DEVELOPMENT OF A COMPREHENSIVE SYSTEM OF MATRICES OF THE MARKETING ENVIRONMENT FOR DECISION MAKING AND THE CONTRIBUTION OF THE GROWTH OF SMALL AND MEDIUM ENTERPRISES (PYMES) IN THE REGION OF TEGUCIGALPA, HONDURAS

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Abstract. In Tegucigalpa, Honduras, the PYMES sector is an economic engine due to its proven ability to generate employment and for its contribution to the economy, in general. (INE, 2017). On average, 90% is made up of micro and small companies and only 10% of medium-sized companies. The main objective was to develop an integrated model of strategic matrices for the PYMES of the Central District, Honduras; that allows influencing in optimizing the decision-making of its main managerial indicators. The hypothesis to be demonstrated was whether an integrated model of strategic matrices of the Marketing environment helps decision-making, and allows the organizational growth of PYMES. The research was descriptive in scope, with a type of non-experimental cross-sectional research, the independent variable was an integrated model of strategic matrices of the Marketing environment and the dependent variable growth or business potentialization in PYMES. For the study, the universe of 10,000 PYMES in Tegucigalpa was considered, taking the sample of 155 companies selected using the simple random technique. It was determined how PYMES analyze their environments, be it the macro environment and micro environment, through a system of 6 strategic matrices. The system was developed in a company where the implementation of the matrices demonstrated different strategies, which, depending on the results, can contribute significantly, in how SMEs can face their competitive environment in all areas and the possible solutions both to Short, medium and long term. The work was carried out for the Doctorate in Projects of the Universidad Iberoamericana, with an agreement with Funiber.

Keywords: Strategy, Strategic matrices, environments, PYMES

DESARROLLO DE UN SISTEMA INTEGRAL DE MATRICES DEL ENTORNO DE MARKETING PARA LA TOMA DE DECISIONES Y EL APORTE DEL CRECIMIENTO DE LA PEQUEÑA Y MEDIANA EMPRESA (PYMES) EN LA REGIÓN DE TEGUCIGALPA, HONDURAS

Resumen. En Tegucigalpa, Honduras el sector PYMES (Pequeña y Mediana empresas) son un motor económico por su capacidad comprobada de generar empleo y por su aportación a la economía, en general. (INE, 2017). En promedio el 90% está compuesto entre micro y pequeñas empresas y tan solo un 10% de medianas empresas. El objetivo principal fue desarrollar un modelo integrado de matrices estratégicas para las PYMES del Distrito Central, Honduras; que permita incidir en optimizar la toma de decisiones de sus principales indicadores gerenciales. La hipótesis a demostrar fue si un modelo integrado de matrices estratégicas del entorno del Marketing ayuda a la toma de decisiones, y permite el crecimiento organizacional de las PYMES. La investigación fue un alcance descriptivo, con un tipo de investigación no experimental de corte transversal, la variable independiente fue un sistema integrado de matrices estratégicas del entorno del Marketing y la variable dependiente crecimiento o potencialización empresarial en las PYMES. Para el estudio se consideró al universo de 10,000 PYMES en Tegucigalpa, tomando la muestra de 155 empresas seleccionas mediante la técnica aleatoria simple. Se determinó como las PYMES analizan sus entornos, ya sea el macro entorno y micro entorno, mediante un sistema de 6 matrices estratégicas. El sistema se desarrolló en una empresa donde la implementación de las matrices demostró diferentes estrategias, que, dependiendo de los resultados, puede aportar de manera significativa, en como las PYMES, pueden afrontar su entorno competitivo en todas las áreas y las posibles soluciones tanto a corto, mediano y largo plazo. El trabajo fue realizado para el Doctorado en Proyectos de la Universidad Iberoamericana, con convenio con Funiber.

Palabras clave: Estrategia, Matrices estratégicas, entornos, MIPYME

Introduction

SMEs in Tegucigalpa, Honduras, and throughout the world are categorized as engines that energize the economy in every way, in turn, at least in Honduras. They have not been studied as it should be, although large companies at some point began as SMEs. They are not given relative importance they should have; the truth is that this sector of commercial and productive infrastructure, travel an arduous road with many difficulties to face every day.

Marketing is not indifferent to this commercial activity; however, due to the lack of resources, MSMEs operate in an artisanal or wild manner or in other words, without a professional or methodological sense, without the necessary studies and knowledge to be able to compete in a better way and therefore operate in the long term. The capital is the backbone of the country's submerged economies, which generates employment and cash flows, making Tegucigalpa increasingly attractive to investment. By identifying strategic marketing variables according to the different environments in Honduras, models will be provided to generate strategies to compete and thus help generate profitability.

The objective of the study was to develop an integrated model of strategic matrices for SMEs in the Central District, Honduras. The different marketing environments were taken as factors, as well as other models such as Porter's five forces, SWOT matrices, and micro and macro environment variables.

Background

According to the criteria of Barba and Martínez (2006), cited by Guevara, (2016) who point out that the birth of new companies can be grouped under perspectives attributed to the entrepreneur, based on the importance of generating diverse relationships to organize their businesses or companies.

According to González (2014), the genesis of MSMEs is considered to have arisen in two ways: The large company, one that has a stable structure and organization and the other that is of a family nature and seeks its permanence in the market.

Kerkhoff, (2012) in his study Competitiveness of MSMEs in Honduras explains that, despite the different initiatives to support micro, small, and medium-sized enterprises in Honduras, it is evident that these efforts are not clearly linked to a policy framework for the country's development in general, nor to the competitiveness of the business sector in particular.

According to Ochoa (2016) there are a total of 1,578 medium-sized enterprises in Honduras, covering the production of food, beverages and tobacco, textiles and clothing, wood and furniture, metalworking and chemicals, rubber and plastics. With respect to the collection of information, despite the fact that there is not enough baseline information, there is clarity in the definitions regarding MSMEs in Honduras, as evidenced by the organizations that have collected information on this topic over the years.

Specifically in studies carried out in Honduras, one on the competitiveness of the business sector, Cevallos (2008) quoted by Amaya (2015) indicates that SMEs have been increasingly the subject of numerous investigations and analyses, both in industrialized and developing countries. Their progressive importance in the economic growth process of countries is mainly due to the employment they generate in a context where two situations coexist.

According to Kerkhoff (2012), MSMEs play a fundamental role in the subsistence and development of the country. However, this situation has changed over the course of the last decades of the last century, as the sector went from representing a poverty survival mechanism to being a business segment that fights poverty. Kerkhoff (2012) states that in the seventies and eighties, not much importance was given to the formulation of the MSMEs' situation in Honduras.

For Amaya (2015), the Honduran small businessman continues to be the basis of the economy; more than 70% of the employment generated in the country is the product of micro, small, and medium-sized enterprises that already a total -only in the transformation area- of 170,000 organizations that contribute more than 30% of the country's GDP.

In a study published by Orueta (2016) according to the Law for the Promotion and Development of the Competitiveness of Micro, Small, and Medium Enterprises. Small enterprises are defined as those that have a better combination of productive factors and commercial positioning, which allow the business unit to accumulate certain surplus margins, have a more defined business organization than microenterprises, and greater formalization in their management and registration.

On the other hand, there are authors who have contributed to the growth of marketing theories in order to have a better understanding of the subject. In 1914, Professor Lewis Weld presented the research "Market Distribution" at the American Economic Association, a work that has been considered the first scientific research in

marketing Bartels, (1988). In 1914, Butler defined marketing as a combination of factors, a work of coordination, planning, and administration of the complicated relationships that a distributor must consider before carrying out his campaign Bartels, (1988).

Alexander in his book Marketing (1940), quoted by Munuera Alemán (1992, p. 130), lists the following functions: Merchandising, Buying, Selling, Standardization, Risk, Concentration, Financing, Control, and Storage.

Porter (1991) cited by Estrada Sánchez and Vargas-Hernández (2015) mention that understanding the concept of competitiveness in its full dimension is important, given its value in explaining and addressing the problems posed by the creation of the factors required for development processes to be viable in underdeveloped economies, or at least for some sectors to grow.

Method

A quantitative research was conducted, which as evidenced by (Sampieri, 2014) "in quantitative studies data collection is used to test hypotheses, based on numerical measurement and statistical analysis, to establish patterns of behavior and test theories" a descriptive scope, with a non-experimental cross-sectional design, where the variables were *integrated system of strategic matrices of the Marketing environment,* as independent, *Growth or business potency in SMEs* as dependent. The sample was probabilistic, simple randomized, and according to the results of the sample size calculation, the instruments were applied to 155 SMEs in Tegucigalpa, Honduras.

The instrument used was a structured questionnaire created by the author in order to supply variables to feed the different matrices, filled out by the owners, administrators, or managers of the companies, it consisted of several parts to be developed, the first focused on determining general descriptive aspects, such as seniority, gender, academic level, position of the interviewee, number of employees, and the category to which it belongs.

The second section of the instrument collected information on the dependent and independent variables, with emphasis on collecting the variables of the micro environment to determine the known weaknesses and strengths, as well as those of the macro environment to identify opportunities and threats of the competitive environment.

A pilot test was carried out to validate the instrument, which represented 15 companies representing 10% of the sample, with a statistical coefficient of 0.943 reliability as a result, which was considered correct, in order to continue with the study as a whole. For the analysis of the general information, frequency tables were used, using the SPSS program version 24.

