

Volume 6, Issue 10 — January — June — 2022

Journal-Microeconomics

ISSN-On line: 2531-2987

RINOE®

RINOE® Journal-Microeconomics

Chief in editor

OLIVES-MALDONADO, Carlos. MsC

Executive director

RAMOS-ESCAMILLA, María. PhD

Editorial Director

PERALTA-CASTRO, Enrique. MsC

Web designer

ESCAMILLA-BOUCHAN, Imelda. PhD

Web Diagrammer

LUNA-SOTO, Vladimir. PhD

Editorial Assistants

TREJO-RAMOS, Iván. BsC

Philologist

RAMOS-ARANCIBIA, Alejandra. BsC

RINOE Journal- Microeconomics, Volume 6, Issue 10, January - June 2022, is a journal edited semestral by RINOE. 38 Matacerquillas street, Postcode: 28411. Moralarzal –Madrid: www.rinoe.org /, journal@rinoe.org. Editor in Chief: OLIVES-MALDONADO, Carlos. MsC. PhD. ISSN: 2531-2987. Responsible for the latest update of this number RINOE Computer Unit. ESCAMILLA-BOUCHÁN, Imelda. PhD, LUNA-SOTO, Vladimir. PhD. 38 Matacerquillas street, Postcode: 28411. Moralarzal –Madrid last updated June 30, 2022.

The opinions expressed by the authors do not necessarily reflect the views of the editor of the publication.

It is strictly forbidden to reproduce any part of the contents and images of the publication without permission of the National Institute for the Defense of Competition and Protection of Intellectual Property.

RINOE Journal-Microeconomics

Definition of the Journal

Scientific Objectives

Support the international scientific community in its written production Science, Technology and Innovation in the Field of Social Sciences, in Subdisciplines of Household behavior: Consumer economics, Consumer economics, Household production and intrahouse allocation, Personal finance, Consumer protection; Production and organizations: Firm behavior, Organizational behavior, Transaction costs, Property rights, Production, Capital and total factor productivity, Capacity; Distribution: General, Personal income and wealth distribution, Factor income distribution; Market structure and pricing, Perfect competition, Monopoly, Oligopoly and other forms of market imperfection, Auctions, Rationing; Licensing, Value theory; General equilibrium and disequilibrium: Exchange and production economies, Incomplete markets, Input-Output analysis, Computable and other applied general equilibrium models; Welfare economics: Allocative efficiency, Cost-Benefit analysis, Externalities, Equity, Justice, Inequality, and other normative criteria and measurement, Altruism; Analysis of collective Decision-Making: Social choice, Clubs, Committees, Economic models of political processes, Bureaucracy, Administrative processes in public organizations, Conflict, Conflict resolution, Alliances, Positive analysis of Policy-Making and implementation; Information and uncertainty, Criteria for Decision-Making under risk and uncertainty, Asymmetric and private information, Search, Learning, and Information, Expectations, Speculations; Intertemporal choice and growth: Intertemporal consumer choice, Life cycle models and saving, Intertemporal firm choice and growth, Investment, or Financing.

RINOE® is a Scientific and Technological Company in contribution to the Human Resource training focused on the continuity in the critical analysis of International Research and is attached to CONACYT-RENIICYT number 1702902, its commitment is to disseminate research and contributions of the International Scientific Community, academic institutions, agencies and entities of the public and private sectors and contribute to the linking of researchers who carry out scientific activities, technological developments and training of specialized human resources with governments, companies and social organizations.

Encourage the interlocution of the International Scientific Community with other Study Centers in Mexico and abroad and promote a wide incorporation of academics, specialists and researchers to the publication in Science Structures of Autonomous Universities - State Public Universities - Federal IES - Polytechnic Universities - Technological Universities - Federal Technological Institutes - Normal Schools - Decentralized Technological Institutes - Intercultural Universities - S & T Councils - CONACYT Research Centers.

Scope, Coverage and Audience

RINOE Journal-Microeconomics is a Journal edited by RINOE® in its Holding with repository in Spain, is a scientific publication arbitrated and indexed with semester periods. It supports a wide range of contents that are evaluated by academic peers by the Double-Blind method, around subjects related to the theory and practice of Household behavior: Consumer economics, Consumer economics, Household production and intrahouse allocation, Personal finance, Consumer protection; Production and organizations: Firm behavior, Organizational behavior, Transaction costs, Property rights, Production, Capital and total factor productivity, Capacity; Distribution: General, Personal income and wealth distribution, Factor income distribution; Market structure and pricing, Perfect competition, Monopoly, Oligopoly and other forms of market imperfection, Auctions, Rationing; Licensing, Value theory; General equilibrium and disequilibrium: Exchange and production economies, Incomplete markets, Input-Output analysis, Computable and other applied general equilibrium models; Welfare economics: Allocative efficiency, Cost-Benefit analysis, Externalities, Equity, Justice, Inequality, and other normative criteria and measurement, Altruism; Analysis of collective Decision-Making: Social choice, Clubs, Committees, Economic models of political processes, Bureaucracy, Administrative processes in public organizations, Conflict, Conflict resolution, Alliances, Positive analysis of Policy-Making and implementation.

Information and uncertainty, Criteria for Decision-Making under risk and uncertainty, Asymmetric and private information, Search, Learning, and Information, Expectations, Speculations; Intertemporal choice and growth: Intertemporal consumer choice, Life cycle models and saving, Intertemporal firm choice and growth, Investment, or Financing with diverse approaches and perspectives, That contribute to the diffusion of the development of Science Technology and Innovation that allow the arguments related to the decision making and influence in the formulation of international policies in the Field of Social Sciences. The editorial horizon of RINOE[®] extends beyond the academy and integrates other segments of research and analysis outside the scope, as long as they meet the requirements of rigorous argumentative and scientific, as well as addressing issues of general and current interest of the International Scientific Society.

Editorial Board

VALDIVIA - ALTAMIRANO, William Fernando. PhD
Universidad Nacional Agraria La Molina

BLANCO - GARCÍA, Susana. PhD
Universidad Complutense de Madrid

VARGAS - HERNANDEZ, José G. PhD
Keele University

SUYO - CRUZ, Gabriel. PhD
Universidad Nacional de San Antonio Abad del Cusco

BANERJEE, Bidisha. PhD
Amity University

LUO, Yongli. PhD
Universidad de Chongqing

YAN - TSAI, Jeng. PhD
Tamkang University

VARGAS - DELGADO, Oscar René. PhD
National Chengchi University

AZIZ - POSWAL, Bilal. PhD
University of the Punjab Lahore Pakistan

BLANCO - ENCOMIENDA, Francisco Javier. PhD
Universidad de Granada

Arbitration Committee

CAMPOS - RANGEL, Cuauhtémoc Crisanto. PhD
Universidad Autónoma de Tlaxcala

DE LA GARZA - CIENFUEGOS, Sandra Patricia. PhD
Universidad Autónoma de Coahuila

DIMAS - RANGEL, María Isabel. PhD
Universidad Autónoma de Nuevo León

GONZÁLEZ - HERRERA, Karina Concepción. PhD
El Colegio de Tlaxcala

ALCARAZ - SUÁREZ, Oswaldo Israel. PhD
Universidad Tecnológica Metropolitana

CRUZ - ARANDA, Fernando. PhD
Instituto Tecnológico y de Estudios Superiores de Monterrey

LANDAZURI - AGUILERA, Yara. PhD
Universidad Autónoma de Nuevo León

ELIZUNDIA - CISNEROS, María Eugenia. PhD
Universidad Nacional Autónoma de México

MORALES - GONZALEZ, Maria Antonia. PhD
Instituto Tecnológico de Mérida

GARCÍA - ROJAS, Jesús Alberto. PhD
Universidad de Puebla

CERVANTES - ROSAS, María de los Ángeles. PhD
Universidad de Occidente

Assignment of Rights

The sending of an Article to RINOE Journal-Microeconomics emanates the commitment of the author not to submit it simultaneously to the consideration of other series publications for it must complement the Originality Format for its Article.

The authors sign the Format of Authorization for their Article to be disseminated by means that RINOE® In its Holding Spain considers pertinent for disclosure and diffusion of its Article its Rights of Work.

Declaration of Authorship

Indicate the Name of Author and Coauthors at most in the participation of the Article and indicate in extensive the Institutional Affiliation indicating the Department.

Identify the Name of Author and Coauthors at most with the CVU Scholarship Number-PNPC or SNI-CONACYT- Indicating the Researcher Level and their Google Scholar Profile to verify their Citation Level and H index.

Identify the Name of Author and Coauthors at most in the Science and Technology Profiles widely accepted by the International Scientific Community ORC ID - Researcher ID Thomson - arXiv Author ID - PubMed Author ID - Open ID respectively.

Indicate the contact for correspondence to the Author (Mail and Telephone) and indicate the Researcher who contributes as the first Author of the Article.

Plagiarism Detection

All Articles will be tested by plagiarism software PLAGSCAN if a plagiarism level is detected Positive will not be sent to arbitration and will be rescinded of the reception of the Article notifying the Authors responsible, claiming that academic plagiarism is criminalized in the Penal Code.

Arbitration Process

All Articles will be evaluated by academic peers by the Double Blind method, the Arbitration Approval is a requirement for the Editorial Board to make a final decision that will be final in all cases. MARVID® is a derivative brand of ECORFAN® specialized in providing the expert evaluators all of them with Doctorate degree and distinction of International Researchers in the respective Councils of Science and Technology the counterpart of CONACYT for the chapters of America-Europe-Asia- Africa and Oceania. The identification of the authorship should only appear on a first removable page, in order to ensure that the Arbitration process is anonymous and covers the following stages: Identification of the Journal with its author occupation rate - Identification of Authors and Coauthors - Detection of plagiarism PLAGSCAN - Review of Formats of Authorization and Originality-Allocation to the Editorial Board-Allocation of the pair of Expert Arbitrators-Notification of Arbitration -Declaration of observations to the Author-Verification of Article Modified for Editing-Publication.

Knowledge Area

The works must be unpublished and refer to topics of Household behavior: Consumer economics, Consumer economics, Household production and intrahouse allocation, Personal finance, Consumer protection; Production and organizations: Firm behavior, Organizational behavior, Transaction costs, Property rights, Production, Capital and total factor productivity, Capacity; Distribution: General, Personal income and wealth distribution, Factor income distribution; Market structure and pricing, Perfect competition, Monopoly, Oligopoly and other forms of market imperfection, Auctions, Rationing; Licensing, Value theory; General equilibrium and disequilibrium: Exchange and production economies, Incomplete markets, Input-Output analysis, Computable and other applied general equilibrium models; Welfare economics: Allocative efficiency, Cost-Benefit analysis, Externalities, Equity, Justice, Inequality, and other normative criteria and measurement, Altruism; Analysis of collective Decision-Making:

Social choice, Clubs, Committees, Economic models of political processes, Bureaucracy, Administrative processes in public organizations, Conflict, Conflict resolution, Alliances, Positive analysis of Policy-Making and implementation; Information and uncertainty, Criteria for Decision-Making under risk and uncertainty, Asymmetric and private information, Search, Learning, and Information, Expectations, Speculations; Intertemporal choice and growth: Intertemporal consumer choice, Life cycle models and saving, Intertemporal firm choice and growth, Investment, or Financing and other topics related to Social Sciences.

