

Analysis of the Factors that Intervene in the Exports of Wooden Furniture and Its Impact on the Commercial Balance of Ecuador in the Period 2012-2016

María Soledad Carrión Jaramillo¹, Erika Samantha Sevilla Erazo¹
Digna Marcela Viteri Moya¹, Jenny Lolita Vinueza Luna¹

Abstract

Throughout history, Ecuador has been characterized as a traditional exporter of raw materials; however, the beginning of production and export of wooden furniture, a product with added value, undoubtedly contributes with the change of the productive matrix. Otherwise, regional, national and private policies have been occurring in the last five years that are related to exports from Ecuador. This project focuses on analyzing all the economic, social, technological and environmental factors that were related to exports of Ecuadorian wooden furniture during the period 2012-2016. The project is framed by the new concepts of international cooperation, production and responsible consumption, development of cities and sustainable communities, promulgated by international organizations that contribute to the Theory of the Three Dimensions of Sustainability. The proposal started with the study of four tariff items that cover the export subsector, and we conducted research on both secondary data and direct primary sources, which are the exporting companies registered during the study period. The intention was to understand the perspectives and expectations of the businessmen involved. At the end, the analysis of the current state of this branch of production is presented and recommendations are given to both the direct and indirect actors of the subsector.

1. Introduction

The evolution of the global economy based on globalization and the continuous technological development are fundamental aspects that force countries to take measures that promote the development of the production sectors and analyze the factors that influence them. In Ecuador, a sector little explored but of undeniable importance, is the wood industry, around 40% of the Ecuadorian territory is forest area (Vásquez, 2012), which generates high expectations towards the contribution, growth and development of this sector.

Contributing to this background, the country's search to diversify its exports, led to generate a product with a clear added value, making Ecuador one of the best producers of wooden furniture, with the ability to allocate their goods to the national market as international (Cevallos, 2012).

However, giving priority to industries that encourage the change of the productive matrix¹, are relatively new issues to Ecuador that began to be considered in the National

¹ Productive matrix corresponds to the way society is organized to produce certain goods and services, including the productive processes and the social relations resulting from those processes. (Secretaría Nacional de Planificación y Desarrollo, 2012).

Plan for Good Living², specifically in its objectives 3, 9 and 10 (Secretaría Nacional de Planificación y Desarrollo, 2013-2017). There are no specific studies of how economic, environmental and social factors promote, affect, or limit a certain sector.

In this context, we sought to determine the economic influence that this sub-sector had on the Ecuadorian trade balance in the 2012-2016 period; what were the main reasons that caused the variation in such exports, whether internal or external factors.

In addition, it was essential to determine if the Ecuadorian exporters of furniture contribute operationally with the fulfillment of the sustainable development objectives set out in the 2030 Agenda of the United Nations and accepted by more than 150 Heads of State and Government at the Summit of Sustainable Development in 2015, mainly with "Goal 12" in the fore mentioned agenda that talks about guaranteeing sustainable consumption and production modalities.

Determine how important this sub-sector is for social development, what its relationship with the environment is, what opportunities were used and what were not, in addition to identifying the main markets to which exports of wooden furniture are directed and investigating the competitive advantages and comparisons that the industry has, are important parameters that will be presented throughout the investigation.

2. Methodology

The research was carried out with a mixed, qualitative and quantitative approach, (Jick, 2006), of a descriptive type, since this type of study allows to describe situations or phenomena by measuring the variables independently (Fassio, Liliana, & Suárez, 2002).

With this in mind, the wooden furniture exporting companies established in Ecuador during the 2012-2016 period were considered. Based on the hypothesis that exporters of wooden furniture do not base their productive and economic processes on achieving sustainable development, it was necessary to carry out an economic analysis considering the total population (143 companies).

The documentary technique was used as a research technique to obtain statistical data from official sources such as: PRO ECUADOR³, Central Bank of Ecuador (BCE), official pages of exporting companies, Cobus Group⁴, Internal Revenue Service (SRI), Ministry of Foreign Trade, National Institute of Statistics and Censuses (INEC), among others.

Additionally, it was essential to include conceptions, visions and perceptions of the involved participants, for which the technique of in-depth structured interviews was used with the representatives of the exporting companies (Taylon & Bogdan, 1992); as well as an exhaustive analysis of the websites of the sample of 32 companies.