Hypothesis

The hypothesis proposed for the research was: *An integrated system of strategic matrices of the marketing environment helps decision making, and allows the organizational growth of SMEs.*

Results

It was observed that of the total number of SMEs interviewed, 50.32% represented owners, 29.03% administrators and 20.65% managers, which gave a good indication of good criteria, since they are the ones who concretely manage the availability of company resources. All of them represent 38.06% with permanence from 1 to 3 years and 34.19% from 4 to 8 years and 27.74% 9 years or more. The average age with 42.58% is from 26 to 35 years, which is considered a young population, 18.06% the age is 18 to 25 years, and from 36 years and older is 39.35%, which represents an equitable distribution of the ages.

The educational level had interesting results, observing that 56.77% of the interviewees have undergraduate studies, which is considered very good given the skills needed to manage a business, 24.52% have high school, 16.77% have postgraduate studies, and only 1.94% have barely completed elementary school.

In the business gender, 60.65% are headed by men and 39.35% are headed by women.

On the other hand, 47.10% had 1 to 5 employees, 21.29% had 5 to 10 employees, 14.19% had 10 to 15 employees, and 17.42% had more than 15 employees. In terms of the sectors interviewed, the highest percentage was credited to the commercial sector with 41.29% and the service sector with 28.39%, followed by 19.35% of the food sector, but we tried to have a representative sample of all sectors, 51.61% are sole traders, 23.23% represent 23.23%, and 25.16% represent Limited Liability Companies, that is to say, the sample represents fully constituted SMEs.

The 32.90% of the sample said they did not know that whether their company or business was centralized or decentralized, 41.29% said it was centralized and 25.81% decentralized. It is observed that the model generates confidence in the people interviewed, as seen in previous analyses, the majority are the owners, and only a small number do not feel confidence in the model with 2.58%. It is observed that the managers of SMEs believe that the implementation of the strategic matrix model would improve their business, only a small 1.29% consider that it would not contribute anything to the management of their business, hence there is a good acceptance of the model.

In order to have a clearer picture of the data obtained, this section presents the crossing of variables of the main general data, with the main findings.
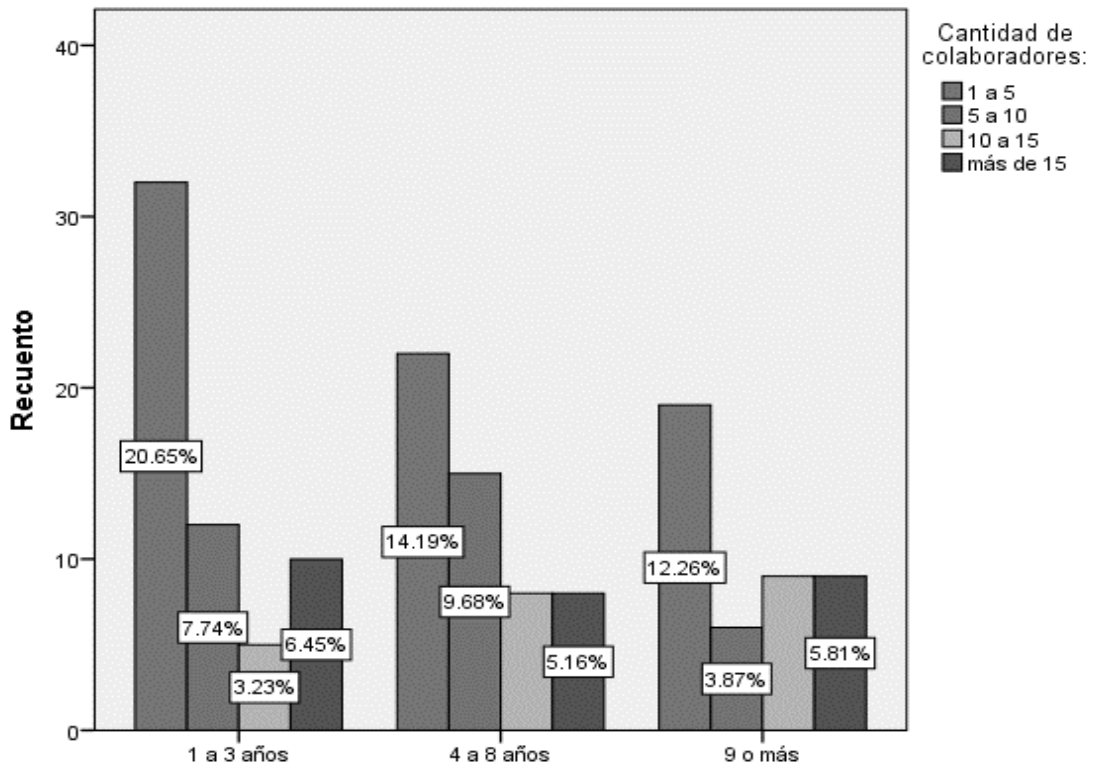
Figure 1. Crossing of variables number of employees with years of permanence in the company

Note: It can be observed that in the three levels of the range of years of permanence, the companies have from 1 to 5 collaborators. An interesting fact is to see the companies with a duration or more than 15 years, they are represented in the companies with permanence from 1 to 3 years and in the case of 5 to 10 collaborators, it is maximized in the companies with 4 to 8 years.
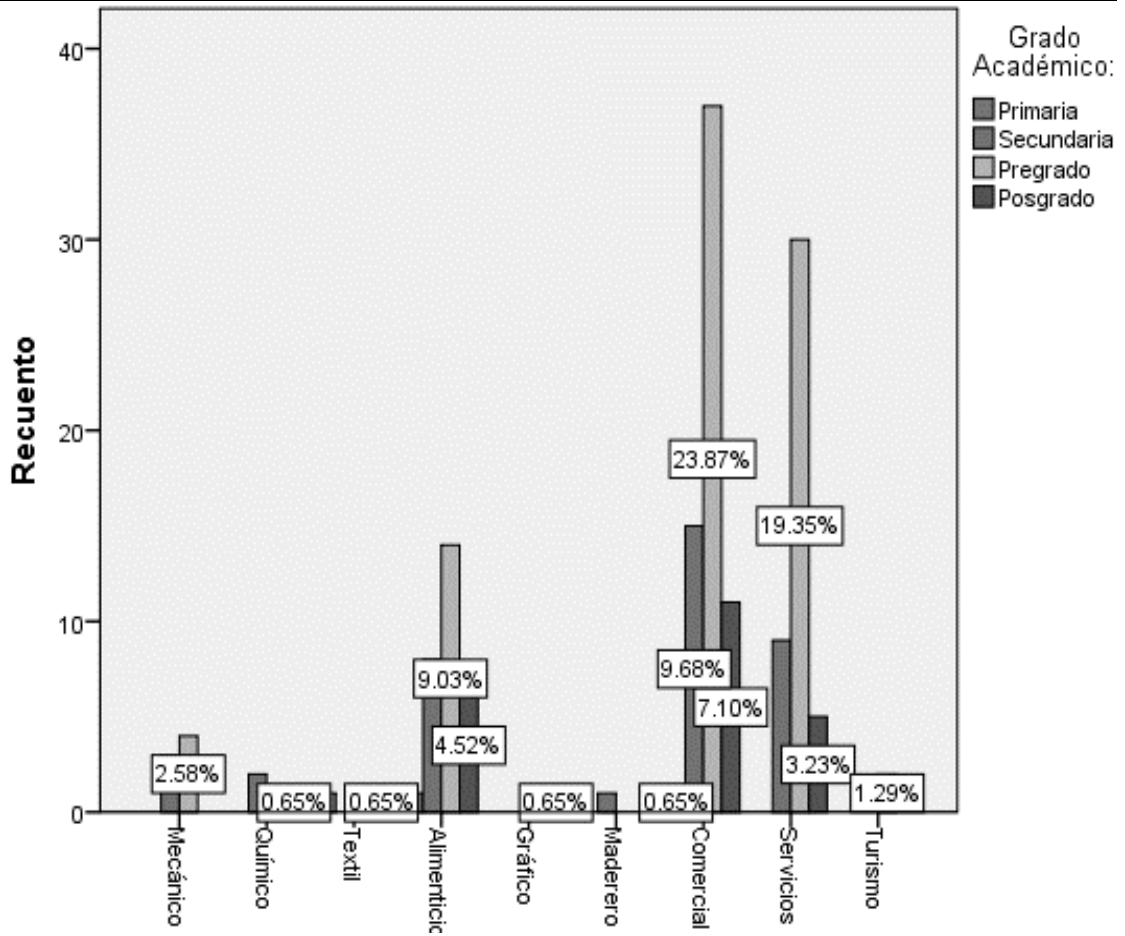
Figure 1 Crossing of academic degree variables with productive sector