Presentation of Content

In the first article we present, *Innovation factors for workteam level empiric studies*, by PÉREZ-JIMÉNEZ, Carlos & ALONSO-CALPEÑO, Mariela Juana, with adscription in the Universidad Popular Autónoma del Estado de Puebla and Instituto Tecnológico Superior de Atlixco, as the next article we present, *Productivity study in a department store in Villahermosa, Tabasco, Mexico, for the proposal of a development model*, by BALDERRABANO-BRIONES, Jazmín, ACOSTA-CADENAS, Monserrat, RODRÍGUEZ- AGUSTÍN, Griselda and PRIETO-PEDRAZA, Eva María, with adscription in the Tecnológico Nacional de México Campus Úrsulo Galván, as the next article we present, *Study of the productivity in microenterprises of the commercial sector for businesswomen in the city of Villahermosa, Tabasco, and generate a proposal for improvement*, by HERNÁNDEZ-ZURITA, Pamela, ELISEO-DÁNTES, Hortencia, LÓPEZ-VALDIVIESO, Leticia and GARCÍA-REYES, David Antonio, with adscription in the Instituto Tecnológico de Villahermosa, as last article we present, *Renewable energies and local economic development in Nayarit*, by ESPINOSA-FRAGOSO, Karla, ZEPEDA-MARTÍNEZ, Gabriel, GÓMEZ-GUTIÉRREZ, Abel and RODRÍGUEZ-LAZCANO, Yamilet, with adscription in the Universidad Autónoma de Nayarit.

Content

Article	Page
Innovation factors for workteam level empiric studies PÉREZ-JIMÉNEZ, Carlos & ALONSO-CALPEÑO, Mariela Juana <i>Universidad Popular Autónoma del Estado de Puebla</i> <i>Instituto Tecnológico Superior de Atlixco</i>	1-7
Productivity study in a department store in Villahermosa, Tabasco, Mexico, for the proposal of a development model BALDERRABANO-BRIONES, Jazmín, ACOSTA-CADENAS, Monserrat, RODRÍGUEZ-AGUSTÍN, Griselda and PRIETO-PEDRAZA, Eva María <i>Tecnológico Nacional de México Campus Úrsulo Galván</i>	8-15
Study of the productivity in microenterprises of the commercial sector for businesswomen in the city of Villahermosa, Tabasco, and generate a proposal for improvement HERNÁNDEZ-ZURITA, Pamela, ELISEO-DÁNTES, Hortencia, LÓPEZ-VALDIVIESO, Leticia and GARCÍA-REYES, David Antonio <i>Instituto Tecnológico de Villahermosa</i>	16-27
Renewable energies and local economic development in Nayarit ESPINOSA-FRAGOSO, Karla, ZEPEDA-MARTÍNEZ, Gabriel, GÓMEZ-GUTIÉRREZ, Abel and RODRÍGUEZ-LAZCANO, Yamilet <i>Universidad Autónoma de Nayarit</i>	28-33

Innovation factors for workteam level empiric studies

Factores de innovación para estudios empíricos al nivel de equipos de trabajo

PÉREZ-JIMÉNEZ, Carlos†* & ALONSO-CALPEÑO, Mariela Juana

Universidad Popular Autónoma del Estado de Puebla, Mexico.
Instituto Tecnológico Superior de Atlixco, Mexico.

ID 1st Author: Carlos, Pérez-Jiménez / ORC ID: 0000-0002-8584-9569, CVU CONACYT ID: 87058

ID 1st Co-author: Mariela Juana, Alonso-Calpeño / ORC ID: 0000-0001-7276-1923, CVU CONACYT ID: 586822

DOI: 10.35429/JM.2022.10.6.1.7

Received January 10, 2022; Accepted June 30, 2022

Abstract

The aim of this research is to explore in the applicable theoretical perspectives, which innovation factors can be empirically studied in work teams. For that purpose, an integrative review of the literature was carried out using the methodology of search and evaluation for inclusion. A coherent classification, based on theory, was obtained for the innovation factors in work teams that could guide subsequent studies in real life to contribute to the lack of this type of studies reported in the literature.

Resumen

Esta investigación tiene como objetivo rastrear en las teorías más relevantes sobre el tema de los factores de innovación al nivel de equipos de trabajo que pueden ser estudiados empíricamente, para ello se llevó a cabo una revisión integrativa de literatura usando la metodología de búsqueda y evaluación para inclusión. Como resultado, se construyó una clasificación coherente, fundada en la teoría, de los factores de Innovación que operan al nivel de equipos de trabajo para facilitar estudios en la vida real, que contribuyan a la falta de datos este tipo que ha sido reportada en la literatura.

Innovation factors, Work teams, Empirical studies

Factores de innovación, Equipos de trabajo, Estudios empíricos

Citation: PÉREZ-JIMÉNEZ, Carlos & ALONSO-CALPEÑO, Mariela Juana. Innovation factors for workteam level empiric studies. Journal-Microeconomics. 2022. 6-10:1-7.

* Author's correspondence (E-mail: carlos.perez01@upaep.edu.mx)
† Researcher contributing first author.

Introduction

Over the past few decades organizations around the world have reorganized work into teams; the nature of their work and the factors that influence it became a central focus of research (Kozlowski, 2018). While significant research has been conducted on the factors involved in work teams (Bond-Barnard, Fletcher, & Steyn, 2018), factors related to innovation, the failure of which may be the cause of a percentage of failures, total or partial of such teams, have not been reported in these studies (Oeij, 2017).

Innovation is fundamental to the successful performance and survival of any organization and, its effect on the achievement of work teams is a topic open to research (Anderson, Potočnik, & Zhou, 2014). But contemporary studies do not identify which of these contribute to team outcomes (Johnsson, 2017). Also, qualitative research is needed to identify which innovation factors influence team performance (Anderson, Potocnik, Bledow, Hülshager, & Rosing, 2015).

From the gaps found in the literature, the research question arises: what factors related to innovation can be empirically studied at the level of work teams? From where, the objective of this research is to inquire in the applicable theoretical perspectives, which factors of innovation can be studied empirically at the level of work teams. The contribution of this study is to know which factors of innovation at the level of work teams can be studied empirically, according to the most relevant authors and theories on the subject, and that can guide further studies in real life to contribute to the gaps found in the literature.

This article presents, first, the methodology used to establish a new framework of innovation factors that can be observable in work teams through empirical studies to contribute to the gaps found in the literature, then, in the results section, the following are presented: a definition of the concept of work teams in organizations, the theoretical model chosen for the study of work teams, a definition of the concept of innovation that is applicable to work teams, which are the innovation factors chosen for their study at the work team level and the theoretical model proposed for their observation in the field. Finally, the conclusions and future work of this research are presented.

Methodology

To meet the objective of this work, an integrative literature review (Torraco, 2005) was conducted among different authors who have historically made contributions to the theoretical body of the subject, to establish a new framework through the conceptualization and expansion of theoretical foundations (Snyder, 2019).

The literature review was conducted using the search and evaluation for inclusion methodology (Xiao and Watson, 2019) as shown in Figure 1, by searching open sources for theories, perspectives and frameworks related to innovation, whose factors are applicable to the level of work teams in organizational studies.

From the literature review, based on Korstjens and Moser (2018), the components for the proposed observation framework were derived:

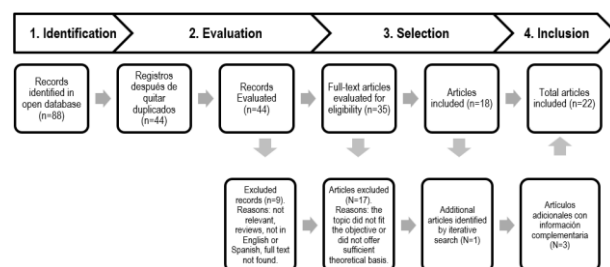


Figure 1 Literature review process

Source: Based on Xiao and Watson (2019)

- A definition of work teams in organizations.
- A theoretical model for the study of work teams.
- A definition of innovation that is applicable to the level of work teams based on four theoretical perspectives that have been very influential in the subject.
- A set of innovation factors applicable to the work team level based on three widely accepted theories in the literature.
- A coherent, theory-based classification for the selected innovation factors that can be observed in the field.

Results and discussion

The results of this research are presented below:

Definition of work teams in organizations

Work teams have been conceptualized from a variety of theoretical perspectives, such as psychological, human resources, socio-technical, technological, task-oriented, integrative and others (Sycara and Sukthankar, 2006), for this work, we found the following definitions in the organizational context:

- Work teams are defined as dynamic entities of two or more interdependent individuals working together towards common and relevant goals; they share the same state of mind, interact socially, exhibit task interdependence and, are immersed in an organizational context that establishes boundaries, and influences exchanges with other units in the larger entity (Kozlowski and Bell, 2003).
- These entities develop over time. During their evolution, their internal processes, emergent states, and characteristics such as knowledge transfer and cohesion are in permanent change (Peralta, Lourenço, Lopes, Baptista, & País, 2018).

These two definitions are complementary and we consider the sum of both as an adequate definition for purposes of the study of innovation factors in work teams.

Theoretical model for the study of work teams

For the study of the factors involved in the dynamics of work teams in organizations, Meyer (2017) recommends the use of the IPO model (From the acronym of Inputs - Processes - Outputs), this will allow identifying at what stage of the dynamics of a work team the innovation factors that are intended to be studied intervene, as shown in Figure 2.

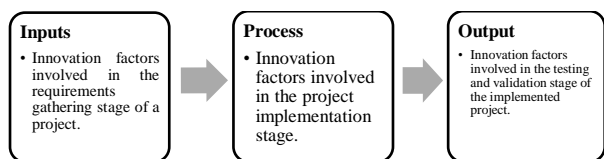


Figure 2 IPO model applied to the study of innovation factors in work teams

Source: Based on Meyer (2017)

Definition of the innovation concept, applicable to work teams

The definition of innovation involves the tangible results of creative ideas; such as

artifacts, services, procedures or processes and requires an approach from various disciplines (Baregheh, Rowley and Sambrook, 2009). To this end, four perspectives of innovation that are relevant for the purposes of this paper were analyzed.

- a) Schumpeterian perspective: Schumpeter (1942) conceptualized five manifestations of innovation:
 - 1 The introduction of a new good.
 - 2 The introduction of a new production method.
 - 3 The opening of a new market.
 - 4 The conquest of a new source of supply of raw materials or partially manufactured goods.
 - 5 The creation of a new organization of any industry.
- b) Multidisciplinary perspective: this perspective (Baregheh, Rowley, and Sambrook, 2009) conceptualizes innovation as a multi-stage process through which ideas are transformed into new, improved or different products, services or processes, in order to advance, compete and differentiate successfully in the market.
- c) Multidimensional perspective. This perspective builds an abstract model (Kogabayev and Maziliauskas, 2017), in which innovation is systemic and cross-functional. It creates qualitative leaps within a system and, as shown in Figure 2, is conceptualized in three dimensions: 1) product-process dimension, 2) administrative-technological dimension and, 3) radical-incremental dimension. Innovation is located in a three-dimensional space according to its focus, and involves major changes within an organization, which implies the idea of executing various tasks to achieve innovation.
- d) Innovation measurement perspective. From the perspective of measuring innovation in the business enterprise sector, innovation is conceptualized in the

business, product, and process domains (OECD, 2018):

- 1) A new or improved product or process or a combination thereof.
- 2) Differs significantly from the unit's previous products or processes.
- 3) Has been made available to potential users (product) or put into use by the unit (process).

