EFFECTS OF REGIONAL CERTIFICATION ON EXPORT ACTIVITY, THE CASE OF THE MEXICAN LEATHER-FOOTWEAR CLUSTER

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ISSN Impreso: 1794-9920 ISSN Electrónico: 2500-9338 Volumen 21-N°3 Año 2021 Págs. 49 – 60

# EFFECTS OF REGIONAL CERTIFICATION ON EXPORT ACTIVITY, THE CASE OF THE MEXICAN LEATHER-FOOTWEAR CLUSTER

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Fecha de Recepción: Abril 15 de 2021 Fecha de Aprobación: Septiembre 20 de2021

## Abstrac:

La Marca Gto is a program created in Mexico in 2015 that looks for the creation of a good quality reputation of the products that receive it as a certification or regional trademark label. The objective of this research is to find an association between the participation of Mexicans MSMEs in this program and the beginning of export activity. A survey of 21 questions was applied to 69 SMEs that currently have this certification. The sample of this study is part of the Leather-Footwear Cluster of Guanajuato since this is one of the most traditional of the State that thorough the recent years has registered a decreasing volume of exports. The IBM SPSS Program was used to analyze the collected data and by applying McNemar test there was not found any association between the Marca Gto Certification and the beginning of export activity of the company.

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## EFECTOS DE LA CERTIFICACIÓN REGIONAL SOBRE LA ACTIVIDAD EXPORTADORA, EL CASO DEL CLÚSTER DE CUERO-CALZADO MEXICANO

### **Resumen:**

Marca Gto es un programa creado en México en 2015 que busca la creación de una buena reputación de calidad de los productos que lo reciben como una certificación o sello de marca regional. El objetivo de esta investigación es encontrar una asociación entre la participación de las Mipymes mexicanas en este programa y el inicio de la actividad exportadora. Se aplicó una encuesta de 21 preguntas a 69 MIPYMES que actualmente cuentan con esta certificación. La muestra de este estudio forma parte del Clúster Cuero-Calzado de Guanajuato ya que éste es uno de los más tradicionales del Estado que a lo largo de los últimos años ha registrado un volumen decreciente de exportaciones. Para el análisis de los datos recolectados se utilizó el programa SPSS de IBM y al aplicar la prueba de McNemar no se encontró ninguna asociación entre la Certificación Marca Gto y el inicio de la actividad exportadora de la empresa.

## EFEITOS DA CERTIFICAÇÃO REGIONAL NA ATIVIDADE DE EXPORTAÇÃO, O CASO DO CLUSTER MEXICANO DE COURO-CALÇADO

#### **Resumo:**

La Marca Gto é um programa criado no México em 2015 que visa a criação de uma reputação de boa qualidade dos produtos que o recebem como certificação ou selo de marca regional. O objetivo desta pesquisa é encontrar uma associação entre a participação das MPMEs mexicanas neste programa e o início da atividade exportadora. Um levantamento de 21 questões foi aplicado a 69 PMEs que atualmente possuem esta certificação. A amostra deste estudo faz parte do Cluster Couro-Calçadista de Guanajuato por ser um dos mais tradicionais do Estado que ao longo dos últimos anos vem registrando um volume decrescente de exportações. Para a análise dos dados recolhidos foi utilizado o Programa IBM SPSS e através da aplicação do teste McNemar não foi encontrada qualquer associação entre a Certificação Marca Gto e o início da actividade exportadora da empresa.

## 1. INTRODUCCIÓN:

The determinants of export performance have been studied over the past decades; however there is not a consensus in the theoretical literature and findings since this is a topic that depends on several factors that go from the global competition and nature of the industry to the national competitiveness, domestic clusters performance and even the management of each company.

In this field, also the Small and Medium Enterprises (SMEs) have been profusely studied because they account for a major proportion of the national industries and at the same time face important challenges to get a successful internationalization of their products.

Not only in the developing economies but also in the developed ones, the strategy to increase the export of SME is a subject of constant study and evolution. At a national level, that strategy is designed and implemented by the Government supported by private initiatives.

In the array of governmental mechanisms created to promote the internationalization there are some that tries to build a regional identification of the products made in some geographical area. That is the case of Marca Gto, a program created in Mexico in 2015 that looks for the creation of a good quality reputation of the products that receive it as a certification or Regional trademark label. This certification is, not only but highly oriented to promote the exportation since to obtain it, the enterprises must prove high quality standards but at this moment, there is not clear evidence if that goal has been achieved.

