Article **Journal-Microeconomics**
June 2022, Vol.6 No.10 16-27

Study of the productivity in microenterprises of the commercial sector for businesswomen in the city of Villahermosa, Tabasco, and generate a proposal for improvement

Estudio de la productividad en microempresas del sector comercial para mujeres empresarias en la ciudad de Villahermosa, Tabasco, y generar una propuesta de mejora

HERNÁNDEZ-ZURITA, Pamela†*, ELISEO-DÁNTES, Hortencia, LÓPEZ-VALDIVIESO, Leticia and GARCÍA-REYES, David Antonio

Tecnológico Nacional de México, Instituto Tecnológico de Villahermosa, Mexico.

ID 1st Author: *Pamela, Hernández-Zurita* / **ORC ID:** 0000-0002-1693-4137, **Researcher ID Thomson:** AAW-3125-2021, **CVU CONACYT ID:** 108448

ID 1st Co-author: *Hortencia, Eliseo-Dantés* / **ORC ID:** 0000-0003-4006-4669, **Researcher ID Thomson:** F-6749-2018, **CVU CONACYT ID:** 411079

ID 2nd Co-author: *Leticia, López-Valdivieso* / **ORC ID:** 0000-0001-6288-3636, **Researcher ID Thomson:** G-5753-2018, **CVU CONACYT ID:** 67839

ID 3rd Co-author: *David Antonio, García-Reyes* / **ORC ID:** 0000-0002-6083-079X, **Researcher ID Thomson:** D-4836-2018, **CVU CONACYT ID:** 883868

DOI: 10.35429/JM.2022.10.6.16.27 Received January 20, 2022; Accepted June 30, 2022

Abstract

Microenterprises in Mexico cover 95.2%, generate 45.6% of employment and contribute 15% of the value added to the economy. Contribute to this segment since the competitive environment is not only a matter of productivity, but also that it must be merged with other elements such as quality, efficiency, effectiveness, strategy, having a model and a comprehensive system, everything for an organization to be successful. In a market where the consumer has a variety of options, increased productivity and improved quality are vital factors to ensure the permanence of the organization. That is why the improvement and measurement of productivity must be continuous and is the responsibility of all areas/departments of the organization. In order to increase productivity in this sector, the heads in charge must understand that external variables are closely related to their decision making, the scope of their objectives and the fulfillment of goals.

Productivity, Microenterprises, External variables

Resumen

Las microempresas en México abarcan el 95.2%, generan el 45.6% del empleo y contribuyen con el 15% del valor agregado a la economía. Aportan a dicho segmento ya que el entorno competitivo, no solo es cuestión de productividad si no, que esta debe fusionarse con otros elementos como lo son; la calidad, eficiencia, eficacia, estrategia, tener un modelo y un sistema integral, todo para que una organización sea exitosa. En un mercado, donde el consumidor tiene variedad de opciones, el aumento de la productividad y la mejora de la calidad son factores vitales para asegurar la permanencia de la organización. Es por eso por lo que el mejoramiento y medición de la productividad debe ser de forma continua y compete a todas las áreas/ departamentos de la organización. Para aumentar la productividad en este sector, las cabezas al mando deben comprender que las variables externas se relacionan mucho con su toma de decisiones, el alcance de sus objetivos y cumplimento de metas.

Productividad, Microempresas, Variables externas

Citation: HERNÁNDEZ-ZURITA, Pamela, ELISEO-DÁNTES, Hortencia, LÓPEZ-VALDIVIESO, Leticia and GARCÍA-REYES, David Antonio. Study of the productivity in microenterprises of the commercial sector for businesswomen in the city of Villahermosa, Tabasco, and generate a proposal for improvement. Journal-Microeconomics. 2022. 6-10:16-27.

* Correspondence to Author (E-mail: pamela.hdezzurita@gmail.com)
† Researcher contributing first author.

Introduction

Nowadays we spend most of our time in labor issues and being paid for our abilities, so it is important to be satisfied in our workplace because it depends on it that productivity rises, resulting in a good job performance. In the city of Villahermosa, Tabasco, microenterprises in the commercial sector that suffer from low productivity and slow their growth is because they do not give the necessary importance to the causes that produce it, it can be said that much has to do with the personal development of those who integrate the units of this segment. Human capital formed from investment in formal education, training and on-the-job experience is associated with better income in the case of workers, with greater productivity and efficiency in the case of companies and with greater prosperity in the case of countries. The learning inherent to routine activities on the job can be broken down into labor, capital and organizational learning. This is integrally related to social, cultural, political, economic, and technological variables. In the area of human capital in microenterprises it has been little covered and could be seen as a favorable resource for women entrepreneurs and their employees, emphasizing training in new knowledge whose returns could be captured by employees in higher wages and by microenterprises in higher productivity.