² National Plan of Good Living 2013-2017 is a plan to achieve sustainable development, contains a set of 12 objectives that express the will to continue with the historical transformation of Ecuador (Secretaría Nacional de Planificación y Desarrollo, 2013).

³ PROECUADOR is the Institute for the Promotion of Exports and Investments, a public organization in charge of promoting traditional and non-traditional Ecuadorian products in the international market (PRO ECUADOR, 2018).

⁴ Cobus group is a system that has foreign trade information regarding products, countries of origin and destination, shipping, prices, transportation, containers, among others (Cobus Group, 2015).

To process the information Atlas Ti software was used, which allows to organize and study qualitative information obtained in the interviews. On the other hand, SPSS was necessary, with the Olap Cubes tools and correlations, to analyze quantitative data collected from databases.

3. Results

3.1 Economic Analysis

The export subsector of wooden furniture focuses on four tariff items, which are detailed below:

- Wooden furniture of the types used in offices 9403.30.00
- Wooden furniture of the types used in kitchens 9403.40.00.
- Wooden furniture of the types used in bedrooms 9403.50.00
- Other wooden furniture 9403.60.00

According to the National Customs Service of Ecuador, the total exports of the four items detailed above during the period 2012-2016 are summarized in the following figure:

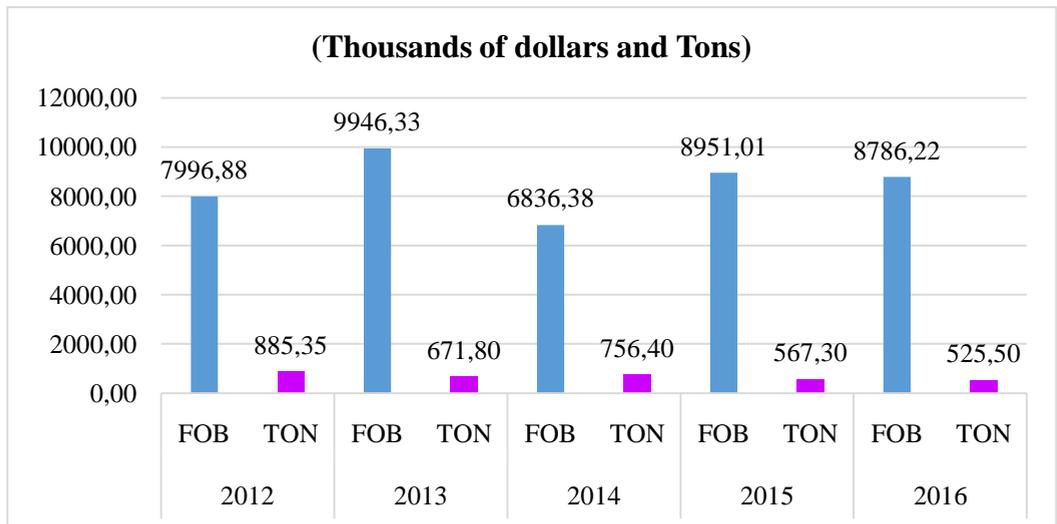


Figure 1. FOB Exports of Wooden Furniture
Source: COBUS - SENAE

During the period 2012-2016, wood exports reached a total of 42.51 million dollars, which means that an average of 8.5 million dollars was exported annually. When performing an analysis by period, 2013 was the year in which the total FOB exported reached the highest figure with a value of 9946.33 thousand dollars; nevertheless, when comparing in tons, the year with the highest quantity was 2012 with 885.35 tons.