Note: This crossover clearly shows that the commercial sector is managed by management personnel with undergraduate degrees, as is the service sector and also the food, commercial, and service sectors are managed by personnel with Master's degrees and possibly even doctorates.
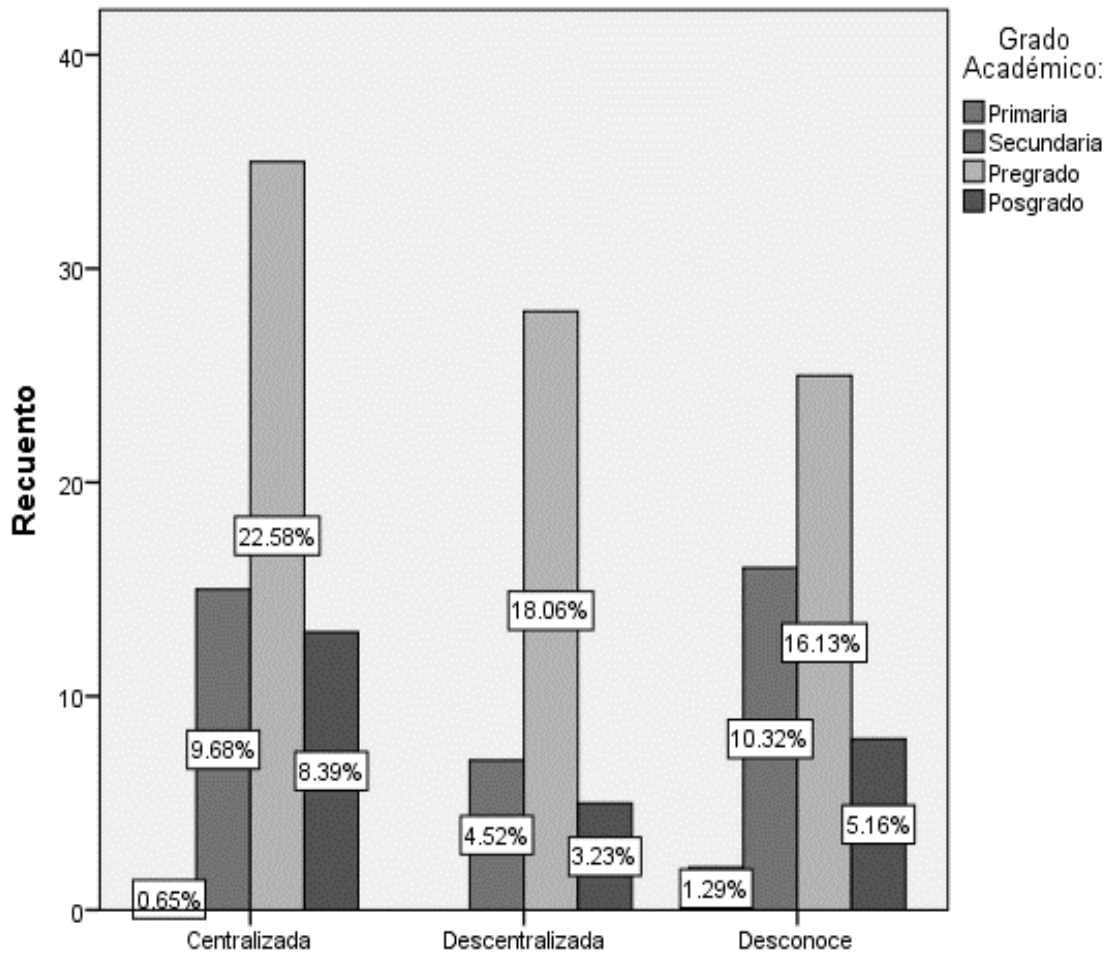
Figure 3. Crossing of academic degree variables with the type of company.

Note: The importance of this crossover lies in the fact that the degree of centralization and decentralization is high in the area of undergraduate, high school, and even doctorate, and as expected in those who had only completed elementary school.
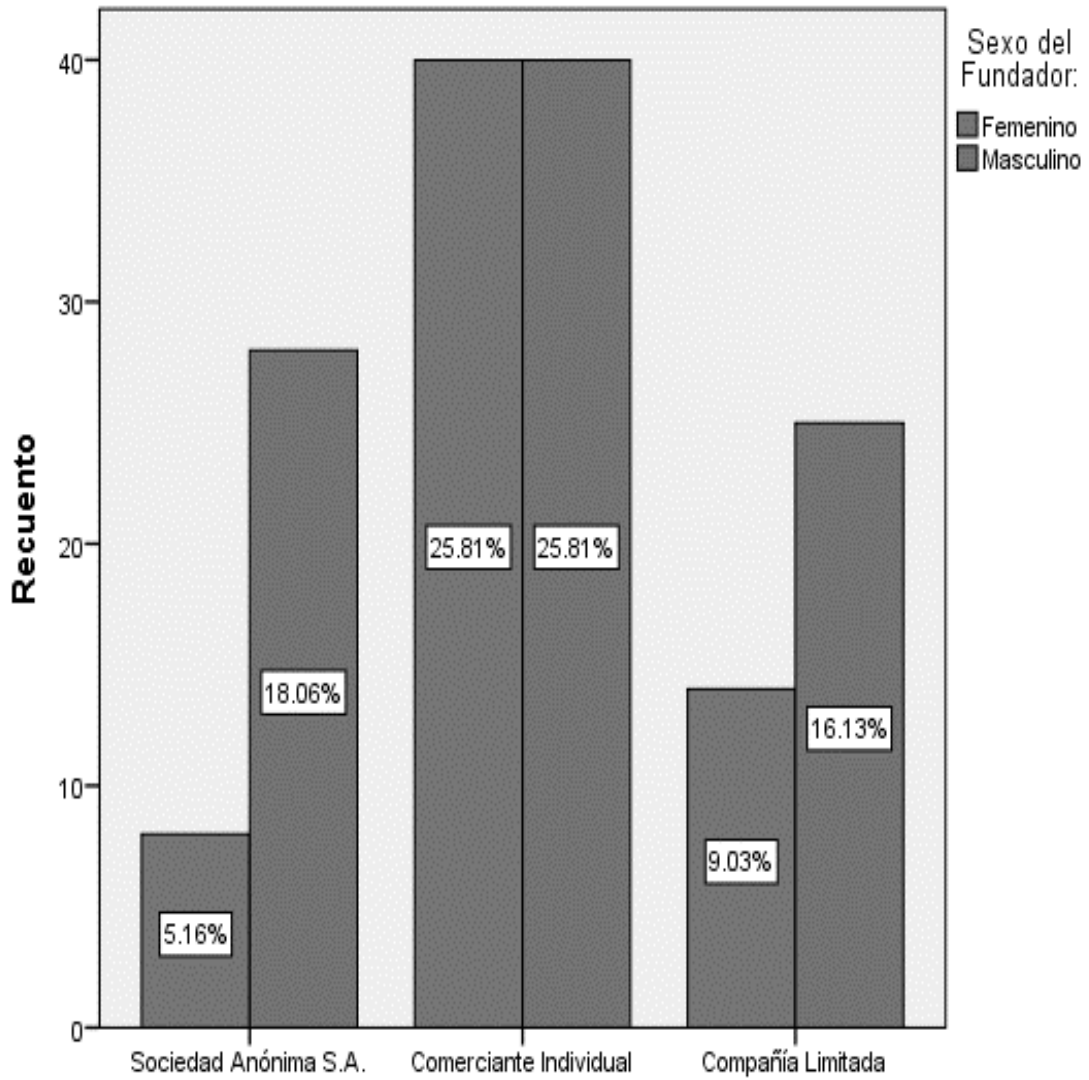
Figure 4. Crossing of founder's gender variables with the type of organization

Note: It was found that the male sex constituted more Corporations in the SME sector, the same trend is maintained in the Limited Liability Company sector, the interesting thing is that in both sexes the trend is even to be constituted as a sole trader with 25.81% for both sexes.
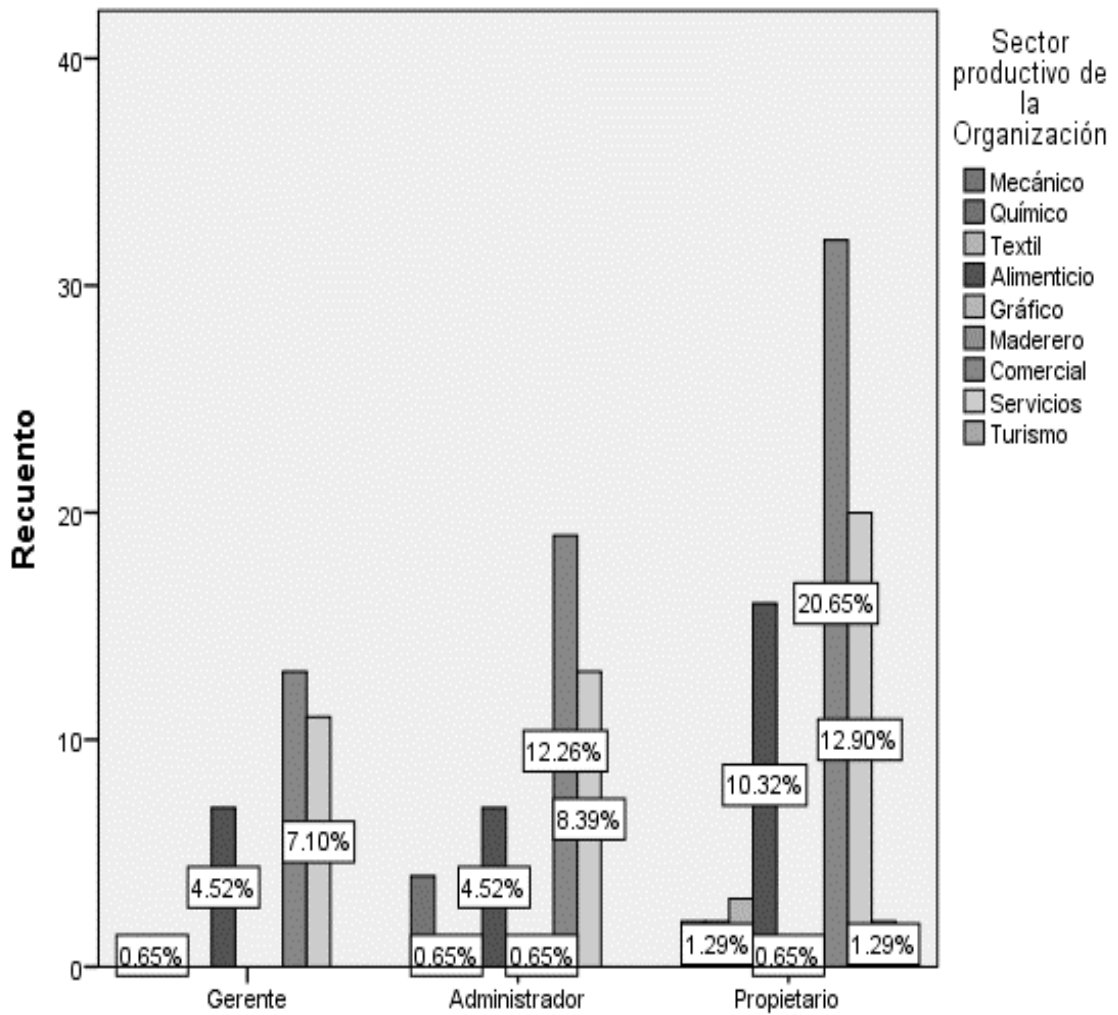
Figure 5. Crossing of productive sector variables with the interviewee's position

