ECORFAN®

Journal of
Administration
and Finance

ECORFAN®

Journal of Administration and Finance

Definition of 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 business administration, tourist and restaurant administration, administration in the field of engineering and construction, administration of the fields of education, health, agronomy, sports, arts and humanities, economic accounting, econometrics, economic activity, economic balance, international finance, financial management. ECORFAN-Mexico SC 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 CONAHCYT-RENIECYT 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 – CONAHCYT Research Centers.

Scope, Coverage and Audience

Journal of Administration and Finance is a Journal edited by ECORFAN-Mexico S.C in its Holding with repository in Bolivia, 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 business administration, tourist and restaurant administration, administration in the field of engineering and construction, administration of the fields of education, health, agronomy, sports, arts and humanities, economic accounting, econometrics, economic activity, economic balance, international finance, financial management 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 ECORFAN-Mexico® 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.

Arbitration Committee

Assignment of Rights

The sending of an Article to Journal of Administration and Finance 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 Authorization Format for their Article to be disseminated by means that ECORFANMexico, S.C. In its Holding Bolivia 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-CONAHCYT- 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 CONAHCYT 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 BoardAllocation of the pair of Expert Arbitrators-Notification of Arbitration -Declaration of observations to the Author-Verification of Article Modified for Editing-Publication.

Instructions for Scientific, Technological and Innovation Publication

Knowledge Area

The works must be unpublished and refer to topics of business administration, tourist and restaurant administration, administration in the field of engineering and construction, administration of the fields of education, health, agronomy, sports, arts and humanities, economic accounting, econometrics, economic activity, economic balance, international finance, financial management and other topics related to Social Sciences.

Presentation of Content

In the first article we present Management models, analysis for increasing productivity, customer service and profitability, by CERINO-MADRIGAL, Francisco Javier, NEME-CALACIH, Salvador, BARROSO-TANOIRA Francisco Gerardo and BERTTOLINI-DÍAZ, Gilda María, with ascription in the Universidad Juárez Autónoma de Tabasco, as next article we present, *Implementation of an e-commerce sales channel for small and medium-sized businesses*, by ZAVALA-HUERTA, Alejandro, JIMÉNEZ-GARCÍA, Martha and GÓMEZ-MIRANDA, Pilar, with ascription in Instituto Politécnico Nacional, as next article we present, *Analysis of the tax provisions and development of a proposal for a solution to the tax discrepancy according to the LISR of SMEs*, by AGUILAR-PÉREZ, Esmeralda, HERNÁNDEZ-HERNÁNDEZ, María Elena, SOTO-RIVAS, Soledad and IRIGOYEN-ARROYO, Luis Ernesto, with ascription in the Tecnológico Nacional de México - Instituto Tecnológico Superior de San Martín Texmelucan, as next article we present, *Economic cycles of Mexico based on the global indicator of economic activity*, by GALVÁN-CORRAL, Alberto, MURILLO-FÉLIX, Cecilia Aurora, QUIROZ-CAMPAS, Celia Yaneth and HINOJOSA-RODRÍGUEZ, Carlos Jesús, with ascription in the Instituto Tecnológico de Sonora.

Content

<div align="center">

Article   **Page**

</div>

Management models, analysis for increasing productivity, customer service and profitability

Modelos de gestión, análisis para el aumento de la productividad, el servicio al cliente y la rentabilidad

CERINO-MADRIGAL, Francisco Javier, NEME-CALACIH, Salvador, BARROSO-TANOIRA Francisco Gerardo and BERTTOLINI-DÍAZ, Gilda María

Universidad Juárez Autónoma de Tabasco. Avenida Universidad s/n, Zona de la Cultura, Col. Magisterial C.P. 86040

ID 1st Author: *Francisco Javier, Cerino-Madrigal* / **ORC ID:** 0000-0003-3821-2343, **CVU CONAHCYT ID:** 962364

ID 1st Co-author: *Salvador, Neme-Calacich* / **ORC ID:** 0000-0003-4085-9541, **CVU CONAHCYT ID:** 243503

ID 2nd Co-author: *Francisco Gerardo, Barroso-Tanoira* / **ORC ID:** 0000-0002-2035-2113, **CVU CONAHCYT ID:**

ID 3rd Co-author: *Gilda María, Berttolini-Díaz* / **ORC ID:** 0000-0001-5889-4420, **CVU CONAHCYT ID:** 670973

Abstract

The recurring changes, lived and experienced by the new times, have allowed the discovery of new tools. Its purpose is to face the new challenges that have become part of daily life. Advantages of the management model, besides growth, efficiency, excellence, productivity processes optimization increase. A management model is a strategy that generates greater efficiency, stimulates training and development, and allows identifying the organization's weaknesses and needs. The objective of this article is to analyze management models as strategies that have facilitated decisions and the achievement of business objectives.

