>
</tr>
<tr>
<td>Intertug S.A.</td>
<td>Port operations</td>
</tr>
<tr>
<td>Maritima del Caribe</td>
<td>Sea transport and port operations</td>
</tr>
<tr>
<td>Induservicios</td>
<td>Port operations</td>
</tr>
<tr>
<td>SMITCO</td>
<td>Sea terminal</td>
</tr>
</tbody>
</table>

**Source:** Created by the authors.

Concerning degree offerings and the places where personnel are trained to work at the port, ten higher education institutions that offer programs of different academic modalities were chosen: technician, technologist, undergraduate, extramural and specialization programs, as shown in Table 2.

**Table 2. Universities and Degree Offerings in Santa Marta**

<table>
<thead>
<tr>
<th>Name of institution</th>
<th>Degree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corporación Bolivariana del Norte</td>
<td>Associate Degree in Port and Sea Logistics</td>
</tr>
<tr>
<td></td>
<td>Associate Degree in Customs and Logistic Processes</td>
</tr>
<tr>
<td></td>
<td>Certificate Course in Port Logistics Management</td>
</tr>
<tr>
<td>CETECOS</td>
<td>Course in Port Operations Assistance</td>
</tr>
<tr>
<td>Universidad Nacional Abierta y a Distancia</td>
<td>Associate Degree in Transport Management</td>
</tr>
<tr>
<td>Universidad Antonio Nariño</td>
<td>Bachelor’s in International Trade</td>
</tr>
</tbody>
</table>
So, we defined the subjects of the research and the elements under which these stakeholders will be studied, as explained hereafter.

**Elements of Analysis**

The elements of study and analysis of this research are the main focuses of productivity that are considered when measuring competitiveness in the port sector. This information was obtained from the samples collected on current and future trends of the sector in the guidelines established by the Ministry of National Education (MEN, by its acronym in Spanish) and the Colombian Federation of International Trade Logistics Agents (FITAC, by its acronym in Spanish) in its *Matrix of Occupational Impacts by Region: Labor Prospects for the Port Logistics Subsector* (MEN-FITAC, 2017).

The first variable to be taken into account is the incorporation of technological tools, simulations and other technologies that favor process automation within the sector because it allows organizations to advance in competitiveness by leaps and bounds (Mejía, Yepes, & Arango, 2013). Emphasis was also placed on cargo handling skills; that is, the graduate’s knowledge and technical skills that companies need to move diverse types of cargo in a seaport, such as operation of cranes, forklifts, automated programs, and so on.

Documentary management is included as an important tool because, as many businessmen interviewed said, excellent management of information and documentation is critical for the entire export and import process that takes place in the port to be more efficient. Another variable to highlight is the graduate’s ability to perform roles involving responsibilities and managing personnel. Finally, the “green” culture that is deeply rooted in the port of Santa Marta, it being one of the pillars of sustainable energy management in Colombia, was also considered.

**RESULTS**

Below are the results obtained from the surveys conducted in the labor market and educational institutions that are directly involved in the port sector of Santa Marta. Figure 1 shows the behavior of supply and demand based on the skills and
competence that the graduate should have vis-a-vis the requirements of the labor market.

**Figure 1.** Comparison of the labor market in the port sector of Santa Marta

![Comparison of the labor market in the port sector of Santa Marta](image)

**Source:** Created by the authors.

Having analyzed each of the answers provided, we found that students from international business schools in Santa Marta are being provided with appropriate training in organizations and finance as demanded by the labor market, the latter being graduates’ forte. As regards technical skills for document management, cargo handling and data processing — capture and transmission —, they are required in a smaller proportion. This means that the demand is more interested in technical skills and the supply is concentrated on managerial and document management skills, showing an imbalance between what is required by the labor market and what is taught to students—a gap of less than 20%. The topics in which demand and supply almost coincided are document management and data analysis skills, mainly because institutions pay special attention in their academic micro designs to developing reading comprehension and data analysis skills in their students; therefore, a narrower gap between both sectors is noticed on this subject.

