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SMEs Maturity in tourist services of Tecozautla, Hidalgo, Mexico

Madurez de la MIPyME de servicios turísticos de Tecozautla, Hidalgo, México

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ABSTRACT

Tourism is one of the economic sectors of significant growth in recent years, in which micro, small and medium-sized enterprises (SMEs) are present as organizations offering tourism services, who face environments of dynamism and competitiveness. This article seeks to define the level of maturity reached by the SMEs of the tourist services, spas and hotels sector, of the magical town of Tecozautla, Hgo. To do this, the level of competitiveness is assessed through the activities that make up the value chain based on the questionnaire designed by Paravié *et al.* (2012) and the methodology developed by Rohvein *et al.* (2013), in addition, the partial correlation between the elements of the study is determined. The analysis made shows the low performance in the activities that make up the value chain by SMEs, mainly in spas.

Key words: business competitiveness, value chain, tourism services sector, SMEs.

Jel Code: L83, Z32, M10

RESUMEN

El presente artículo define el nivel de madurez alcanzado por la MIPyME de servicios turísticos, balnearios y hoteles, del pueblo mágico de Tecozautla, Hgo. Para ello se evalúa el nivel de competitividad a través de las actividades que componen la cadena de valor a partir del cuestionario diseñado por Paravié y otros (2012); y con la metodología desarrollada por Rohvein y otros (2013). Además, se determina la correlación parcial entre los elementos del estudio. El análisis realizado hace evidente el bajo desempeño en las actividades que componen la cadena de valor por las MIPyMEs, principalmente en los balnearios.

Palabras clave: competitividad empresarial, cadena de valor, turismo rural, pueblo mágico.

Código Jel: L83, Z32, M10

INTRODUCTION

During the last six decades, the tourism industry has experienced continuous expansion and diversification, becoming one of the most cutting edge and growing economic industries in the world (OMT, 2017). It represents the possibility of job creation, increasing markets where small and medium companies operate, as well as preserving the natural and cultural richness of countries (PND, 2013-2018). Tourism is one of the most solid alternatives to achieving economic development and social wellbeing of nations, especially in developing and less developed countries (Sánchez, 2012). In 2017, global tourism had 1.340 billion dollars of revenue, which represented 5% more in comparison with the previous year (OMT, 2018).

Micro, small and medium companies (SMEs) are present in various economic industries, and the tourism industry is no exception. In Mexico, 99.8% of stablishments are classified as SMEs. They have 71.2% of employed personnel and contribute 35.9% of gross production (INEGI, 2015). Particularly in the services industry, it is 32.4% and they employ 32.9% of personnel.

Despite the contribution of those units to the Mexican economy, they have not reached a level of competition that allows them to challenge the dynamic and competitive environment of the markets (Molina *et al.,* 2015). In addition, all types of companies need to be added to the chains of value to increase the capacity to satisfy the demands of their customers and compete internationally (INADEM, 2018).

The current situation leads companies to frequently innovate their management processes, adopt new strategies and be creative to face the constant market changes. In the SME environment, the adoption of these values determines the difference between survival and extinction (Rohvein *et al.,* 2012). In addition to this, a study on business competition is necessary to detect the factors that positively impact SMEs (Aguilasocho *et al.,* 2014).

The municipality of Tecozautla is one of the 84 municipalities that make up the state of Hidalgo. It obtained the category of Magical Town in 2015. This municipality has stood out for its thermal waters, which are mainly used in resorts and for watering diverse crops. Tecozautla has colonial type buildings, including the monumental clock known as the Torreón, the cave paintings, the agricultural site Pañhé, in addition to natural attractions such as the geyser, rivers and springs. Two festivities are held in Tecozautla. The first is the carnival that is held one day before Ash Wednesday, and the second festival is known as the Fruit Fair, which is held on July 25th. Notable crafts include the creation of obsidian accessories and baskets of various shapes prepared from reed and palm.

In the report called *Situation of competition in Mexico 2004*, published by the Mexican Institute for Competition (IMCO, 2005), the need to offer a range of possibilities and packages that add value for the tourist and ensure larger revenue for the country was manifest. In Mexico, tourism is an excellent industry to materialize competitive potential, and beaches and sun are not the only thing there is to offer. This country has other exclusive characteristics, of which Tecozautla is an example. Characteristics of cultural tourism, ecotourism, landscaping, rural tourism, sports fishing and film tourism; as well as a center for congresses and conventions.

Based on the above, the magical town of Tecozautla is seen with potential for tourism growth. Strategies could be implemented to turn it into a competitive destination to be able to attract both national and international tourism.

The challenge lies in giving added value to the offer of services and products. This leads to the following investigation question: Are resorts and hotels (SMEs) in the magical town of Tecozautla, Hidalgo, competitive? Based on this context, this study presented the objective of defining the maturity level, in terms of competitiveness, reached by the SMEs of the service industries of tourism, resorts and hotels, of the magical town of Tecozautla, through the evaluation of the activities that make up the chain of value, and also analyzes the existing relations between those activities.

THEORETICAL BASIS

This study takes as a reference investigations previously related to the business competitiveness and the chain of value; emphasizing the situation of the magical town of Tecozautla, Hgo, Mexico in the tourism services industry. The main considerations on these aspects are mentioned below.

Competitiveness and business competitiveness

The concept of competitiveness arose as a new paradigm to comprehending the existing differences in the economic development of countries and regions (López, 2008). The first to structure and systematize the theoretical body with respect to the concept of competitiveness was Michael Porter, who in 1990 defined it as the capacity to sustain and increase participation in international markets, with an elevation parallel with the level of life of the population.