Globalization, Productivity, Profitability, Customer Satisfaction

Resumen

Los cambios recurrentes, vividos y experimentados por los nuevos tiempos, han permitido descubrir nuevas herramientas. Su finalidad es afrontar los nuevos retos que se han convertido en parte de la vida diaria. Como ventajas del modelo de gestión, además del crecimiento, se incrementan la eficiencia, la excelencia, la productividad y se optimizan los procesos. Un modelo de gestión es una estrategia que genera mayor eficiencia, estimula la formación y el desarrollo, además de que permite identificar las debilidades y necesidades de la organización. El presente articulo tiene como objetivo analizar los modelos de gestión como estrategias que han facilitado las decisiones y el logro de objetivos de las empresas.

Globalización, Productividad, Rentabilidad, Satisfacción al cliente

* Author's Correspondence (E-mail: francisco.cerino@outlook.com)
†Researcher contributing first author.

Introduction

New times, new competitiveness requirements. Since the 1990s, special emphasis has been placed on competitiveness in organizations, which has given rise to management models that have made it possible to face these new scenarios and challenges. This has not been easy for organizations, since each one has its own personality and to face these changing situations they need new tools that allow them to model their management (Huertas-López et al., 2020). In this context, management models require flexibility on the part of organizations, since they need to adapt to the ever-changing environment, so that they become successful, competitive, profitable, productive companies with satisfied and loyal customers (De la Llave et al., 2022).

In the new times, organizations are characterized by a highly competitive environment, in which competitiveness, technology and innovation generate pressure for the positioning of organizations, forming better processes in their management in the supply centers, strengthening competitiveness.

The passage of time has brought about many changes in management. As a result of all this growth, organizations are making various proposals to answer the question of how to manage. There are various processes in management that are crucial in its development, but above all the flexibility of organizations to face these new challenges through a management model. Castillo et al., (2015) mention in their literature the distribution and marketing networks, they also comment that consumers have become more demanding in their purchases, and everything is related to quality in service, price and innovation. For Arellano-Díaz (2017), when a service is performed efficiently and with excellence it creates loyalty and builds customer loyalty. Globalization intervenes in service quality, since it is essential to compete for both industrial and commercial companies.

Justification

Managing is a process that allows the organization, planning and control of organizations, but it is also true that with the passage of time the whole environment has become more demanding (Bran-Piedrahita et al., 2021).

The interest in analyzing a management model is to identify the control methods that allow the change in productivity, customer satisfaction and profitability and to strengthen the operation. This could be very useful for any central supply center in terms of competitiveness, since this type of organization is fundamental in the distribution and marketing of products, so its participation in the commercial sector must be kept active. Mexico has sixty-six central supply centers, which function as wholesale and retail distribution spaces.

The development of this research is carried out as follows:

- The need for a management model

- The truth of organizations

- Productivity in companies

- Flexibility of the management model

Objective

To analyze the management models based on the strategies that have facilitated the decisions and the achievement of company objectives.

Method

The type of study is descriptive-exploratory, based on documentary research, with conceptualized and analytical intervention of the concepts (Ochoa and Yunkor, 2021). The literature review is focused on the context of management models and the theoretical analysis of their main models described in the development. As a result of this analysis, a conceptual framework of the main management models supported by various authors is provided.

The need for a management model

For Pacheco-Ruíz et al., 2020, globalization has allowed companies to develop, break paradigms, know themselves and identify what they can achieve. It has allowed them to know the great potential they have and with which they can adapt to change.

The truth about organizations

The reality is that every organization is different, both in qualities and in the way it operates. There are important factors in the work process, one of which is the staff, source of life for many companies, they are part of the key elements in productivity. Personnel are a driver of success for organizations, but they can also be a driver of failure (Martínez-Ramírez, 2020). There are several ways to seek efficiency, know how to delegate, communicate effectively, be empathetic, define objectives, etc. Having employees trained and aware of the events taking place in and around the organization will allow them to work more efficiently and effectively (Obando, 2020).

Productivity in companies

If a productive company is achieved, a profitable company is obtained, because being profitable consists of the correct management of the administration, for which it is necessary to control expenses and to use technology, as well as to offer variety and good service. Having a productive and profitable company generates satisfied and loyal customers. Therefore, in recent years, customer service has become one of the most important strategies for companies to be more competitive and ensure the return of their customers (Morales-Reyna et al., 2019).