The objective of this research is to find an association between the participation of Mexicans SMEs in the governmental program Marca Gto and the beginning of export activity. A survey of 21 questions was applied to 69 SMEs that currently have this certification. The sample of this study is part of the Leather-Footwear Cluster of Guanajuato since this is one of the most traditional of the State that thorough the recent years has registered a decreasing volume of exports. The IBM SPSS Program was used to analyze the collected data and as a result there was not found any association between the Marca Gto Certification and the beginning of export activity of the company. However, this finding leads to a deeper comprehension of how Marca Gto is contributing to the creation of a quality culture in other areas that are not directly related to export activity and how this could be used as an advantage for internationalization of the products in a near future.

This information is useful not only for the managers of surveyed SMEs but also for the Government that can track the results of this Program created with the objective to increase regional competitiveness and the global presence of products made in Guanajuato.

This study contributes to the existent literature since describes, analyze and compare the case of a cluster conformed by traditional SMEs that uses a regional certification created by the Government to promote the export performance.

## 2. MARCO TEÓRICO

The literature of International Business focused on the determinants of export performance still shows heterogeneous and controversial results (Chugan & Singh, 2014; Moghaddam, Hamid, & Aliakbar, 2012; Nazar & Saleem, 2009; Srivastava, Moser, & Meijer, 2015).

Different studies have attempted to analyze the relationships between the location advantages of

regional clusters and export performance of firms (Diez-Vial & Fernández-Olmos, 2014; Fernhaber, Gilbert & McDougall, 2008). For example, the study of Prim, Amal & Carvalho (2016) based on a survey data by firms operating in the manufacturing industries in Brazil, estimates an equation structural model to test the relationships between cluster resources and export performance. The results of the empirical study show that agglomeration economies of a regional cluster have positive effect on both innovation and export performance of firms.

Though, there are few studies seeking for analyze the relationship of regional clusters, export performance and regional certifications.

As first step, it is convenient to define the term industrial district that goes back to Alfred Marshall (1920) who used it for the "concentration of specialized industries in particular localities". The Italian economist Becattini (1989, 1990) used the concept to capture the success of agglomerations of small firms in some areas of his country.

Industrial districts are referred in several ways, in this paper it is used regional cluster that names the same phenomenon. The main attributes of regional clusters are: geographical proximity, sectoral specialization, predominance of SMEs, close interfirm collaboration, interfirm competition based on innovation rather than lowering wages, a socio-cultural identity which facilitates trust relations between firms and between employers and skilled workers, active self-help organizations, and active regional and municipal government which strengthens the innovative capacity of local industry (Schmitz & Musyck, 2016).

In their work, Schmitz & Musyck (2016) analyzes the most common sectors represented in the Third Italy including Footwear Industry that is traditional and technologically compatible with the small-scale family structure of most local firms. This case is of interest to our study since Mexican Footwear-Leather Industry also has clusters of indigenous firms, operates mainly in traditional sectors and compete in international markets.

One of the main points made in the regional cluster literature is that this performance was achieved by taking the "high road" to competitiveness (Sengenberger & Pyke, 1992). This means seeking to compete by innovating, that is, adopting new technologies, developing new or better products and reacting more speedily to market changes. In contrast, the "low road" means trying to compete based on low wages and flouting labor standards. Institutions are essential in steering enterprises toward the high road (Schmitz & Musyck, 2016).

One general conclusion of Schmitz & Musyck (2016) is that the emergence of regional clusters does not result from consciously pursued local or regional industrial strategy. It seems that in the Italian Footwear cluster went through two stages: spontaneous growth and institutionally enhanced growth. There was no clear-cut dividing line, but there was a common pattern of institutions playing more of a role in the later than in the earlier growth phase.

It was observed that regional and local institutions offer two advantages over central institutions: less ideology and more accountability. It seems plausible to suggest that in regional and local institutions there is more likely to be a sense of accountability and reciprocity benefiting the regional and local economy than in centralized institutions (Schmitz & Musyck, 2016).

The innovating industry, especially small industry, requires a supportive infrastructure and producer services, which the market does not necessarily

deliver. In principle, these could be provided by central institutions, but they tend to be less transparent to the local user and more remote from local needs. In the Italian Footwear case new initiatives did in fact come from local and regional institutions. Also, the emergence of local government agencies, industry associations/chambers and sometimes unions, while not free from internal conflict, played a positive role. But one cannot discount the possibility that in other circumstances they could block rather than enhance innovation (Schmitz & Musyck, 2016).