Moreover, there is also a deficiency in degree offerings with respect to labor demand in the cargo management and technological tool incorporation variables, proving that, although the labor market is interested in their workers having these skills to achieve greater competitiveness, the education sector is not meeting all the needs of the demand because individuals in educational institutions are well-trained in management. Technical courses are covering other required skills and education. This suggests that international business programs should provide some optional courses related to technique and port sector requirements.

The only variable in which degree offerings exceeds labor demand is in managerial skills since educational institutions privilege higher occupational profiles (undergraduate and specialization programs) and develop skills related to leadership and business management, which are valued by companies in different sectors. Finally, we detected that both sectors and international business schools in Santa Marta are a bit alien to the processes involved in the so-called green ports.

**DISCUSSION**

The importance of international business has transcended due to the demand for graduates in this sector...
area, with the characteristics of these programs; in addition, the amount of research related to this subject has increased, such as those carried out by Martínez (2011); Keillor (2011); Anzo (2012); Portugal, Li, Rosa, and Ribeiro (2014); Albort and Ribeiro (2016); and Baena and Hurtado (2017). In this sense, the dynamism of international business depends on the emergence of new ventures, due to the complexity they convey and how they are managed (Baena & Hurtado, 2017; Tabares, Anzo, & Estrada, 2014; Volery & Mazzarol, 2015).

International Business has been one of the most required programs by employers in 2011 with 7.3 % but did not have the necessary supply of graduates to balance the labor market. For 2012, the demand for International Businesses fell to 3 %, demonstrating that the labor market of international business graduates was balanced by professionals from other programs (Upegui, 2015). International Business graduates are needed since they follow a different management method that adapts to the demands of international trade and are capable of running world-class companies, whether technological, pharmaceutical or involving advice or negotiations (Díaz, 2012). This demand for human capital causes qualified individuals to migrate to places where such knowledge is required (Organization for Economic Cooperation and Development - OECD, 2004). Rodríguez (2004) argues that qualified people are going to waste because the labor market does not offer the right number of jobs with the appropriate salary.

Companies demand employees who meet a series of qualifications and skills related to speaking a second language, adaptability to different environments, sense of belonging, versatility, financial and budgetary management, anticipatory behavior, negotiation skills, ability to innovate and relational intelligence (Herrera & Rodríguez, 2018). Ramírez (1999); Hall, Buchanan, and Considine (2002); Díaz (2012); and Baena and Hurtado (2017) agree with these authors stating that companies’ demand for workers should include financial management, mastery of other languages, intercultural experience, marketing expertise and science and technology management. Accordingly, the OECD (2004) claims that the skills that are given preference in the search for an employee are related to discretion in decision making, being disciplined, speaking other languages, relational intelligence, being teachable, creativity and adaptability.

For example, the International Business programs in Taiwan restructured their curricula to adjust their contents to market demands and design businesses for global exchange. The approach of business schools is related to interculturality, speaking other languages, electronic commerce management, legal aspects of international business and management of world-class companies, in order to achieve business success (Díaz, 2012; Yuche & Steward, 2001).

In short, although Colombia has port terminals on two oceans thanks to its privileged location, the studies carried out in the field of port competitiveness are very few in the country; however, literature regarding international business is abundant in international databases.

With reference to the subject matter, it can be concluded that it is still a challenge for educational institutions in Santa Marta to cater satisfactorily to the needs that it currently has and that the port labor sector will have. Nonetheless, forward-looking scenarios are promising due to the close relationship between both sectors and because Santa Marta is a medium-sized city in which companies and educational institutions converge frequently. The synergies thus created will help to shape the profile that an international business graduate should have to be engaged by companies in the market.

Labor demand in Santa Marta, due to the proximity of a seaport, prefers graduates with skills in document management, technological tools, cargo handling, and logistic management of international physical distribution. Using this knowledge, the graduate can make significant contributions to companies while they strengthen their
competitiveness.

**Conflict of Interest Statement**

The authors declare that the assertions made in this article do not involve any entity and that no institution has influenced them to change values or make claims that benefit them; therefore, we declare that each assertion has arisen from the actual conduct of this research and is owned by the researchers.

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