The flexibility of the management model

It is of interest to analyze management models, since they have been fundamental in the development and growth of any organization. In addition to the fact that management models are flexible, they allow companies to adapt to change at all times. It is worth mentioning that globalization brings with it scenarios that make all types of organizations need to adapt in order to be competitive, and management models are presented as a tool to help them generate those changes that allow them to remain in competitive markets.

Hernández (2013) conducted a research based on a proposal regarding business management models from the context of intangible management and total quality. In his proposal he presents a classification of management and measurement models based on the Knowledge Society Research Center [CISC] (2023).

In the first section he focuses on business management systems whose purpose is not necessarily personnel. However, it is intrinsically related. The second section refers to basic models that have recently been studied.

Results

Of the models analyzed, the Intellectus model was taken as a reference, in the intangibles aspect, and the EFQM model (European Foundation for Quality Management), in the quality facet, due to the various elements it contains (see Table 1).

Model	Concept	Indicator
Balanced Scorecard (Kaplan y Norton, 1992)	Allows for an overview and relates to the company's objectives.	Intangible indicators Financial indicators
Dow Chemical Model (Dow Chemical, 1998)	Measures and manages invisible assets and their performance in economic activity.	Intangible indicators with an impact on organizationa results
Organizational learning model KPGM (1996)	It is related to cultural aspects, leadership, apprenticeships, staff attitudes and the ability to work in teams.	Learning factors Factors that condition learning outcomes
Roos Model (Roos, Drangonetti y Edvinsson, 1997)	Measures financial capital resources	IQ indicators that integrate the different indicators into a single measure
Stewart Model (1998)	Measures the organization's human capital.	Internal indicators Customer indicators
Meritum Guidelines (Cañibano et al., 2002)	Measures the tangible resources within the organization.	Critical intangible indicators
Competency-based strategic management model (Bueno, 1998)	Enables analysis for sustaining competitive advantage	Indicators of distinctive core competencies
Management Model Arthur Andersen (1999)	Enables the achievement of customer satisfaction, based on human resources.	Flow of valuable information

Model for the creation, measurement and management of intangible assets "Knowledge Diamond". (Bueno, 2001)	Allows the management and measurement of intangible resources	Information, learning and innovation indicators and core competencies
Sistema de evaluación comparativa del capital intelectual ICBS (Viedma, 2001)	Enables measurement and management of human capital.	Benchmarking competency indicators
Skandia Navigator (Edvinsson, 1993)	Allows measurement of human capital competences.	Absolute mean indicators C.I. efficiency indices.
Model of the UniversityWerstern Ontario (Bontis, 1996)	Allows measuring the achievement of business results.	Organizational performance indicators
Modelo del Canadian Imperial Bank of Commerce (Saint Onge, 1996)	Help in the relationship between Intellectual Capital and its measurement and organizational learning.	Learning indicators
Intangible Assets Monitor (Sveiby, 1997)	Allows to identify the knowledge pathway for change adaptation.	Indicators of growth and renewal Indicators of efficiency Indicators of stability Indicators of stability
Nova Model (Camisón, Palacios and Devece, 1998)	Help in obtaining results and making the work process more efficient.	Dynamic process indicators
Intelect Model (Euroforum, 1998)	Enables the management of intangible assets.	Present and future indicators
Intellectus Model (CIC,2003, 2011)	Allows knowledge generation and improvement in the organization.	Intangible assets and intellectual capital development indicators

Table 1 Management Models (GM) according to the CIC classification
Source: Adapted from Hernández (2013) and Navarro (2014)

Based on the above information, there is the research of Padilla-Ornelas and Martinez-Serna (2018), which shows the relevance of information, especially in individuals who are within the organization and how they use it in their work area, exercising good practices to improve organizational performance in organizations and thus improve their productivity, customer satisfaction and profitability, being its main objective to increase the results of the organization.

Conclusions

Organizations that have processes for productivity, profitability and customer satisfaction, even if mistakes and failures are made, will serve as examples of learning, providing an environment in which all workers give their opinion, work as a team and contribute with solutions. Those that do so will be the ones that will learn and improve the fastest. For the management model to be sustainable, each of the people working in the CAV must maintain a level of training, personal attitude and flexibility in order to achieve the objectives set by the organization.

The management model is a tool that allows the increase of the mentioned processes, in such a way that efficiency is achieved in the results sought within the organization, whenever improvements or significant results are required. The personnel must be willing to collaborate since the result is in favor of the learning generated by the experiences lived. Many organizations have a very important role in the validity of this research, since it was through them that this documented information was obtained.

Each organization is different, and for this reason the management models are so varied. They must be adapted according to their needs. Each company adjusts tools and controls to achieve its objectives, since management models are flexible tools that allow to face adaptations and changes.