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And the same effect might also appear in the Mexican Footwear-Leather Cluster that belongs to the same global industry and shares some characteristics, already mentioned, with the Italian Industry.

So, until now has been established that regional clusters get a certain level of global competitiveness promoted by some factors and the relationships developed among them. In the Italian case, is concluded that governments or government-sponsored institutions cannot create an effective industrial organization, including producer cooperatives, but once private initiative has led to collective action, they can play an important part in helping industry to innovate and expand (Hashino, & Otsuka, 2016).

Then, Government can play a critically important role in facilitating the development of industrial districts by providing public goods and services. This is a useful lesson for governments in developing countries, which have seldom taken any supportive policy measures to develop their industrial districts (Hashino, & Otsuka, 2016).

It is settled that trade association's attempts to control the quality of products produced in the industrial district may or may not succeed because it is difficult for the association to punish producers who manufacture fake and inferior products. The government can assist the trade association by setting quality standards and enforcing them (Tetsushi, Otsuka, & Hashino, 2018), like the Chinese Footwear case that will be later presented.

And that is the same essence of Marca Gto program that establishes some quality standards to offer the company the option to use this certification as a Trademark label in the global market for products of the Footwear-Leather Cluster made in Guanajuato state.

Local government should support research activities and training programs of trade associations, to the extent that they fall short of the social optimum (Tetsushi, Otsuka, & Hashino, 2018).

Some examples of these activities are found all around the world. Among the experiences related to the Footwear Cluster can be mentioned the Europe case where local governments supported the research activities of trade associations. In China, local governments implemented a variety of measures to improve the quality of products, including the facilitation of the firms' R&D, establishment of quality inspection centers, and even the creation of trade associations. In the same country the Government invested in marketplaces to facilitate market transactions between small-scale producers and traders. Also, the Indian and Ethiopian cases are examples of supportive governmental activities.

In short, governments often supported the investment in local public goods by the trade associations, which led to the successful and accelerated development of industrial districts in several cases, the called "institutionally enhanced growth" (Tetsushi, Otsuka, & Hashino, 2018)

Approaching the topic to the Footwear Industry it will be now presented the Chinese Cluster case. The city of Wenzhou is a major center of footwear production in China, renowned as "China's footwear capital." In 2004, the footwear cluster in Wenzhou produced 835 million pairs of shoes and employed 400,000 workers (Huang, Zhang & Zhu, 2008).

However, the development process has not always been smooth. Particularly, a consumer boycott stemming from a quality crisis in 1987 almost devastated the cluster.

Wenzhou's footwear production cluster began in the late 1970s. The clustering mode of production lowers capital barriers to entry because production steps can be dispersed among different family workshops or firms (Huang, Zhang & Zhu, 2008).

As a result, the number of enterprises soared, and total output expanded dramatically. Faced with price pressures, many enterprises adopted a low-quality and low-cost strategy. Some even started to use fake materials to reduce their production costs. This behavior damaged the reputation of the whole industry in Wenzhou because most producers lacked their own brands, and consumers, unable to differentiate producers, simply generalized that all the shoes made in Wenzhou were poor quality (Ruan, & Xiaobo, 2018). On the positive side, the crisis triggered an opportunity for enterprises and local government to work together to improve product quality. Facing an existential threat, local business communities cooperated with government on a series of collective actions to improve product quality and save the industry (Ruan, & Xiaobo, 2018). The Wenzhou District Footwear Association, established in 1988 called for all members to pay attention to product reputation and improve product quality (China Footwear Information Network, 2007). Furthermore, local governments took serious administrative actions. Led by the Lucheng district government of Wenzhou City, the Bureau of Quality and Technical Supervision, the Administration of Industry and Commerce, and several other related agencies jointly established the Lucheng Footwear Quality Management Office. Since then, all shoes produced in Wenzhou have had to be certified by this office. The office began inspecting enterprises regularly and sampling their products (Ruan, & Xiaobo, 2018).

The office issues quality certificates to products that meet quality standards and bans the sale of products that fail quality tests. To renew their production license with the Administration of Industry and Commerce, enterprises must provide the quality certifications for their products (Li, 2006).