Note: It was found that the commercial sector is the most identified sector for managers, administrators, and owners, in second place was the service sector, and in third place was the food sector, an interesting fact is that a high percentage of the interviews were conducted with the owners of SMEs, which generates veracity in the information obtained.
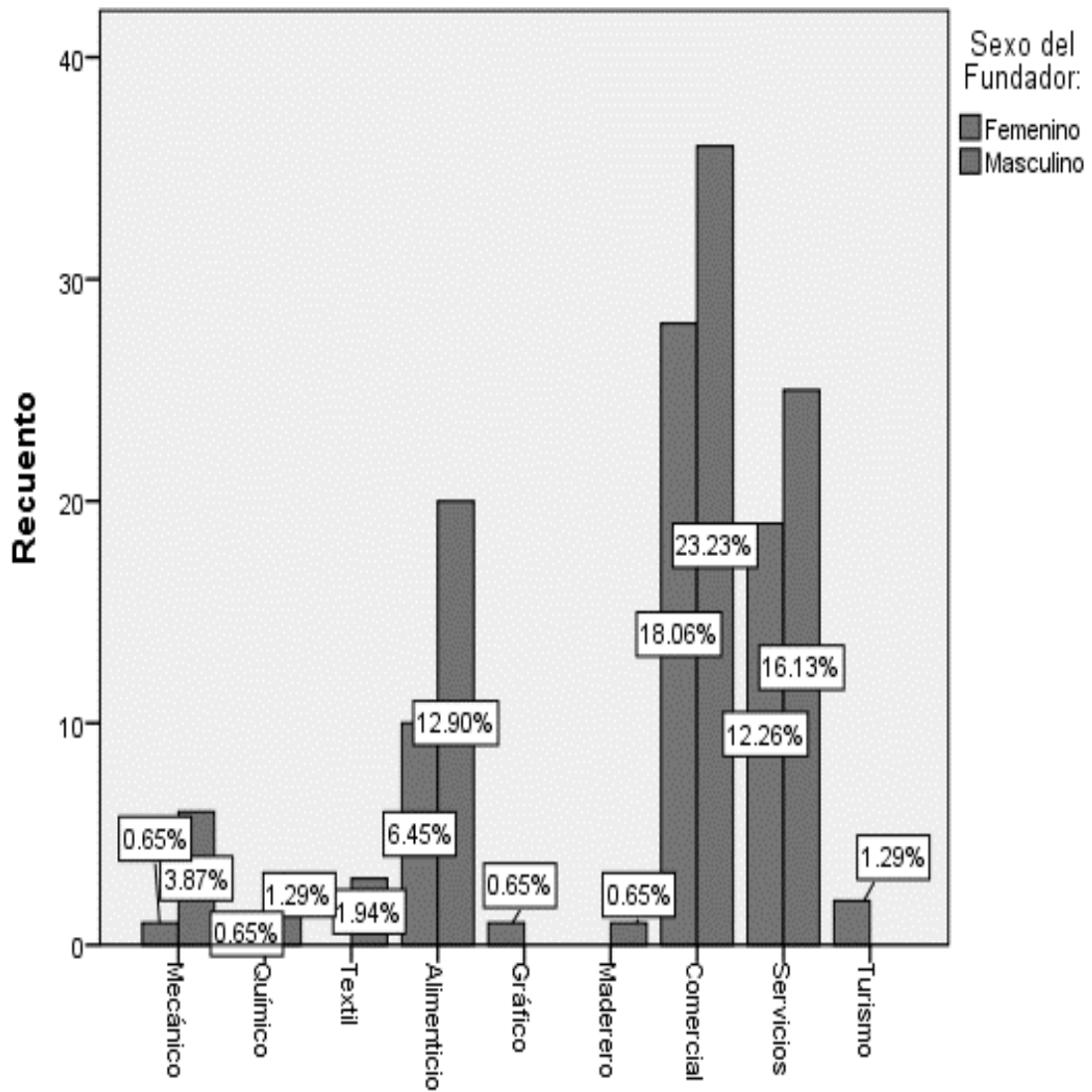
Figure 6. Crossing of founder's gender variables with productive sector

Note: The male sector stands out in the founding of companies in the different productive sectors, only in the chemical sector, graphic design, and tourism the sex of the founder is female, but there is an important participation in the commercial, food, and service sectors.
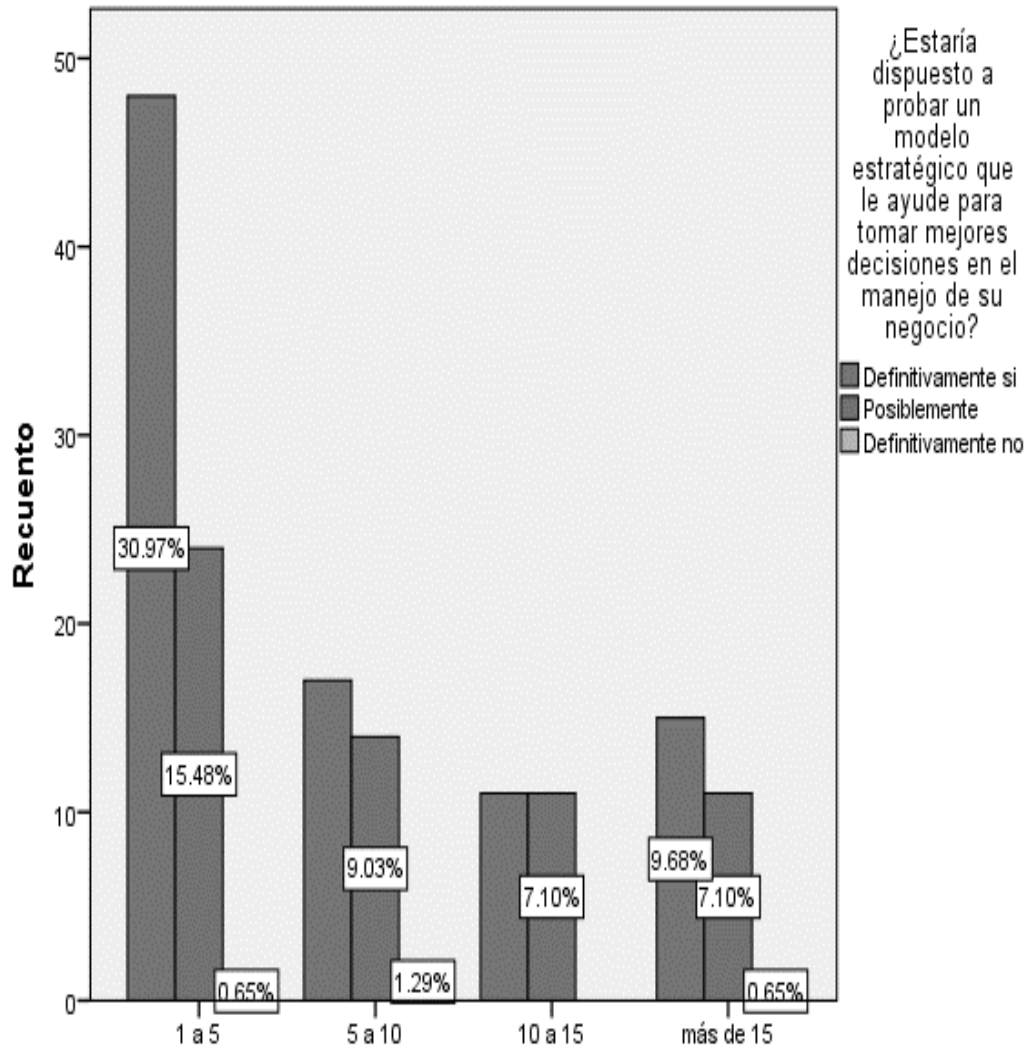
Figure 7. Crossing of number of collaborators variables, with would be willing to test the model