Table 1 compares the four perspectives on innovation discussed above in terms of the dimensions covered by their key concepts.

In making a comparison, the dimensions novelty, product generation (artifacts, services, procedures or processes), management approach and need for implementation are considered by all the selected perspectives. Of these four dimensions, the last three involve the concept of implementing the ideas initially generated by the creativity process discussed in the previous section. This implementation process is a requirement for achieving the innovation objectives (Belasen and Lubet, 2017).

Perspective	Novelty	Differentiation	Generate products	Focus on management	Technological approach	Market focus	Need for attention
Schumpeterian	✓	✓	✓	✓	✓	✓	✓
Multidisciplinary	✓	✓	✓	✓	✓	✓	✓
Multidimensional	✓	✓	✓	✓	✓	✓	✓
Measurement	✓	✓	✓	✓	✓	✓	✓

Table 1 Comparison of the most representative perspectives of innovation in the organizational context
Source: Own elaboration

Innovation factors in organizations

Thus, we are in a position to propose a definition of innovation suitable for the purposes of this paper:

"Innovation is the process of implementing creative ideas that puts into use new or improved artifacts, services, procedures, practices or processes, for the organization or group in question."

This definition will be the basis on which the factors of innovation will be studied in the present work.

In terms of the elements of the definitions, three categories were identified:

- First, eight of the nine definitions include idea generation in their definition of

innovation, making "Ideas" the first component.

- Second, five of the nine authors included the "output" of the innovation in their definition, identifying it as a "product, service, or result," this being the second element of the definitions.
- Third, eight of the nine definitions included a dynamic element of innovation, which they identify as "a process, practice or action", making this the third element in the authors' definition.

For the purposes of this research, Table 2 considers three theories that have been consistently used in various studies reported in the literature on creativity and innovation. All of them are used in this work to identify the factors of innovation at the level of work teams.

As can be seen, each theory proposes factors that, for the most part, are different from those proposed by others. In order to classify and integrate them in the context of this study at the level of work teams, we will group them as shown in Table 3 under one of the three domains proposed by Mathieu, Hollenbeck, van Knippenberg and Ilgen (2017), which are: 1) structural components, 2) compositional characteristics and 3) mediation mechanisms, elements used to classify the constructs studied at the level of work teams.

Theory	Conceptualization	Factors	Authors
Componential Theory	Creative ideas are implemented through motivation, skills, and resources available in the task field.	- Intrinsic motivation. - Extrinsic motivation. - Task mastery skills. - Creative processes. - Organizational motivation. - Resources in the task domain. - Innovation management skills.	Amabile, (1988), Amabile and Pratt, (2016)
Interactionist Theory	Individual, group, and organizational characteristics have an impact on the creative process and situation, resulting in a creative product for the organization (innovation).	- Group norms. - Cohesion. - Size. - Diversity. - Roles. - Tasks. - Problem solving approaches. - Resourcefulness. - Rewards. - Strategy. - Structure.	Woodman, Sawyer and Griffin, (1993)
Four Factors Team Climate Theory	Innovations produced by a work team are generally the result of diverse activities characterized by four factors.	- Vision. - Task oriented. - Participatory safety. - Innovation support.	West y Farr (1990); Anderson and West (1998)

Table 2 Comparison of innovation factors among the most representative theories applicable to work teams
Source: Own elaboration based on the cited authors

It is important to note that, only on a couple of occasions, the factors are repeated in two groups: the factor "roles", which is considered both a structural component and a characteristic of team composition, and the factor "participatory safety", which is considered

both a structural component and a mediation mechanism.

This classification does not prevent us from proposing this grouping to observe the factors of the three theories at the level of work teams as shown in Table 4. Up to this point, we have proposed definitions for innovation at the level of work teams based on the analysis of the relevant theories on the subject. We have also determined the sets of innovation factors that will be observed in the field to find the answer to the research question.

Theory	Factors	Structural components	Compositional characteristics	Mediation mechanisms
Componential Theory	Intrinsic motivation.			√
	Extrinsic motivation.			√
	Task mastery skills.		√	
	Creative processes.			√
	Organizational motivation.			√
	Resources in the task domain.	√		
Interactionist Theory	Innovation management skills.			√
	Group norms.		√	
	Cohesion.			√
	Size.		√	
	Diversity.		√	
	Roles.	√	√	
	Tasks.	√		
	Problem solving approaches.			√
	Resources.		√	
	Rewards.			√
	Strategy.			√
	Structure.	√		
4-Factor Team Climate Theory	Vision.		√	
	Task orientation.			√
	Participatory safety.	√		√
	Innovation support.		√	

Table 3 Grouping of innovation factors for study at the work team level
Source: Own elaboration

Dimension	Factor	Type of influence on the team
Structural components	Resources in the task domain	
	Tasks	
	Structure	
	Roles	
Compositional characteristics	Skills in the task domain	
	Diversity	
	Group norms	
	Size	
	Resources	
	Vision	
	Support for innovation	
Mediation Mechanisms	Intrinsic motivation	
	Extrinsic motivation	
	Organizational motivation	
	Innovation management skills	
	Creative processes	
	Cohesion	
	Problem solving approaches	
	Strategy	
	Rewards	
	Task orientation	
	Participatory safety	

Table 4 Proposed classification of innovation factors for field observation
Source: Own elaboration based on the three domains proposed by Mathieu, Hollenbeck, van Knippenberg and Ilgen (2017)

Theoretical model for field observation

With the previous classification of factors, it will now be possible to locate in the IPO model the factors that will be observed in the field as shown in Figure 3, and to determine the type of

influence they have on the dynamics of a work team, which can be, basically, favoring or hindering.

Conclusions

The use of the integrative literature review technique (Torraco, 2005) among different authors who have historically made contributions to the theoretical body on innovation and work teams, allowed us to establish, through the conceptualization and expansion of theoretical foundations (Snyder, 2019), a model for the observation of innovation factors and their influence on the dynamics of work teams as a tool for empirical studies on the subject.

This tool will allow performing the studies that Anderson, Potocnik, Bledow, Hülshager and Rosing (2015), mention that are required to identify the innovation factors that influence the performance of work teams, as well as to identify which of these contribute to the team's results as mentioned by Johnsson (2017).

Through the review conducted, it was possible to identify definition of work teams in organizations based on what was postulated by Kozlowski and Bell (2003), as well as by Peralta, Lourenço, Lopes, Baptista and País (2018). And it also allowed choosing the IPO theoretical model for the study of work teams recommended by Meyer (2017).

Another contribution of the review technique used was the synthesis of a definition of the concept of innovation applicable to the level of work teams from four relevant theoretical perspectives on the subject, as well as the identification of a group of innovation factors applicable to the level of work teams from three important theories analyzed. All this led us to a coherent classification, based on theory, for the field study of the innovation factors selected within the framework of the IPO model for study in work teams.

Subsequent work

The next stage of the research is the use of the observation model in real life, to determine the influence that innovation factors have on the dynamics and performance of work teams in an PÉREZ-JIMÉNEZ, Carlos & ALONSO-CALPEÑO, Mariela Juana. Innovation factors for workteam level empiric studies. Journal-Microeconomics. 2022

organization, as they seek to achieve their objectives, in order to contribute to the gaps found in the literature.

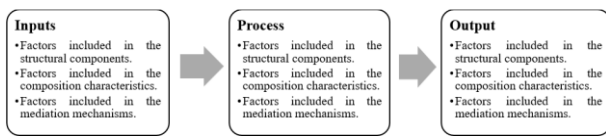


Figure 3 Theoretical model to observe in the field innovation factors in work teams

Source: Own elaboration based on the IPO model recommended by Meyer (2017)

References

- Amabile, T. M. (1988). A model of creativity and innovation in organizations. *Research in organizational behavior*, 10(1), 123-167.
- Amabile, T. M., & Pratt, M. G. (2016). The dynamic componential model of creativity and innovation in organizations: Making progress, making meaning. *Research in Organizational Behavior*, 36, 157-183. <https://doi.org/10.1016/j.riob.2016.10.001>
- Anderson, N., Potočník, K., & Zhou, J. (2014). Innovation and creativity in organizations: A state-of-the-science review, prospective commentary, and guiding framework. *Journal of management*, 40(5), 1297-1333. <https://doi.org/10.1177/0149206314527128>
- Anderson, N.; Potocnik, K.; Bledow, R. J.; Hülsheger, U.; & Rosing, K. (2015). Innovation and creativity in organizations. *Handbook of Industrial Work and Organizational Psychology* (Second Edition). Research Collection Lee Kong Chian School of Business. <http://digital.casalini.it/9781473942851>
- Baregheh, A., Rowley, J., & Sambrook, S. (2009). Towards a multidisciplinary definition of innovation. *Management decision*, 47(8), 1323-1339. <https://doi.org/10.1108/00251740910984578>
- Belasen, A., & Lubber, E. B. (2017). Innovation implementation: Leading from the middle out. In *Strategy and communication for innovation* (pp. 229-243). Springer, Cham. https://doi.org/10.1007/978-3-319-49542-2_14
- Bond-Barnard, T. J., Fletcher, L., & Steyn, H. (2018). Linking trust and collaboration in project teams to project management success. *International Journal of Managing Projects in Business*. <https://doi.org/10.1108/IJMPB-06-2017-0068>
- Johnsson, M. (2017). Innovation Enablers for Innovation Teams-A Review. *Journal of Innovation Management*, 5(3), 75-121. <https://www.diva-portal.org/smash/get/diva2:1170239/FULLTEXT01.pdf>
- Kogabayev, T., & Maziliauskas, A. (2017). The definition and classification of innovation. *HOLISTICA-Journal of Business and Public Administration*, 8(1), 59-72. <https://holisticajournal.ro/docs/fa9a14d8ffa303a5334f3c55cc4454ce.pdf>
- Korstjens, I., & Moser, A. (2018). Series: Practical guidance to qualitative research. Part 4: Trustworthiness and publishing. *European Journal of General Practice*, 24(1), 120-124. <https://doi.org/10.1080/13814788.2017.1375092>
- Kozlowski, S. W. J., & Bell, B. S. (2003). Work groups and teams in organizations. In W. C. Borman, D. R. Ilgen, & R. J. Klimoski (Eds.), *Handbook of psychology: Industrial and organizational psychology*, Vol. 12, pp. 333-375. John Wiley & Sons Inc. https://www.booksfree.org/wp-content/uploads/2022/04/Handbook-of-Psychology-Volume-12-by-Irving-B-Weiner-booksfree.org_.pdf#page=432
- Kozlowski, S. W. J., & Chao, G. T. (2018). Unpacking team process dynamics and emergent phenomena: Challenges, conceptual advances, and innovative methods. *American Psychologist*, 73(4), 576-592. <https://doi.org/10.1037/amp0000245>
- Mathieu, J. E., Hollenbeck, J. R., van Knippenberg, D., & Ilgen, D. R. (2017). A century of work teams in the Journal of Applied Psychology. *Journal of applied psychology*, 102(3), 452. <https://doi.org/10.1037/apl0000128>
- Meyer, B. (2017). Team diversity. *The Wiley Blackwell handbook of the psychology of PÉREZ-JIMÉNEZ, Carlos & ALONSO-CALPEÑO, Mariela Juana. Innovation factors for workteam level empiric studies. Journal-Microeconomics. 2022*

teamwork and collaborative processes, 151-175.
<https://doi.org/10.1002/9781118909997.ch7>