Currently, competitiveness is a variable that is present in the recent focuses of administrative theory (Chiavenato, 2012). According to Gandara and others (2013), competitiveness can be analyzed from several perspectives: in relation to the analysis unit (companies, products,

touristic destinations, countries, economic blocks), in relation to the source of competitiveness (external or internal), in relation to the nature of the competitiveness (direct or indirect), in relation to the dimension or analysis (in micro or macroeconomic level), and in relation to the context (economic, social or environmental).

Competitiveness can be seen from a macroeconomic focus when it refers to the competitiveness conditions of the environment or region in which an organization operates, when one speaks of the competitiveness of the company to denote all conditions of internal order for the organization that allow it to compete in a certain environment (Botero, 2014). Other authors, such as Montoya and others, (2008) and Sobrino (2005), have presented competitiveness as a fundamental element of development of both companies and industries and countries.

Focusing on business level competitiveness, the concept involves the capacity of an organization to offer better and cheaper products and services more suitable to market needs and expectations, offering customers innovative solutions. (Chiavenato, 2012); as well as a relationship process between business organizations and markets, in which the diverse expressions of power structures play a determining role, both of governments and groups of interest, which determine the context in which companies compete (Solleiro & Castañón, 2005).

Business competitiveness is associated with what occurs outside an organization, but it depends strictly on the internal performance thereof. Thus, the business strategy is a fundamental factor to achieve a dominant and successful position in the target markets (Mora, Vera & Melgarejo, 2015).

According to Krugman (1994), firms are those that compete in international markets, not nations (Porter, 1990). Therefore, the microeconomic or business dimension is contemplated with the macroeconomic dimension, and both are conditioned by the elements that impact the environment. Even if the company's competitiveness is the result of successful management, it is also necessary for the business environment to contribute to that competitiveness (Suñol, 2006).

Business competitiveness has been defined as a company's capacity to rival that of others in achieving a favorable competitive position making it possible to obtain a better performance than its competitor companies (Rubio & Aragón, 2006).

Business competitiveness derives from the competitive advantage a company has through its production methods. Companies compete to secure markets and resources. They measure competitiveness according to their relative market share or their profitability, and use the

competitiveness strategy to improve their performance (Lall *et al.,* 2005) and organization over that of their rivals in a specific market (Abdel & Romo, 2004). The competitive performance of a company depends, in the first place, on its capacity to manage the internal elements under control (Solleiro & Castañón, 2005; Cervantes, 2005).

The chain of value

The basic models for the design and comprehension of the generation of value are the chain of value developed by McKinsey & Company, the chain of value proposed by Michael Porter and an adaptation that is the chain of value of services of Heskett, Sasser and Schlesinger (1997). McKinsey & Company presented a model to break the company down into a chain of sequential activities built on the business system concept (Guitart, 2005). This concept evidences that all businesses are a chain of activities ranging from the entry of supplies, raw materials, among others, through procurement and other processes, to post-sale service (García, 2010).

The chain of value proposed by Porter (1985) is considered the basic tool for analyzing a company's sources of competitive advantage, since it is a systemic means that examines all activities a company performs and its manner of interaction. In the adaptation to the chain of value of Heskett, Sasser and Schlesinger (1997) for the services sector, they found that motivated, loyal and productive employees transmit value to customers, and in turn the customer becomes loyal to the company.

Years later, Alter (2007) made his contribution to the chain of value in the services sector, describing the activities related to service and responsibilities, both for the service provider and for the customer, mentioning that the activity may occur before, during and after a specific service is delivered to a specific customer. A chain of value includes the wide variety of required activities for a product or service to transit through different stages, from its conception to its delivery to consumers and the final disposal after its use (Kaplinsky & Morris, 2001; Wheelen & Hunger, 2013).

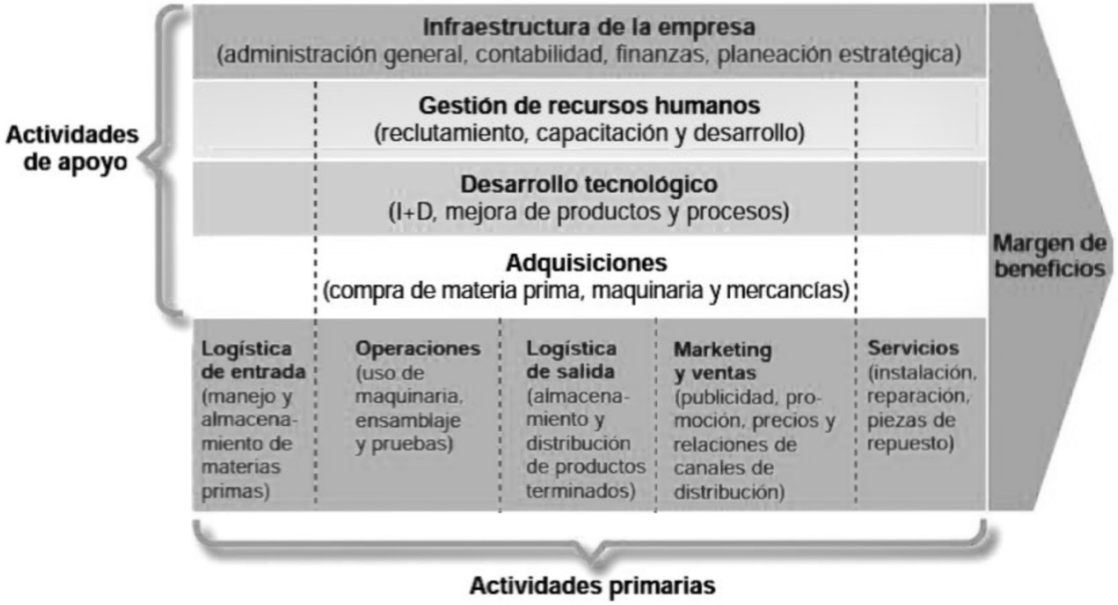
All organizations can be analyzed based on the contribution of value each one of their main activities generates, as well as the value emerging from interrelations between them (Alonso, 2008; Song *et al.*, 2012). The chain of value systematically represents the activities of any organization, whether isolated or as a part of a corporation (Frances, 2001). It is also an element for determining the costs structure of a company (Quintero & Sánchez, 2006).