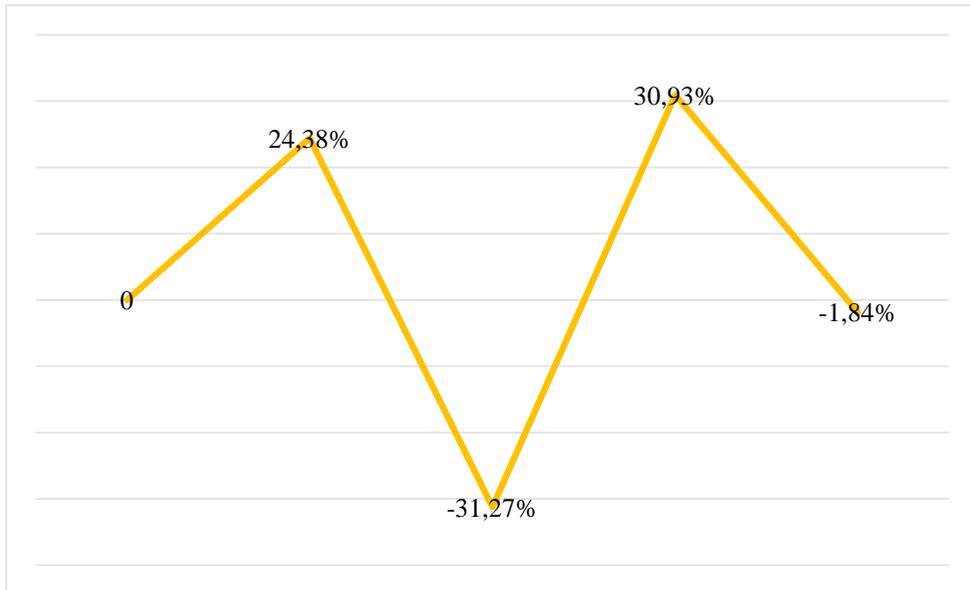


Figure 2. Exports variation of wooden furniture (Period 2012-2016)

Source: Central Bank of Ecuador

When analyzing the growth rate, it is observed that in 2014 there was a great decrease in the total exports of wooden furniture, which meant a percentage of decrease of 31.27%; however, there was a significant growth from 2014 to 2015, which was 30.93%; This recovery of the sector contributed significantly to the industry having an average growth of 5.55% in the five years of study.

Thanks to interviews with the 32 companies, it was discovered that the decrease in 2014 was mainly due to the appreciation of the dollar, which made Ecuadorian furniture much more expensive than those of neighboring countries, and for obvious reasons costs involved in manufacture of furniture in Ecuador are higher than some countries of the competition. On the other hand, the region and some destination countries of the furniture exports of Ecuadorians went through economic crises that diminished the purchasing power of the potential market which caused a considerable decrease of the demand.

To alleviate the decrease in the sector, some large and medium-sized companies made use of the simplified drawback, an internal measure implemented by the Ecuadorian Government in which a direct economic incentive was given to the private sector exporting non-traditional products of up to 5% of the value FOB exported, for all exports made from February 1 to December 31, 2015.

3.2 Analysis of the Export Subsector of Wooden Furniture with Respect to GDP

The four main sectors of the Ecuadorian GDP are manufacturing, construction, commerce and petroleum, which add up to a total participation of 43.43%. The export subsector of wooden furniture is within the manufacturing industry in the "wood products" division with a 6% share, ranking sixth after metal manufactures (Ekos , 2015).

Table 2: Wood furniture export share in GDP

	MILLIONS	%
Furniture export	8.50	
Manufacture	12,713.06	0.07%
PIB TOTAL	96,536.98	0.01%

Source: Central Bank of Ecuador

If we compare the average exported FOB value during the 2012-2016 period, which was 8.5 million dollars per year versus the 12.713 million dollars of the average manufacturing GDP in the same period, we obtain that the export subsector of wooden furniture it represents approximately 0.07% of manufacturing GDP and 0.01% of national GDP.

3.3 Analysis of the Export Subsector of Wooden Furniture with Respect to the Commercial Balance

Table 3: Export of wooden furniture vs commercial scales

Years	% participation of wooden furniture in the wood industry	% participation of wooden furniture in Non-traditional Exports	% participation of wooden furniture in the Total of the Commercial Balance
2012	12.02%	0.14%	0.03%
2013	18.07%	0.18%	0.04%
2014	12.45%	0.11%	0.03%
2015	17.56%	0.17%	0.05%
2016	14.87%	0.18%	0.05%
TOTAL	15%	0.16%	0.04%

Source: Central Bank of Ecuador

When analyzing the participation of wooden furniture exports in Ecuador's balance of trade, it is summarized that during the 2012-2016 period, these exports averaged 15% of the total exported by the Timber Industry on average, 0.16% of the total non-traditional exports and 0.04% of Ecuador's total exports.

In the analyzed period, 143 export companies are presented, distributed in large, medium and small, considering the number of employees, the division is detailed in the following table:

Table 3: Sample of export companies of wooden furniture.