Background

Productivity is a pending issue for microenterprises and has been analyzed with different approaches over time, but especially when this segment began to gain more strength in the national economic participation. In recent years, there is little knowledge of research that delves into the society of women entrepreneurs and that is not valued and applied to increase the productivity of their microenterprises.

Katleen Ana Carem Ochoa Calderon (2014), in her research entitled "Motivation and labor productivity" alludes to the utmost importance of motivation in the productivity of microenterprises, especially in the research and field work she focused on in her study.

It is mentioned that motivation is an internal state that activates, directs and maintains behavior, so we refer to productivity as the efficiency and effectiveness that the collaborator has when performing his work. According to the results obtained from the study, motivation has an absolute influence on productivity, as confirmed by his extensive thesis study, which shows that from the motivations that are experienced in the family environment to the relationship with co-workers has to do with the integral development of the collaborators. It was proven that the level of motivation greatly influences the level of labor productivity, the level of motivation that the company has according to statistical results is 75%, it is the motivation that is available to achieve an effective, efficient, and high degree of labor productivity.

Productivity can be studied from different approaches, but in the commerce sector the possible increase in business performance is denoted. At the Universidad Nacional José Faustino Sánchez Carrión, in the faculty of business sciences, under the charge of the student Lily Balcázar Coca (2018) , developed the thesis on "The Productivity of Commercial Enterprises" in the city of Huacho, Peru. research related to the low productivity of small commercial enterprises of Huacho and its affectation in the profitability of their businesses. The results showed that increasing productivity could be beneficial to the profitability of their businesses and thus maintain an efficient competitiveness in the region. In addition, sales would increase considerably, improving the internal performance of the organization and the financial system of the region.

Mexico, Professors Martín Ramírez Urquidy and Alejandro Mungaray Lagarda (2007), from the School of Economics and International Relations, conducted a research study on "Human Capital and Productivity in Microenterprises", which sought to extend the human capital approach to the analysis of low value added microenterprises, in order to find elements to evaluate their contribution. The impact of formal schooling and experience in business management on the productive dynamics in a group of microenterprises is analyzed, under the hypothesis that the differentials in the accumulation of human capital in the companies are associated with differentials in terms of productivity.

ISSN-On line: 2531-2987

It is necessary to differentiate the impacts on productivity derived from the two types of investment in human capital considered, since the latter was greater for experience than for schooling. This could be due to a reduction in the impact of formal schooling as the years pass after leaving school, and consequently the increase in the relative weight of learning through on-the-job experience, which begins to be the only source of human capital in the long term.

The results show evidence of the economic value acquired by aspects related to human beings, their capabilities, skills, education and experience in the microenterprises analyzed, especially in adverse scenarios that impose strong financial, technological and market restrictions, such as the one in which they operate. The financial resources that determine the physical resources are beyond the reach of this type of business, so the use and capitalization of their experience and education become very important factors for their survival and permanence, as the results indicate.

The transfer of knowledge to provide human capital within these companies can contribute to their development in a context of restricted credit resources such as the one that currently prevails in the country, especially at the level of this type of companies. This opens a fertile field for the development of social assistance programs, since this university technical assistance implies a useful feedback process for the enterprise, since it involves a flow of ideas, simple notions, and comments on technical, economic and financial aspects unknown to microentrepreneurs, and even motivational processes.

In Mexico, this concept can be applied in various segments of the population or through extension programs that strengthen people's capacities to lead productive lives, most likely in the framework of a microenterprise, given the socioeconomic and business structures of the country where most of the formally or informally established units are of this type and with a low level of education.

Problem statement

The factors that affect productivity in microenterprises are usually what most entrepreneurs ignore when managing their processes or decision making.

The problem of productivity is especially important considering that microenterprises in the commercially intensive sector are in employment generation and self-employment and do not have the knowledge, infrastructure, or access, compared to larger companies, to take advantage of technological innovations.