A company's chain of value reflects the evolution of its own business, its internal operations, of the strategy, as well as the focuses it uses in executing them and the fundamental economy of the activities. It provides a coherent scheme to diagnose the company's position versus its competitors (Quintero & Sánchez, 2006). This chain facilitates the analysis of the company's

performance based on five primary activities and four support activities, each activity being a potential source of competitive advantages in costs or differentiation.

The primary activities are those that transform raw materials and supplies into a finished product, as well as those that imply the market start-up and marketing. For their part, support activities establish the bases for the primary activities to be developed (Wheelen & Hunger, 2013). Figure 1, shows the activities that make up a company's chain of value.

Figure 1
The activities that make up a company's chain of value



Source: Wheelen y Hunger (2013)

Below, each one of the activities that make up the chain of value presented in Figure 1 are described:

- ✔ Inbound logistics: includes all activities developed for the reception, storage and distribution of the raw materials and supplies acquired for the preparation of the product.
- ✔ Operations: includes all activities necessary to carry out the production process.
- ✔ Outbound logistics: refers to all activities from the moment the production department releases the product and it is inventoried as a finished product and stored until final distribution to the market.
- ✔ Marketing and sales: considers all activities of the organization developed to disseminate its product and perform the market exchange processes. It covers aspects such as publicity, promotions, satisfaction surveys, channel selection and sales.
- ✔ Services: activities designed to reinforce or preserve a product's value.
- ✔ Human resource management: includes necessary activities to recruit, hire, train, develop and remunerate all personnel.

- ✔ Acquisitions: activities to acquire supplies and raw materials necessary to manufacture the company's products.
- ✔ Company infrastructure: covers general administration activities such as the management, planning, finances, accounting and other subjects necessary to support the chain of value.
- ✔ Technological development: includes activities related to the innovation of the product and/or the processes used to manufacture it.

The evaluation of the chain of value includes the clear identification of the activities an organization develops, the assignment of its revenue, costs and activities to each one of them, the evaluation of each activity's capacity to create value, the analysis of the relations between the activities to identify the mutual aids between them, the assessment of the potential advantages of the coordination of the company's chain of value with the customers and providers, and the integration of the chains of value of the different operations of the organizations to reinforce and take advantage of differentiation and costs that arise (Pérez-Carballo, 1999). Breaking the company down into each one of its activities through the chain of value, includes the manner in which the generation of value will be carried out and in which the companies participate in an economy (Kaplinsky & Morris, 2001; García, 2010).

METHODOLOGY

To respond to the inquiries presented in this investigation, the study was approved with a quantitative focus since it is based on the measurement of the characteristics of social phenomenon (Bernal, 2010). For this investigation case, business competitiveness is referred to as a social phenomenon. As for the design of the investigation, it is the descriptive type where it is inferred that the SME of the tourism services industry has a series of characteristics that make it a subject of study. The study is transversal because data was obtained from the subject of study in one single moment of time (Hernández *et al.,* 2010).

To collect the information the instrument was used to assess the performance of the activities that make up the chain of value of the SME, designed by Parvié and others (2012). This consists of a survey of closed and open-ended questions that contemplate a mixed focus (qualitative and quantitative) regarding the activities that make up the chain of value proposed by Porter.

This instrument was selected because it specifically identifies what activities provide a differentiation from competitors, that is, what sources of competitive advantages the organization has, and on the other hand, what activities require greater effort. As a complement to the above, the instrument is easily adaptable to the industry that is being studied. For the analysis of the data, the methodology for assessing the level of

competitiveness of the MSPE was used, developed in 2012 by Rohvein and others (2013). This methodology classifies each activity of the company into one of four levels, according to its maturity.

This methodology helps specify the maturity level reached, both independently (for each activity) and globally (the entire company), through the weighting of the company's available resources. This leads to specifying the maturity level reached in terms of business competiveness.

Table 1
The maturity level reached in terms of business competiveness

Level	Means
1	No competitiveness Enterprise
2	Inefficient use of resources
3	Efficient processes
4	Source of differentiation

Source: Own elaboration (Rohvein *et al*., 2013).

The instrument for assessing the performance of the activities that make up the chain of value originally contemplates five primary activities and four support activities. For this study the primary activity called outbound logistics was omitted. The omission is because of the adaptation of the survey to the services sector. Products are stored and require no distribution, but services are not. A service is rendered the moment the customer is present. Therefore, the activities for this analysis are described in table 2.

The study population consists of 15 resorts and 30 hotels classified by their size as a part of the SME. They are located in the magical town of Tecozautla, Hidalgo, resulting in a total number of 45 local small-sized companies.

Table 2
Activities for analysis in the value chain

	Activity	Resource
Primary activities	Logistics entry	Control entry (CdE)
		Warehouse (Al)
		Inventory (In)
		Cost control (CdlC)
	Operation	Installations, machines and equipment (IMyE)
		Planning techniques (TdP)
		Production control (CdlP)
		Manufacturing cost control (CdCdF)
	Marketing and sales	Market (Me)
		Customer relationship (RceC)
		Promotion (MdP)
	After-sales Service	After-sale (Po)
		Customer satisfaction (SdC)

		Claims (Re)
Support activities	Human Resources	Job positions (PdT)
		Recruitment and selection techniques (TdRyS)
		Training (Ca)
		Motivation (Mo)
		Teamwork (TeE)
		Communication (Co)
	Supplying	Availability of raw materials (DdMP)
		Purchase management (GdC)
		Relationship with suppliers (RdP)
	Infrastructure	Structure (Es)
		Goals (Ob)
		Quality management (GdlC)
		Investments (Iv)
		Environmental management (GA)
		Health and safety management (GdlSeH)
	Technological development	Innovations (Io)
		Information and communication technology (TdIyC)

Source: Rohvein *et al*., 2013.

