Maestría en Gestión e Innovación Tecnológica

Title

Determination of competitiveness index 2014

of the Mexico forest industry

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September-December 2015

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1. Introduction

The main problems of forest industry in Mexico (Fig. 1) includes a low productivity, a small contribution to the national gross domestic product and increased imports of wood products (CONAFOR, 2013). According to the BCG (2009), its industrial segments have not been identified with high potential to attract investment and neither have international competitive advantages.

Because competitiveness is not in the economy as a whole, but at the level of companies and industry sectors (Porter, 1990), it is necessary to measure and compare the performance of the forest industry with the purpose of supporting a sector development strategy.

FOREST INDUSTRY

- 44 Wood articles
- 47 Pulp of wood
- 48 Paper and paperboard
- 94 Wood furnitures

Figure 1. Integration of forest industry according to the harmonized system of products (Based on classification of the ITC, 2016).

2. Objectives

2.1. General objective

Identify a framework to analyze the forest industry in Mexico, whereas its international competitive performance and prioritization of its economic subsectors.

2.2. Specific objective

Measure and compare the competitiveness of Mexico forest industry with those countries that concentrated 80% or more of the Mexican imports of wood products in 2014.

3. Methodology

- Identification of countries of origin of Mexican wood products imports based on statistics of ITC (2016).

- Evaluation of specific variables to forest industry factors, according to the following:

  - ❏ First stage: Each variable within each forestry factor was evaluated using quantitative data or a qualitative assessment; and

  - ❏ Second stage: Using a scale from 1 to 10, with 1 indicating the least competitive, and 10 indicating the most competitive country.

- Each factor was then calculated by averaging the values of the variables that it includes.

- Finally, the competitiveness index was calculated by adding the general competitiveness index (IMD, 2015) to the forest industry factors, weighted according to the percentage defined by Ortiz (2004).

4. Results and discussion

4.1. Countries of origin of imports

The size of Mexican economy and its domestic market have attracted wood products imports, which reached US$9,819 million dollars in 2014 (ITC, 2016; Fig. 2); generating a trade deficit of US$1,617 million.
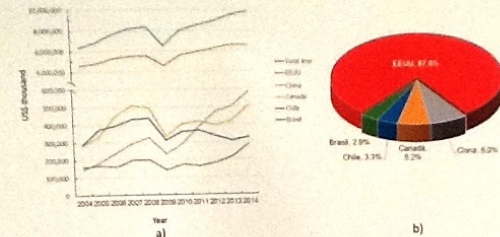

Figure 2. a) Evolution of Mexican imports of wood products 2004 - 2014 and b) Share of imports by country of origin 2014.

On the other hand, exports reached US$8,202 million dollars (ITC, 2016); sent particularly to the United States (90%) and Canada (2.6%) markets.

4.2. Competitiveness index

The results indicate that the United States has the most competitive forest industry among those evaluated, followed by Canada and China; while Chile, Mexico and Brazil comprise a third tier group with similarly competitive performance (Table 1 and Figure 3).

Table 1. Global Competitiveness Index (WYC 2015) and average for factors of the forest industry.

Country	WCY 2015 World competitiveness index	Specific forest industry factors (F.J)					
		Forest resources	Forest industry development	Market development	Investment attractiveness	Energy	Environment
United States	10.0	8.0	9.8	7.8	6.8	7.0	6.3
China	7.7	7.3	8.0	9.4	7.6	7.5	6.3
Canada	9.0	7.5	9.7	6.8	6.3	6.8	7.5
Chile	6.5	7.8	7.8	7.2	6.9	5.3	7.5
Brazil	4.7	7.5	7.3	6.6	7.3	7.0	6.3
Mexico	6.1	6.9	7.0	6.5	7.1	6.9	6.8
Factor weights (P.J. %)	40	12	13.8	10.8	12	8	8.4

Source: Based on data of studies Transnational sources, World competitiveness yearbook (WCY) (IMD, 2015) and a ranking factors, F, defined by Ortiz (2004).
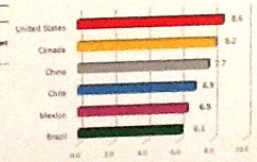

Figure 3. Competitiveness index 2014 of forest industry in Mexico and others countries.

5. Conclusions

The benchmarking method allows to recognize the competitive performance, which is essential for both firms and industry sectors.

Mexican forest industry has a low competitiveness, similar to those of Chile and Brazil.

Its strengths are the existence of skilled labor, a high growth of exports, a moderate processing costs and an adequate infrastructure. Its weaknesses are the concentration of exports to the US (90 %), low availability of forest resources and high wood costs and fuel.

6. References

Boston Consulting Group (BCG). (2009). *Diagnóstico y estrategias para la atracción de inversiones y operaciones a México*. Mexico: Ministry of Economy.

National Forestry Commission (CONAFOR). (2013). *Programa Nacional Forestal 2014-2018*. Mexico: Author.

International Institute for Management Development (IMD). (2015). *World Competitiveness Yearbook 2014*. Switzerland: Author.

IMD. (2016). The 2015 IMD World competitiveness scoreboard. Accessed 22-03-2016 in http://www.imd.org/uupload/imd.website/ wcc/scoreboard.pdf

International Trade Center (ITC). (2016). Trade statistics. Accessed 12-03-2016 in http://www.intracen.org/itc/market-info-tools/trade-statistics/

Ortiz, G. (2004). *Benchmarking the competitiveness of the New Zealand wood processing industry*. New Zealand: Ministry of Agriculture and Forestry.

Porter, M. E. (1990). The competitive advantages of nations. *Harvard Business Review*, 2 (1), 73-91.

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