	N° Company	% Participation	N° Sample
BIG	29	20.28%	6
MEDIUM	21	14.69%	5
MICROENTERPRISE	48	33.57%	11
SMALL	45	31.47%	10
TOTAL	143	100%	32

Source: COBUS - SRI

Of the 32 companies interviewed, approximately 70% mentioned that there is no concentration of wealth in the subsector, but the remaining 30%, mostly composed of microenterprise and small companies, said that wealth is concentrated in the large companies that already have international recognition and they have the ability to win over the market.

To corroborate this information, the Pareto diagram was used and it was determined that 80% of the total FOB exported during the 2012-2016 period is represented by 7 exporting companies out of the 143, which are detailed below:

Table 1: Pareto Analysis - Export companies of wooden furniture (Period 2012-2016)

COMPANY	Total FOB (millions)	% Participation	% Accumulated share	Size
AHCORP ECUADOR CIA. LTDA.	\$ 14,16	33.33%	33.33	Big
COLINEAL CORPORATION CIA. LTDA.	\$ 7,07	16.66%	49.96	Big
ATU ARTÍCULOS DE ACERO S.A.	\$ 5,28	12.40%	62.38	Big
ECUATORIANA DE DISEÑO OCTACORP S.A	\$ 2,45	5.80%	68.16	Small
REMODULARSA S.A.	\$ 2,13	5.00%	73.19	Big
LA GALERÍA CLEYDIA S.A.	\$ 1,68	4.00%	77.16	Medium
FADEL SA	\$ 1,17	2.80%	79.92	Medium
OTHERS	\$ 8,53	20.01%		

Source: COBUS

The remaining 136 companies add up a total of 8.53 million dollars in exports during the 5 years of study, which means that they only influence 20% of wood furniture exports.

3.4 Social Analysis

In order to determine the contribution of this subsector in the social sphere, it was important to investigate; full, productive, and decent employment, considering aspects such as: involvement with vulnerable sectors, number of employees, remuneration, staff training and equal opportunities.

When analyzing full employment, according to the National Institute of Statistics and Census, the subsector employed an average of 8849 people from 2012 to 2016, divided by company size as follows:

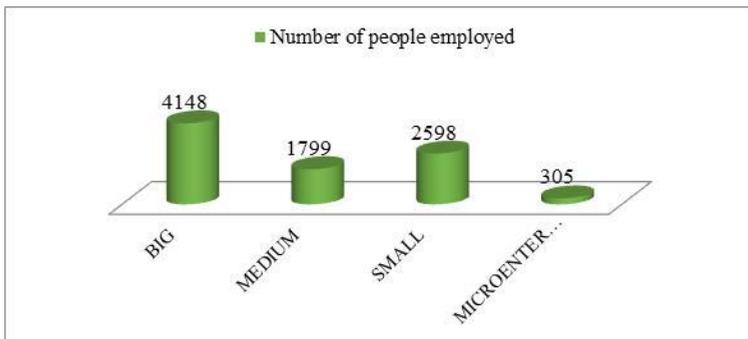


Figure 3. Average number of people employed in the subsector

Source: INEC

Within the same period, an average monthly remuneration is recorded in the wooden furniture export subsector of \$ 508.27, which is higher than the current unified basic remuneration of USD. 375.

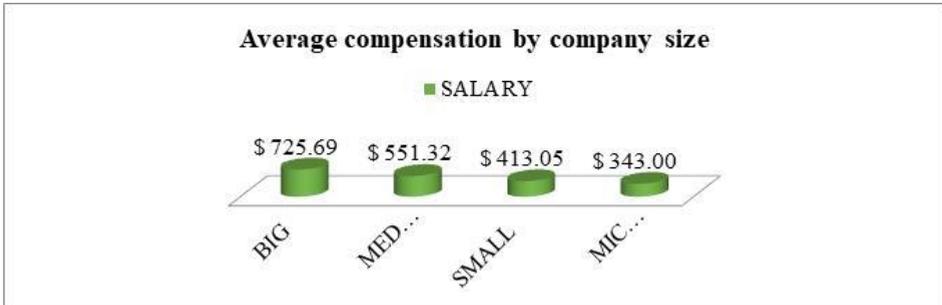


Figure 4. Average compensation by size of companies

Source: INEC

Of the 143 companies belonging to the subsector under study, it is obtained that only 10.49% provide opportunities for new jobs. Here lies the true importance of investing in technology and developing new production systems, so that companies can grow, open new markets and generate more employment.