The service activities the companies studied perform are: rental of rooms and cabins for lodging, recreational pool services, and some of the places additionally offer prepared meals, spa and ziplining. The size of the sample was determined through the following formula:

$$n = \frac{Z^2 Npq}{e^2(N-1) + Z^2 pq}$$

Where:
n= Number of elements to whom the survey shall apply
Z = Reliability level
P = Probability in favor
q = Probability against
N = Universe or population
e = Error estimate (accuracy of results)

A reliability level of 90% was considered, whose normal distribution value is 1.65, and one error estimate of 14%, and since the position of the population is unknown with respect to the study characteristics, a positive variability and a negative variability of 50% are considered, respectively. The above data produced a sample of 20 companies, which were selected based on convenience.

The survey was applied in the months of September and October, 2018, through an interview whose average duration was one hour and thirty minutes. Prior to the interview, the people were instructed on the purpose of the study and were requested to voluntarily participate in filling out the survey.

Thereafter, the data collected was recorded on Excel data sheet, and descriptive statistics tools (frequencies, percentage frequencies and bar graphs) were used to interpret it. To conclude, a correlation analysis was carried out seeking to describe the degree in which a variable is linearly related to another. In this case it was a partial correlation since it was left outside the maturity level obtained by each SME. This analysis was conducted through RStudio.

RESULTS

20 surveys were applied, 9 to resorts and 11 to hotels. It was found that the competiveness level of these companies was 44.31%. The latter corresponds to level 2 (inefficient use of resources). Generally 15%, that is, three companies, obtained a competitiveness level of 3 (efficient processes), and the 85% remaining, that is, 17 companies, obtained level 2 (inefficient use of resources). In the case of resorts, 100% of them obtained a competitiveness level 2 (inefficient use of resources), whose maximum value was 48.39%. In the case of hotels, 100% of them obtained a maximum competitiveness level of 3 (inefficient use of resources), whose maximum value is 62.10%. The individual results of each PMSE can be seen in table 3.

In detail, the results of each one of the activities that were developed on the chain of value were analyzed, presenting resorts and hotels separately. In the inbound logistics activity it was found that resorts stand out in inventory and cost control resources. Both resources show a 11.11% of resorts falling in a competitiveness level of 4, which means a differentiation source, although 44.44% fall in level 1, which means a non-competitive company. In the case of hotels, they are superior in storage resources with 36.36% and inbound control of 27.27%, in which they obtain a maximum competitiveness level of 3, which means efficient processes.

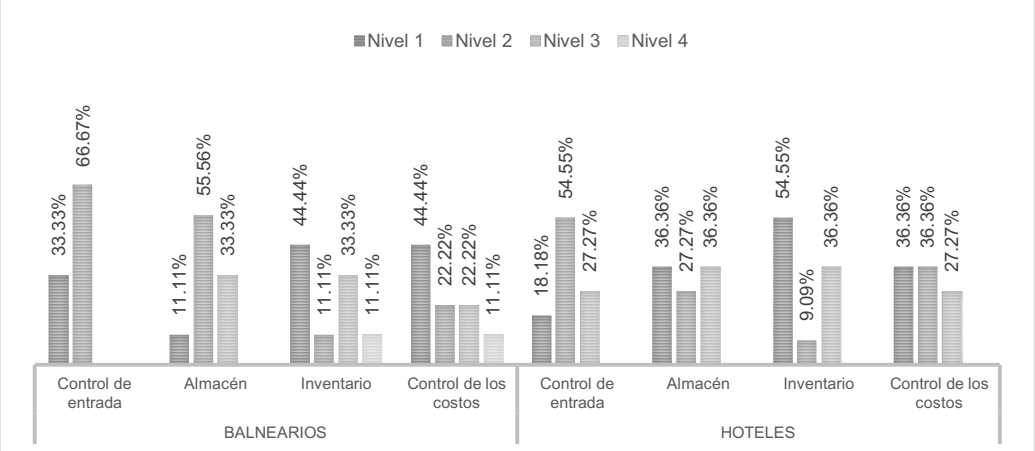
Table 3
SMEs Maturity in tourist services of Tecozautla, Hidalgo, Mexico

SMEs	Points	%	Level
Resort 1	46	37.10	2
Resort 2	60	48.39	2
Resort 3	50	40.32	2
Resort 4	40	32.26	2
Resort 5	46	37.10	2
Resort 6	51	41.13	2
Resort 7	56	45.16	2
Resort 8	56	45.16	2
Resort 9	57	45.97	2
Hotel 1	63	50.81	3
Hotel 2	47	37.90	2
Hotel 3	77	62.10	3
Hotel 4	55	44.35	2
Hotel 5	61	49.19	2
Hotel 6	65	52.42	3
Hotel 7	51	41.13	2
Hotel 8	52	41.94	2
Hotel 9	53	42.74	2
Hotel 10	52	41.94	2
Hotel 11	61	49.19	2

Source: Own elaboration.

It should be mentioned that this activity includes the two resources in which resorts came to obtain a competitiveness level of 4 (differentiation source): inventory and cost control. Graph 1, shows the percentages by resource and level for the inbound logistics activity.