Justification

In recent years the development of microenterprises in the city of Villahermosa, Tabasco, has increased, especially among women entrepreneurs, although there are some gaps that hinder their productivity, so it is necessary to study this variable in relation to human capital, in order to establish alternatives to help development.

The purpose of this research is to analyze the self-employment of women in Tabasco and to provide knowledge, tools or proposals for improvement to increase productivity in their microenterprises, since they are generators of employment and self-employment in the city of Villahermosa, Tabasco.

Objective

To study the productivity of microenterprises in the commercial sector of women entrepreneurs, in order to generate a proposal for improvement

Specific objetives

- To study the productivity of microenterprises in the commercial sector run by women
- To generate an improvement proposal to increase local productivity.

ISSN-On line: 2531-2987

Identification of the variables

- Dependent variable
- Productivity

Independent variable

- Cultural variable
- Social variable
- Technological variable
- Political variable
- Economic variable

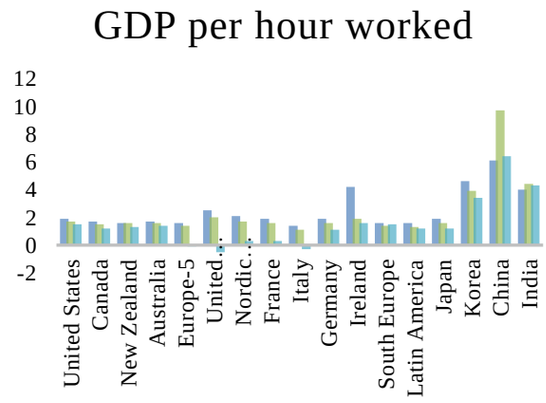
Hypothesis

The productivity of microenterprises in the commercial sector run by women depends on cultural, social, technological, political, and economic variables directly in the city of Villahermosa, Tabasco.

International contextual framework

The future of productivity

Productivity has suffered a slowdown in recent years, leading to fears about growth, limiting long-term plans, in the international context countries should try to tap sources of productivity growth; one of them could be the potential of knowledge diffusion and on the other hand reduce inequalities through better coordination between skills and jobs, this last point is reflected in "that a quarter of workers report a mismatch between their skills and those required to develop their work. In some economies, a better use of talent could translate into an increase of up to 10% in labor productivity (OECD, 2015).



Graphic 1 Productivity growth slowing down
Source: OECD calculations based on Conference Board Economic Database

The main cause is not so much a slowdown in innovation in the world's most advanced companies, but a slowdown in the speed at which innovations diffuse throughout the economic system.

As of the year 2000, labor productivity in the leading-edge technological industrial sector increased at an average annual rate of 3.5%, compared to only 0.5% in non-leading-edge firms, with this difference being even more pronounced in the services sector (OECD, 2015)

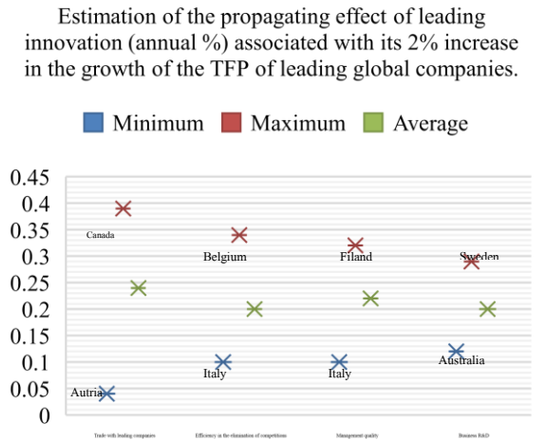
The comparative strength of these leading global companies reflects their ability to innovate and optimally integrate human, technological and organizational capital into production processes along global value chains and to take advantage of the potential offered by digitalization and rapidly reproduce cutting-edge ideas.

The widening of recorded wage inequality appears to reflect the increasing dispersion of average wages paid by different firms, suggesting that raising the productivity of lagging firms could improve wage equality.

Diffusion to firms takes place more easily in some economies than in others. The second graph plots estimates of how a 2% acceleration in productivity growth in leading global firms, roughly equivalent to the figure recorded in the United States during the ICT boom of the late 1990s, spreads across economies depending on these factors.

ISSN-On line: 2531-2987

Countries with very intensive trade with a leading economy would, as a result of faster disinflation, achieve an annual productivity increase of 0.35 percentage points higher than a country with less trade of this type.