References

Arellano-Díaz, H. O. (2017). La calidad en el servicio como ventaja competitiva. *Revista cientifica dominio en las ciencias, 3*, 72-83. doi:https://doi.org/10.23857/dom.cien.pocaip.2017.3.mono1.ago.

Bran-Piedrahita, L., Castro-Sánchez, L., Toro-Rivera, L., Torres-Salas, E., & Valencia-Arias, A. (2021). Estrategias de flexibilidad organizacional: estudio de caso en una entidad bancaria estatal colombiana para el año 2020. *ECONÓMICAS CUC, 42*(2), 115–132. doi:https://doi.org/10.17981/econcuc.42.2.2021.Org.6

Castillo, V. M., Ayala, S., Durán, I., & López, D. (2015). La central de abasto de Guadalajara, México: Retos para superar su creciente inviabilidad. *Revista Internacional del Mundo Económico y del Derecho, 9*, 1-18.

De la Llave Hernández, M. A., Del Callejo Canal, D. D., & Canal Martinez, M. E. (2022). Efecto de la gestión del factor humano en la flexibilidad y la efectividad organizacionales en PYMEs turísticas mexicanas. *Estudios Regionales en Economía, Población y Desarrollo: Cuadernos de Trabajo de la Universidad Autónoma de Ciudad Juárez, 12*(68), 3-22. Obtenido de https://dialnet.unirioja.es/servlet/articulo?codigo=8473578

Hernández, J. (2013). Modelo de gestión empresarial según nuevas tendencias, intangibles y calidad total. Obtenido de https://helvia.uco.es/bitstream/handle/10396/10762/2013000000806.pdf?sequence=1yisAllowed=y

Huertas-López, T. E., Suárez García, E., Salgado Cruz, M., Jadán Rodríguez, L. R., & Jménez Valero, B. (2020). Diseño de un modelo de gestión. Base científica y práctica para su elaboración. *Revista Universidad y Sociedad, 12*(1), 165-177. Obtenido de http://scielo.sld.cu/scielo.php?script=sci_arttext&pid=S2218-36202020000100165

Martínez-Ramírez, J. L. (2020). Impacto de factores del desarrollo cultural organizacional, en la rentabilidad empresarial. *Revista Científica Orbis Cognita, 4*(2), 140-157. Obtenido de https://revistas.up.ac.pa/index.php/orbis_cognita/article/view/1387

Morales-Reyna, F. R., Terranova Borja, G. F., & Sandoya Mayorga, L. (2019). La calidad en el servicio al cliente: factor de éxito de las empresas. *Opuntia Brava, 11*(4), 268-278. Obtenido de https://opuntiabrava.ult.edu.cu/index.php/opuntiabrava/article/view/871

Obando Changuán, M. P. (2020). Capacitación del talento humano y productividad: una revisión literaria. *Eca sinergia, 11*(2), 166-173. doi:https://doi.org/10.33936/eca_sinergia.v11i2.2254

Ochoa, J., & Yunkor, Y. (2021). El estudio descriptivo en la investigación científica. *Acta jurídica peruana, 2*(2), 1-19. Obtenido de http://201.234.119.250/index.php/ajp/article/view/224

Pacheco-Ruíz, C., Rojas-Martínez, C., Niebles-Nuñez, W., & Hernández-Palma, H. G. (2020). Desarrollo integral de procesos de adaptación al cambio en pequeñas y medianas empresas. *Información tecnológica, 31*(5), 89-100. doi:http://dx.doi.org/10.4067/S0718-07642020000500089

Padilla-Ornelas, P. J., & Martínez-Serda, M. D. (2018). Gestión del conocimiento y su influencia sobre el desempeño organizacional de las empresas de aguascalientes. *Investigación y ciencia de la universidad autonoma de aguscalientes, 26*(75), 55-65. Obtenido de https://www.redalyc.org/journal/674/67457300007/

.

Implementation of an e-commerce sales channel for small and medium-sized businesses

Implementación de un canal de venta de e-commerce para pequeñas y medianas empresas

ZAVALA-HUERTA, Alejandro†*, JIMÉNEZ-GARCÍA, Martha and GÓMEZ-MIRANDA, Pilar

Instituto Politécnico Nacional – Unidad Profesional Interdisciplinaria de Ingeniería y Ciencias Sociales y Administrativas, México.

