

Market Structure and Export Furniture Sector of Jalisco

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Abstract

Currently the furniture industry in Mexico faces a crisis by falling exports, the entry of foreign goods into the country and delayed technological and processes, which has led to business closures and job losses. In this paper the stages of internationalization by which firms pass according to the gradualist theory or the internalization model of Uppsala are studied, the competition and structure of the furniture market in Mexico and Jalisco is evaluated using the Herfindahl - Hirschman index and discussed in which stage of the gradualist theory or model of internationalization of Uppsala are located the companies exporting furniture of the state.

Keywords: Competitiveness, export, market structure.

JEL: F200, F230, L220

Resumen

Actualmente la industria del mueble en México enfrenta una crisis por la caída de las exportaciones, la entrada de productos extranjeros al país y por la desactualización tecnológica y de procesos en el sector, lo que ha provocado el cierre de empresas y pérdida de empleos. En este trabajo se evalúa la competencia y la estructura del mercado mueblero en México y Jalisco utilizando el índice Herfindahl - Hirschman además se analiza en que etapa de exportación podemos ubicar a las empresas del ramo según la teoría gradualista o modelo de internacionalización de Uppsala.

Palabras clave: Competitividad, estructura de mercado, exportación.

1. Introduction

This paper analyzes the process of internationalization of companies in the furniture sector of Jalisco and the structure at state and national market levels. This will allow furniture companies to have an overview of the production process as seen from a microeconomic approach. In general, companies that are in this industry are

facing high operating costs, low sales and lack of productivity processes due to technological obsolescence and lack of current production systems.

2. Background of the Problem

The furniture industry in Mexico faces a crisis by falling exports. The entry of foreign goods into the country, technological and processes

obsolescence in the sector has led to business closures and job losses. According to the Bank for Foreign Trade (Bancomext, 2012) in the late 90s the sector contributed 2.6% of gross domestic product (GDP) but the furniture industry currently accounts for only 1.3%.

In the late 90s Mexico ranked third among countries with the highest number of furniture for sale worldwide but in recent years has been displaced by countries like China, Germany and Poland. According to figures from the World Trade Organization (WTO, 2013), Mexico ranks third countries with the highest number of trade agreements within the body, just behind the European Union and Chile, which is why the country should strengthen internationalization of domestic firms.

3. Delimitation of the Problem

For this study, furniture industry is defined as the manufacturing furniture except integrated kitchens, modular bathroom furniture, office furniture and shelving that falls under the category 337120 North American Industrial Classification System (INEGI, 2009). Also it is used strata and layering companies published on June 30, 2009 in the Official Gazette to mean micro, small, medium and large companies in the analysis of market structure by the Herfindahl index - Hirschman. Export is defined as the sale of goods or services in the foreign market. Enterprise internationalization is referred to the ongoing efforts of the company outside the domestic market to which it belongs.

According to data from the National Institute of Statistics and Geography (INEGI, 2009), the furniture sector in Jalisco is essentially formed by 87.01% of micro, small by 10.41%, 2.22% for medium and only 0.35% large. Jalisco is the leading producer of furniture in the country with 18.567% of the total gross of Mexico, employing 17,482 people in 1978 economic units in which only 3.2% are consolidated exporters (INEGI, 2009). However, it showed an increase in the number of

establishments in the furniture industry of the state corresponding to 23.9% with 1978 with economic units in 2009 compared to 1596 registered in 2004 (INEGI, 2004 and 2009).

According to the institute of statistical and geographical information of Jalisco (IEEG, 2014) from 2007 through 2011 the furniture sector averaged \$ 55 billion trade deficit and was until 2012 and 2013 that achieved an average surplus of only \$ 3.6 billion. These results worry entrepreneurs in the furniture industry of the state and show the positioning of products mainly from the USA, China and Canada, with the Chinese market alone tilts the trade balance in his favor according to data from International Trade Centre (2014).