OECD (Organization for Economic Cooperation and Development)/Eurostat (2018). Guidelines for Collecting and Interpreting Innovation Data — The Oslo Manual, 4th edn. Paris: OECD.
<https://www.oecd.org/sti/inno/oslo-manual-2018-info.pdf>

Oeij, P. R. A. (2017). Resilient behaviour in innovation teams for better project results. In *Competitive edge: successful products in the age of disruption*, 17th Pdma annual conference 11-15 November, Chicago
<http://resolver.tudelft.nl/uuid:36577149-b914-46dc-bff2-5198e965f9b6>

Peralta, C. F., Lourenço, P. R., Lopes, P. N., Baptista, C., y Pais, L. (2018). Team development: Definition, measurement and relationships with team effectiveness. *Human Performance*, 31(2), 97-124.
<https://doi.org/10.1080/08959285.2018.1455685>

Schumpeter, J. (1942). Creative destruction. *Capitalism, socialism and democracy*, 825, 82-85.
https://scholar.google.com/scholar_lookup?title=Creative%20destruction&publication_year=1942&author=J.%20Schumpeter

Sycara, K., y Sukthankar, G. (2006). Literature review of teamwork models. Robotics Institute, Carnegie Mellon University, 31, 31
<https://www.cs.cmu.edu/~gitars/Papers/CMU-RI-TR-06-50.pdf>

Snyder, H. (2019). Literature review as a research methodology: An overview and guidelines. *Journal of Business Research*, 104, 333-339.
<https://doi.org/10.1016/j.jbusres.2019.07.039>

Torraco, R. J. (2005). Writing integrative literature reviews: Guidelines and examples. *Human Resource Development Review*, 4, 356–367.
<https://doi.org/10.1177%2F1534484305278283>
 West, M. A., y Farr, J. L. (1990). Innovation at work. En M. A. West y J. L. Farr (Eds.), *Innovation and creativity at work: Psychological and organizational strategies* (pp. 3–13). Chichester: Wiley.
<https://doi.org/10.1080/13594329608414834>

Woodman, R. W., Sawyer, J. E., y Griffin, R. W. (1993). Toward a theory of organizational creativity. *Academy of Management Review*, 18, 293-321.
<https://doi.org/10.5465/amr.1993.3997517>

Xiao, Y., y Watson, M. (2019). Guidance on conducting a systematic literature review. *Journal of Planning Education and Research*, 39(1), 93-1
<https://doi.org/10.1177%2F0739456X1772397>

Productivity study in a department store in Villahermosa, Tabasco, Mexico, for the proposal of a development model

Estudio de la Productividad en una tienda departamental en Villahermosa, Tabasco, México, para la propuesta de un modelo de desarrollo

BALDERRABANO-BRIONES, Jazmín†*, ACOSTA-CADENAS, Monserrat, RODRÍGUEZ-AGUSTÍN, Griselda and PRIETO-PEDRAZA, Eva María

Tecnológico Nacional de México Campus Úrsulo Galván, México.

ID 1st Author: Jazmín, Balderrabano-Briones / ORC ID: 0000-0002-2925-3234, Researcher ID Thomson: G-3202-2018, PubMed ID: a44273024eb15b21af7ac0a7039fc2cb6008, CVU CONACYT ID: 453555

ID 1st Co-author: Monserrat, Acosta-Cadenas / ORC ID: 0000-0002-5030-9394, PubMed ID: 47facfb25a06fda925ea60315d9e2b8c, CVU CONACYT ID: 938249

ID 2nd Co-author: Griselda, Rodríguez-Agustín / ORC ID: 0000-0003-4756-407, Researcher ID Thomson: AHE-0707-2022, CVU CONACYT ID: 436695

ID 3rd Co-author: Eva María, Prieto-Pedraza / ORC ID: 0000-0002-4388-7049, CVU CONACYT ID: 1202062

DOI: 10.35429/JM.2022.10.6.8.15 Received January 15, 2022; Accepted June 30, 2022

Abstract

The measurement of productivity in organizations is imperative since it is essential to know the tangible and intangible resources that are available and, at the same time, to know weaknesses and adopt the necessary measures to improve them. For this, the appropriate tools must be available, so the present study used a comprehensive productivity measurement tool with that of a self-diagnosis questionnaire, as its name indicates, this tool seeks to perform an analysis of the productivity comprehensively, that is, encompassing all factors relevant to productivity and competitiveness. It seeks to represent the results of the department store studied quantitatively, and with the data obtained, place the organization within an already established frame of reference and classify it according to the parameters of world-class or less. In addition, it is planned to support the establishment by granting improvement proposals that help correct its most fragile aspects, as well as improve its highest aspects under the continuous improvement approach.

Productivity, Competitiveness, Measurement

Resumen

La medición de la productividad en las organizaciones es imperativa, puesto que es indispensable conocer los recursos tangibles e intangibles con los que se cuenta y a la vez, conocer debilidades y adoptar las medidas necesarias., para mejorarlas. Para esto, se debe contar con las herramientas apropiadas, por lo que el presente estudio se utilizará una herramienta de medición integral de la productividad con el uso de un cuestionario de autodiagnóstico, como su nombre lo indica, esta herramienta busca realizar un análisis sobre la productividad de manera integral, o sea, que abarca todos los factores que sean pertinentes a la productividad y a la competitividad. Se busca representar los resultados de la tienda departamental estudiada de forma cuantitativa, y con los datos obtenidos colocar a la organización dentro de un marco de referencia ya establecido y clasificarlo según los parámetros de clase mundial o menor. Además, se planea apoyar al establecimiento otorgando propuestas de mejora que ayuden en la corrección de sus aspectos más frágiles, así como mejorar sus aspectos más elevados bajo el enfoque de mejora continua.

Productividad, Competitividad, Medición

Citation: BALDERRABANO-BRIONES, Jazmín, ACOSTA-CADENAS, Monserrat, RODRÍGUEZ- AGUSTÍN, Griselda and PRIETO-PEDRAZA, Eva María. Productivity study in a department store in Villahermosa, Tabasco, Mexico, for the proposal of a development model. Journal-Microeconomics. 2022. 6-10:8-15.

* Correspondence to Author (E-mail: jazmin.bb@ugalvan.tecnm.mx).
† Researcher contributing first author.

Introduction

Without innovation, there is no competitiveness in the globalized world in which there is also an updating of skills, abilities, technology, and knowledge in all senses.

The ability of a company to offer a product or service meeting or exceeding the expectations of its customers, through more efficient management of its resources than other companies in the same sector is of the utmost importance when we talk about competitiveness, which lies in knowing how to manage the company's resources, increase its productivity and be aware of market requirements. Competitive advantage is based on "productivity" and the factors that determine it within the company; Due to this, it is necessary to know that productivity is the relationship between the product obtained through a production system of goods and/or services and the resources used to obtain it, that is, its efficient use or the relationship between the results obtained concerning the resources used and the time it takes to get them.

The department store on which this study is based is a national store mostly aimed at middle-class people and the one that has the greatest advantages over other stores in this range, since its competitive advantage is very important for this company that They are referred to as the value that a company manages to create for its customers, and that exceeds costs.

These competitive advantages can be improvements that give an added value to the product, such as, for example, the distribution process being more efficient, a price that exceeds the offer of the competition, among other aspects that allow the company to have characteristics for that the client prefers it over companies that offer the same product. The measurement of competitiveness implies determining the components or factors that generate it and their degree of impact, which make the company more and more productive.

Methodology

The methodology for the investigation is represented graphically in figure 1, where the different phases that were followed are listed:

1. Emergence of the idea.
2. Research protocol.
3. Structuring of contexts.
4. Structuring of the reference frameworks.
5. Measurement instrument design.
6. Obtaining the diagnosis.
7. Development model design.

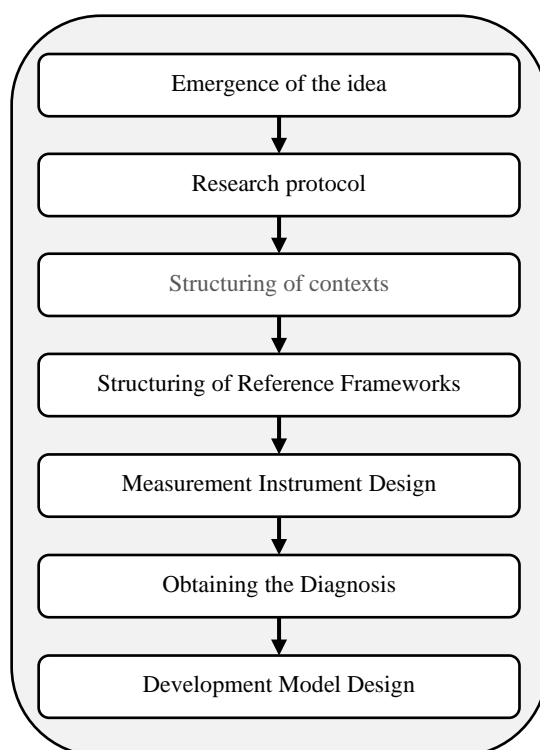


Figure 1 Research methodology

Source: Author's perception

Instrument to use

The purpose of the measuring instrument used for this research is to obtain information regarding the progress made in the total scheme of the company, and in turn to be useful as a self-diagnosis, considering the elements and factors that generate productivity, focusing on the participation of intellectual capital (collaborators).

Said information will be managed confidentially.

To fill out the Instrument, the researcher will mark across the boxes in the column corresponding to the degree of progress achieved in the company, considering the systemic approach. As far as possible, the interviewee must show physical evidence to support their answers.

Each of the elements considered to integrate them into the instrument is described below:

1. Customer Satisfaction: This module examines the effectiveness of the systems to know, anticipate, and exceeding the complete requirements and needs of the customers, before, during, and after the delivery of the products, and how it builds and strengthens an integral relationship and positive with your customers.
2. Leadership: This module examines the role and direct involvement of top management as the main "leader" of the continuous improvement process toward Total Quality. His vision and commitment are also analyzed in the way he designs, inspires, implements, and evaluates the culture, through the participation of the staff and the operation and projection in the long term.
3. Staff Development and Intellectual Capital Management: This module examines the institution's systems and practices for identifying, nurturing, and optimizing staff potential; how he designs his positions, his work systems, compensation and recognition schemes; training systems, in the development of skills and attitudes; and the promotion of health, well-being, satisfaction and motivation of the staff, as well as the Management of Intellectual Capital.
4. Information and technology management: This module examines how data and information are designed, selected, and managed, as well as how data and information analysis and reliability are performed, and technology management.

5. Strategic Planning: This module examines the planning process, as well as how you develop your strategies and define your strategic objectives to improve your overall performance and competitive position. How it establishes and deploys, based on strategic planning, its objectives, and plans, is also analyzed.
6. Process management and improvement: The fundamental elements of the Quality, Environmental Protection, and Industrial Safety Management System are examined; the design, planning, control, improvement, and standardization of key and support processes and how the company continuously evaluates and improves them.
7. Impact on society: This module examines how the company makes continuous improvement efforts in its physical, social, or economic environment so that other companies and institutions in its community can develop their Total Quality programs.
8. Results: This module analyzes the interrelationships between the company's key indicators and the value created by the quality maturity of its processes and systems; personnel and suppliers in the internal value chain and for its clients, the sectors of influence, and society, in its social value chain.