ID 1st Author: *Alejandro, Zavala-Huerta* / **ORC ID:** 0009-0004-0919-948X, **CVU CONAHCYT ID:** 801725

ID 1st Co-author: *Martha, Jiménez-García* / **ORC ID:** 0000-0002-8556-2955, **Researcher ID Thomson:** AEG-3565-2022, **CVU CONAHCYT ID:** 292983

ID 2nd Co-author: *Pilar, Gómez-Miranda* / **ORC ID:** 0000-0002-1480-3061, **CVU CONAHCYT ID:** 551606

Abstract

E-commerce has transformed sales strategies, providing various options for small and medium-sized enterprises (SMEs). The surge of e-commerce has posed significant challenges for SMEs, especially due to the rise of massive sellers during the COVID-19 crisis. This research stems from the need to understand how SMEs can implement e-commerce strategies effectively and profitably. The objective is to analyze key factors such as costs, product variety, user experience, brand positioning, and reputation, to offer strong recommendations to SMEs in their choice of digital sales channels. This study compares three e-commerce channels: online stores, social media, and marketplaces. A detailed review of existing literature and an exploratory analysis evaluating different key factors was conducted. Specific criteria are used to compare and contrast these options. Some of the results suggest that online stores and social media offer greater control and customization, although they entail initial costs and constant development. Marketplaces, while optimizing sales, can limit brand customization and reputation. The findings suggest evaluating the objectives and needs of the SME before choosing an e-commerce channel.

Resumen

El e-commerce ha transformado las estrategias de venta, ofreciendo diversas opciones a las pequeñas y medianas empresas (PyMEs). El e-commerce ha presentado desafíos significativos para las PyMEs, debido al auge de vendedores masivos durante la crisis del COVID-19. Esta investigación surge de la necesidad de entender cómo las PyMEs pueden implementar estrategias de e-commerce de manera efectiva y rentable. El objetivo es analizar factores clave como costos, variedad de productos, experiencia del usuario, posicionamiento de marca y reputación, para proporcionar recomendaciones sólidas a las PyMEs en su elección de canales de venta digital. Este estudio compara tres canales de comercio electrónico: tiendas en línea, redes sociales y Marketplaces. Se realizó una revisión detallada de la literatura existente y un análisis exploratorio que evalúa diferentes factores clave. Se utilizan criterios específicos para comparar y contrastar estas opciones. Algunos de los resultados sugieren que las tiendas en línea y las redes sociales brindan mayor control y personalización, aunque implican costos iniciales y desarrollo constante, los marketplaces, mientras optimizan la venta, pueden limitar la personalización y reputación de la marca. Los resultados sugieren evaluar los objetivos y necesidades de la PyME, antes de elegir un canal de comercio electrónico.

SMEs, e-commerce, Marketplace

PyMEs, Comercio electrónico, Tienda en línea

---

† Researcher contributing first author.

Introduction

Hypothesis 4 (H4): Instagram Has a Significant Impact on Online Shopping of Goods

Hypothesis H4 is confirmed. The analysis supports the idea that Instagram exerts a significant impact on online purchase decisions, with a coefficient of 1.34. This suggests that Instagram influences respondents' online shopping behaviour, especially in the context of luxury products (Nguyen et al., 2022).

Hypothesis 5 (H5): WhatsApp Exerts a Significant Impact on Online Shopping of Items Hypothesis H5 is confirmed. The results indicate that WhatsApp has a significant impact on online shopping, with a coefficient of 0.96. This supports the idea that WhatsApp influences online shopping decisions due to its widespread popularity and widespread use (Ebrahimi et al., 2021; Miah et al., 2022).

Hypothesis 6 (H6): YouTube, Pinterest, Messenger and TikTok Have an Insignificant Impact on Online Shopping for Items

Hypothesis H6 is confirmed. YouTube, Pinterest, Messenger and TikTok platforms have a negligible impact on online shopping, according to the results of the analysis. This suggests that these social networks have limited influence on respondents' online shopping decisions compared to the previously mentioned platforms.

Conclusions

The analyses conducted within the framework of this research, which include heat graph and logistic regression analysis, provide substantial evidence on the main social networks that influence respondents' online shopping behaviour in 2022, according to data obtained from the ENDUTIH survey (INEGI, 2023). Important findings related to the influence of age on online purchasing decisions also emerge.

Firstly, it has been identified that the most prominent social networks in their influence on online shopping are Instagram, Facebook, Twitter and WhatsApp. These platforms have been shown to have a significant impact on online purchasing decisions, as evidenced by the coefficients obtained through logistic regression analysis. Specifically, it is highlighted that the independent variables Facebook, Instagram, Twitter and WhatsApp have a significant weight on online shopping, with coefficients indicating their positive influence on respondents' online shopping behaviour.

In contrast, the hypothesis that age plays a significant role in online shopping has been rejected. Although this factor was initially analysed as a potentially influential variable, the results of the analysis indicate that its impact on online shopping is insignificant compared to the effect of the social networks mentioned above.