According to the Association of Furniture Manufacturers de Jalisco (IEEG, 2014) recipient countries from exports Jalisco are essentially United States and Canada. The products most exported are bedrooms, dining rooms, entertainment centers and halls respectively. Municipalities where the increased production of the furniture industry in Jalisco focuses are: Zapopan, Guadalajara, Ocotlán, Tlajomulco de Zuñiga, Tlaquepaque and Tonalá.

The research questions are: What is the market structure of the furniture industry in Jalisco? What is stage of internationalization according to the Uppsala model most companies in the furniture sector in Jalisco is located?

4. Conceptual Theoretical Background

There are mainly two theoretical groups to try to explain the export behavior of small and medium companies that are domination the furniture industry in Jalisco. One focuses on the processes of accelerated internationalization and the other in the gradual development. It is intended to address from the study of the theories belonging to the second group because the furniture companies of the State first are established in the local market and then exported.

Among the studies that will serve as the theoretical framework, there are the works of Coase (1937), Rugman and Lorraine (1984) and Buckley and Casson (1976) on the theory of internationalization of the firm. This theory studies the expansion of the company as a strategy to reduce transaction costs that result from the use of the market, through the internationalization of activities. For a company deciding to invest abroad must have some advantages of locating certain activities abroad and organize within the company more efficient than sell them to others abroad.

In addition, the eclectic theory of Dunning (1973) suggests that companies decide to invest abroad if they hold competitive advantages over competitors in that particular market. It is more profitable to exploit the advantages that to lease or transfer the man should be most beneficial position part of its production plant in the foreign market rather than placing it in the local market.

The gradualist theory or Uppsala internationalization model of Johanson and Vahlne (1977) was developed from case studies of small multinational firms. This model considers the internationalization of business activities as a result of decisions taken by the company growth. This further suggests that this is a gradual process that is divided into four stages:

- A. Irregular exports.
- B. Exports through independent representatives.
- C. Establishment of commercial branches abroad.
- D. Establishment of productive units abroad.

The latest literature regarding the gradualist theory reviews the changes in business activities and theoretical developments since 1977, including that of relevant papers from Elango and Pattnaik (2011), which highlights the importance of the market particularities involved in the process of internationalization and the effects generated by the global environment on them.

5. Contextual Framework

Although the furniture industry in Jalisco is one of the most important on the national level, 40% of companies do not export because they do not know how to enter their products to other markets (IEEG, 2014).

A successful internationalization process of companies in the furniture sector in Jalisco depends on the assessment of the limitations and the determination of some factors that must be considered to do business in other countries. This would give furniture companies access to new markets, exploit the capacity and idle production, increase job creation, improve processes and technology, enhance industry competitiveness, diversify risks derived from only operating in Mexico and take advantage of scale economies.

6. Method

A quantitative method allows assessing the market structure from a micro economic approach based on Herfindahl - Hirschman Index (HHI). Further analysis of aggregated data in the furniture industry made by the government of Jalisco in the second half of 2010 are analyzed. It allows locating the step that most companies in the furniture sector using gradualist theory according to Johanson and Vahlne (1977).

7. Analysis Results

A. Market structure

The Herfindahl - Hirschman Index (HHI) is a measure of market power. It also shows the lack of competition in an industry sector. The higher the index, the less competitive the market, the range is from 0 for a perfectly competitive market to 1 for a one producer controlling a single market. It is calculated by summing the squares of the percentage market share of each of the companies involved.

Table 1: National level marketshares.

