Impact on the economic and tourist development of the micro-businesses of the food sector of Xicotepec, due to the Health Contingency caused by the SARS-COV-2 (COVID-19)

Impacto en el desarrollo económico y turístico de las microempresas del sector de alimentos de Xicotepec, debido a la Contingencia Sanitaria causada por el SARS-COV-2 (COVID-19)

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#### Abstract

The project documents the research carried out through questionnaires that determine the effects that the health contingency has had in the municipality of Xicotepec de Juárez, Puebla, specifically in micro-businesses in the food sector, due to the pandemic caused by the better known SARS-COV-2 virus as COVID-19, emphasizing that said municipality has the name of "Pueblo Mágico", which positions it as a tourist spot in this area of the country and that the economic income depends on the flow of national and foreign visitors, so that recognizing the situation of micro-enterprises in the gastronomic sector and the way in which they have managed their activities under the current context, will allow us to identify opportunities to interact with them in order to put into practice the necessary strategies to keep them in operation, seeking that not only survive the health contingency, but also adapt to the new reality to achieve development and real economic growth.

### Resumen

El proyecto documenta la investigación realizada mediante cuestionarios que determinan los efectos que ha tenido la contingencia sanitaria en el municipio de Xicotepec de Juárez, Puebla, específicamente en las microempresas del sector de alimentos, debido a la pandemia ocasionada por el virus SARS-COV-2, mejor conocido como COVID-19, recalcando que dicho municipio cuenta con la denominación de "Pueblo Mágico", lo que lo posiciona como un punto turístico de esta zona del país y que los ingresos económicos dependen del flujo de visitantes nacionales y extranjeros que hay, por lo que al reconocer la situación en que se encuentran las microempresas del sector gastronómico y la manera en que han manejado sus actividades bajo el contexto actual, nos permitirá identificar las oportunidades de interactuar con ellas para poner en práctica, las estrategias necesarias para mantenerlas en funcionamiento, buscando que no solo sobrevivan a la contingencia sanitaria, sino que se adapten a la nueva realidad para lograr un desarrollo y crecimiento económico real.

Micro-enterprises, Health contingency, Strategies

Microempresas, Contingencia sanitaria, Estrategias

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#### Introduction

On March 23, 2020, it was announced in Mexico, a fact that radically changed the economic life of our country, generating uncertainty in financial markets and starting a paralysis in the economy of companies, the above, caused for the largest pandemic that has existed in the last hundred years, caused by SARS-COV-2 (COVID-19).

World According to the Health Organization, COVID-19 is the most infectious disease caused by a coronavirus, which has generated isolation and social distancing policies in recent months in many countries around the world, and which has brought with it multiple problems in public health impacting the economy and other sectors; Mexico particularly in the local economy of the municipality of Xicotepec de Juárez, Puebla, due to social distancing and the closure of businesses caused by the health contingency, the food sector has been totally affected by the fact of the limited mobility of the inhabitants, resulting in the businesses dedicated to this sector seeing the need to limit the entry of diners into their service areas, others to reduce the number of workers and some others adopting new measures to stay in the market surviving through of home delivery, which generates a noticeable decrease in your income.

### **Justification**

Xicotepec is a municipality located in the Sierra Norte of the State of Puebla, which since 2012 the Secretary of Tourism had the pleasure of calling it Magic Town, recognizing in it different tourist attractions, among which its local gastronomy stands out, which is why this The investigation turns to the food sector in this town, after being affected by the temporary suspension of activities and the confinement that we are experiencing in the middle of 2020 due to the health contingency.

### **Problem**

The reason for this research is to determine the impact of COVID-19 on food micro businesses in Xicotepec, seeking to identify the appropriate strategies to adapt them to the new modality, derived from the pandemic that our municipality is going through

# **Hypothesis**

By recognizing the impact that food microenterprises have had in the municipality, the ideal strategies to help the economic reactivation of this sector can be determined with the intervention of businessmen, the municipality and the academic sector.