Literature review

Researchers in northern Portugal conducted a study to analyse the impact of e-commerce on small businesses in the retail sector, taking as a sample company managers, considering the age of the company, the age of the managers, organisational readiness of the company, infrastructure costs for adoption, return on investment and customer knowledge. The results showed that 62.50% of the analysed companies had an increase in their financial results after adopting e-commerce. The authors indicate that the influencing factors are organisational readiness, business partners, infrastructure and human resource costs, return on investment perceived by managers, and customer knowledge and awareness (Carvalho & Mamede, 2018).

According to Song B., in Shanghai in 2023, there are different platforms, both open source and private. Where both have advantages as well as disadvantages. The results suggest that an open strategy improves performance by allowing suppliers to sell their products, improving the shopping experience for consumers. It also indicates that differentiation between different platforms does not necessarily reflect an improvement in profitability, as similar strategies do not differentiate them in comparison to traditional organisations.

Thus, differentiation is not necessarily the best strategy in an online competitive environment (Song, Xu, & Zhao, 2023). For open source platforms, it highlights the initial cost and flexibility that exists, a large community of active developers, and high scalability. There are different plans, and different additional services, basic plans, premium plans, and even some free or trial periods. There are also additional services such as fulfilment, which is the storage, preparation and shipping of products, which can be carried out directly by the company or outsourced. Advertising, which the user allocates a daily budget (Sun, Lyu, Yu, & Teo, 2020). One of the big disadvantages is the technical complexity and limited support, companies can rely on direct support from the platform, and access to forums or online resource is required. So technical expertise is required to develop solutions according to the needs of the company (Bravo, Gonzalez Segura, Temowo, & Samaddar, 2022). Therefore, time and resources are required to be able to configure and maintain it (Carvalho & Mamede, 2018).

On the other hand, in Spain, an analysis was conducted on the survival of companies that consider a hybrid strategy between physical shop and e-commerce, considering 632 new e-commerce companies. In which 32,226 articles were evaluated, identifying the most relevant topics and authors, considering the buyer-seller relationship, business model, technology, organisational structure and technology acceptance model as the most prominent topics, and some authors such as P. A. Pavlou, D. Gefen, F. D. Davis, (Cuellar-Fernández, Fuentes-Callén, & Serrano-Cinca, 2021).

In Morocco, a study was conducted analysing 4 small companies, to measure the level of adoption for e-commerce, emphasising the impediments that companies have, considering categories such as technological, financial, cultural and organisational sector (Salma Dahbi, 2019). On the other hand, one of the big disadvantages can be the limited support, as directly the company will not provide you with the advice, in most cases. There is a technical complexity, i.e. technical knowledge is required to be able to keep the platform operating correctly. Therefore, time and resources are required to implement an option in a functional way (Bravo, Segura, Temowo, & Samaddar, 2022).

In the case of Mexico, according to its current legislation, when the seller is an individual, the platform withholds 10% sales tax per platform; if the seller is a legal entity, the platform does not withhold any tax (Ley de Impuesto sobre la Renta, 2021).

Methodology

A literature review of previous research was carried out, implementing e-commerce for small and medium enterprises, making an exploratory analysis evaluating the key factors in order to make a comparison between e-commerce itself, social networks and Marketplace.

Reviewing the bibliography and references of companies that offer e-commerce services, analysing the selected variables, in order to evaluate the advantages and disadvantages of each channel.

The variables to be used are listed and defined in table 1.

Initial cost	One-time payment at the start of implementation, payment of licenses, software, plugins, hosting, domain, memberships, among others (Martinez-Lopez, Li, Feng, Liu, & Lopez-Lopez, 2022).
Monthly cost	Monthly payment for the use of the platform service (Martinez-Lopez, Li, Feng, Liu, & Lopez-Lopez, 2022).
Cost per sale	Payment per sale made (Martinez-Lopez, Li, Feng, Liu, & Lopez-Lopez, 2022).
Cost of payment gateway	Pay-per-transaction (Shopify, 2023).
Advertising	Paid advertising service.
Outsourced Fulfillment	Warehousing, preparation and shipping of products by a third party (MercadoLibre, 2023).
Multicategory	Handling of products from different categories or industries.
User-friendly interface	Easy handling of the platform, both sellers and buyers.
Configuration and customisation	The platform allows for high or low customisation, either of the interface or of the configuration of options (Shopify, 2023).
Own brand positioning	Brand positioning within the platform is possible (Shopify, 2023).
Creation of promotions	The platform allows you to generate discounts.
Creation of packages or bundles	The platform directly allows you to create packages of different products.
Reputational impact	The management of the seller's reputation and trustworthiness within the platform.