Graphic 2 Structural factors that determine the spread of productivity from leading global companies
Source: A. Saia, D. Andrews, and S. Albrizio (2015) "productivity spillovers from the global frontier and public policy: industry level evidence", OECD Economics Department Working Paper No. 1238

An efficient allocation of resources has important direct effects on productivity growth. The more productive firms are, the more their positive performance will have an impact on overall economic growth.

Reforms that reduce skills mismatches and venture a consequence of the capital shortages are important, as weak business growth is often difficulties innovative firms face in attracting the skilled workers and capital they need to expand. Policies can take advantage of three avenues to boost productivity through a more efficient allocation of resources, especially human resources

First, policies that promote the exit of inefficient firms from the market.

Second, policies that facilitate labor mobility can significantly reduce an inefficient allocation of resources, particularly labor and skills, in order to sustain the growth of the most productive firms.

And finally, lifelong learning policies that adapt skills to technical progress can boost productivity growth by better matching skills to jobs.

National contextual framework

Productivity and structural gaps in mexico

In the 2000-2014 period, labor productivity in Mexico advanced at an average annual rate of 0.9%, while in the United States it increased at a rate of 2.1% (Table 1). These data indicate that, despite the profound changes in sectoral composition and insertion into high-growth global markets experienced by the Mexican economy, these transformations have not been accompanied by a rapid rise in productivity. It is therefore valid to argue that structural change in Mexico has been incomplete.

	2000-2003	2003-2007	2007-2009	2009-2014	2000-2014
Annual average growth rates					
Mexico					
Labor productivity	0.50	1.00	-1.10	1.90	0.90
Intrasectoral effect	-1.30	0.80	-1.60	1.90	0.50
Cross sector effect	1.70	0.20	0.50	-0.10	0.50
Static effect	2.10	0.30	0.70	0.00	0.60
Dynamic effect	-0.40	0.01	-0.20	0.00	-0.20
United States					
Labor productivity	2.60	2.70	1.80	1.50	2.10
Intrasectoral effect	2.70	2.80	2.00	1.60	2.20
Cross sector effect	-0.10	-0.10	-0.20	-0.10	-0.10
Static effect	-0.10	-0.10	-0.20	-0.10	-0.10
Dynamic effect	0.00	0.00	0.00	0.00	0.00
Incidence in the growth of labor productivity					
Mexico					
Labor productivity	100.00	100.00	100.00	100.00	100.00
Intrasectoral effect	-252.60	82.10	144.80	103.20	50.50
Cross sector effect	352.60	17.90	-44.80	-3.20	49.50
Static effect	438.40	26.30	-62.60	-1.60	65.50
Dynamic effect	85.80	-8.40	16.80	-1.50	-16.10
United States					
Labor productivity	100.00	100.00	100.00	100.00	100.00
Intrasectoral effect	104.20	103.70	111.00	107.10	105.70
Cross sector effect	-4.20	-3.70	-11.10	-7.10	-5.70
Static effect	-3.20	-3.40	-11.10	-6.40	-5.20
Dynamic effect	-1.00	-0.40	0.10	-0.70	-0.50

Table 1 Mexico and the United States: decomposition of the growth rate of labor productivity, 2000-2014
Source: Document Productivity and structural gaps in Mexico, (2016). Based on Padilla-Pérez and Villareal (2015) "Unfinished structural change and sectorial heterogeneity: the case of Mexico", unpublished

Mexico is characterized by strong economic and social contrasts throughout its territory. There are dynamic regions where productive activities develop successfully, while the domestic market expands and foreign currency is generated through the export of goods and services they produce, but there are also regions with strong productive and social lags.

ISSN-On line: 2531-2987

Australia

A correlation analysis between productivity, economic growth, exports, informality, and poverty indicates that there are strong links between these variables. Table 2 shows the statistical correlation between the IPLMT[1] and the aforementioned set of variables. It highlights that productivity in Mexico is positively correlated with GDP growth and exports, and that there is a negative relationship between productivity, informality, and poverty. In other words, the entities with the lowest productivity growth are also those with the greatest expansion of informality.