The structural design of the Instrument is made up of questions, those necessary to obtain a comprehensive overview of the system concerning each element. Each question is evaluated on a range of 0 to 100, with the researcher subjectively assigning each progress grade.

ELEMENT "X"		PROGRESS %									
1											
2											
3											
4											
5											
6											
7											
Additional comments:											

Figure 2 General design of the measurement instrument
Source: Author's perception

Description of the process for measurement

One of the main reasons for selecting this company was its accessibility, not only physical proximity but also internal contact with it. The process to follow consisted of three steps.

First, it was necessary to contact the managers of each department of the company using contacts as intermediaries. It was sought to schedule dates on which the measurement instrument was applied. Finally, a suitable date was found for the interview and how would be.

Second, before the start of the interview, two things were clarified to the interviewees, one is that the information that would be provided would be entirely for academic use and that, therefore, it has total confidentiality, in the same way, the details of the project were clarified and that the results shown by the instrument will be shared as well as the proposals for improvement.

Finally, for an adequate interpretation of the data obtained, a system of averages will be used. First, the average of each criterion in each instrument will be obtained, for example, the average of the criterion of (1) Customer satisfaction will be obtained, then of the criterion of (2) Leadership, and so on eventually until the averages of the eight criteria are obtained. . To finish this part, a general average of the department will be obtained by calculating an average of the averages of each criterion and, depending on the result, it will be positioned in the following classifications:

- 80-100 World Class.
- 66-80 Proficient.
- 45- 60 Trustworthy.
- 25-40 Development.
- 0-20 Initial.

This same step will be repeated with the rest of the departments.

At the end of this step, the results will be grouped under two profiles: by work center and

by evaluation criteria. For the calculation of the profile by work center, the average of the general averages of each department will be obtained, this result will be classified in the same way. The following will be the profile by evaluation criteria, here the general average of each criterion will be calculated covering the five departments, for example, to calculate the average of the criterion of (1) Customer satisfaction, the results of this same criterion will be covered in all instruments, this average will be ranked like the other.

Results

The Managements studied were the following:

- General management.
- Bank management.
- Clothing and furniture management.
- Administration management.
- Cash management.
- Collection management.

And the results for each of them are represented below:

Profile by criteria General management		General average %
1	Customer satisfaction	97.5
2	Leadership	95.5
3	Staff development and intellectual capital management	100
4	Information and technology management	87
5	Strategic Planning	98
6	Process management and improvement	100
7	Impact on society	100
8	Results	98
GENERAL AVERAGE %		97

Table 1 Results obtained in the General Management applying the Measurement Instrument
Source: Author's Perception

Profile by criteria Bank management		General average %
1	Customer satisfaction	96
2	Leadership	98
3	Staff development and intellectual capital management	98
4	Information and technology management	97
5	Strategic Planning	97.7
6	Process management and improvement	100
7	Impact on society	85
8	Results	96.6
GENERAL AVERAGE %		96

Table 2 Results obtained in the Bank Management applying the Measurement Instrument
Source: Author's Perception

Profile by criteria		General average %
Clothing and furniture management		
1	Customer satisfaction	81
2	Leadership	84
3	Staff development and intellectual capital management	76
4	Information and technology management	82
5	Strategic Planning	91
6	Process management and improvement	90
7	Impact on society	95
8	Results	86
GENERAL AVERAGE %		85

Table 3 Results obtained in the Clothing and Furniture Department applying the Measurement Instrument
Source: Author's Perception

Profile by criteria		General average %
Administration management		
1	Customer satisfaction	81
2	Leadership	83
3	Staff development and intellectual capital management	92
4	Information and technology management	98
5	Strategic Planning	98
6	Process management and improvement	100
7	Impact on society	95
8	Results	98
GENERAL AVERAGE %		93

Table 4 Results obtained in the Administration Department applying the Measurement Instrument
Source: Author's Perception

Profile by criteria		General average %
Cash management		
1	Customer satisfaction	100
2	Leadership	73
3	Staff development and intellectual capital management	88
4	Information and technology management	84
5	Strategic Planning	85
6	Process management and improvement	86
7	Impact on society	100
8	Results	71
GENERAL AVERAGE %		85

Table 5 Results obtained in Cash Management applying the Measurement Instrument
Source: Author's Perception

Profile by criteria		General average %
Collection management		
1	Customer satisfaction	56
2	Leadership	58
3	Staff development and intellectual capital management	68
4	Information and technology management	70
5	Strategic Planning	66
6	Process management and improvement	86
7	Impact on society	87
8	Results	46
GENERAL AVERAGE %		67

Table 6 Results obtained in the Collection Management applying the Measurement Instrument
Source: Author's Perception

The general results by work center and by evaluation criteria are shown below:

Profile by work center		General average %
1	General Management	97
2	Bank Management	96
3	Clothing and Furniture Management	85
4	Administration Manager	93
5	Cash Management	85
6	Collection Management	67
GENERAL AVERAGE %		87

Table 7 General results obtained by work center
Source: Author's Perception

Profile by evaluation criteria		General average %
1	Customer satisfaction	85
2	Leadership	81
3	Staff development and intellectual capital management	87
4	Information and technology management	88
5	Strategic Planning	90
6	Process management and improvement	93
7	Impact on society	93
8	Results	82
GENERAL AVERAGE %		87

Table 8 General results obtained by evaluation criteria
Source: Author's Perception

Interpretation of results

The departmental company that was studied obtained a general average of 87%, which is why it classifies as a world-class, however, any fluctuation could decrease said score, placing it as a competent company.

General Management is the department with the highest score, this was planned because, in terms of hierarchy, this department is the one in charge of the vast majority of internal processes. It had a high score in almost all its areas, it seems that in the technological issue another department serves as the database and this slows down some processes a little, but it does not seem to affect it too much.

In the bank department, he was also expected to get a high score. It maintained a high score in most of the criteria, it had a drop in the impact on society criterion because the methodology they use to promote the culture of quality is not updated regularly, this goes against the approach of continuous improvement.

The administration department scored moderately high, generally did well, and was low on the Customer Satisfaction and Leadership criteria. It does not have tools to update employers and be able to meet the requirements and needs of the client, from this problem derives the inefficiency of training employees to the new needs of clients. And in terms of Leadership, it failed in the same way, it does not have adequate tools for senior management to participate in its activities.

The clothing and furniture department, as well as the cashier department, obtained the same score, one of the reasons why it is believed that both departments obtained lower scores is because they are the departments most directly involved with the client, however, the same are those that, within the reference system, depend more on the rest of the departments.

The clothing and furniture department, in terms of customer satisfaction: does not have tools to update employers and be able to know the requirements and needs of the customer based on trends, as well as the lack of a plan to train staff who comes into contact with customers. Regarding Leadership: there are several declines since there are no innovation and quality models until there is no organizational culture to identify and address gaps. In the criterion of personnel development and management of intellectual capital, programs are needed to promote teamwork and a plan for quality improvement, as well as strategies, plans, and programs for personnel development, as well as a procedure for properly managing intellectual capital.

For the cashier's department, its lowest point was Leadership, mainly due to the lack of pertinent documented information and the complexity of the organizational environment, since in it the employee-employer hierarchies vary more.

Finally, there is the collection department, which was the lowest of all. There are several observations of the criteria, to begin with, with Customer Satisfaction, there is no reference framework with the competition and, therefore, no tool to measure itself with the competition.

Regarding Leadership, there is a notable lack of training, in addition to the fact that several employees have difficulties outside the company, so the quality culture is not a priority, in addition to the fact that this same situation hinders several quality-related processes. With the foregoing said, criterion three, Personnel Development, and Intellectual Capital Management suffer from quite a few complications, even so, it is observed that teamwork meets the minimum, but in terms of training and the plan for improving the quality of life at work, these are scarce. In conclusion, this department has two notable shortcomings through the eight criteria, one is the lack of trained personnel, and the other is the lack of methodologies and their respective documented information.

Proposal to improve Productivity and Competitiveness

As part of the results obtained and the analyzes carried out, the following proposals are drawn up for the department store studied:

- Periodic increase in audits, since it is vital for the company to constantly look for opportunities for improvement, as well as to take into account any threat that may arise in its operations. It is noted that the audits that are carried out in the company are annual, it is proposed that these are carried out on a semi-annual basis. Furthermore, this will strengthen your management systems by highlighting the importance of documented information, leadership, and quality culture.
- Regularly, organize interdepartmental meetings where specific topics are discussed, such as organizational culture, teamwork, quality culture, awareness, etc. This to create a work environment that promotes personal development.

- Carry out a rewards campaign for taking surveys. The vast majority of departments have adequate tools for measuring customer satisfaction, however, under the continuous improvement approach, the number of customers who stop to leave their opinion about the company's services should be greatly increased. business. The proposed strategy consists of granting a small reward for answering a more detailed survey, the reward may consist of discount vouchers or other types of goods.

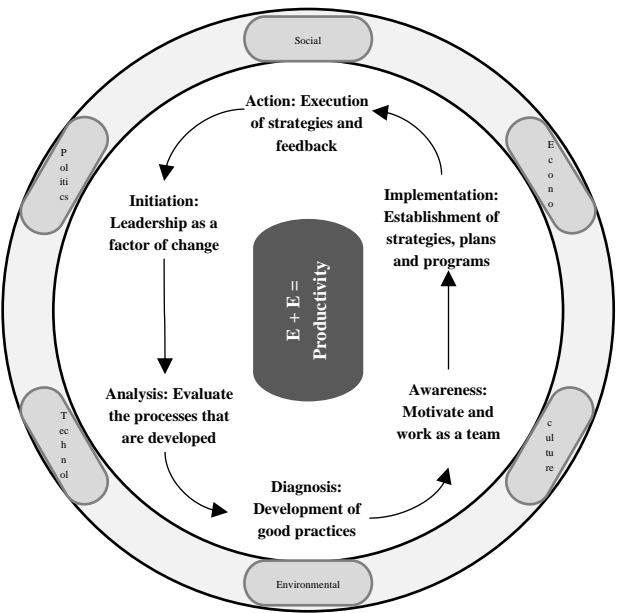


Figure 3 Model proposed for the improvement of Productivity
Source: Author's perception

In this model, the context variables can be observed as a first stage, each variable influencing the improvement model, whether due to political, cultural, social, environmental, economic, or technological aspects.

Due to the data obtained in the position profile and criteria graphs, the model is then based on permanence as a world-class company, as well as continuous improvement in aspects within the evaluation criteria such as leadership, we proceed to the initiation where there is leadership as a factor of change and permanence and continuous improvement as a world-class company, then analysis and evaluation of the leadership activities and practices that are currently being used in the company have to be done, once this first stage is finished, the diagnostic stage will be carried out where they will obtain and know what is necessary to do and thus develop the practices that must be implemented, once it has been diagnosed, the stage of awareness comes, since, for some people leadership, permanence and continuous improvement do not mean much, (we influence the cultural variable where customs, traditions, and values they have as a person).

Since the personnel and senior management have been sensitized, it is possible to establish strategies, programs, as well as action plans that the company creates the appropriate so that they can continue to maintain themselves as a trusted company by their clients and continue to be preferred by Finally, the public has the action, this being the execution of the strategies that have been established, along with feedback, which leads to change and continuous improvement.