Graph 1
Primary activity: Logistics entry

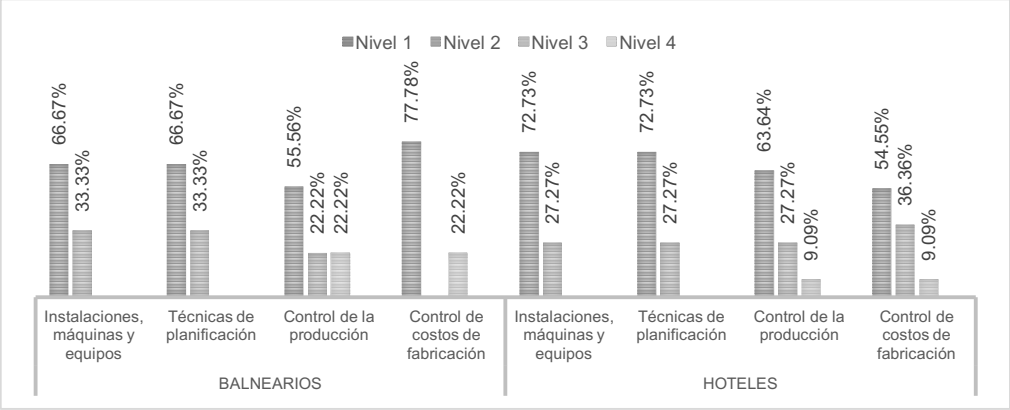


Source: Own elaboration (in Spanish).

In operations activity, 33.33% of the resorts studied fall in level 2 maturity both in terms of resources of facilities, machines and equipment, and in planning technique resources. 22.22% fall in level 3 maturity (efficient processes) in two resources: production control and

manufacturing costs control (Graph 2). Only 9.09% of the hotels studied stand out both in production control and manufacturing costs control with 9.09%, falling in level 3, which means efficient processes (Graph 2).

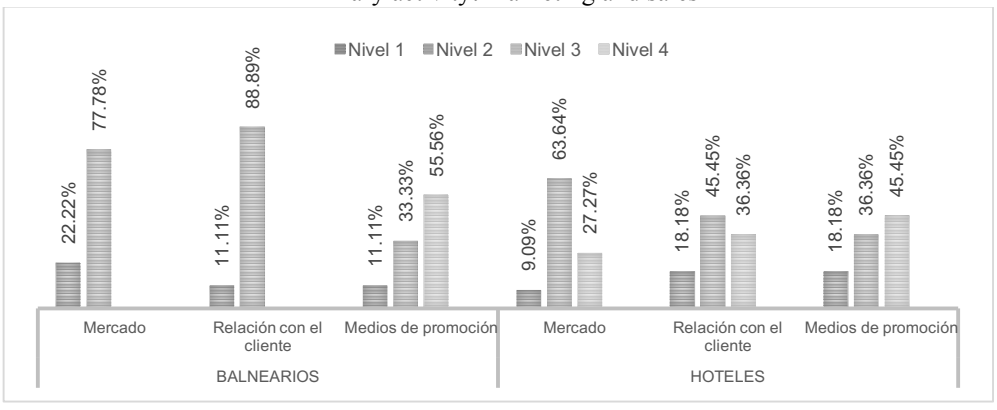
Gráfica 2
Primary activity: operations



Source: Own elaboration (in Spanish).

In the marketing and sales activity, hotels stand out in market resources with 27.27%, and 36.36% in relation to the customer; falling in a level 3 maturity, which means efficient processes. For their part, 55.6% of the resorts studied stand out in the resource of means of promotion as they have a level 3 maturity, efficient process (Graph 3).

Graph 3
Primary activity: marketing and sales

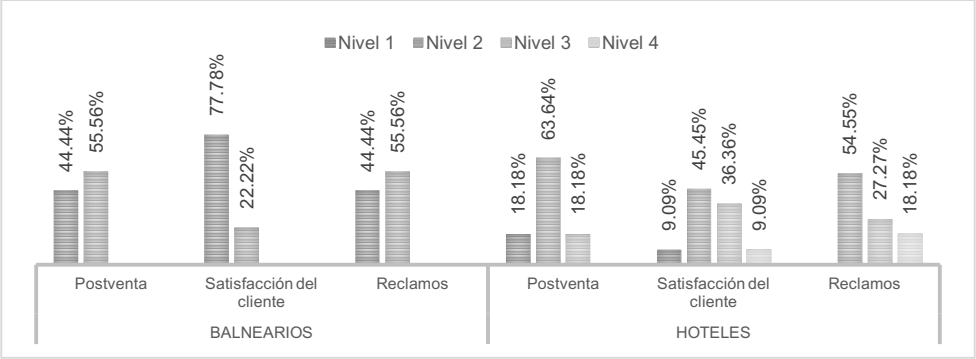


Source: Own elaboration (in Spanish).

In the services activity, hotels stand out in the three resources assessed: post-sale, customer satisfaction and complaints. In the post-sale resource, 18.18% falls within maturity level 3 (efficient processes). In the customer satisfaction resource, 9.09% obtained level 4 (differentiation source). 18.18% achieved this same level 4 in the resource of complaints. It should be mentioned that the two resources in which hotels obtained level 4 are within this

activity. Graph 4 shows the corresponding percentages by resource and level for each services activity.