(Coefficients) Indicator	IPLMT
GDP growth	0.7412
Exports	0.2325
TIL1 (labour informality)	-0.3572
TOSI1 (occupation in the informal sector)	-0.3253
TIL2 (labour informality)	-0.3545
TOS12 (occupation in the informal sector)	-0.3989
Poverty (2010-2014)	-0.1504
Notes: TIL1 refers to the sum, without duplication, of those who are in a situation of labor vulnerability due to the nature of the economic unit for which they work, with whom their employment or dependency relationship is not recognized by their source of employment. For its part, the Employment Rate in the Informal Sector 1 (TOSI1) considers all the people who work for non-agricultural economic units operated without accounting records and who work with the resources of the household or of the person who heads the activity, without being constituted as a company, so the activity in question does not have an identifiable and independent situation of that household or of the person who directs it and that therefore tends to materialize on a very small scale of operation. In turn, both rates may refer to total employment (related to TIL 1 and TOSI 1) or excluding agricultural employment (related to TIL 2 and TOSI 2)	

Table 2 Mexico: correlations between the iplmt and gdp growth, exports, informality, and poverty, 2005-2014
Source: Document Productivity and structural gaps in Mexico, (2016)

The link between the evolution of labor force composition and productivity dynamics in Mexico. In particular, we focus on the study of two dimensions: the growing participation of women (feminization) and the increase in the average educational level.

Despite the fact that women represent nearly half of the country's population, in 2014 the hours worked by women reached only 30% of the total. In the period 1990-2014 this percentage expanded by only three points, with a marked concentration in services. In fact, the entire increase was recorded in government services, where the share of hours worked by women stood at 48.8% at the end of the period, since in the rest of the sectors their share declined. At the aggregate level, in 2014 the number of hours worked by men represented 2.6 times the hours worked by women, and the magnitude of this gap reached 8.5 times in the primary sector.

Graphic 3 Mexico: Proportion of hours worked by gender and economic sector
Source: CEPAL, based on official figures from INEGI (2014)

In order to move towards structural change with equality, it is necessary to have an active State that designs and implements an integrated and systemic long-term strategy in the areas of industrial policy, macroeconomic policy, labor policy, social policy and environmental policy. (CEPAL, 2012)

[1] The Total Average Labor Productivity Index (IPMLT), whose advantage is that it is generated from a wide range of official data, so it has high comparability.

ISSN-On line: 2531-2987

Regional context framework

Technological Innovation in the Industrial Sector, case: Small Companies in Villahermosa, Tabasco

The research "Innovation technologic in the industrial sector, case: Small companies in Villahermosa, Tabasco" analyzed for the regional context, managers and employees of small industrial companies in Villahermosa, Tabasco was studied (Ramos Méndez, 2018).

The objective of the research was to identify the technological innovations that are carried out in the companies, the activities that are promoted to generate favorable conditions for innovation, as well as the obstacles that have been presented for the realization of this research. The approach of this research was quantitative, of descriptive type. Entrepreneurs and employees are aware of the importance of innovation and carry it out, not as part of the company's culture, but as an immediate response to a change in the market.

The National Entrepreneur Institute states that the main problems faced by micro, small and medium-sized companies in Mexico are: (All this translates into companies that are not very productive).

- Low growth.
- Limited sales.
- Inadequate and limited market access.
- Low quality of inputs, parts, and components.
- Lack of productive linkages.
- Lack of diversification and productive specialization.
- Low employment generation (which are poorly remunerated).
- Insufficient profitability and high informality.
- Low value-added content.

The study was conducted in the city of Villahermosa, Tabasco. For many years, the state was known for its oil production. However, it suffered a very drastic drop in its production, going from producing 451,634 barrels of oil per day in January 2012 to 252,921 in December 2016. (Secretaria de Energia , 2017) . By year 2015 the entity ranked 27th in contribution to the country's Gross Domestic Product (GDP) (INEGI, 2017).

Data collection instrument

Two questionnaires were designed for the collection of information: one for managers and the other for employees. In this way, personal surveys were carried out, applied to general or administrative managers and according to the organizational structure of each of the companies. In the case of the employee survey, it was decided to apply it to 5 workers in each of the companies, considering that each of the functional areas would be represented.

The objective of the survey applied to managers was to identify the innovation activities carried out by small companies, their current status, as well as the strategies applied so that human talent can participate in innovation processes. In addition, since the human factor is essential for the success of the technological innovation activities carried out by a company, it was considered necessary to know the opinion of the employees, mainly to find points of coincidence and differences that contribute to a perspective of the situation. A survey was applied, consisting of four variables: employee profile, human resources and technological innovation, impact of the technological organization and organizational behavior.