In 1993, the Wenzhou municipal government implemented a strategy to create a regional brand, requiring all shoes shipped out of Wenzhou to carry the "Made in Wenzhou" label. The government

also began providing incentives to encourage local enterprises to create brands. For example, if a firm earns the "China Famous Brand" title for its products from the State Administration of Industry and Commerce, the local government will award it 1 million Yuan (Li, 2006).

Moreover, the association and local governments worked together to regulate advertising. Enterprises that were blacklisted by the association for their bad reputation were also banned from posting any advertisements in Wenzhou. Given Wenzhou's status as the major shoe market and production center, this measure made it hard for the punished enterprises to gain business (Ruan, & Xiaobo, 2018).

Ruan, & Xiaobo (2018) states that the quality of products manufactured in China has improved significantly in the past several decades. Also, that crises reshape both entrepreneurs' and local governments' perceptions of the payoffs and costs involved in proposed reform measures. When facing a harsh external environment, the public and private sectors are more likely to take collective action to improve product quality. Therefore, crises imply an opportunity for clusters to upgrade product quality. Another relevant experience for the purpose of this study is the Indian Footwear case and the governmental strategy to promote its exports.

The "Make in India" campaign is a national policy which aims to develop India as a manufacturing hub by welcoming global manufacturers to invest in India and upturn the Gross Domestic Product (GDP) (Yadav & Vijit, 2018).

The Government has been focusing on eradication of superfluous regulations, to abbreviate bureaucratic processes, upgrade infrastructure, open sectors to foreign direct investment (FDI), and most prominently, Government wants to be seen as a true business partner (Yadav & Vijit, 2018).

The leather industry is a key sector of the "Make in India" campaign, it is expected to increase the revenue of leather industry from \$12 billion to \$27 billion by 2020 and generate employment for six million people while currently 2.5 million people already work in the industry (Yadav & Vijit, 2018).

India is the only country of enough size, with a sufficiently large population and with low labor costs that could eventually replace China as the leading global footwear supplier. India, with 10% contribution in world's total leather production, has become the second largest producer of leather footwear and garments in the world. The SMEs is a key segment of Indian leather industry contributes 80% of the total business done in this sector. Manufacturing is a central function of the Indian leather industry, with a turnover of \$11 billion and has a noteworthy share in the overall exports of the country. The exports of Indian leather goods are estimated to grow 24% annually (Yadav & Vijit, 2018).

The domestic Leather Footwear Cluster has undertaken a substantial renovation due to the continuous support of the Government. Identifying the opportunities for Indian leather industry from globalization, the government over the last decade and a half has started numerous initiatives in the areas of investment, taxation, research and cluster initiatives. The former restrictions on capacity expansion by way of reservation for SMEs has been done away with as the government has de-reserved the manufacture of various types of leather including semi-finished leather, harness leather, leather shoes, etc. from small scale sector

In their study, Yadav & Vijit (2018) looking for understand the different factors that affect exports in Leather Footwear Cluster considered the independent variables: years of qualification, years of export experience, energy crisis, ISO certification, average raw material cost per pair, participation in international trade exhibitions, average marketing cost per pair, technical manufacturing expertise and focusing personal design collections. By calculating coefficients, founded that almost all the independent variables are significant and important. Particularly, every one percent increase in qualification, years of experience in exports participation in international trade exhibitions and technical manufacturing expertise leads to increase in exports value.

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The "Make in India" campaign has also some challenges, there is an urgent need to overcome multiple issues and challenges that the companies in Indian Leather Cluster. In order to enhance investments and increase the pace of job creation, the Indian government is working on fiscal and non-fiscal fronts for leather and non-leather footwear sector.

"Make in India" initiative cannot be taken as a magical solution, rather it is a platform for industries and businesses to sustain and progress, specifically in hard economic phases.

Finally, another case that will be presented in this analysis is the Ethiopian Footwear Industry.

Since the 1991 economic reform, Ethiopia has tried different policy measures towards implementing its overarching national development strategy. The fourth plan is the Growth and Transformation Plan II (GTPII) which is currently under implementation (2016-2020). That industrial development strategy focuses on industries that are labor intensive, use agricultural inputs and are export oriented and import substituting. On these criteria, leather and leather products became Ethiopia's three top export priority sectors (Yuya Ahmad & Tufa Adineu, 2018).