Note: In all categories of number of employees, there was good acceptance to test the model, because they see it as a good opportunity to improve the management and strategic processes of their businesses.
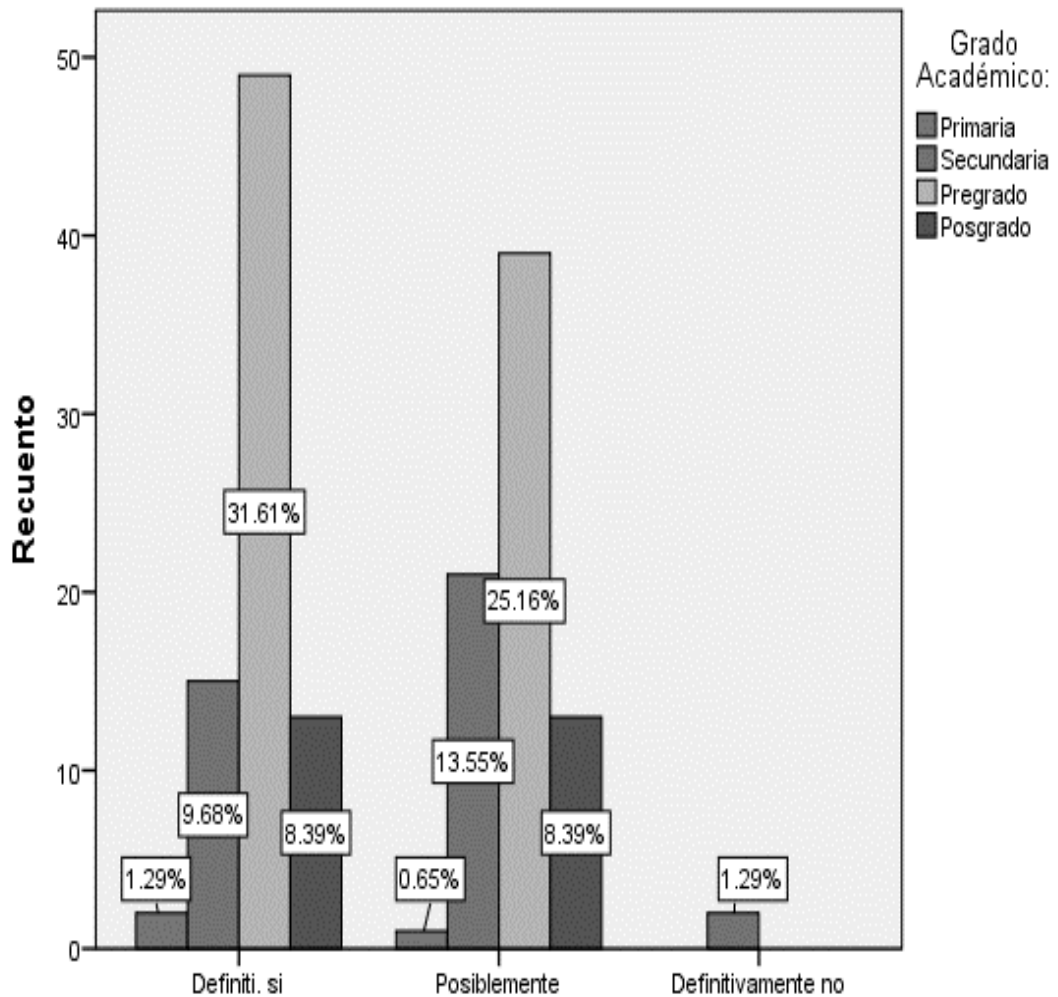
Figure 8. Crossing of academic degree variables with belief that with the help of the model

Note: Good acceptance of the model is observed in the academic grades; however, a slight percentage is observed in the secondary grade who believe that it would definitely not help them, which could be due to the lack of academic knowledge, but from there, there is a good perspective in all academic grades.

Results of environment analysis

Speaking of the macro-environment, political, and economic environment, according to the criteria of the different SME managers, there is a tendency to determine that in the Honduran context it is negative for the organizations, the cultural environment is more favorable in relation to the political and economic environments, and the technological environment is favorable to the political and economic environments.

In the Honduran context, the psychographic and environmental environment is more favorable in relation to the political and economic environments, according to SME managers.

In the micro environment, analyzing towards the internal part of the organizations, in the planning and administration variable, the managers consider that they have strengths in administrative management, which is considered positive; in the control variable, they

do not have a tendency towards positive or negative, it can be said that they are equal in terms of their strengths and weaknesses; in the marketing variable, they have a negative tendency, which is considered weak in almost all the variables under study, especially in the research area.

In the Human Resources variable, they have a negative trend, which is considered weak in almost all the variables under study; in the Technical and Technological capabilities variable, they have a negative trend considered weak in almost all the variables under study.

Regarding the bargaining power of suppliers, they consider that there is a moderate risk that suppliers may affect them with different actions; regarding the bargaining power of buyers, whether for B2B or B2C channels, they consider that there is a low risk, since buyers do not have much decision-making power.

In the opinion of the managers, the power of substitute products is considered a high risk, which means that there is a risk that a customer will change their product for one similar to that of the competition. As for the entry of new competitors, they consider that there is a high risk, due to the great amount of competition in the capital's competitive market.

Evaluating the strength of the SMEs' current competitors, according to their criteria, they consider that there is a high risk, due to the large amount of competition in the capital's competitive market.

In order to have a better criterion for this research work, proposals of strategic matrices were made for the SME, Innovación Creativa, a company dedicated to the elaboration of stamps and digital printing in Tegucigalpa, having the following results: Proposal of marketing strategy matrices for the Innovación Creativa company.

Table 1

Macro Environment Analysis. Opportunities identified for the Innovación Creativa company

NIVEL	OPORTUNIDADES	IMPACTO 1 2 3 4				PROBABILIDAD 1 2 3 4				TENDENCIA 1 2 3			PUNTOS	CALIFICACIÓN			JUSTIFICACIÓN	ESTRATEGIA DE APROVECHAMIENTO
		LEVE	MEDIADO FAVORABLE	FAVORABLE	MUY FAVOR	LEVE	MEDIANA	ALTA	MUY ALTA	DECRECE	ESTABLE	INCREMENTA		A	B	C		
Económico	Regulaciones comerciales				4				4	1			16		B		Disposición del gobierno en la apertura comercial	
	Aumentos salariales				4				4		2		32			C	cada año se revisa el aumento a los salarios	Oportunidad de los clientes en aumentar sus ingresos lo
	Costos de materias primas				4				4		2		32			C	reducción de algunas materias primas	Identificar las oportunidades de negociar
	Aumento generalizado de precios (Inflación)			3			2				2		12		B		existe poco crecimiento inflacionario	
	Tasa de interés para préstamo			3				3			2		18			C	baja en las tasas de interés para capital de	Aprovechar el incentivo de los bancos para capital de
	Inversión del gobierno en el sector PYME				4				4			3	48			C	Propuestas de apoyo a la PYME	Identificar las actividades del gobierno para capital de
	Acceso a préstamos				4				4		2		32			C	por medio del banco estatal se promueve el	Identificar programas gubernamentales para

Note: Due to space constraints, only the structure is shown, but the analysis of opportunities is much broader, using categories of the letters A, B, and C, with the letter C being the most challenging opportunity. Source: Own authorship adapted from (Ramos, 2004, p. 122).

Table 2

Opportunities identified for the Innovación Creativa company

NIVEL	OPORTUNIDADES	IMPACTO				PROBABILIDAD				TENDENCIA			PUNTOS	CALIFICACIÓN			JUSTIFICACIÓN	ESTRATEGIA DE APROVECHAMIENTO
		1 LEVE	2 MEDIADO	3 FAVORABLE	4 MUY FAVOR	1 LEVE	2 MEDIANA	3 ALTA	4 MUY ALTA	1 DECRECE	2 ESTABLE	3 INCREMENTA		A	B	C		
Político – legal	Credibilidad internacional				4			3			2		24			C	Aparente buen manejo por parte del gobierno	Crear alianzas con distribuidores en el exterior
	Programas de apoyo gubernamental				4		2					3	24			C	Programas de apoyo a la PYME	Identificar y monitorear programas eventuales por parte del gobierno
	Credibilidad legal o protección legal de la empresa				4			3				3	36			C	Entes encargados del cumplimiento legal empresarial	Legalizar por completo la estructura de marca de la empresa
	Leyes de seguridad social				4				4			3	48			C	Diversos medios de protección social	legalizar la estructura de seguridad social empresarial
	Leyes de propiedad intelectual				4				4		2		32			C	Entes encargados de Propiedad intelectual	Legalizar nombre, marca, logo por protección de patentes
	Leyes de promoción y competitivad				4				4		2		32			C	Aparente vigilancia en temas de competitivad	Supervisar las leyes y prohibiciones en las principales leyes de competitividad

Note: Due to space constraints, only the structure is shown, but the analysis of opportunities is much broader, using categories of the letters A, B, and C, with the letter C being the most challenging opportunity. Source: Own authorship adapted from (Ramos, 2004, p. 122).

Table 3

Threats identified for the Innovación Creativa company

NIVEL	AMENAZAS	IMPACTO 1 LEVE	2 MEDIADO	3 GRAVE	4 MUY GRAVE	PROBABILIDAD 1 LEVE	2 MEDIANA	3 ALTA	4 MUY ALTA	TENDENCIA 1 DECRECE	2 ESTABLE	3 INCREMENTA	PUNTOS	A	B	C	JUSTIFICACIÓN	ESTRATEGIA DE BLOQUEO
Político - legal	Inestabilidad política				4				4			3	48			C	En Honduras se vive tención política en los últimos años	Monitoreo constante de las decisiones políticas para realizar planes B
	Incertidumbre electoral				4				4			3	48			C	Este año es de crear estructura politicas	Realizar campañas de educación electoral con marketing interno
	Decisiones políticas en el comercio				4				4			3	48			C	No han sido acertadas las decisiones en torno a lo político	identificar leyes que puedan perjudicar los actos de comercio
	Leyes tributarias			3			2				2		12		B		Ha existido incremento en el pago de los tributos	
	Déficit Fiscal			3				3				3	27			C	Cada año el gobierno invierte menos en el emprendedurimos	Gestionar estrategias de ahorro interno para disminuir costos ante el incremento de bienes
	Deuda política				4				4			3	48			C	Los partidos políticos cada año exigen mayores ingresos	Incentivar cultura de ahorro operativa y en la producción de bienes
	Régimen político				4		2				2		16		B		Existe incertidumbre entorno al continuismos del actual presidente	
	Nivel de corrupción				4				4			3	48			C	Los niveles de corrupción aumenta cada año en Honduras	Incentivar campañas en redes sociales para evitar el mal manejo de fondos del gobierno
	Oposición al gobierno				4				4			3	48			C	Cada año aumenta la opisición del gobierno que genera incertidumbre	Monitorear los acontecimientos que se generan en manera de protestas
	Afiliación política				4			3		1			12		B		Se ha incrementado la participación de nuevos partidos políticos	
	Falta de programas sociales				4			3			2		24			C	El gobierno no ha invertido en programas sociales	Desarrollar campañas para donar viveres y de apoyo a aspectos sociales
	Fuerte lucha por el poder del gobierno				4				4			3	48			C	Conflictos internos generan pleitos por el poder, genera incertidumbre	Monitoreo constante de protestas por actos políticos

Note: Due to space constraints, only the structure is shown, but the analysis of opportunities is much broader, using categories of letters A, B, and C, with the letter C being the most challenging threat. Source: Own authorship adapted from (Ramos, 2004, p. 120).