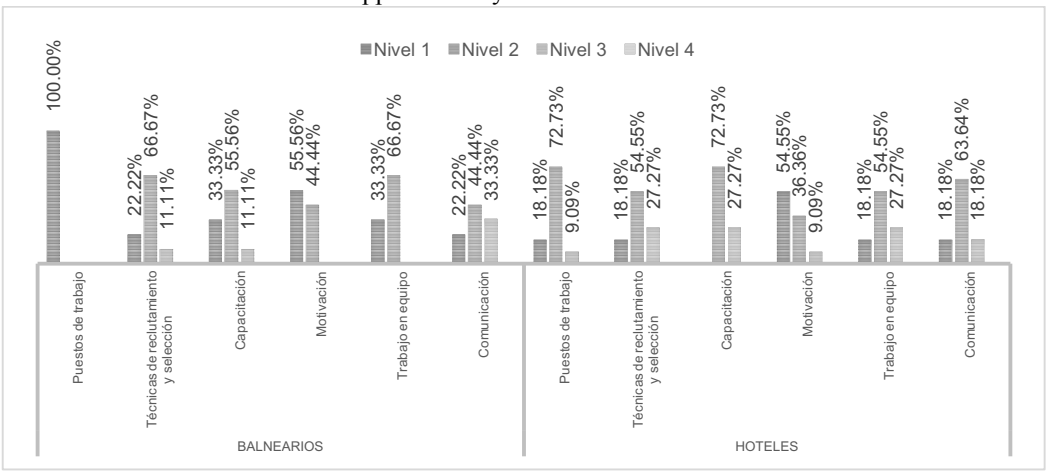
Graph 4
Primary activity: service



Source: Own elaboration (in Spanish).

In human resources activity, 9.09% of hotels obtain a maturity level 3 in resources: work positions. In recruitment and selection techniques, 27.7% achieved level 3. In training, 27.27% achieved 3, in motivation 9.09%, and in teamwork 27.27%. As for resorts, 33.33% achieved level 3 in the communication resource. Graph 5, shows the corresponding percentages by resource and level for human resources activity.

Graph 5
Support activity: Human Resources

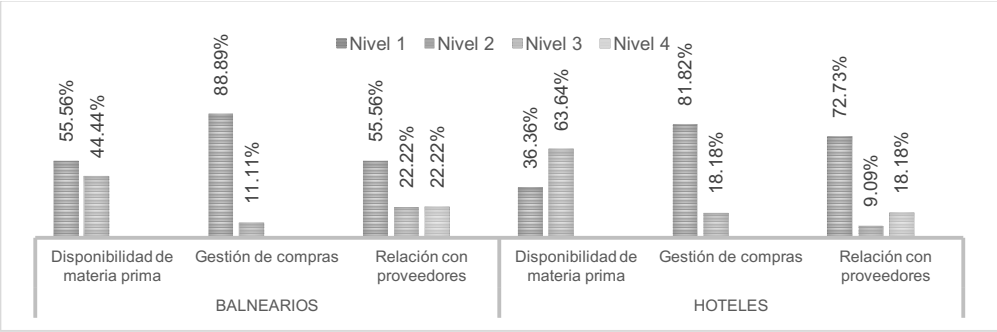


Source: Own elaboration (in Spanish).

In the supply activity, it was found that in the three resources analyzed (availability of raw material, procurement management and relations with providers), hotels are superior to resorts. In the resource of availability of raw material, 63.64% of hotels achieved a

competiveness level 2 (inefficient use of resources). In the procurement management resource, 18.18% obtained level 2 (inefficient use of resources). Finally, in the provider relations resource, 18.18% obtained level 3 (efficient processes). Graph 6 shows the corresponding percentages by resource and level for supply activity.

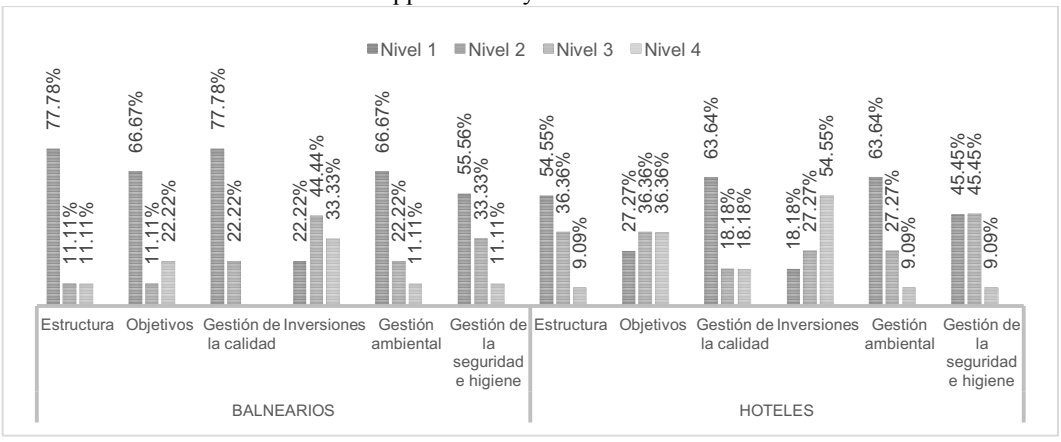
Graph 6
Support activity: supply



Source: Own elaboration (in Spanish).

In the infrastructure activity it was found that in resources of structure, environmental management and safety and hygiene management, resorts stand out with 11.11% in the three resources mentioned, falling in competiveness level 3, which represents efficient processes, while hotels stand out in competiveness level 3 (efficient processes) with 36.36% in objectives resources, 18.18% in quality management, and 54.55% in investments. Graph 7, shows the corresponding percentages by resource and level for infrastructure activity.

Graph 7
Support activity: infrastructure

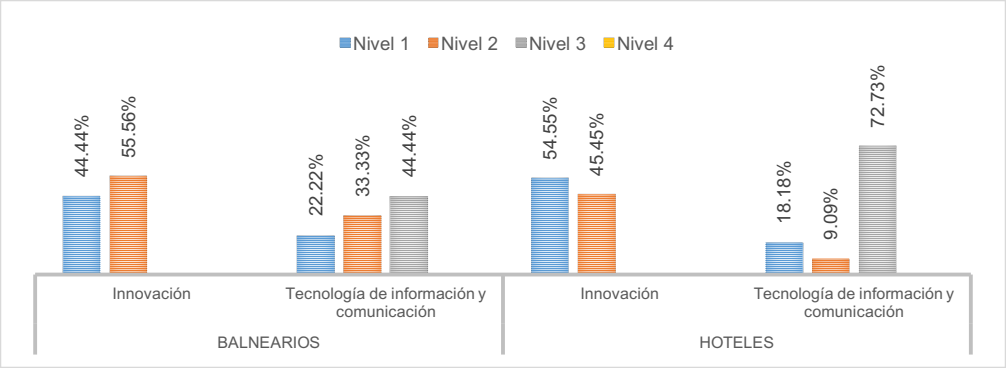


Source: Own elaboration (in Spanish).