Table 1 Variables to be analysed

Analysis and results

As there are different criteria for comparison, the indicators that were evaluated in other research were considered and new variables were integrated that were considered relevant according to the documentary review that was carried out, in order to establish a frame of reference between the different platforms. The indicators that were considered are listed in graphic 1 and table 2.
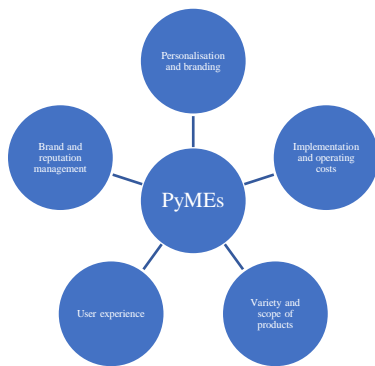
Graphic 1 Indicators to assess

Indicator	Reference
Implementation and operating costs	(Martinez-Lopez, Li, Feng, Liu, & Lopez-Lopez, 2022)
Variety and scope of products	(Wakil, Alyari, Ghasvari, Lesani, & Rajabion, 2020)
User experience	(Kim, 2022)
Personalisation and branding	(Bell, McCloy, Butler, & Vogt, 2020)
Brand and reputation management	(Changchit, Klaus & Treerotchananon, 2012

Table 2 Indicators

Cost of implementation and operation

As mentioned in the literature review, there are different plans, depending on each platform. To simplify the analysis, the basic plan was considered, and it is only indicated if it is possible to outsource the fulfilment service and if there is an option to offer advertising (Sun, Lyu, Yu, & Teo, 2020). Table 3 details the main platforms in Mexico and a breakdown of their corresponding costs.

Concept	Shopify (Basic)	Facebook / Instagram	MercadoLibre	Amazon
C. Initial	13 USD (plus use of templates or software)	N/A	N/A	N/A
C. Monthly	19 USD	N/A	N/A	600 MXN
C. for sale	2%	N/A	15% + $25 (>$149) 15%* + $30 (>$298) 15% + $100 (<$298)	8-15%*
C. Payment gateway	3.49% + IVA + $4.00 + IVA	Varied	N/A	N/A
Advertising	Yes	Yes	Yes	Yes
Outsourced Fulfillment	No	No	Yes	Yes

Table 3 Implementation and operation costs
Source: Own elaboration with (Shopify, 2023) (Meta, 2023) (Meta, 2023) (MercadoLibre, 2023) (Amazon, 2023)

As can be seen in table 3, each channel has its corresponding breakdown, has very specific rules to consider, and the payment of commissions and taxes for the use of digital platforms, as is the case in Mexico, must be taken into account. Doing a quick analysis, we could deduce that the first options, an online shop (Shopify) and social networks (Facebook/Instagram), are more economical. Since the cost per sale is lower, and could even be zero. In the case of advertising, it can be implemented in all four channels, but the reach that each one would have and the segmentation options that each one could have would have to be analysed (Ruifang, 2023). In the case of outsourced fullfillment service, which is an option used mainly by marketplaces, the relevance of the service in the digital market should be analysed, as using this service can provide more exposure for greater sales reach and benefits to the buyer.

Variety and scope of products

Category management is important in e-commerce, since, in a clothing shop, one does not expect to find tools, or electronic items. In the case of a Marketplace, it is possible to sell multi-categories, since by having an extensive assortment of products (from different sellers), the buyer accesses the category, and not the products offered by each seller. Table 4 shows which channels allow multi-category sales.

	Shopify	Facebook / Instagram	MercadoLibre	Amazon
Multicategory	No	No	Yes	Yes

Table 4 Variety and scope of products

User experience

The design of the online shop depends on the developer or programmer in charge. As it is a proprietary development, it can be 100% customised, but this does not guarantee that the interface is user-friendly, i.e. the ease of search, navigation, checkout and payment options may not be optimised (Lokke-Andersen, Wang, & Giacalone, 2022). In the case of social media, the platform is already designed, and the level of personalisation is low. But being an established platform, it can be guaranteed that the operation and interface to the buyer will be user-friendly, in the case of the purchase process and payment options, they have to be implemented outside the site. As the platform is not developed for e-commerce. In the case of a Marketplace, it is designed directly for online shopping. It is already optimised, its interface is tested, but there is no customisation, as only the products are loaded onto the platform. Table 5 shows the level of configuration for the user experience.