Table 4

Threats identified for the Innovación Creativa company

NIVEL	AMENAZAS	IMPACTO				PROBABILIDAD				TENDENCIA			PUNTOS	CALIFICACIÓN			JUSTIFICACIÓN	ESTRATEGIA DE BLOQUEO
		1 LEVE	2 MEDIADO	3 GRAVE	4 MUY GRAVE	1 LEVE	2 MEDIANA	3 ALTA	4 MUY ALTA	1 DECRECE	2 ESTABLE	3 INCREMENTA		A	B	C		
Económico	Pago de impuestos			3				3			2		18			C	Peligro al aumento del pago de tributos en condiciones sin inversión	Reestructura el sistema de ingresos y egresos para verificar el control correcto del pago
	Devaluación de la moneda				4			3				3	36			C	La compra de materiales y materia prima se encarece	Generar alianzas estratégicas con proveedores en el extranjero
	Desempleo				4				4			3	48			C	Al no haber inversión se cierran negocios lo que genera desempleo	incentivar programas sociales para incentivar a ser emprendedores
	Operar sin trabas del gobierno	1						3				3	9	A			Los gobiernos cada vez mas no facilitan la incersión de nuevos negocios	
	Baja en el poder adquisitivo			3				3			2		18			C	Al no contar con empleo las personas no pueden comprar lo necesario	Generar estrategias de reducción de costos, para bajar el precio de los productos

Note: Due to space constraints, only the structure is shown, but the analysis of opportunities is much broader, using categories of letters A, B, and C, with the letter C being the most challenging threat. Source: Own authorship adapted from (Ramos, 2004, p. 120).

		-100	-50	0	50	100	
Factores	**Variables**	MN	N	indiferente	P	MP	
Político, Legal	Inestabilidad política						-600
	Incertidumbre electoral						
	Decisiones políticas en el comercio						
	Reelección electoral						
	Credibilidad internacional						
	Programas de apoyo gubernamental						
	Credibilidad legal o protección legal de la empresa						
	Leyes tributarias						
	Leyes de seguridad social						
	Leyes de propiedad intelectual						
	Leyes de promoción y competitivad						
	Déficit Fiscal						
	Deuda política						
	Régimen político						
	Nivel de corrupción						
	Oposición al gobierno						
	Afiliación política						
	Falta de programas sociales						
	Fuerte lucha por el poder del gobierno						

		-1100	-100			600	
Económico	Pago de impuestos						100
	Regulaciones comerciales						
	Aumentos salariales						
	Costos de materias primas						
	Aumento generalizado de precios (Inflación)						
	Tasa de interés para préstamo						
	Inversión del gobierno en el sector PYME						
	Acceso a préstamos						
	Devaluación de la moneda						
	Desempleo						
	Operar sin trabas del gobierno						
	Baja en el poder adquisitivo						

-500			100	500

Figure 9. PESTEL matrix, opportunities, and threats by categories

Note: The origin of the PEST analysis dates back to 1968 with the publication of an essay on marketing entitled "Macro-environmental analysis in strategic management." This model was modified to have measurable indicators as positive and negative, being fed by the matrices of opportunities and threats in tables 1 and 2 as methods to measure the business macro-environment. The idea of the indicators is to be able to measure at which levels there are more opportunities or more threats to be able to generate competitive strategies. Source: Own authorship with data from the applied instrument, adapted from theorists Liam Fahey and V. K. Narayana.

		-100	-50	0	50	100
Factores	**Variables**	**MN**	**N**	**indiferente**	**P**	**MP**
	Tradiciones culturales					
	Valores y creencias					
	Creación de fuentes de empleo					
	Edad promedio de la población					
	Creencias religiosas					
	Tasa mortalidad					
	Recreación pública					
	Abandono de la niñez					
	Seguridad familiar					
	Tasa de crecimiento poblacional					
Socio – cultural -	Inmigración del campo a la ciudad					
Demográfico	Migración hacia otros países					**-50**
	Seguridad poblacional					
	Estado civil de la población					
	Crecimiento poblacional					
	Inseguridad poblacional					
	Violencia doméstica					
	Nivel educativo					
	Diversidad de género					
	Migración					
	Conflictos sociales					
	Protestas y destrucción de la propiedad					

		-1100		50	1000	
	Inversión en equipo tecnológico					
	Introducción de nuevas tecnologías					
	Crecimiento tecnológico de la competencia					
Tecnología	Crecimiento de las redes sociales digitales					**800**
	Crecimiento en el uso de internet					
	Nuevas formas de comunicación					
	Comercio electrónico					
	Implementación de normas ISO					

					800	
	Nuevos estilos de vida					
	Comportamiento de compra de la población					
Psicográfico	Motivación a la compra de un producto					**350**
	Clase social					
	Gustos y preferencias de los consumidores					

				50	300	
	Contaminación ambiental					
	Contaminación sónica					
	Cambio climático					
	Escasez de agua					
Geográfico /	Inundaciones					
Ambiental	Ubicación del negocio					**-700**
	Urbanismo y población					
	Ubicación y crecimiento de barrios y colonias					
	Escasez de alimentos					
	Pandemias					
	Desarrollo de nuevas enfermedades					

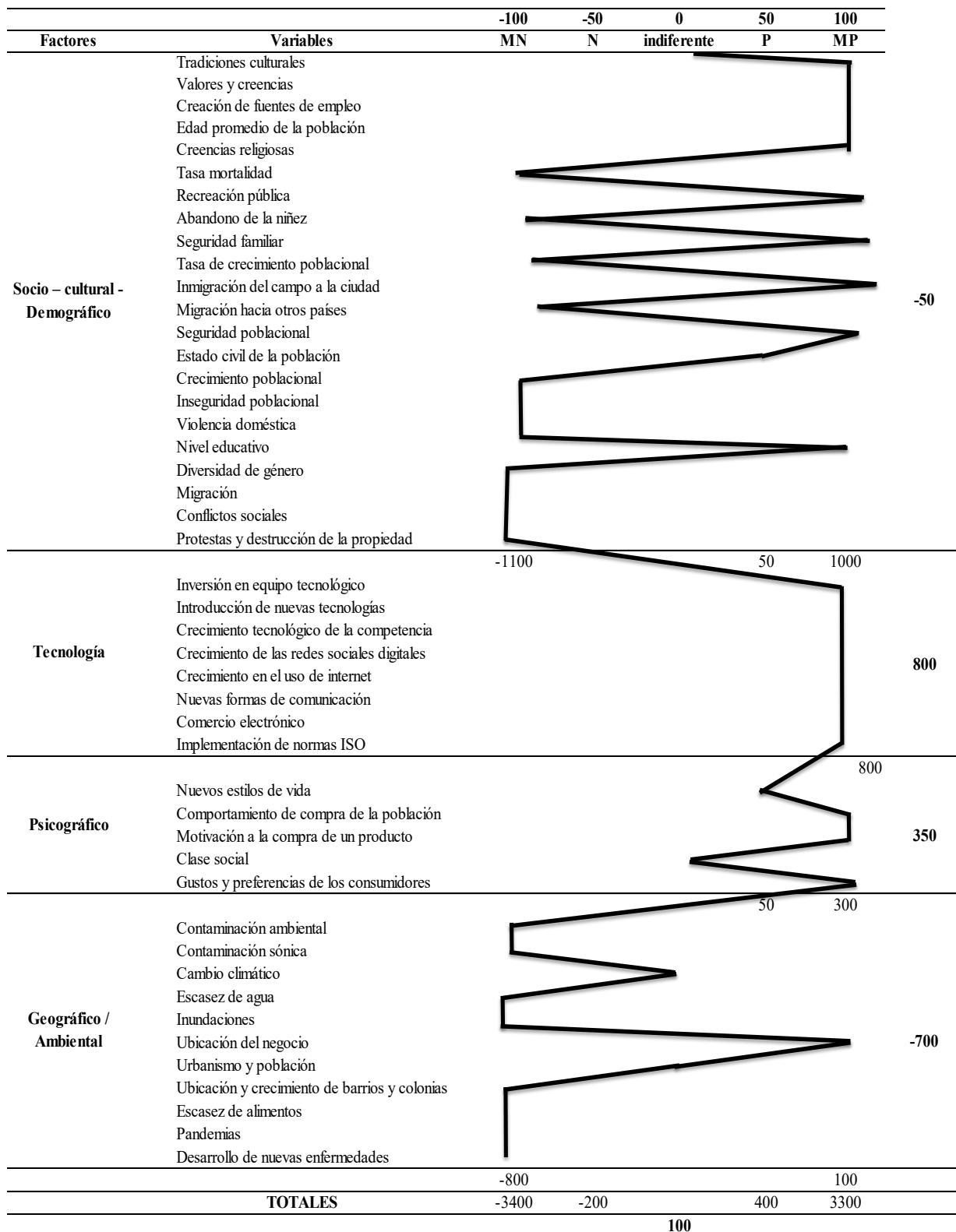|		-800			100	
	TOTALES	-3400	-200		400	3300
				100		

Figure 10. Continued PESTEL matrix opportunities and threats by categories

Note: Continuation of the PESTEL analysis. Source: Own authorship with data from the applied instrument, adapted from theorists Liam Fahey and V. K. Naraya.