Conclusions

Today's world is highly competitive, where production companies seek to go faster and faster since continuous improvement will give the company a stable present and a solid future.

Getting involved in all the processes of the system is convenient since it means taking the first step to implement, develop tools that are easy to use and carry out, which are of the utmost importance for adequate training within a company.

Measuring the departments gives guidelines to obtain real and current results of the organization studied in this project.

References

Ortiz Porras, J. E. (2022). Modelo de gestión para la aplicación de herramientas Lean Manufacturing para la mejora de la productividad en una empresa de confección de ropa antífama de Lima–Perú.

Gómez Caipa, J. C. (2022). Diseño del sistema ecoturístico cultural y religioso para Somondoco, mediante una estrategia de posicionamiento como destino turístico y consolidación empresarial ambiental productiva del municipio, Valle de Tenza, Boyacá.

Riveros Gamboa, P. A. (2022). Propuesta de diseño de un prototipo de vivienda con industria artesanal de bajo impacto, enfocada al desarrollo productivo de la fibra de fique en el municipio de Mogotes, Santander.

Castañeda Garzón, D. F., Pedroche Acosta, C. A., Sierra Rey, L. F., & Vasquez Ortiz, K. L. (2022). Propuesta de economía circular para la reducción de envases a partir de la aplicación del modelo de logística inversa en Aseos del Rionegro SAS.

Ramírez Salgado, M. C. Articulación de la estrategia colectiva de valorización cultural con el modelo de negocio social de propiedad de base de la pirámide: estudio de caso aplicado a la estrategia Origen Caldas.

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 cumplimiento 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.

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

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 objectives

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

Identification of the variables

- Dependent variable

- Productivity

Independent variable

- Cultural variable

- Social variable

- Technological variable

- Political variable

- Economic variable

Hypothesis

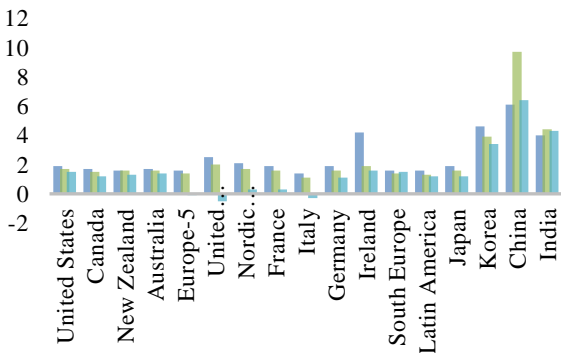
The productivity of microenterprises in the commercial sector run by women depends on cultural, social, technological, political, and economic variables directly in the city of Villahermosa, Tabasco.

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).

GDP per hour worked



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)

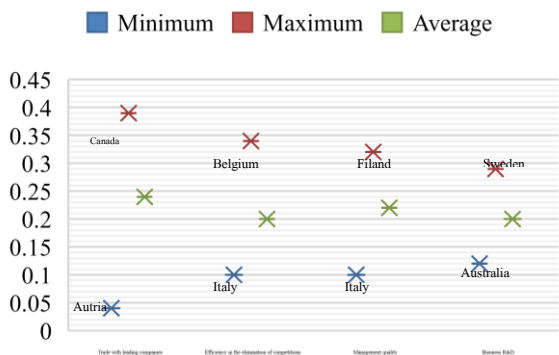
The comparative strength of these leading global companies reflects their ability to innovate and optimally integrate human, technological and organizational capital into production processes along global value chains and to take advantage of the potential offered by digitalization and rapidly reproduce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

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.

Estimation of the propagating effect of leading innovation (annual %) associated with its 2% increase in the growth of the TFP of leading global companies.



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.

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 IPLMT¹ 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.

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.

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.

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.

- 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.

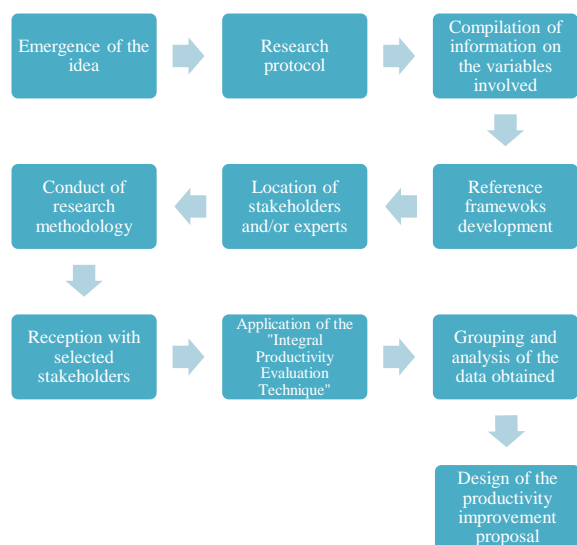


Figure 1 Research methodology
Source: Own contribution (2022)

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.

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

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/vinculategica_2/33%20RAMOS_ARCEO_ACO_STA_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>.

Renewable energies and local economic development in Nayarit

Energías renovables y el desarrollo económico local en Nayarit

ESPINOSA-FRAGOSO, Karla†*, ZEPEDA-MARTÍNEZ, Gabriel, GÓMEZ-GUTIÉRREZ, Abel and RODRÍGUEZ-LAZCANO, Yamilet

Universidad Autónoma de Nayarit, México.

ID 1st Autor: *Karla, Espinosa-Fragoso* / **ORC ID:** 0000-0002-1107-8263

ID 1st Co-author: *Gabriel, Zepeda-Martínez* / **ORC ID:** 0000-0003-0703-7351

ID 2nd Co-author: *Abel, Gómez-Gutiérrez* / **ORC ID:** 0000-0002-1107-8263

ID 3rd Co-author: *Yamilet, Rodríguez-Lazcano* / **ORC ID:** 0000-0002-8488-9518

DOI: 10.35429/JM.2022.10.6.28.33

Received January 30, 2022; Accepted June 30, 2022

Abstract

Resumen

Citation: ESPINOSA-FRAGOSO, Karla, ZEPEDA-MARTÍNEZ, Gabriel, GÓMEZ-GUTIÉRREZ, Abel and RODRÍGUEZ-LAZCANO, Yamilet. Renewable energies and local economic development in Nayarit. Journal-Microeconomics. 2022. 6-10:28-33.

* Correspondence to Author (E-mail: karla_ef89@hotmail.com)
† Researcher contributing first author.

Introduction

Renewable energies have been experiencing an unprecedented global boom over the last thirty years. Political, social, economic and environmental aspects are included in this maelstrom of transformation, which is clearly illustrated in international and national agendas. The use of renewable energies as a focus of action within national policies and programmes is evident in most of the country's living spaces. In addition, the country's regulatory framework has also been modified, as laws and regulations have been created which, at least in the case of Mexico, regulate the use and exploitation of this type of energy. However, at the local level, there are still many challenges regarding the state of knowledge of renewable energies for their use. There is no doubt that this new way of harnessing solar energy in Mexican households has a long way to go before it can be harnessed more extensively and intensively.

In this sense, the objective of this research is to present an approach to the state of knowledge of renewable energies in the local context, highlighting the importance of territories as dynamic spaces where diverse local actors converge and how, through the social processes that are generated in these spaces, the energy transition towards renewable energies is experienced. In this way, some households in the municipalities of Tepic and Compostela in the State of Nayarit that have solar panels are analysed, and in which it is important to know whether these panels represent an ecological or savings awareness, so it is important to identify the economic and social variables that make up the analysis of renewable energies in the territory.

The methodological approach is of a mixed nature: qualitative-quantitative, in terms of methodological scope, by analysing two municipalities in the state of Nayarit, the research has the characteristics of a comparative and descriptive study. Likewise, as no previous studies similar to this field of research were found, it is also considered to have an exploratory scope.

The expected results cover even theoretical evidence, which consists of linking the paradigms or aspects that are related to the object of study of this research, that is, to the homes and businesses in Nayarit that experience the energy transition towards renewable energies by means of solar energy, through solar panels, and their repercussion on the social processes that take place in the territories.

Background and research problem

The construction of the present background is linked to two fields of research: renewable energies and Local Economic Development (LED). Based on this delimitation, an exhaustive search of studies was carried out in databases and websites such as Dialnet, Redalyc, Scielo, among others, and the Institutional Repository Aramara of the Autonomous University of Nayarit (UAN) and the Theses website of the UNAM Library System were also consulted in order to find out which studies have been carried out in this field of research.

In this sense, it was concluded that there is a predominance of European studies that analyse renewable energies from the context of the social and economic sciences, with an emphasis on economic development. With regard to the studies identified in the Latin American region, a scarce link was found between these two topics, and where the majority of these studies have engineering and economic tendencies, where factors such as economic growth, economic performance, GDP, etc. are highlighted in the latter field. However, in Chile, the analysis of renewable energies has recently been undertaken with a sociological approach, as expressed by Blanco-Wells:

It is only since the 2010s that the social sciences in Chile have begun to approach energy research from perspectives centred on actors and their practices, territorial experiences and considering the set of technologies and materialities inherent to the various forms of energy, epistemologies and ontologies. The call for Ibero-American sociologists to develop a sociology of energy is quite recent (Pardo, 2006; Ariztía et al., 2017, cited in Blanco-Wells, 2019, p. 163).

In the case of Mexico, it is very difficult to find information that encompasses these topics, and the specific case of the state of Nayarit was no exception, not finding a link in this field of research. Nevertheless, there are many studies that recognise Mexico's potential for the use of renewable energies, such as solar energy, given the favourable climatic conditions for its use, as well as the existence of a legal regulatory framework that identifies and recognises the importance of using renewable energies in our country.

Hence, and according to the German Society for International Cooperation (in German GIZ), it is determined that in the case of solar potential: "95% of the Mexican territory has an annual average of IGH greater than 5 kWh/m² per day... The areas with the greatest use of the resource are located in the northwest of the country..." (2018, p.16).

Once the solar potential of Mexico is recognised, it is worth highlighting what this potential is like in the state of Nayarit. Hence, the author Messina Fernández presents an overview of solar radiation and its link to solar panels, who points out the following:

'Since 2010, solar radiation parameters have been measured in the entity, and it is estimated that the daily insolation of energy is 5.5 kilowatt-hours per square metre (kWh/m²) with maximums of up to seven kWh/m² on the sunniest days, an amount similar to that of cities in the north of the country' where...it is successful in harnessing the resource...'. (Messina Fernández, 2016).

Thus, the municipalities analysed in this research present key geographical locations for the use of solar panels. In the case of Tepic, this is the largest and most populated city in the state, with a very low degree of marginalisation. In the case of Compostela, it has a medium degree of marginalisation; however, the Municipal Development Plan (PMD) of the latter municipality does include the use and exploitation of renewable energies among its main lines of action, according to the PMD Compostela 2017-2021.

Objectives

General

- To identify the links of solar panels as a field of study in Local Economic Development in the State of Nayarit from a context of savings and environmental sustainability.

Specific

- To analyse and explain the state of knowledge of Renewable Energies in the State of Nayarit.
- Determine the linkages and/or savings levels of households and businesses in the municipalities of Tepic and Compostela, through the use of solar panels.
- Contrast the economic development in the diagnosis of the use of solar panels in the municipalities of Tepic and Compostela.