In their study, Yuya Ahmad & Tufa Adineu (2018) found that the export performances of Ethiopian Footwear Manufacturing firms have increased significantly when compared to those of firms in other industries in general and other leather products sectors. Tough the limited export successes in both sectoral and firm-level performances were attributed to the entry of foreign firms. A remarkable finding is that firms indicated that export specific incentives have been inadequate to induce export while domestic market offers better return. Poor designs of incentives, government's weak implementation capabilities, and firms' own capability limits were among the key constraints to export.

In the Ethiopian Footwear Industry, there are special capacity building institutions: the Ethiopian Leather Industry Development Institute (ELIDI) and The

Ethiopian Textile Industry Development institute (ETIDI) but also Quality and Standards Organization which gives quality assurance services primarily to products designated to export market (Yuya Ahmad & Tufa Adineu, 2018).

Export promotion policies are aimed at accelerating structural transformation through increasing

Ethiopia's export. However, incentives have been either poorly implemented or inadequate to spur export growth in manufacturing, it would be unfair to entirely nullify government's role (Yuya Ahmad & Tufa Adineu, 2018).

The key strategy is to get the political settlement right and reforming the Government's policy designed and implemented effectively. This requires for the Ethiopian case, assignment of bureaucrats based on their capacity and commitment rather than political criteria. There should also be effective monitoring and evaluation system that would help correct errors and strengthen successes. Introduce institutional selfevaluation and cross-evaluation system among policy implementing institutions pertaining to responsiveness and effectiveness in delivering expected supports (Yuya Ahmad & Tufa Adineu, 2018).

This last element is very related to the aim of the present research that is looking for measure the effects of the Marca Gto Program which will be shortly detailed.

#### Marca Gto

Marca Gto is a Mexican program created in 2015 by the regional Government of Guanajuato State to promote the development, growth and strengthening of internal commerce; recommend the products and services of Guanajuato companies to create pride of the State identity; consolidate its position in the best national and international commercial showcases; promote continuous improvement processes, develop a culture of quality, competitiveness and productivity; and integrate the value chain of differentiated products and services (Secretaría de Desarrollo Económico Sustentable del Estado de Guanajuato, 2020).

The main objective of Marca Gto is that participating MSMEs (Micro, Small and Medium Enterprises), by obtaining the use of the Marca Gto label, position their products in the national and international market with a certificate, which allows them to obtain growth in their sales, generating wealth for the State (Secretaría de Desarrollo Económico Sustentable del Estado de Guanajuato, 2020).

Marca Gto is an official registry from the Mexican Institute of Industrial Property (IMPI) endorsed by the Mexican Institute for Standardization and Certification (IMNC).

To get the Marca Gto regional certification, the MSMEs must demonstrate their ability to comply with its specification through an evaluation process. The use of the Marca Guanajuato distinctive is granted for one year and considers a maintenance surveillance evaluation. Once the companies have proven to meet the specification, they are provided with the Marca Gto label (Kiosco de la Historia, 2020).

In 2019, 2030 MSMEs from Guanajuato had this Trademark label and the goal of 2020 was to achieve an increment of 500 more firms (Gobierno del Estado de Guanajuato, 2019, Periódico Oficial del Estado de Guanajuato, 2019).

Leather- Footwear Cluster is one of the areas of this program specifically designed for the attention of these firms due to the relevance of the industry in the State.

## Leather- Footwear Cluster of Guanajuato

The Leather-Footwear Industry has an old tradition in Guanajuato State that backs to S. XVIII, through the years it has evolved and face some challenges derived form the globalization and the increasing competition of the sector. Not only imported products in the domestic market but also a decreasing competitiveness of the cluster in the international markets has led it to a challenging situation.

In their study (Ortiz & Martínez, 2000) mention that the commercial opening was a hard stage for the Mexican footwear sector due to its very low level of competitiveness, although they point out that some companies managed to get ahead thanks to their adaptation to the demands of consumers.

Despite the tradition of the Leather-Footwear industry of Leon, it has been gradually decreasing in the global competitiveness rankings. Given this situation, it is necessary to raise awareness of the need to recognize the relevance of building strategies to resolve this contradiction. The export strategy has been proposed as a viable way for MSMEs to access the benefits of global markets and thereby promote their competitiveness (Cisneros-Reves et. al., 2018).

It has also been stated that the characteristics of MSMEs of the Footwear-Leather cluster are not in themselves an impediment to a successful incursion into foreign markets, however, they require a professionalization that is achieved jointly by employers, trade associations and government (Cisneros-Reves et. al., 2018).