In the activity of technological development it was found that in the resource of innovation resorts are above hotels with 55.56% of resorts falling in competiveness level 2 (inefficient use of resources) versus 45.45% for hotels. On the other hand, in the resource of information technologies and communication it is backwards; hotels are above resorts with 72.73% of

them falling in competiveness level 3 (efficient processes) versus 44.44% for resorts. Graph 8 shows the corresponding percentages by resource and level for technological development activity.

Graph 8
Support activity: technological development



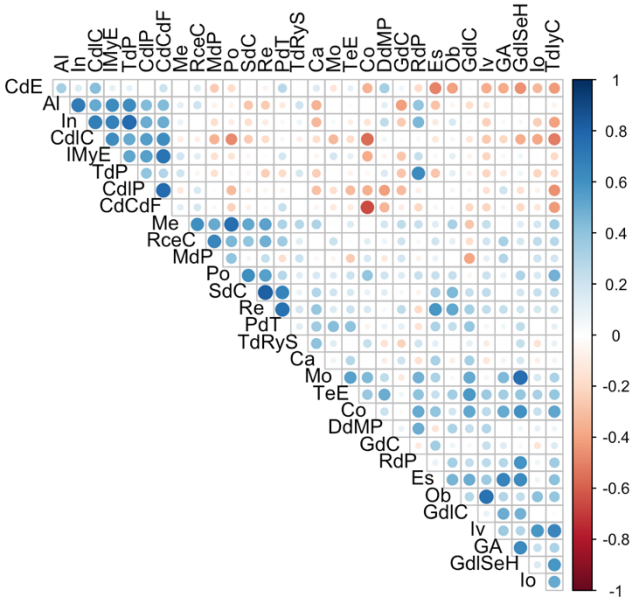
Source: Own elaboration (in Spanish).

Table 4
Partial correlations

	CdE	Al	In	CdlC	IMyE	TdP	CdlP	CdCdF	Me	RceC	MdP	Po	SdC	Re	PdT	TdRyS	Ca	Mo	TeE	Co	DdMP	GdC	RdP	Es	Ob	GdlC	Iv	GA	GdlSeH	Io	TdlyC
CdE	1.000	0.334	0.149	0.426	0.105	0.105	0.011	0.216	0.000	0.149	-0.254	-0.187	-0.018	-0.066	0.271	0.000	0.149	-0.135	0.103	-0.347	0.338	0.067	-0.189	-0.491	-0.404	-0.024	-0.366	-0.371	-0.459	-0.320	-0.420
Al		1.000	0.706	0.502	0.625	0.625	0.431	0.439	0.119	0.210	-0.063	-0.065	-0.278	-0.252	-0.110	0.206	-0.342	0.000	0.021	-0.010	0.118	-0.419	0.396	-0.282	-0.053	-0.177	-0.127	0.010	-0.020	0.000	-0.065
In			1.000	0.687	0.672	0.778	0.498	0.494	0.089	0.004	-0.178	-0.098	-0.170	-0.106	-0.041	0.077	-0.327	0.041	-0.086	-0.142	0.250	-0.253	0.458	-0.113	0.163	0.029	-0.239	0.033	0.044	-0.244	-0.403
CdlC				1.000	0.628	0.510	0.554	0.622	-0.099	-0.088	-0.348	-0.471	-0.251	-0.181	-0.046	-0.086	-0.180	-0.321	-0.183	-0.564	0.060	0.023	0.037	-0.126	0.054	-0.131	-0.266	-0.207	-0.360	-0.380	-0.516
IMyE					1.000	0.524	0.546	0.736	0.199	0.130	-0.165	-0.145	-0.049	0.013	0.184	0.000	-0.056	0.184	0.105	-0.375	-0.066	-0.275	0.231	0.049	0.115	-0.066	-0.214	0.049	0.066	0.000	-0.191
TdP						1.000	0.398	0.294	0.199	-0.056	-0.165	0.036	-0.049	-0.243	-0.184	0.173	-0.241	0.000	-0.070	-0.049	0.154	-0.275	0.637	-0.277	0.115	-0.066	-0.214	-0.114	0.066	-0.218	-0.191
CdlP							1.000	0.774	-0.123	0.166	0.014	-0.315	-0.068	-0.051	-0.057	0.000	-0.292	-0.171	-0.314	-0.359	-0.414	-0.312	-0.088	0.005	0.051	-0.041	-0.154	0.207	-0.163	-0.068	-0.456
CdCdF								1.000	0.123	0.172	-0.046	-0.225	-0.076	0.040	0.228	0.000	-0.057	-0.114	-0.108	-0.655	-0.339	-0.094	-0.209	-0.050	-0.040	-0.203	-0.220	0.050	-0.203	-0.135	-0.421
Me									1.000	0.619	0.503	0.761	0.514	0.535	0.309	0.289	0.310	0.000	0.146	0.000	0.183	0.256	0.227	0.136	0.321	-0.275	0.238	0.000	0.138	0.183	0.342
RceC										1.000	0.660	0.452	0.391	0.482	0.358	0.134	-0.007	0.215	0.014	0.120	0.077	0.202	0.047	0.197	0.114	-0.179	0.194	0.323	0.179	0.254	0.276
MdP											1.000	0.390	0.054	0.238	-0.175	0.218	-0.041	-0.058	-0.254	0.170	-0.118	0.183	-0.073	0.087	0.004	-0.394	0.112	0.293	-0.021	0.207	0.189
Po												1.000	0.619	0.547	0.282	0.132	0.170	0.141	0.214	0.399	0.201	0.140	0.228	0.224	0.234	-0.050	0.217	0.100	0.302	0.167	0.479
SdC													1.000	0.811	0.666	0.089	0.296	0.190	0.162	0.093	0.124	0.047	-0.063	0.328	0.442	0.237	0.257	-0.008	0.187	0.225	0.267
Re														1.000	0.743	0.185	0.383	0.149	0.216	0.162	0.041	0.254	-0.193	0.583	0.512	0.336	0.249	0.232	0.194	0.176	0.205
PdT															1.000	0.134	0.358	0.429	0.406	-0.063	0.085	0.118	-0.158	0.316	0.248	0.382	0.055	0.063	0.255	0.000	0.106
TdRyS																1.000	0.402	0.134	0.000	0.236	-0.159	-0.221	0.196	0.118	0.000	0.119	-0.103	0.000	0.238	-0.158	0.099
Ca																	1.000	0.072	0.285	-0.006	-0.094	0.202	-0.163	0.323	-0.085	0.332	-0.138	0.070	0.179	-0.085	0.064
Mo																		1.000	0.541	0.442	0.255	-0.118	0.473	0.316	0.050	0.510	0.055	0.442	0.764	0.169	0.317
TeE																			1.000	0.371	0.499	0.067	0.408	0.227	0.347	0.579	0.366	0.347	0.386	0.320	0.380
Co																				1.000	0.218	-0.031	0.506	0.397	0.188	0.518	0.268	0.508	0.608	0.224	0.523
DdMP																					1.000	0.099	0.493	-0.143	0.312	0.242	0.295	0.008	0.061	0.101	0.075
GdC																						1.000	-0.113	0.345	0.074	-0.042	0.228	0.136	0.042	-0.140	0.140
RdP																							1.000	0.098	0.339	0.244	0.263	0.283	0.600	0.062	0.357
Es																								1.000	0.469	0.496	0.366	0.665	0.631	0.075	0.411
Ob																									1.000	0.283	0.746	0.294	0.247	0.410	0.381
GdlC																										1.000	0.098	0.496	0.477	0.000	-0.019
Iv																											1.000	0.366	0.295	0.587	0.652
GA																												1.000	0.631	0.224	0.318
GdlSeH																													1.000	0.151	0.584
Io																														1.000	0.500
TdlyC																															1.000