Sector mueblero nacional	Estrato	Unidades económicas	Producción bruta total (miles de pesos)	Cuota de Mercado	Cuota de mercado al cuadrado (q)	Contribución al IHH	Contribución al cuadrado
	De 0 a 2	14200	1,203,507	0.049	0.0024	0.0220	0.0005
	De 3 a 5	6198	1,757,713	0.072	0.0052	0.0470	0.0022
	De 6 a 10	1806	1,623,834	0.067	0.0044	0.0401	0.0016
	De 11 a 15	486	1,176,423	0.048	0.0023	0.0210	0.0004
	De 16 a 20	203	816,364	0.033	0.0011	0.0101	0.0001
	De 21 a 30	188	1,177,887	0.048	0.0023	0.0211	0.0004
	De 31 a 50	161	1,794,934	0.074	0.0054	0.0490	0.0024
	De 51 a 100	132	2,923,121	0.120	0.0144	0.1299	0.0169
	De 101 a 250	74	4,583,576	0.188	0.0354	0.3194	0.1020
	De 251 a 500	25	4,137,462	0.170	0.0288	0.2602	0.0677
	De 501 a 1000	-	1,927,833	0.079	0.0063	0.0565	0.0032
	De 1001 y más	-	1,250,295	0.051	0.0026	0.0238	0.0006
24,373,029			0.1107		0.1980		
			IHH		ID		

Source: Compiled from Economic Census 2009

Table 2: Market share on the sector of Jalisco

Sector mueblero Jalisco	Estrato	Unidades económicas	Producción bruta total (miles de pesos)	Cuota de Mercado	Cuota de mercado al cuadrado (q)	Contribución al IHH	Contribución al cuadrado
	De 0 a 2	720	91,476	0.020	0.0004	0.0033	0.0000
	De 3 a 5	696	288,247	0.064	0.0041	0.0324	0.0010
	De 6 a 10	207	286,288	0.063	0.0040	0.0319	0.0010
	De 11 a 15	50	178,840	0.040	0.0016	0.0125	0.0002
	De 16 a 20	39	242,418	0.064	0.0029	0.0229	0.0005
	De 21 a 30	37	244,826	0.064	0.0029	0.0234	0.0005
	De 31 a 50	40	440,207	0.097	0.0095	0.0755	0.0037
	De 51 a 100	33	867,978	0.192	0.0366	0.2935	0.0861
	De 101 a 250	11	718,950	0.159	0.0252	0.2014	0.0405
	De 251 a 500	4	905,441	0.178	0.0317	0.2527	0.0539
	De 501 a 1000	3	360,650	0.080	0.0064	0.0507	0.0026
	De 1001 y más	-	-	0.000	0.0000	0.0000	0.0000
4,525,301			0.1253		0.2021		
			IHH		ID		

Source: Own elaboration based on Censos Económicos (2009)

According to the values of the HHI and market characteristics where coexist a large number of suppliers and purchasers, the same products are offered, buyers and sellers are price takers and buyers and sellers can enter or exit the market without barriers, can be concluded that the national market and Jalisco mueblero belongs to a market structure of perfect competition, (Avalos, Esquivel and Parkin, 2006).

B. Analysis of the export of the furniture industry in Jalisco as the gradualist theory

With the data from the survey of juncture made by the government of Jalisco in 2010, it can be

observed that only the 5.6% average of companies have sales in countries other than Mexico but only 57.1% have consolidated their export process. Note that stages corresponding to the behavior of exporting firms in the furniture sector in the state correspond to the stage where I have irregular exports to 42.9% of the companies that were part of the study by the AFAMJAL. The rest of companies can be categorized to the type of behavior that is described in step II, which corresponds when the model is exported through independent representatives.



Figure 1: Percentage of furniture companies of the exporting sector of Jalisco

Source: Juncture study. Furniture industry. 2do. Semester 2010.



Figure 2: Percentage of consolidated export companies and incipient export companies of furniture industry of Jalisco

Source: Studyjuncture. Furniture industry. 2do. Semester 2010.

Table 1. Factors to Consider for exporting furniture enterprises of Jalisco.

Economic	Companies must assess the economic conditions of the country where they intend to settle, as well as their internal resources and capabilities.
Cultural	Cultural aspects are difficult to measure but if you succeed you must make an effort to understand and respect the culture that is entered.
Political- Legal	The two main factors to evaluate are the political risk and trade regulations.