Currently, the Leather-Footwear Cluster of Guanajuato manufactures 72 percent of Mexican production. This

cluster produced in 2019 250 million pairs of shoes, but it is expected to decrease 50 million to get 200 million by the end of 2020, due to the Global Pandemic of COVID-19 (Ruiz, 2020).

More than 15,300 enterprises form the Leather-Footwear Cluster and most of them are MSMES. It is estimated that 143,000 families live from this fundamental and foundational industry in Guanajuato, and this amount rises to 220,000 families if it is considered the entire supply chain (Miranda, 2019).

In 2019, the Leather-Footwear Cluster of Guanajuato exported 349 million of USD dollars and during the period January-August 2020 exported 108 million of USD dollars which is a decrease of 28.47% of the amount correspondent to the same period of previous year (151 million of dollars) (Coordinadora de Fomento al Comercio Exterior, 2020).

Leon is the main city of Leather-Footwear Cluster considered in this research and accounts for the 96% of the exports. United States of America is the first market of the products (93%) followed by Canada (3%). In this category, 87% of the total exports correspond to Leather-Footwear products, being boots for men (35%) and boots for women (25%) the most prominent (Coordinadora de Fomento al Comercio Exterior, 2020).

A last element that must be considered is the arise of disruptive situations like the actual Pandemic crisis and the Lockdown that create new circumstances for the global, social and entrepreneurial activities.

Due to the Lockdown, in February-August of 2020 approximately 15,000 formal jobs of the Leather-Footwear Cluster of Guanajuato were lost, and the expectation is a fall of 5 billion pesos by the end of 2020. During April and May, the sector reached only 10 percent of its production but in July, it was already operating at 60 percent (Ruiz, 2020).

Although the uncertainty, the latest data indicates that 5 percent of the companies surveyed by the Chamber of Leather-Footwear Industry of Guanajuato State (CICEG) expect that the closure of their enterprise might be definitive (Ávila, 2020).

## 3. METODOLOGÍA

## Objective

The objective of this research is to find an association between the participation of Mexicans SMEs in the governmental program Marca Gto and the beginning of export activity. To collect the data used in this research, a survey of 21 questions was applied to a sample of 69 MSMEs part of the Leather-Footwear Cluster that currently have the Marca Gto certification.

face

The survey was sent by e-mail and personal communication with the enterprises allowed to get further information.

The IBM SPSS Program was used to analyze the collected data.

The Cronbach's alpha was calculated to validate the reliability of the research instrument. Cronbach's alpha is a measure of internal consistency, that is, how closely related a set of items are as a group. It is considered a measure of scale reliability. A "high" value for alpha does not imply that the measure is unidimensional. Technically speaking, Cronbach's alpha is not a statistical test – it is a coefficient of reliability (or consistency).

Cronbach's alpha can be written as a function of the number of test items and the average inter-correlation among the items. Below, for conceptual purposes, the formula for the Cronbach's alpha is shown:

$$\propto = \frac{N \, \bar{c}}{\bar{v} + (N-1) \, \bar{c}}$$

Here N is equal to the number of items,  $\bar{c}$  is the average inter-item covariance among the items and v equals the average variance.

It can be seen from this formula that if the number of items increases, Cronbach's alpha increases too. Additionally, if the average inter-item correlation is low, alpha will be low. As the average inter-item correlation increases, Cronbach's alpha increases as well (holding the number of items constant) (University of California Los Ángeles, 2020)

After that, the McNemar test was applied to the proposed hypothesis. The McNemar test is used to determine if there are differences on a dichotomous dependent variable between two related groups. It can be considered similar to the paired-samples t-test, but for a dichotomous rather than a continuous dependent variable. However, unlike the paired-samples t-test, it can be conceptualized to be testing two different properties of a repeated measure dichotomous variable.

The McNemar test is used to analyze pretest-posttest study designs, as well as being commonly employed in analyzing matched pairs and case-control studies.

The McNemar's test has three assumptions that must be met.

Assumption #1: There is one categorical dependent variable with two categories (i.e., a dichotomous variable) and one categorical independent variable with two related groups. Examples of dichotomous variables in this case is export activity (two groups: "yes" and "no"). Having an independent variable with two related groups indicates that there is a pretest-posttest study design.