Source: Own elaboration (in Spanish).

Graph 9. Partial correlations



Source: Own elaboration (in Spanish).

Note:

The description of the abbreviations presented in Table 4 and in Figure 10 is as follows:

CdE - Control de Entrada	Me – Mercado	Ca – Capacitación	Ob – Objetivos
Al – Almacén	RceC – Relación con el cliente	Mo – Motivación	GdlC – Gestión de la calidad
In – Inventario	MdP – Medios de promoción	TeE – Trabajo en equipo	Iv – Inversiones
CdlC – Control de los costos	Po – Postventa	Co – Comunicación	GA – Gestión ambiental
IMyE – Instalaciones, maquinaria y equipo	SdC – Satisfacción del cliente	DdMP – Disponibilidad de materias primas	GdlSeH – Gestión de la seguridad e higiene
TdP – Técnicas de planificación	Re – Reclamos	GdC – Gestión de compras	Io – Innovaciones
CdlP – Control de la producción	PdT – Puestos de trabajo	RdP – Relación con proveedores	TdlyC – Tecnologías de información y comunicación
CdCdF – Control de costos de fabricación	TdRyS – Técnicas de reclutamiento y selección	Es – Estructura	

Finally, the partial correlation analysis was carried out between the resources of chain of value activities. The coefficients of the partial correlation are presented in table 4 and represented in graph 9, based on which it is seen that resources highly related to a positive linear relationship are planning techniques with inventory, manufacture cost control with production control, post-sale with market, complaints with customer satisfaction, safety and hygiene management with motivation. The resources among which there is a null linear relationship are: market with inbound control, with communication and with motivation; recruitment and selection techniques with inbound control, with facilities, machines and equipment, with production control, with manufacturing costs control, with teamwork, with objectives and with environmental management; motivation with storage, and innovation with storage and with quality management.

CONCLUSIONS

This investigation begins presenting the fact that the competiveness of companies is an imperative element to challenge constant market changes, as well as define the survival and development thereof. It likewise presents the participation of micro, small and medium-sized companies in the national economy, and particularly in the services sector, which includes the activity of tourism. The SME must overcome the problems that limit it from achieving a high level of competiveness, for which it can begin with elements that are under its control and which are seen from the chain of value.

The results obtained lead to the conclusion that hotels and resorts, smaller sized companies of the tourism services sector, of the magical town of Tecozautla, Hidalgo, fall generally in maturity level 2 in terms of competiveness, which is characterized by the inefficient use of resources. In the particular case of hotels, 27.27% of them are characterized by efficient processes and the rest by an inefficient use of resources. On the other hand, 100% of the resorts studied show an inefficient use of resources. That performance observed in the activities of the chain of value reflects a scarce development of internal operations and a lack of strategies. Relations between the resources studied were identified, and with this the activities requiring guidelines for improvement.

Based on the above, it is recommended to work with that business sector encouraging the management of its processes with strategies that differentiate them from their competition. Of the resources presented in this work, as a part of the chain of value activities it is suggested to begin with the resources where there are positive relations, such as: planning techniques, inventory, manufacturing cost control, production control, post-sale, market, complaints, customer satisfaction, safety and hygiene management, and motivation. Finally, it is recommended as a future line of investigation to expand on the development and application of the chain of value in the services sector, as well as the development of similar investigations in other activities of the sector and in other regions.

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