Table 2. Reasons companies exported

Reasons for exports	}	<ul style="list-style-type: none"> A. Find new markets for profit B. Diversification of risk C. Reduction of production costs D. Search export less competitive markets E. F. Tax and Employee Benefits G. Increased bargaining power H. Extending the life cycle of the product in other countries I. Increase efficiency by achieving economies of localization
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Source: Prepared with information on reasons for internationalization (Dunning, 1973)

8. Conclusions

According to the data analyzed companies in the furniture industry in Jalisco compete in a perfectly competitive market. Because of this, they have been forced to reduce their costs of production and transportation in order to survive in the market and to seek improvements in the production process to obtain minimal benefits that characterize this market structure. In addition, the entry to the furniture market mainly by ethnic Chinese forces leads to domestic producers to improve their production processes and acquire technology that allows them to reduce costs of production and distribution. Also, domestic producers seek to enter new markets where they have to compete on price and must achieve product differentiation mainly with finished materials and high quality goods.

Projecting the furniture companies from the State of Jalisco aimed to remain on the market as long as they achieve lower operating and production costs, the production of goods in the same industry does not entail many benefits as the producers compete in a saturated market where differentiation becomes harder every day. As the export option of goods, the Jalisco 's companies are still in an embryonic stage in regard to this area and overseas sales are sporadic operations that must still rely on own distributors located in the country to which they are entering.

References

1. Ávalos M., Esquivel G., Parkin, M. (2006). *Microeconomía. Versión para Latinoamérica*. Pearson Adisson Wesley, 7ª edición. pp 227- 237.
2. Banco Nacional de Comercio Exterior. (2012). *Perfiles de exportación por países*. Recuperado el 26 de Abril de 2014, de <http://www.bancomext.com.mx/Bancomext/secciones/perfiles/exportadores-contenido.html>
3. Buckley, P.J. and Casson, M.C. (1976). *The Future of the Multinational Enterprise*, Homes & Meier: London.
4. Coase, R. H. (1937). *The Nature of the Firm*, *Economica*, num. 4, pp. 386-405.
5. Dunning, J.H. (1973). *The determinants of international production*. *Oxford Economic Papers*, vol. 25, num. 3, pp. 289 - 336.
6. Elango, B. y Pattnaik, C., (2011). *Learning Before Making the Big Leap: Acquisition Strategies of Emerging Market Firms*, *Management International Review*, Vol. 51, 2011, No. 4, pp 461-481.
7. IIEG.(2014). *Industria mueblera ficha sectorial*. Recuperado el 21 de Abril de 2014, de http://www.iieg.gob.mx/contenido/Economia/fs_muebles.pdf
8. INEGI. (2004, 2009). *Micro, pequeña, mediana y gran empresa. Estratificación de los establecimientos*. Recuperado el 21 de Abril de 2014, de http://www.inegi.org.mx/est/contenidos/espanol/proyectos/censos/ce2009/pdf/Mono_Micro_peque_mediana.pdf
9. International Trade Centre.(2014). *Comercio Exterior de México de NCE Muebles*. Recuperado el 24 de Abril de 2014, de <http://trade.nosis.com/es/Comex/Importacion-Exportacion/Mexico/Muebles-mobiliario-medicoquirurgico-articulos-de-cama-y-similares-aparatos-de-alumbrado-no-expresado/MX/94?f=A&p=A&e=T>
10. IIEG.(2014). *Industria mueblera ficha sectorial*. Recuperado el 21 de Abril de 2014, de http://www.iieg.gob.mx/contenido/Economia/fs_muebles.pdf
11. Johanson, J. y J. E. Vahlne, (1977). *The Internationalization Process of Firms. A model of knowledge development and increasing foreign market commitments*, *Journal of International Business Studies*, núm. 8, pp. 23-32
12. Organización Mundial de Comercio (2013). *Países con más acuerdos comerciales*. <http://www.debate.com.mx/el-debate/noticias/default.asp?IdArt=13301538&IdCat=12302>
13. Rugman, A. M. y E. Lorraine, (1984). *Multinacionales y Precios de Transferencia. Una Introducción a su Problemática*, *Información Comercial Española*, diciembre, pp. 35-40.