#### Goals

# General purpose

Identify the impact that companies in the food sector have had in the municipality of Xicotepec due to the health contingency, for the implementation of strategies in the economic reactivation of the sector.

# Specific objectives

- Gather representative information on the food sector of the municipality of Xicotepec.
- Analyze the information and identify the repercussions that companies have had in this sector due to the health contingency.
- Establish strategies to help in the economic reactivation of microenterprises in the food sector of the municipality.

#### **Theoretical framework**

Without a doubt, Mexico is going through one of the biggest economic turbulence caused by the COVID-19 Pandemic.

According to the World Health Organization (WHO) describes that pandemic is the worldwide spread of an infectious disease of humans, this indicates that it affects a considerable number of people worldwide.

In order for it to be considered a Pandemic according to the WHO, it must be considered a new virus that can be transmitted from person to person, precisely these are two situations that we go through with the appearance of the SARS-CoV-2 virus (new coronavirus of Severe Acute Respiratory Syndrome ) which causes the COVID-19 disease, which has currently generated more than 1,001,183 accumulated cases, according to registry reports by the Autonomous University of Mexico (UNAM).

Data presented by the author Daniel Torres, from the company's Digital Marketing (CompuSoluciones) indicate that in Mexico the backbone of our economy is found in Micro, Small and Medium Enterprises. According to Forbes data, there are about 4.2 million MIPyMES (Micro, small and medium enterprises), which contribute around 52% of the Gross Domestic Product (GDP), and generate 70% of formal employment.

For the purposes of this research, we are based on the analysis of micro-enterprises and, taking up this definition by the (Ministry of the Economy), all registered micro-businesses with fewer than 10 workers are considered micro-enterprises.

According to data obtained by INEGI, referring to a survey called "ECOVID-IE 2020", on the Economic Impact Generated by COVID-19, and which was applied to 1,873,564 companies via telephone, of which 1,735 correspond to micro-companies, it was analyzed that The average expectation of income during the middle of 2020, presented a considerable decrease (more than 50%), for which they were forced to close and some others that maintained their operation, the demand for their products was totally diminished.

Similarly, the economic outlook of microenterprises was affected after the official statement that was issued in the Official Gazette of the Federation, on March 31, 2020, which mentions the separation and temporary closure of essential and non-essential activities, reducing in a large percentage, the access of diners to food businesses, presenting a considerable reduction in hours, generating low demand for products and services, which caused a reduction in personnel and economic income establishments during the temporary closure period.

Derived from studies carried out by the authors: (Mascarúa Alcázar, Velázquez Vargas and Amador Mendoza), based on the study of Economies of scale in the Municipality of Xicotepec de Juárez, applied in the first semester of 2020, it is observed that, in the In the year of 2019, 4,782 economic units had been counted, strictly in the city of Xicotepec, 7 belong to the primary sector, 729 to the secondary sector, 2,074 from the commercial sector and 1,978 from the service sector.

According to these data, it can be seen that MSEs in the state occupy 99.7% of the total; Xicotepec companies are 3% of the state of Puebla; 97.6% are micro-businesses; 1.8% are small businesses; 0.5% are medium and 0.1% are large, the above according to information presented by the Strategic Regional Development Program, Region 1, Xicotepec (Government of Puebla).

# **Investigation methodology**

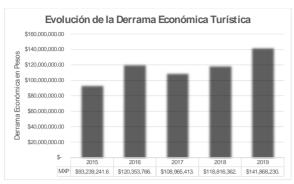
The methodology used to carry out this research consisted of obtaining a representative sample designed according to the probabilistic sampling stratified in finite populations, for which the measurement instrument consisted in the application of a direct questionnaire to determine the impact of Covid 19 in the micro businesses of food in Xicotepec de Juárez, Puebla; since its economy depends largely on tourism and this represents one of the main industries of economic development that, over time, has been consolidated by increasing the influx of tourists, as can be seen in the following graph.