Table 5

Porter's 5 Forces Matrix as Microenvironment analysis. Rivalry among the company's competitors

	Valuation	AVERAGE
Tendency to follow the competitor	5	Very High
Its competitors are quite balanced	5	Very High
Slow growth of the industrial sector	3	moderate
There is similarity in the products and services offered by the competitors	5	Very High
Increases in installed capacity	5	Very High
There is a diversity of competitive strategies	4	high
Rivalry between competitors is:	**5**	Very High

Note: It is a strategic model adapted from the engineer and professor Michael Eugene Porter of Harvard Business School, in 1979, a system of indicators from 1 to 5 was designed to measure the intensity of each of the forces, and the variables were conditioned to the Honduran market. These matrices are complements to identify the micro business environment. Source: Own authorship with data from the applied instrument.

Table 6

Threat of entry of new competitors

	Valuation	AVERAGE
Competitor contribution level	5	Very High
Risk of entry of new competitors	5	Very High
Investment level	5	Very High
Uninnovative products	3	moderate
Access to distribution channels	3	moderate
Easy procurement of raw materials	5	Very High
Ease of learning how to manage the market	5	Very High
The impact of the competence is	3	moderate
The threat of entry of new competitors is:	**4**	high

Note: Indicator 4 shows that the company is under strong threat from the entry of new competitors. Source: Own authorship with data from the applied instrument.

Table 7

Threat of substitute products

	Valuation	AVERAGE
Substitute products are present	3	moderate
Substitute products have competitive quality and services.	2	under
Substitute products have lower prices.	3	moderate
They provide improvement trends in the market.	4	high
Competitors offer better quality at the same price	3	moderate
They offer excellent performance to the user.	4	high
The threat of substitute products is:	**3**	moderate

Note: Indicator 3 shows that the company moderately has products that can substitute it. Source: Own authorship with data from the applied instrument.

Table 5

Bargaining power of the supplier

	Valuation	AVERAGE
The risk of raising prices is	3	moderate
The risk of diminishing quality and service is:	1	Very low
The risk that changes the negotiations is:	1	Very low
Having a diversified portfolio of suppliers is:	3	moderate
There is a risk of shortages of vital production materials	4	high
Supplier sells differentiated inputs	5	Very High
Their supplier generates confidence	3	moderate
Supplier facilitates alliances with competitors	4	high
The bargaining power of the supplier is:	**3**	moderate

Note: The influence that suppliers have is moderate for the Innovación Creativa company. Source: Own authorship with data from the applied instrument.

Table 6

Buyer's bargaining power (B2C, B2B)

	Valuation	**AVERAGE**
Influence on pricing:	5	Very High
Demand for quality and service at constant prices.	5	Very High
Possibility to sell large volumes.	2	low
They consume standard, non-differentiated products.	3	moderate
Distribution channels meet business needs	5	Very High
Low consumer loyalty	3	moderate
The bargaining power of its customers or distribution channels is:	**4**	**high**

Note: Customer power generates a 4 indicator which says that customers do have influence on product and price decisions. Source: Own authorship with data from the applied instrument

Table 7

Strengths and Weaknesses Matrix

CRITICAL FACTORS BY AREA	LEVEL 1 (The worst / Very)	LEVEL 2 (Below Average)	LEVEL 3 (AVERAGE)	LEVEL 4 (OF THE BEST)	LEVEL 5 (THE BEST)	IMPACT 1 (NONE)	IMPACT 2 (LOW)	IMPACT 3 (MEDIUM)	IMPACT 4 (ALTO)	IMPACT 5 (VERY HIGH)	TREND 1 (DECREASE)	TREND 2 (STABLE)	TREND 3 (INCREASE)	COMBINATION	WEAKNESS	INDIFFERENT	STRENGTH	SWOT MATRIX	CONTINGENCY PLANS	IGNORE	PROPOSED STRATEGY
Administration and Planning																					
It has defined administrative processes				4				3					3	4 3 3			F	X			Encourage continuous improvement
Plan, plans are created on an ongoing basis					5			3					3	5 3 3			F		X		Constant monitoring of the macro environment
They make planned decisions					5				4			2		5 4 2			F	X			Medium-term planning
Has contingency plans for eventualities		3						3				2		3 3 2	D			X			Planning for eventualities
Achieve planned results				4			2					2		4 2 2			F	X			Constant monitoring of performance indicators
Integrating work teams is a daily task					5				4				3	5 4 3			F	X			Planning with the different SBUs of the company
Direct access to soft loans					5				4			2		5 4 2			F	X			Fulfill the commitments

made to build trust and confidence

Item										Note
Meets the planned times for a given action		4	3	2	4 3 2		F	X		Measure performance indicators by SBU
The company's values are transmitted to employees		5	3	2	5 3 2	I			X	Continuing to improve corporate identity
Generate short-, medium-, and long-term strategic plans		5	3	2	5 3 2	I			X	They are considered to have complied with the planning
The organization makes decisions effectively		5	3	2	5 3 2	I			X	Socialize the processes with all SBUs
It has administrative leadership		5	3	2	5 3 2	I			X	In decision making, generate consensus with the SBUs.
Incentives to motivate staff	2		4	2	2 3 2	D		X		Improving negotiations and rewards to incentivize personnel
Perceives communication capacity		5	4	2	5 3 2	I			X	Improve the flow of continuous communication in the company
Notes an established management style		4	2	2	4 2 2	I			X	Identify a relevant

Decisions are made in a hierarchical fashion		5	3	2	5 3 2	I	X	corporate culture Identify leaders by SBU for continuous improvement
Perceives good coordination of activities	2		2	1	2 2 1	I	X	Plan SBU plans for strategic compliance
Notes smooth communication between departments		4	2	2	4 2 2	I	X	Design internal marketing plans for continuous improvement

Note: This matrix was adapted from (Ramos, 2004, p. 128) and is linked to Porter's 5 forces matrix to make a complementary analysis of the competitive microenvironment, analyzing the weaknesses and strengths that SMEs in particular may present. Source: Own authorship with data from the applied instrument
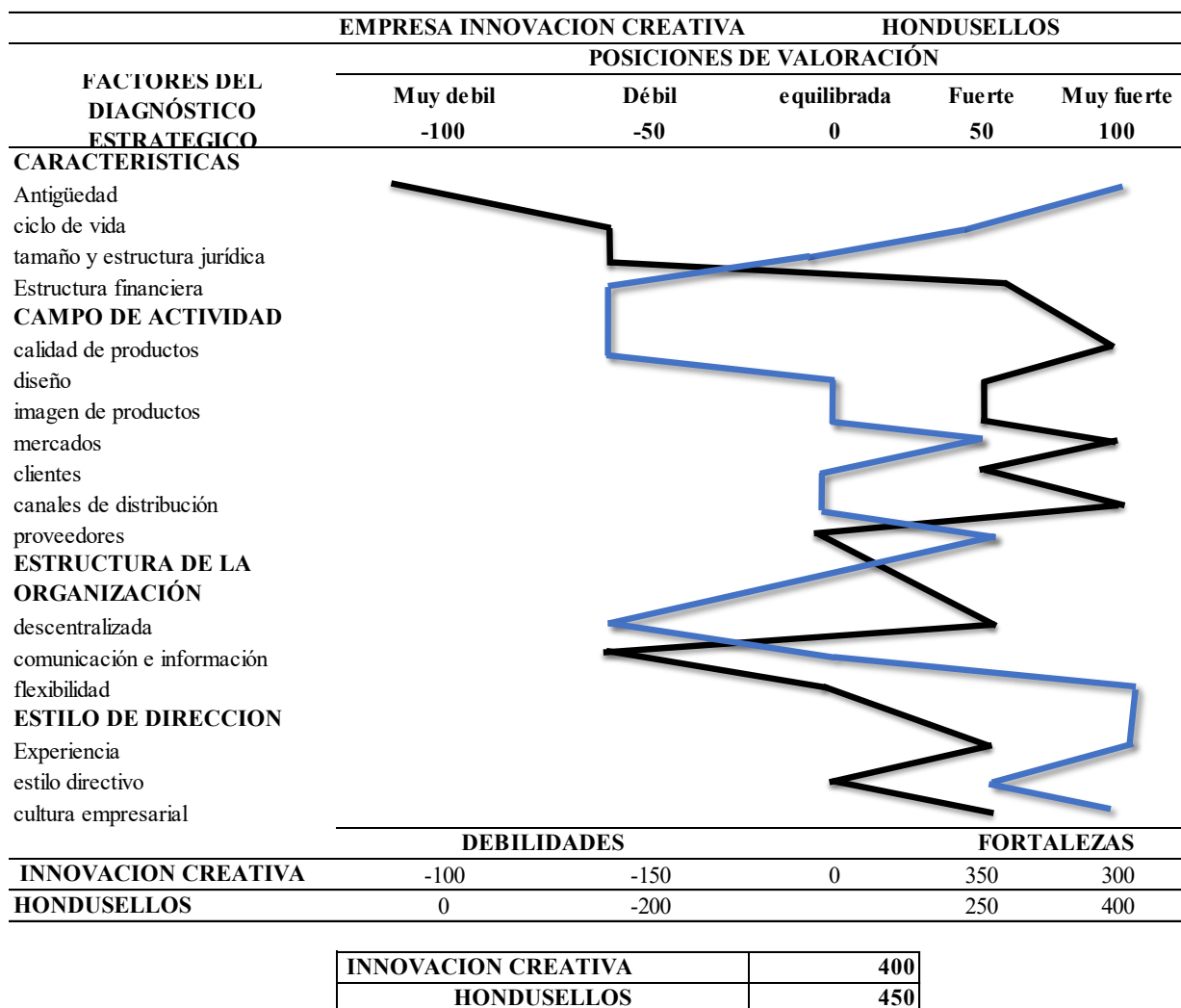
FACTORES DEL DIAGNÓSTICO ESTRATEGICO	EMPRESA INNOVACION CREATIVA			HONDUSELLOS	
	POSICIONES DE VALORACIÓN				
	Muy debil	Débil	equilibrada	Fuerte	Muy fuerte
	-100	-50	0	50	100