With regard to the emotional incentive to the staff, most of the large and medium companies answered that within their ways of encouraging their workers are continuous training, participatory meetings to consider the opinion of their employees, economic stimuli to meet the proposed goals. Another way to establish emotional stimuli is the implementation of active breaks and other companies give flexibility to their employees on holidays and birthdays.

The involvement of the vulnerable sectors in the export subsector of wooden furniture is another important factor to consider due to the social link that has, and according to the information of each company through its electronic portals, only 5 companies report that they involve vulnerable sectors, being 3.5% of the total export companies of wooden furniture.

Table: Staff training

SIZE OF COMPANIES	STAFF TRAINING	% STAFF TRAINING
BIG COMPANY	5	17,24%
MEDIUM-SIZED COMPANY	3	14,29%
SMALL COMPANY	8	17,78%
MICRO	1	2,08%
TOTAL	17	

Source: Websites of each Company

Another key factor in the contribution of sustainable development is equal opportunities, where women and men have the same capacities to perform any function, however, it has not yet been possible to achieve absolute equity, and within the furniture export

subsector of wood, only 2 companies indicate that within their organizations there is equal opportunities.

3.5 Environmental Analysis

Sustainability in ecological terms means that the economy is circular, that there is a closure of the cycles, trying to imitate nature. That is to say, it is necessary to design productive systems that are capable of using only renewable resources and energy, and not produce waste, since this returns to nature or becomes input of another manufactured product (Artaraz M. , 2002).

In the last Ecological Footprint report prepared by the Ministry of Environment of Ecuador, it was presented that the forest footprint calculated from the amount of wood consumed by a nation was equivalent to 21 593 000 hectares, having a percentage of annual growth of 3 %, which varies according to exports. 91% of this footprint belongs to boards, sawn wood, other papers and cardboard, the remaining 9% belongs to products with added value. (Ministerio del Ambiente del Ecuador, 2016)

To contribute to sustainable development, environmentally friendly practices must be carried out, and companies that show interest in the selection of suppliers that meet environmental standards in the wooden furniture export subsector are a total of 3, that is, 10%, being a really low percentage, considering that the forestry sector is very sensitive and demands to be treated adequately to affect the environment as little as possible.

There are waste recycling and treatment systems to minimize the pollution of the environment to its lowest levels.

Based on the results obtained in the interviews, it is presented that 66% of companies have a recycling system, highlighting the following:

- Minimum generation of waste and rational use of raw materials.
- They use it to make ornaments or handmade details that incorporate their furniture.
- They hire qualified environmental managers to treat the waste.
- Crushing of wood for panel production.
- The waste is converted into compost, used in the soil as organic material that allows the fertile soil to be maintained.

In spite of this, the companies interviewed have no interest in sustainability issues, mostly due to lack of knowledge or because they consider that adapting their productive and commercial processes to this new trend imply large investments that they are not able to perform. Therefore, only 2 companies are moderately interested in strategies that benefit the environment; a company uses wood from cultivated forests, that is, it uses trees that have been planted by man; another has an environmental manual, which exposes strategies to reduce the use of fuel and electricity, in addition to implementing reforestation systems.

4. Conclusions and Implications

The export subsector of wooden furniture has a minimal impact on the total of non-traditional exports, even less within the trade balance, because it is a new sector with

little experience in the international market, that is, if the sector leaves of exporting, it would affect the Gross Domestic Product of Ecuador by 0.01%; However, from the social point of view, a crisis in the sector would imply that 8850 people are left unemployed, generating an imbalance in the Ecuadorian economy that tries to emerge and not depend solely on oil income.

Achieving sustainable development is a topic of ignorance for most small and micro companies in Ecuador and in the case of large and medium-sized companies they do not consider it a priority issue at the moment, because they assume that it would involve large investments with little revenue. That is, economic interest still prevails over sustainable growth.

That is why institutions should prepare all those involved in the value chain with a sustainable approach, it is necessary to educate more about the benefits generated by directing current economic systems towards social and ecological development for both present and future generations. The current population rejects this concept because people do not know processes for an efficient use of resources, and fair trade alternatives; in order to develop a better economic integration.

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