Fuente: Secretaría de Turismo del Estado de Puebla

# Graphic 1

By taking advantage of the natural, cultural, archaeological and gastronomic attractions, it contributes to the strengthening of the Pueblo Mágico denomination, this tourist influx generates positive changes in the local economy as can be seen in the following table:



Fuente: Secretaría de Turismo del Estado de Puebli

### **Graphic 2**

Derived from the importance of tourism for the town, an analysis of the behavior of the food microenterprise sector was carried out in Xicotepec de Juárez and determined the impact of Covid 19 in different sections that include: Sales behavior, changes in customer service customer, compliance with sanitary measures during the pandemic, changes in the means of sale, behavior of customer consumption habits, behavior of supplies, effects of the pandemic on employment and training needs.

# **Determination of sample size**

For this purpose, a study for finite populations (less than 100,000 elements) was considered, and the following formula was used:

$$n = \frac{3.84N \, p \times q}{E^2 \, (N-1) + 3.84 \, p \times q} \tag{1}$$

Where:

3.84 = confidence coefficient factor

N = universe or population

p = probability in favor

q = probability against

n = number of elements (sample size)

E = estimation error

n = sample size

Substituting the data in the above formula, the sample determination is made. Data:

n = ?

E = 5%

Confidence coefficient factor = 3.84

p = 50%

q = 50%

N = 663 companies

Substituting the formula with the data:

$$n = \frac{3.84 \times 633\ 0.50 \times 0.50}{(0.05)^2\ (633-1) + 3.84\ (0.50 \times 0.50)}$$

$$n = \frac{636.48}{(0.0025)^2 (632) + 3.84 (0.96)}$$

$$n = \frac{636.48}{1.655 + 0.96}$$

$$n = \frac{636.48}{2.61}$$

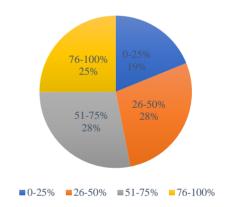
$$n = 243.86$$

n = 244 questionnaires

To determine the sample, a confidence level of 95% is ensured and according to the result obtained, 244 questionnaires were applied considering the universe of 663 economic units dedicated to the preparation of food in the municipality of Xicotepec, according to the National Statistical Directory of INEGI Economic Units (2020).

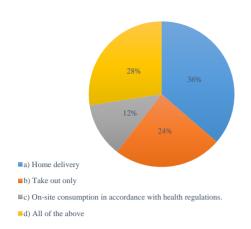
#### **Results**

The results of this investigation allow to determine the following:



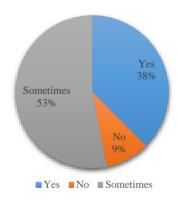
Graphic 3 Sales behavior

For the food microenterprises in Xicotepec, it can be identified in the first place that 19% consider that the percentages of decrease in sales that range from 0% to 25%; 28% believe that the decrease is from 26 to 50%; Another 28% consider that the decrease is from 51% to 75% and finally 25% consider that the decrease has been accentuated between 76% to 100% by the end of 2020 compared to those that existed before the pandemic; which puts into perspective the economic impact that the health contingency has had in this sector.



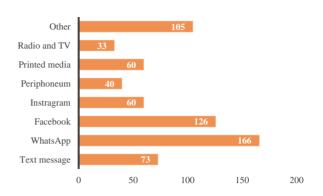
Graphic 4 Changes in customer service

According to the results obtained, they had to be adapted to offer different alternatives for customer service, highlighting in order of importance the home delivery with 36% and it is the option that they have implemented mostly, with 24% the option is applied to make food just to go; with 12% the consumption is carried out on site in accordance with health regulations and finally 28% apply a combination of all the options to be able to serve customers in this sector.



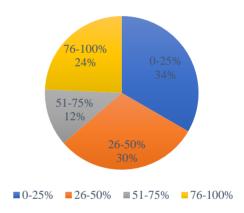
**Graphic 5** Compliance with sanitary measures in the contingency

In this graph you can see the behavior of customers in the establishment regarding the health measures established by the authority. With 53% it can be seen that clients only sometimes respect these protocols. Only 38% comply with the sanitary measures and 9% do not comply with the measures established to mitigate the sanitary contingency.