Assumption #2: The two groups of the dependent variable must be mutually exclusive. This means that no groups can overlap. In other words, a participant can only be in one of the two groups; they cannot be in both groups at the same time. Similarly, after the revision period.

Assumption #3: The cases (enterprises) are a random sample from the population of interest (Aerd, Statistics, 2020).

The McNemar test formula is:

$$x^2 = \frac{(b-c)^2}{b+c}$$

Under the null hypothesis, with a sufficiently large number of discordants (cells b and c),  $x^2$  has a chisquared distribution with 1 degree of freedom. If the  $x^2$  result is significant, this provides sufficient evidence to reject the null hypothesis, in favor of the alternative hypothesis that  $pb \neq pc$ , which would mean that the marginal proportions are significantly different from each other (McNemar, 1947).

## 4. RESULTADOS:

#### 1. Cronbach's Alpha

Table 1. Case Processing Summary

**Case Processing Summary** 

		Ν	%
Cases	Valid	69	100,0
	Excluded <sup>a</sup>	0	,0
	Total	69	100,0

## a. List elimination is based on all variables in the procedure.

Source: Authors' creation

**Table 2. Reliability Statistics** 

**Reliability statistics** 

Cronbach's alpha	Cronbach's alpha based on standardized elements	
,977	,977	19

Source: Authors' creation

Given the Cronbach's  $\alpha$  = 0.977 the instrument is excellent reliable (internal consistency).

## Table 3. Statistics of Element

Statistics of element

	Mean	Standars desv.	N
Quality of the product	3,88	1,323	69
Productive processes	3,80	1,267	69
Administrative processes	3,80	1,279	69
Expansion plans	3,87	1,305	69
National competitive position	3,86	1,342	69
International competitive position	3,61	1,263	69
National price competitivenss	3,57	1,277	69
National price competitivenss	3,42	1,230	69
National distribution	3,61	1,191	69
Inernational distribution	3,41	1,229	69
National recognition	3,75	1,156	69
International recognition	3,46	1,279	69
Incursion into global value chains	3,83	1,200	69
Increase of exports	2,68	1,036	69
Easiness of exportation to traditional markets	2,96	,930	69
Easiness of exportation to new markets	2,91	,903	69
ldentification of new exports markets	2,91	1,054	69
Export plan in future 1-2 years	3,04	1,169	69

Consideration internationalization of		of3,23 the	1,165	69	
enterprise					

## Source: Authors' creation

2. Mc-Nemar Test

H0: There are no differences in exports before and after the implementation of the Marca Gto

H1: There are differences in exports before and after the implementation of the Marca Gto

Level of significance 5% = 0.05

## Table 4. Cross Table Exports Before\*Exports After

#### Cross Table Exports Before\*Exports After

			Exports After		
			Yes	No	Total
Exports Before	Yes	Count	25	9	34
		% of total	36,2%	13,0%	49,3%
	No	Count	7	28	35
		% of total	10,1%	40,6%	50,7%
Total		Count	32	37	69
		% of total	46,4%	53,6%	100,0%

Source: Authors' creation

#### Table 5. Chi-square test

#### Chi-square tests

Value	Exact significance (bilateral)
	,804ª
69	

a. Binomial distribution used.

#### $\chi^2 = 0.804$

0.804 > 0.05 H1 is rejected and thus H0 accepted: There are no differences in exports before and after the implementation of the Marca Gto

## 5. DISCUSIÓN Y CONCLUSIONES

The data provided for this sample and the application of the McNemar test were not allowed to find any association between the Marca Gto certification and the beginning of export activity of MSMEs of Footwear-Leather Cluster.

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However, this should not be interpreted as the Marca Gto certification is completely unsuccessful in the pursue of promoting exports. Since the export activity is a rather complex and gradual process, this regional certification might be considered as a tool that help the MSMEs of Leather-Footwear Cluster in the process of strengthen the quality culture of the companies to, eventually acquire the required competitiveness level for considering export their products.

Since this is a quite new program (5 years) the performance of it should be constantly monitored to identify and measure the results and also the challenges in order to overcome them.

Actually, during the data collection some firms expressed their intention to know the process to start their activity exports and considered that this governmental program should be increasingly promoted to know the benefits derived form it. Then, the post-services were detected as opportunities to get a better development of their activities.

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## EFFECTS OF REGIONAL CERTIFICATION ON EXPORT ACTIVITY, THE CASE OF THE MEXICAN LEATHER-FOOTWEAR CLUSTER

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