Results

53% of the employees have a high school education and 32% have a bachelor's degree. 31 % explained that they are interested in technological innovation, while the rest of the employees have little or no interest. The employees who show the greatest interest have a bachelor's or master's degree. Ninety-five percent of the employees believe that the technological means used by the company are adequate. Furthermore, 53% indicated that technological innovations are indispensable for the development of their work activities.

ISSN-On line: 2531-2987

In 70% of companies, when an employee does not adapt to innovation, he or she is offered the necessary training. However, if they do not improve, they may be moved to a different position and, in extreme cases, fired.

Both managers and employees are interested in technological innovations. They are aware that they bring benefits and have an impact on productivity. However, it is noteworthy that there is no culture of innovation in the companies, and that when they restructure their processes it is mainly due to the needs that arise at the time. These companies need to broaden their vision of what comprises technological innovation, given that the renovations they mainly carry out are in the automation of processes, mostly due to the acquisition of machinery. Although this is justifiable due to the line of business of the surveyed organizations, greater technological innovation should be sought.

Finally, small industrial companies in Villahermosa, Tabasco are not innovative, they do carry out some activities, but they are often isolated efforts because they lack a long-term vision. In addition, they require more teamwork.

Productivity

Productivity is defined as the efficient use of resources, labor, capital, land, material, energy, information in the production of various goods and services. Higher productivity means obtaining more with the same amount of resources or achieving greater production in volume and quality with the same input.

Productivity is about "working smarter", not "working harder": it reflects the ability to produce more by improving the organization of factors of production thanks to new ideas, technological innovations, and new business models (OECD, 2015).

In this sense, productivity must be examined from a social and economic point of view. Attitudes towards work and performance can be improved through employee participation in goal planning, process implementation and productivity benefits.

Importance of Productivity in Microbusinesses

Productivity improvements produce direct increases in living standards when the distribution of productivity gains is made according to contribution.

Today, it would not be wrong to suggest that productivity is the only major global source of real economic growth, social progress, and improved living standards.

Productivity changes are recognized as having considerable influence on numerous social and economic phenomena, such as rapid economic growth, rising standards of living, improvements in the nation's balance of payments, control of inflation, and even the volume and quality of recreational activities. These changes influence the levels of wages, cost/price ratios, the needs of the price/cost ratios, capital investment needs and employment.

However, the impact of variables involved in the macroeconomic context means that productivity is not linear; it depends in part on the size of the productive unit and the way it operates. Thus, in general, as companies are new and small, they have a more limited managerial capacity, are more vulnerable to economic fluctuations, have a lower capacity to innovate and, in general, their probability of accessing financial services is more limited. In this sense, the existence of a positive correlation between the size of the productive unit and its productivity is plausible.

In this regard, it should be recalled that in the case of Mexico, 95% of the productive units are micro-enterprises in which 42% of the labor force works. The vast majority of them are subsistence businesses and operate informally in the goods and services market.

There are two reasons why public policy cannot leave microenterprises in the shadows. First, because the presence of businesses operating informally corrodes institutions and weakens the legal framework. Although it could be considered that sustained economic growth could reduce the phenomenon of informality. Second, it is important to analyze what measures can be taken to achieve an effective formalization process for microenterprises that will lead to increases in their productivity.

ISSN-On line: 2531-2987

Basic structure of productivity improvement

Alan Lawlor (Lawlor, 1985) suggest that any productivity improvement process has four general stages:

I. Recognition: We must recognize the need for change and improvement.

II. Decision: After convincing ourselves that we must improve, a decision must be implemented.

III. Admissibly: It must be possible to apply the decisions.

IV. Action: Effective implementation of productivity improvement plans, which should be the ultimate goal.

These general stages can be categorized and translated into the practical stages normally used in a successful productivity improvement process, which are as follows:

Stage 1: Determination and prioritization of the company's objectives.

Step 2: Determine production criteria within the organization's boundaries.

Step 3: Prepare an action plan.

Step 4: Remove known obstacles to productivity.

Step 5: Establish productivity measurement methods and systems.

Step 6: Execute the action plan.

Step 7: Motivate workers and managers to achieve higher productivity.

Step 8: Maintain the momentum of productivity efforts.