Research questions

- Does the use of renewable energies through solar panels represent for the population of Nayarit an ecological awareness or savings?
- How can we determine the level of significance of the savings that the use of Solar Panels represents in the homes and businesses of Tepic and Compostela?
- What are the economic and social variables that influence the economic development of Tepic and Compostela for the use of Solar Panels?

Theoretical framework

The proposed theory or approach to Local Economic Development is the theory of Sustainable Development, proposed by Carvajal (2011), who seeks to vindicate the human, cultural and environmental aspects through the relationship between Local Economic Development and the environment.

Therefore, it is taken as a reference to explain how the energy transition towards renewable energies is inserted in the territory, which are contextualised as the drivers of economic development at the local level, that is, the use of renewable energies in the territory is recognised, highlighting the importance of the social processes and their local actors that converge in these processes. In this sense, and given the importance of the mechanisms for the use of renewable energies, the importance of technological advances as a function of development is also highlighted, which is why the theories or approaches that propose the use of technological innovations as a way to generate development are incorporated, which is why Schumpeter's approach is highlighted (in Olaya, 2008). Likewise, the approaches of Alburquerque (2007) are incorporated, which offer us approaches linked to the incorporation of innovations in the productive fabric, also highlighting human resources according to existing local needs. In this same line of research, we finally take up the contemporary and novel approach known as the socio-technical system, which seeks to incorporate social processes and local actors in decision-making on the adoption and adaptation of new technological innovations.

Based on the above, it is consequently important to point out the importance of solar panels in the domestic and work space, so it is worth referring to the theoretical-methodological proposal of Blanco Wells (2019), called "the social life of energy", in which one of its three fields of study is to explain the phenomenological experience of its inhabitants in the domestic and work space around energy. This proposal allows us to approach the case study of this research, allowing us to know the possible results or phenomenological experiences in similarity.

Finally, the legal regulatory framework for renewable energies in Mexico should not be overlooked, especially the Electricity Industry Law and the Energy Transition Law, both of which involve the promotion of the use and exploitation of renewable energies.

Methodological approach

In congruence with the objectives of this research, it is considered that the most suitable methodology to achieve them is of a mixed type, that is, qualitative-quantitative in nature. The mixed use of this methodology will allow us to identify in a more detailed way the thematic of the energy transition towards renewable energies, specifically solar energy through solar panels, with an approach to the territory, where it is contextualised as a dynamic space where different local actors converge, and which in the case of this research are analysed from three dimensions: environmental, economic and political, which go hand in hand to understand the processes conceived from the territory at the local level.

By analysing two municipalities in the state of Nayarit, the research has the characteristics of a comparative study, however, given the nature of the objectives set out, and in which it seeks to contemplate the dimensions of the territory, it also has a descriptive scope. Likewise, in accordance with the results obtained from previous studies similar to this research, and in which similar information was not found, the research has an exploratory scope. In terms of design, this research is methodologically based on case studies.

With regard to the categorisation of the elements of analysis for the territorial delimitation of the localities in the municipalities of Tepic and Compostela, the following elements were considered:

Element	Optimum category
Degree of marginalisation by Locality.	Very Low-Medium
Strategic geographic location by Locality.	Near Tepic
Economic units with the line of business of "Electricity generation from solar energy".	Largest number
Trade as a predominant activity in localities.	Tertiary sector

Table 1 Categorisation of the elements for the territorial delimitation of localities
Source: Own elaboration

According to the table above, it is important to note that each of the elements considered to determine the delimitation of the localities, considers households with electricity, which are included in the category of degree of marginalisation per locality, considering a range of very low to medium. On the other hand, one of the important factors is the geographical location of the localities, which is why those that are close to the municipality of Tepic are taken into account, thus allowing the development of case studies that do not involve long distances or high costs that can be incurred in transfers. In this sense, it was sought that the localities had the tertiary sector as their main sector of economic activity, in order to delimit the business sector, which represents one of the objects of study of this research. Finally, those localities where there are economic units that provide the service of supplying solar energy equipment are also considered.

Preliminary results

Given that the research is derived from the thesis research, which is 50% advanced, the preliminary results cover up to the bibliographical review or, in other words, the theoretical framework. In this sense, it was determined that the paradigms around renewable energies and their link with Local Economic Development had as a starting point the study of the environment and its importance for economic growth and development, considering as decreasing factors the irrational use of natural resources. On the other hand, it was analysed through different aspects and paradigms how technological advances have an impact on economic development in favour of social welfare, which is linked to the social processes that take place in the territories through local actors, in this way, we speak of socio-technical systems, which are characterised by generating an interaction between technological systems and social systems.

In this sense, it is concluded that the study of the environment and technological advances from the approach of economic development represents a challenge, since it is necessary to explain the worldview of the territories in the process of energy transition towards renewable energies, in a given time and space.

Discussion and conclusions

It is evident that there is a gap between the study of renewable energies and the social sciences, i.e. studied from a non-engineering and strictly economic approach, where the importance of the territory is highlighted in which the different local actors converge in the different dimensions, i.e. socio-economic, environmental and political, among others, and which are important in the process of transition towards the use of renewable energies. In this sense, what stands out in this research is the recognition of the scopes and limitations that are experienced in the territories towards the energy transition and how the study and analysis of renewable energy can shape or not their social processes. By analysing these dimensions, we seek to link each of them in order to determine the challenges presented by the key local actors in Nayarit for this research, as well as the challenges that the research itself characterises, as this is an exploratory investigation.

References

Albuquerque, F. (2007). Teoría y Práctica del Enfoque del Desarrollo Local. OI.DLES. Año 1. Núm. 0. pp. 39 – 61.

Blanco-Wells, G. (2019). La vida social de la energía: apuntes para el estudio territorializado de las transiciones energéticas. Sociologías. Año 21, Núm. 51. pp. 160-185.

Cámara de Diputados del H. Congreso de la Unión. (2014). Ley de la Industria Eléctrica. SEGOB.http://www.dof.gob.mx/nota_detalle.php?codigo=5355986&fecha=11/08/2014.

Cámara de Diputados del H. Congreso de la Unión. (2015). Ley de Transición Energética. Diputados.Gob. <http://www.diputados.gob.mx/LeyesBiblio/pdf/LTE.pdf>.

Carvajal Burbano, A. (2011). Desarrollo Local. Manual Básico para Agentes de Desarrollo Local y otros actores. (1era ed.). Editorial Eumed.net.

GIZ. (2018). El auge del sector solar en México. Contexto, Perspectivas y Tendencias. (1era ed.). Editorial Arno van den Bos.

Gobierno municipal de Compostela. (s.f.). Plan Municipal de Desarrollo Compostela 2017-2021. Accessed May 14, 2021. Online: <http://e-compostela.gob.mx/pdf/PDMCompostela2017-2021.pdf>.

Gómez Cancino, C.K. (2016, May 9). Evalúan recurso solar de Nayarit. CienciaMx Noticias. <http://www.cienciamx.com/index.php/tecnologia/energia/7146-correccion>

Olaya Dávila, A. (2008). Economía de la Innovación y del Cambio Tecnológico: Una aproximación teórica desde el pensamiento schumpeteriano. Revista Ciencias Estratégicas. Vol. 16. Núm. 20. pp. 237-246.

[Title in Times New Roman and Bold No. 14 in English and Spanish]

Surname (IN UPPERCASE), Name 1st Author†*, Surname (IN UPPERCASE), Name 1st Coauthor, Surname (IN UPPERCASE), Name 2nd Coauthor and Surname (IN UPPERCASE), Name 3rd Coauthor

Institutional Affiliation of Author including Dependency (No.10 Times New Roman and Italic)

International Identification of Science - Technology and Innovation

ID 1st author: (ORC ID - Researcher ID Thomson, arXiv Author ID - PubMed Author ID - Open ID) and CVU 1st author: (Scholar-PNPC or SNI-CONACYT) (No.10 Times New Roman)

ID 1st coauthor: (ORC ID - Researcher ID Thomson, arXiv Author ID - PubMed Author ID - Open ID) and CVU 1st coauthor: (Scholar or SNI) (No.10 Times New Roman)

ID 2nd coauthor: (ORC ID - Researcher ID Thomson, arXiv Author ID - PubMed Author ID - Open ID) and CVU 2nd coauthor: (Scholar or SNI) (No.10 Times New Roman)

ID 3rd coauthor: (ORC ID - Researcher ID Thomson, arXiv Author ID - PubMed Author ID - Open ID) and CVU 3rd coauthor: (Scholar or SNI) (No.10 Times New Roman)

(Report Submission Date: Month, Day, and Year); Accepted (Insert date of Acceptance: Use Only RINOE)

Abstract (In English, 150-200 words)

Objectives
Methodology
Contribution

Keywords (In English)

Indicate 3 keywords in Times New Roman and Bold No. 10

Abstract (In Spanish, 150-200 words)

Objectives
Methodology
Contribution

Keywords (In Spanish)

Indicate 3 keywords in Times New Roman and Bold No. 10

Citation: Surname (IN UPPERCASE), Name 1st Author†*, Surname (IN UPPERCASE), Name 1st Coauthor, Surname (IN UPPERCASE), Name 2nd Coauthor and Surname (IN UPPERCASE), Name 3rd Coauthor. Paper Title. Journal-Microeconomics. Year 1-1: 1-11 [Times New Roman No.10]

* Correspondence to Author (example@example.org)

† Researcher contributing as first author.

Introduction

Text in Times New Roman No.12, single space.

General explanation of the subject and explain why it is important.

What is your added value with respect to other techniques?

Clearly focus each of its features

Clearly explain the problem to be solved and the central hypothesis.

Explanation of sections Article.

Development of headings and subheadings of the article with subsequent numbers

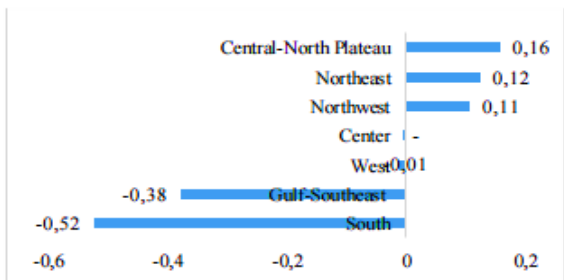
[Title No.12 in Times New Roman, single spaced and Bold]

Products in development No.12 Times New Roman, single spaced.

Including graphs, figures and tables-Editable

In the article content any graphic, table and figure should be editable formats that can change size, type and number of letter, for the purposes of edition, these must be high quality, not pixelated and should be noticeable even reducing image scale.

[Indicating the title at the bottom with No.10 and Times New Roman Bold]



Graphic 1 Title and Source (in italics).

Should not be images-everything must be editable.

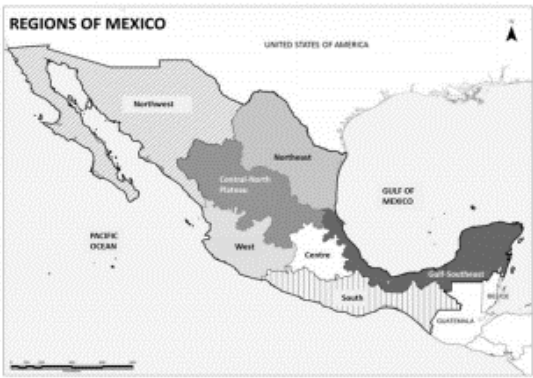


Figure 1 Title and Source (in italics).