CARACTERISTICAS
Antigüedad
ciclo de vida
tamaño y estructura jurídica
Estructura financiera
CAMPO DE ACTIVIDAD
calidad de productos
diseño
imagen de productos
mercados
clientes
canales de distribución
proveedores
ESTRUCTURA DE LA ORGANIZACIÓN
descentralizada
comunicación e información
flexibilidad
ESTILO DE DIRECCION
Experiencia
estilo directivo
cultura empresarial

	DEBILIDADES			FORTALEZAS	
INNOVACION CREATIVA	-100	-150	0	350	300
HONDUSELLOS	0	-200		250	400

INNOVACION CREATIVA	**400**
HONDUSELLOS	**450**

Figure 11. Internal strategic profile matrix

Note: This model was adapted from (David, 2003, p. 180) and was made by integrating indicators to categorize variables from very weak to very strong. This model is fed from the Porter's 5 forces matrix and the matrix of weaknesses and strengths, making a comparison with the closest competitors to have a stronger competitive criterion according to the strengths and weaknesses of the companies.
Source: Own authorship with data from the instrument applied to the Innovación Creativa company of Tegucigalpa and the Hondusellos company as the main competitor.

Table 8

Creative Innovation Action Plan Model

Justificación	Estrategia de las matrices / Bloqueo, Aprovechamiento, contingencia	Corto, medio, Largo / Objetivo Smart	Estrategia prevista	Acciones a realizar	Tiempo	Lugar	UEN Responsable	Presupuesto	Medida de Control y seguimiento
POLITICO LEGAL	**APROVECHAMIENTO**			**A LARGO PLAZO**					
Credibilidad internacional	**Crear alianzas con distribuidores en el exterior**	Desarrollar un plan de exportación para los próximos 3 años, con los países fronterizos, exportando el 5% de nuestra producción	**Desarrollo de Mercados**	Verificar los requerimientos legales de cada los países destino. Investigar la oferta y demanda. Investigar gustos y preferencias. Investigar competencia, y hacer contactos con los principales distribuidores	3 años	Guatemala, El Salvador, Nicaragua	DEPTO. MKT, FINANZAS	$5000	Informes semestrales de seguimiento en el mercado destino
TECNOLOGICO	**BLOQUEO**			**A CORTO PLAZO**					
Comercio electrónico	Desarrollar planes para redes sociales	Implementar estrategias para Facebook e Instagran del 1 al 24 de diciembre de 2020 dirigido al mercado juvenil, para alcanzar un 20% de engagement	**Mix Promocional** Ofrecer descuento del 10% para las compras via facebook e instagran	Realizar post promocionales 1 vez por semana, diseñar publicaciones interactivas,	24 dias	Tegucigalpa	DEPTO. MKT REDES DIGITALES	L5,000.00	Metricas de facebook e Instagran y el volumen de ventas
	APROVECHAMIENTO			**MEDIANO PLAZO**					
Comercio electrónico	Desarrollar planes para redes sociales	Implementar estrategias para Facebook e Instagran del 1 al 24 de diciembre dirigido al mercado juvenil, para alcanzar un 20% de engagement	**Mix Promocional** Ofrecer descuento del 10% para las compras via facebook e instagran	Realizar post promocionales 1 vez por semana, diseñar publicaciones interactivas,	24 dias	Tegucigalpa	DEPTO. MKT REDES DIGITALES	L5,000.00	Metricas de facebook e Instagran y el volumen de ventas
RECURSOS HUMANOS	**DEBILIDAD**			**MEDIANO PLAZO**					
Cuenta con procesos de planeación de los RRHH bien definidos	Estructurar planes de marketing interno	Desarrollar un pla de marketing interno, para mejorar el proceso de percepción en los colaboradores para aplicarse en el año 2021	Motivaciones y compensaciones	Realizar estudios de percepción interna de manera semestral	2 años	Tegucigalpa	RRHH y Marketing	L5,000.00	Mejora en el rendimiento de los colaboradores

Note: This matrix is fed from all the previously exposed matrices, the idea is to have a synthesized and categorized summary to have a broad vision of the competitive environment and the different actions that will be carried out in the short, medium, and long term. Source: Own authorship with data from the set of strategic matrices.

Conclusions

SMEs have several arguments that affect them in the progress of their activities, in aspects related to marketing or administration of the same, despite being the subject of many studies within the socio-economic field. However, people who want to start a business look at SMEs as an element of entrepreneurship that will enable them to start their entrepreneurial path, through which their talent can be evidenced if their business becomes consolidated as a company that provides services and/or products for various types of customers.

It is feasible to note that this study, despite having a purely administrative marketing character, combines elements that can be used in the daily work of this type of companies, and performs an analysis from its origin, its advantages, disadvantages, evolution, administrative theories, etc., up to the production and proposal of an integrated model of strategic matrices.

On the other hand, according to the design of the objectives of the thesis, it is concluded that presenting as proposed an integrated matrix model is favorable for SMEs to be able to operate in a practical way in the competitive sector where they are, since it allows to know from the external and internal aspects and to be able to visualize tactical, operational, and strategic aspects in the future.

According to the perception of the SME owners or managers regarding the matrix system, they were open to test the model, taking into account that this process is costly to acquire, and they identified all those internal and external variables that may result as opportunities, threats, weaknesses, and strengths that SMEs may present in the general and specific environment.

The results of the study determined that the working hypothesis is approved because it is feasible to design an integrated system of strategic matrices, so the null hypothesis is rejected.

The research conducted by this doctoral work described very relevant aspects of SMEs in Tegucigalpa, Honduras, describing all those variables from administrative processes to operational processes, using and innovating matrices that will give much contribution to knowledge and concentrated value in competitive markets.

Among the major findings, it was discovered that companies face many threats at the political, economic, social, cultural, and psychographic levels, which were found in the instrument applied to 155 SMEs and had agreement with the model applied to the company under study. In turn, companies are committed to take advantage of many opportunities that the same macro environment can generate, using the tool called PESTEL can have a clearer picture in which environments should be taken care of and in which others can be taken advantage of.

The study of the specific or internal environment identified that on average SMEs have greater weaknesses in relation to their strengths due to the complexity of their operation, especially in obtaining working capital, technical knowledge, and all those variables such as suppliers, competitors, and customers. To complement the internal analysis, Porter's 5 forces tool was used to design a matrix to assess the established weaknesses and strengths.

Since most SMEs do not have innovation and development, they are pleased that these strategic matrices can significantly support them in improving their processes, especially in the marketing and administrative areas, which in the end leads to better income generation, hiring of more personnel, which combats unemployment and therefore contributes to improvements in society.

For these reasons, it was evident the satisfaction of the SME that provided their data at the time of running the respective simulations using the integrated model of strategic matrices.

Thus, this company knows in advance its possible results, if they continue to be managed in the same way as they are currently and do not make any changes in their ways or techniques to manage and control their activities.

Taking into account the above, one of the alternatives for SMEs is to look for ways to increase their competitiveness and respond to the business environments that they face on a daily basis in relation to their competition, to the substitute products that are present, and in relation to the loss of customers. SMEs, according to the findings of this work, must make changes, which will help them to be competitive in each of the sectors where they develop their daily work and will be able to remain in time, despite external factors that are currently affecting them and internal factors that can take their toll if interesting control measures are not taken in the short, medium, and long term.

With the complete matrix model, which in total consists of 8 strategic, adapted, created, and innovated matrices, it is now possible to plan in the short, medium, and long term using a dynamic action plan, easy to assimilate and that can provide a critical overview of how to compete in all aspects. The action plan will help determine which strategies are the most appropriate depending on what is found in the different environments either internal or external.

Among the main limitations encountered during the study were the following:

- The lack of confidence that SMEs in Tegucigalpa have in providing data to generate information, both for the interviews and for filling out the instrument.
- Unfortunately, in the year 2020 the whole world was in pandemic, in the case of Honduras, it was in confinement since March, which made it difficult to access interviews and to request meetings to fill out the instrument, so we proceeded to conduct interviews by video call and the questionnaire virtually.

It should be noted that SMEs in Tegucigalpa are the main promoter of sources of employment, but unfortunately, they are little supported and stimulated by the government sector in order to generate more employment, tax payments, and healthy competition at a general level, especially in the tourism, services, and manufacturing sectors in general.

As for the recommendations, it is emphasized that SMEs in Tegucigalpa should put this integrated matrix model into practice, so that they can plan strategically, in an orderly, planned manner and above all with a vision of the aspects they want to improve on a daily basis, at all levels.

On the other hand, it is suggested to follow up on the results of this doctoral thesis in order to continue identifying variables from both the external and internal sectors, as well as possible improvements and innovations to the matrix system.

It is also suggested that more research be conducted on SMEs, not only in Tegucigalpa but also in Honduras, in order to strengthen this sector, which is so important not only for Honduras but for the world in general.

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