Stage 9: Maintain monitoring of the organization's climate.

These steps are to be considered only as a kind of checklist, which could and should be expanded or reduced depending on the specific tasks or circumstances.

All productivity programs are implemented in organizations, and to manage them, productivity program managers must be able to suggest procedures that managers and workers can use to identify problems and develop and implement solutions. Productivity processes in the company include suggestion systems, quality circles, work groups, action teams, productivity committees and steering committees, all of which must be all of which must be fully understood and used by the productivity program manager.

Research methodology

Research study design

The development of the research will be cross-sectional, since this type of observational research will analyze the variables of the context, on a sample population.

With the primary objective of finding the relationship between the variables of the research. It is established that this research is descriptive, it is characterized for being a systematic and integral study, of the influences and relationships of variables among them, it will serve to evaluate the current situation of the microenterprises of the commercial sector, directed by women.

Also offer a quantitative approach to classify and sort the results of the research to provide a description of the population sample with the qualitative approach, that is to say that with the help of the methodology data will be collected to test the hypotheses, as well as statistical analysis to establish patterns of behavior.

Research methodology

- Emergence of the idea.
- Research protocol.
- Compilation of information on the variables involved.
- Reference frameworks development.
- Location of stakeholders and/or experts.
- Conduct of research methodology.

ISSN-On line: 2531-2987

- Reception with selected stakeholders.
- Application of the “Integral Productivity Evaluation Technique” (TIEP).
- Grouping and analysis of the data obtained.
- Design of the productivity improvement proposal.

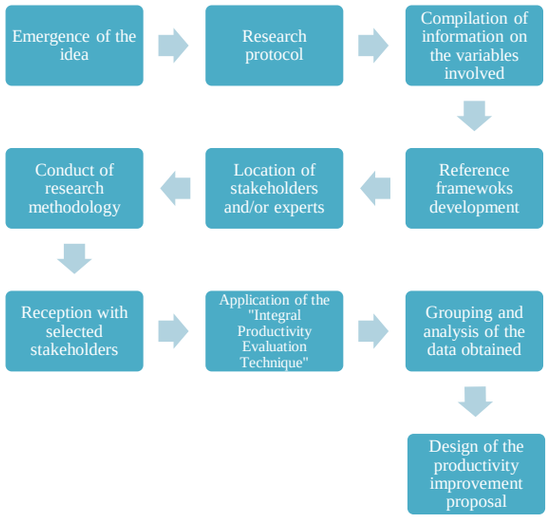


Figure 1 Research methodology
Source: Own contribution (2022)

In order to analyze the productivity of microenterprises in the commercial sector run by women in Villahermosa, Tabasco. The "Integral Productivity Evaluation Technique" (TIEP) will be used, which is for the measurement of productivity based on 10 priority elements in any organization, either from the intangible or tangible point of view, since both aspects are necessary to consider when measuring productivity.

This technique allows the organizations and each of its component units to take an inward look at what things are being affected or lacking in order to meet the objectives and goals. The information derived from this instrument is analyzed to control and improve, through data and graphs that allow to determine the levels and trends of the results obtained. It is important that the evaluator has a systemic and integral approach, otherwise he/she will denote biases in the investigation.

The model will help microenterprises to identify, diagnose and evaluate themselves and their internal progress by returning whenever required by the organization or any of its components.

For the application of this instrument, it is necessary to have a broad knowledge of the variables of the context, and when carrying out the practical work, to consider the participation of each of the components of the organization. Also, as each company is different, the weight of the element may change. Then all this will influence the results of the study scenario.

The comprehensive productivity measurement technique is based on elements:

Conceptual approach to the company. They refer to how the organization is viewed, whether it is viewed in a partial or systemic way, since this is the principle that indicates whether the person who is the source of information will have an appropriate response for the required evaluation of productivity.

Knowledge of the processes. Here is established the determining complement to understand the contexts, since the person being evaluated may have the techniques or instruments, but if he does not understand the processes in which the company being measured is divided, due to the absence of knowledge, a series of errors is triggered by not being able to interrelate with the sources of information and therefore not perform the comprehensive assessment required. To help the company at a given time to determine these processes.

Social environment of the organization. This element considers the organizational environment as a result of the relationship between the different elements that compose it. For example, manager-middle management, machine-worker, union-management, etc.