Should not be images-everything must be editable.

		Participation (%) on Gross		
REGION	STATE	Surface	Population	Production
1. Northwest.	Baja California; Chihuahua; Sonora; Baja California Sur; Sinaloa.	32.1%	11.1%	13.1%
	Coahuila; Nuevo León; Tamaulipas.			
2. Northeast.	Aguascalientes; Durango;	15.1%	9.3%	15.6%
3.Center North Plateau.	Guanajuato; San Luis Potosí; Zacatecas.	15.1%	10.9%	9.2%
	Colima; Jalisco; Michoacán;			
4. West.	Nayarit. Distrito Federal; Hidalgo; México; Morelos; Puebla; Querétaro;	8.7%	11.9%	10.2%
	Tlaxcala.			
5. Center.	Chiapas; Guerrero; Oaxaca.	11.8%	10.0%	4.7%
6. South.	Campeche; Quintana Roo;	12.1%	12.4%	13.0%
7. Southeast Gulf.	Tabasco; Veracruz; Yucatán.			
TOTAL	MEXICO	100%	100%	100%

Table 1 Title and Source (in italics).

Should not be images-everything must be editable.

Each article shall present separately in 3 folders: a) Figures, b) Charts and c) Tables in .JPG format, indicating the number and sequential Bold Title.

For the use of equations, noted as follows:

Y_{ij} = α + Σ_{h=1}^r β_hX_{hij} + u_j + e_{ij} (1)

They must be editable and number aligned on the right side.

Methodology

Develop give the meaning of the variables in linear writing and important is the comparison of the used criteria.

Results

The results shall be by section of the article.

Instructions for Scientific, Technological and Innovation Publication

Annexes

Tables and adequate sources thanks to indicate if they were funded by any institution, University or company.

Conclusions

Explain clearly the results and possibilities of improvement.

References

Use APA system. Should not be numbered, nor with bullets, however if necessary numbering will be because reference or mention is made somewhere in the Article.

Use Roman Alphabet, all references you have used must be in the Roman Alphabet, even if you have quoted an Article, book in any of the official languages of the United Nations (English, French, German, Chinese, Russian, Portuguese, Italian, Spanish, Arabic), you must write the reference in Roman script and not in any of the official languages.

Technical Specifications

Each Article must submit your dates into a Word document (.docx):

Journal Name

Article title

Abstract

Keywords

Article sections, for example:

1. Introduction

2. Description of the method

3. Analysis from the regression demand curve

4. Results

5. Thanks

6. Conclusions

7. References

Author Name (s)

Email Correspondence to Author

References

Intellectual Property Requirements for editing:

-Authentic Signature in Color of - Authentic Signature in Color of Originality Format Author and Coauthors.

- Authentic Signature in Color of the Acceptance Format of Author and Coauthors.

- Authentic Signature in blue Color of the Conflict of Interest Format of Author and Coauthors.

Reservation to Editorial Policy

RINOE Journal-Microeconomics reserves the right to make editorial changes required to adapt the Articles to the Editorial Policy of the Journal. Once the Article is accepted in its final version, the Journal will send the author the proofs for review. RINOE® will only accept the correction of errata and errors or omissions arising from the editing process of the Journal, reserving in full the copyrights and content dissemination. No deletions, substitutions or additions that alter the formation of the Article will be accepted.

Code of Ethics - Good Practices and Declaration of Solution to Editorial Conflicts

Declaration of Originality and unpublished character of the Article, of Authors, on the obtaining of data and interpretation of results, Acknowledgments, Conflict of interests, Assignment of rights and Distribution.

The RINOE® Management claims to Authors of Articles that its content must be original, unpublished and of Scientific, Technological and Innovation content to be submitted for evaluation.

The Authors signing the Article must be the same that have contributed to its conception, realization and development, as well as obtaining the data, interpreting the results, drafting and reviewing it. The Corresponding Author of the proposed Article will request the form that follows.

Article title:

- The sending of an Article to RINOE Journal-Microeconomics emanates the commitment of the author not to submit it simultaneously to the consideration of other series publications for it must complement the Format of Originality for its Article, unless it is rejected by the Arbitration Committee, it may be withdrawn.
- None of the data presented in this article has been plagiarized or invented. The original data are clearly distinguished from those already published. And it is known of the test in PLAGSCAN if a level of plagiarism is detected Positive will not proceed to arbitrate.
- References are cited on which the information contained in the Article is based, as well as theories and data from other previously published Articles.
- The authors sign the Format of Authorization for their Article to be disseminated by means that RINOE® in its Holding Spain considers pertinent for disclosure and diffusion of its Article its Rights of Work.
- Consent has been obtained from those who have contributed unpublished data obtained through verbal or written communication, and such communication and Authorship are adequately identified.
- The Author and Co-Authors who sign this work have participated in its planning, design and execution, as well as in the interpretation of the results. They also critically reviewed the paper, approved its final version and agreed with its publication.
- No signature responsible for the work has been omitted and the criteria of Scientific Authorization are satisfied.
- The results of this Article have been interpreted objectively. Any results contrary to the point of view of those who sign are exposed and discussed in the Article.

Copyright and Access

The publication of this Article supposes the transfer of the copyright to RINOE® in its Holding Spain for its RINOE Journal-Microeconomics, which reserves the right to distribute on the Web the published version of the Article and the making available of the Article in This format supposes for its Authors the fulfilment of what is established in the Law of Science and Technology of the United Mexican States, regarding the obligation to allow access to the results of Scientific Research.

Article Title:

Name and Surnames of the Contact Author and the Co-authors	Signature
1.	
2.	
3.	
4.	

Principles of Ethics and Declaration of Solution to Editorial Conflicts

Editor Responsibilities

The Publisher undertakes to guarantee the confidentiality of the evaluation process, it may not disclose to the Arbitrators the identity of the Authors, nor may it reveal the identity of the Arbitrators at any time.

The Editor assumes the responsibility to properly inform the Author of the stage of the editorial process in which the text is sent, as well as the resolutions of Double-Blind Review.

The Editor should evaluate manuscripts and their intellectual content without distinction of race, gender, sexual orientation, religious beliefs, ethnicity, nationality, or the political philosophy of the Authors.

The Editor and his editing team of RINOE® Holdings will not disclose any information about Articles submitted to anyone other than the corresponding Author.

The Editor should make fair and impartial decisions and ensure a fair Double-Blind Review.

Responsibilities of the Editorial Board

The description of the peer review processes is made known by the Editorial Board in order that the Authors know what the evaluation criteria are and will always be willing to justify any controversy in the evaluation process. In case of Plagiarism Detection to the Article the Committee notifies the Authors for Violation to the Right of Scientific, Technological and Innovation Authorization.

Responsibilities of the Arbitration Committee

The Arbitrators undertake to notify about any unethical conduct by the Authors and to indicate all the information that may be reason to reject the publication of the Articles. In addition, they must undertake to keep confidential information related to the Articles they evaluate.

Any manuscript received for your arbitration must be treated as confidential, should not be displayed or discussed with other experts, except with the permission of the Editor.

The Arbitrators must be conducted objectively, any personal criticism of the Author is inappropriate.

The Arbitrators must express their points of view with clarity and with valid arguments that contribute to the Scientific, Technological and Innovation of the Author.

The Arbitrators should not evaluate manuscripts in which they have conflicts of interest and have been notified to the Editor before submitting the Article for Double-Blind Review.

Responsibilities of the Authors

Authors must guarantee that their articles are the product of their original work and that the data has been obtained ethically.

Authors must ensure that they have not been previously published or that they are not considered in another serial publication.

Authors must strictly follow the rules for the publication of Defined Articles by the Editorial Board.

The authors have requested that the text in all its forms be an unethical editorial behavior and is unacceptable, consequently, any manuscript that incurs in plagiarism is eliminated and not considered for publication.

Authors should cite publications that have been influential in the nature of the Article submitted to arbitration.

Information services

Indexation - Bases and Repositories

LATINDEX (Scientific Journals of Latin America, Spain and Portugal)

RESEARCH GATE (Germany)

GOOGLE SCHOLAR (Citation indexes-Google)

MENDELEY (Bibliographic References Manager)

Publishing Services:

Citation and Index Identification H.

Management of Originality Format and Authorization.

Testing Article with PLAGSCAN.

Article Evaluation.

Certificate of Double-Blind Review.

Article Edition.

Web layout.

Indexing and Repository

Article Translation.

Article Publication.

Certificate of Article.

Service Billing.

Editorial Policy and Management

38 Matacerquillas, CP-28411. Moralarzal - Madrid - Spain. Phones: +52 1 55 1260 0355, +52 1 55 6159 2296, +52 1 55 6034 9181; E-mail: contact@rinoe.org www.rinoe.org

RINOE® Journal-Microeconomics

Chief in editor

OLIVES-MALDONADO, Carlos. MsC

Executive director

RAMOS-ESCAMILLA, María. PhD

Editorial Director

PERALTA-CASTRO, Enrique. MsC

Web designer

ESCAMILLA-BOUCHAN, Imelda. PhD

Web Diagrammer

LUNA-SOTO, Vladimir. PhD

Editorial Assistants

TREJO-RAMOS, Iván. BsC

Philologist

RAMOS-ARANCIBIA, Alejandra. BsC

Advertising & Sponsorship

(RINOE® - Spain), sponsorships@rinoe.org

Site Licences

03-2010-032610094200-01-For printed material, 03-2010-031613323600-01-For Electronic material,03-2010-032610105200-01-For Photographic material,03-2010-032610115700-14-For the facts Compilation,04-2010-031613323600-01-For its Web page,19502-For the Iberoamerican and Caribbean Indexation,20-281 HB9-For its indexation in Latin-American in Social Sciences and Humanities,671-For its indexing in Electronic Scientific Journals Spanish and Latin-America,7045008-For its divulgation and edition in the Ministry of Education and Culture-Spain,25409-For its repository in the Biblioteca Universitaria-Madrid,16258-For its indexing in the Dialnet,20589-For its indexing in the edited Journals in the countries of Iberian-America and the Caribbean, 15048-For the international registration of Congress and Colloquiums. financingprograms@rinoe.org

Management Offices

38 Matacerquillas, CP-28411. Moralarzal - Madrid - Spain.

Journal-Microeconomics

“Innovation factors for workteam level empiric studies”

PÉREZ-JIMÉNEZ, Carlos & ALONSO-CALPEÑO, Mariela Juana

Universidad Popular Autónoma del Estado de Puebla

Instituto Tecnológico Superior de Atlixco

“Productivity study in a department store in Villahermosa, Tabasco, Mexico, for the proposal of a development model”

BALDERRABANO-BRIONES, Jazmín, ACOSTA-CADENAS, Monserrat, RODRÍGUEZ- AGUSTÍN, Griselda and PRIETO-PEDRAZA, Eva María

Tecnológico Nacional de México Campus Úrsulo Galván

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

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

Instituto Tecnológico de Villahermosa

“Renewable energies and local economic development in Nayarit”

ESPINOSA-FRAGOSO, Karla, ZEPEDA-MARTÍNEZ, Gabriel, GÓMEZ-GUTIÉRREZ, Abel and RODRÍGUEZ-LAZCANO, Yamilet

Universidad Autónoma de Nayarit