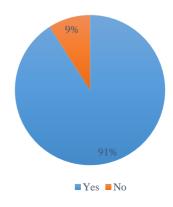
Graphic 6 Changes in the means of sale

Regarding the means used to publicize products and services offered in this sector, they have been adapted and now use a variety of electronic means, among which the sending of messages through WhatsApp, the use of social networks is mostly used. such as Facebook, Other applications, Text messages, Instragram, Print media, Periphoneum and what is used to a lesser extent are Radio and TV.



Graphic 7 Behavior of customer consumption habits

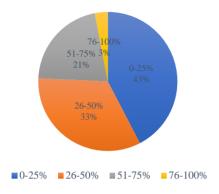
The consumption behavior of customers in this sector is also changing since customers now 34% sometimes request their food to take away or with home delivery; 30% regularly request the services described; 24% almost always choose the home delivery option and only 12% order their food with home delivery



Graphic 8 Behavior of input prices

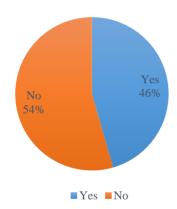
AMADOR-MENDOZA, Evelin, CRUZ-CABRERA, Clotilde and VELAZQUEZ-VARGAS, José Rubén. Impact on the economic and tourist development of the micro-businesses of the food sector of Xicotepec, due to the Health Contingency caused by the SARS-COV-2 (COVID-19). Journal-Business Administration - Marketing; Accounting. 2020

Regarding the inputs for the preparation of food that are offered to this sector, 91% consider that the health contingency has increased the price of the raw material for the production of their products and only 9% consider that they have not suffered any increase.



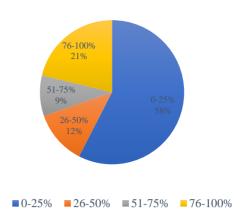
Graphic 9 Variation in input prices

The owners of food micro-businesses in Xicotepec perceive that the prices of inputs have risen; 43% think that the increase oscillates between 0% and 25%; 33% believe that the increase is between 26% to 50%; 21% perceive that the increase is between 51% and 75% and 3% consider that the increase has been between 76% and 100%.



**Graphic 10** Efectos en el empleo en el sector de alimentos por la pandemia

Entrepreneurs who own food microbusinesses in Xicotepec de Juárez have expressed that 54% have not been able to retain their staff due to the effects of this pandemic and 46% have been able to retain their employees.



**Graphic 11** Percentage of jobs lost in the food sector due to the effects of the pandemic

58% of the entrepreneurs that participate in this sector consider that between 0% and 25% of the jobs they had before the current health contingency have been lost; 12% consider that between 26% and 50% have stopped having jobs; 9% estimate that they stopped having between 51% and 75% and finally 21% of the participants think that between 76% and 100% is the percentage of jobs that stopped having during this pandemic.



**Graphic 12** Training needs

The participants in the food sector in Xicotepec de Juárez, expressed diverse opinions in order to achieve the permanence of their businesses and avoid their disappearance; Therefore, they consider it necessary to train mainly in the management of social networks, and following in order of importance to continue preparing in Basic Marketing, Basic Finance, Customer Service and Attention, Price Standardization, Labor Motivation and other aspects.

#### **Conclusions**

It is necessary to establish training projects in a simplified way with business control methods and procedures applied to the daily practice of the activities carried out by microentrepreneurs under the current circumstances of health contingency. The culture of the management of information and communication technologies, as well as the application in social networks of business objectives, should be promoted in Promote organizations. agreements municipal authorities, with business associations and the UTXJ, so that useful business models are promoted in a tripartite manner for the creation, of activities, maintenance growth development of micro-enterprises.

Despite the fact that microentrepreneurs are aware of the need to train in: network management, finance courses, customer service and attention, marketing, work environment, price management, among others, they do not have a real disposition of time for not be a priority within the daily activities they carry out. Existing microentrepreneurs are more interested in business survival with the daily sales routine, only with the variant, of use of social networks and virtual transactions.

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