Planning management. Here we consider the management of all the elements involved in strategic planning. The interest is to know how the objectives, goals, strategies, tactics, policies, declared values, business philosophy, programs and projects are materialized. And the results that are being achieved. Management participation. It is important to evaluate the participation of top management in the integral development of both tangible and intangible elements of the organization, since without this impulse it would be impossible to consider positive and quality results in any organization.

ISSN-On line: 2531-2987

Creativity and organizational innovation. Always and with greater emphasis in the current times, of greater requirements from customers or demanders, it is crucial that there is creativity in the organization and therefore innovation by the people who make up the system, this is at all levels since the increase in productivity and competitiveness will depend on it.

Knowledge of the client(s). It is crucial that the people of the organization know who their internal and external customers are, since in many occasions there is no idea that within the company, due to the relationship that is established, there are also customers, and on the other hand, the mistake is also made of considering that only certain elements of the organization should know the external customers.

Technological development. This is another determining element in the current era, since the circumstances in the context have forced all organizations, whether small, medium, or large, to invest or innovate through creativity.

Macroeconomic knowledge. The organization and especially its top management must be very well informed about economic and political macroeconomic issues, since many aspects that can have a significant impact on the company and generate a setback or stagnation depend on it.

Integral development of human resources. Nowadays the organization must be very clear that the development of human resources is not limited exclusively to training, it must evolve integrally, that is, in attitudes, abilities and skills. Therefore, it is very important to work on both the tangible and intangible aspects of the same, so that the corresponding stages in the people that make up the organization, until they reach intellectual capital.

Conclusions

The research that this study generates based on the context of the dependent variable in relation to the independent variables, will serve as a guide for the development of a quality improvement model, as long as the application of the instrument is precise, without biases that may affect the results and the interpretation of the evaluator.

It is of utmost importance to emphasize that productivity is more than the amount of products obtained from a system, it involves many elements to be studied and attended in the best way to excel in a competitive market, which never remains static and as entrepreneurs, they must be prepared to attend, know, perform and streamline the necessary processes.

The differentials of this valuable segment such as micro-businesses, for the GDP of a country makes economies move in positive ways, besides being the livelihood of many Mexican families. That is why it is proposed to base the research on a sample, being an infinite population to be able to be covered in its entirety, making such selection of actors and / or experts a valuable resource for the verification or hypothesis raised failure

References

Alejandro Mungaray Lagarda, M. R. (2007). Human capital and productivity in microenterprises. Obtained from Scielo: http://www.scielo.org.mx/scielo.php?script=sci_arttext&pid=S0185-16672007000200081

CEPAL. (2012). *Structural change for equality. An Integrated Vision of Development, Thirty-Fourth Session of ECA.* Santiago, Chile: United Nations.

Calderon, K. A. (Dicember 2014). *Work motivation and productivity.* Thesis. Quetzaltenango, Xelajú, Guatemala.

Coca, L. B. (2018). *The productivity of commercial companies in Huacho*. Huacho, Peru.

INEG. (2017) *Gross Domestic Product by Federal Entity.* Obtained from INEGI: http://www.inegi.org.mx/est/contenidos/Proyectos/SCN/C_Anuales/pib_ef/default.aspx

ISSN-On line: 2531-2987

Lawlor, A. (1985). *Productivity improvement manual.* Aldershot,United Kingdom: Gowe.

OECD. (2015). *The future of productivity.* Retrieved from OECD.org: https://www.oecd.org/economy/growth/El-futuro-de-la-productividad.pdf

OECD. (July 2015). *The future of productivity*. Retrieved from OECD.org: https://www.oecd.org/economy/growth/El-futuro-de-la-productividad.pdf

OECD. (2015). *The future of productivity.* Retrieved from OECD.org: https://www.oecd.org/economy/growth/El-futuro-de-la-productividad.pdf

Ramos Méndez, E. A. (June 2018). *Technological Innovation in the Industrial Sector, case: Small Companies of Villahermosa, Tabasco.* Obtained from: http://www.web.facpya.uanl.mx/vinculategica/vinculatégica_2/33%20RAMOS_ARCEO_ACOSTA_ALMEIDA.pdf

Secretary of Energy. (2017). *Secretary of Energy.* Obtained from the Energy Information System:http://sie.energia.gob.mx/bdiController.do?action=cuadro&subAction=applyOptions.

ISSN-On line: 2531-2987