	Shopify	Facebook / Instagram	MercadoLibre	Amazon
User-friendly interface	Yes*	Yes	Yes	Yes
Configuration and customisation	Yes	No	No	No

Table 5 User experience

Personalisation and branding

Personalisation is an important issue in sales strategy, branding, creation of offers, promotions and packages. In the first two options we can realise all available strategies. In the case of Marketplace, the only thing we can do is to indicate the brand of the product, but if it is only distributed or resold, it will not be possible to position the company's brand. Table 6 shows the level of customisation that exists in each category.

	Shopify	Facebook / Instagram	MercadoLibre	Amazon
Own brand positioning	Yes	Yes	No	No
Configuration and customisation	Yes	No	No	No
Creation of promotions	Yes	Yes	Limitado	Limitado
Creation of packages or bundles	Yes	Yes	Limitado	Limitado

Table 6 Personalisation and branding

Brand and reputation management

As can be seen in table 7, there is a difference between brand management and reputational impact between channels. A good or bad review can positively or negatively affect positioning. A bad review would affect the reputation of the brand, regardless of the channel, but in the case of marketplaces, the problem can directly affect the ranking algorithm. When you have a bad review, a complaint, or a return, the Marketplace penalises you, and sometimes that penalty can affect to the point of stopping selling a product, or even affect the entire account (and stop selling all the products published). To maintain a good reputation, you have to maintain a low percentage of cancellations, complaints (any problem with the customer) or delays in shipping, because if you exceed the assigned percentage, your reputation will go down, and you will have less exposure (Li, Tadelis, & Zhou, 2020).

	Shopify	Facebook / Instagram	MercadoLibre	Amazon
Brand positioning	Yes*	Yes	No	No
Reputational impact	No	No	Yes	Yes

Table 7 Brand and reputation management

Discussion

The comparison between the three e-commerce channels is crucial, since, depending on the size and needs of the company, one channel may be more profitable than another. According to the information gathered, it is possible to highlight the cost of implementation and the cost generated by the use of the platform, in the case of a Marketplace, the development cost is lower, as it is shared between the different sellers using the platform, compared to an online shop that the initial cost will be higher for the development of the site and infrastructure, in the case of the implementation in social networks the initial cost is low, and you can have control over the cost and brand management. In the long run, the cost may be better for social media and the online shop, as there will be no sales commissions or transaction fees, which is in line with Song B, indicating the differentiation between open source versus closed source platforms.

On the other hand, when a company offers products of different categories, a Marketplace can be an option, as they can be offered directly on the same platform, for the case of online shops or social networks they usually focus on a specific niche, offering their products to a specific group of buyers, where all products are usually focused on one category.

To provide a good user experience, Marketplaces are optimised, with a high level of development to support the platform and constant updates, but it can hinder navigation by having a large number of options. On the other hand, for online shops, you can have direct control over the design, but it requires high development and constant updating for site improvements, which can translate into a higher cost for constant development.

Brand positioning is a crucial point in deciding which channel would be appropriate, directly social media and online shops have a significant advantage for branding. A strong brand identity can be designed and managed. Compared to marketplace sellers, who may be limited in customising and differentiating their brand directly by marketplace policies.

For reputation management, in a Marketplace there are rules that can limit the reach of products directly by the platform's algorithm, for example, having poor service, complaints, shipping delays or cancellations could represent a significant drop in sales. But if there is good customer service and customer care management, the platform's algorithm can benefit in a greater reach for the products. However, one has to consider that there is a large number of sellers, who could offer a similar or even the same product. Where the main differentiator would be the price, and the quality of service. On the other hand, in an online shop or on social media, they have direct control over reputation management.

Conclusions

Based on the detailed comparison of the three e-commerce channels: online shop, social media and Marketplace, we can come to the following conclusions:

Indicator	Conclusions
Implementation and operating costs	Online shops and social media offer higher profitability in the long term, as they do not involve sales commissions or transaction fees. In the short term, social media has a low upfront cost, but online shops can offer greater personalisation and control over the brand.
Variety and scope of products	For companies offering a variety of products in different categories, a Marketplace can be a viable option, as it allows multiple categories to be sold on one platform.
User experience	Social media can offer a familiar and convenient user experience, but personalisation and optimisation for online sales can be limited. Online shops allow for greater personalisation, but require constant development to maintain an optimal user experience. Marketplaces are optimised for online sales, but the user experience can be affected by the large number of options available.
Brand positioning and reputation	Online shops and social media offer greater control over brand positioning and reputation management. In marketplaces, reputation can be significantly affected by platform policies, but proper management can result in greater reach for products.

Recommendations

1. Assess the company's needs: Before deciding on a channel, companies should assess their needs, budget and short- and long-term objectives. Each channel has its advantages and disadvantages, and the choice should be aligned with the company's business objectives.

2. Consider a multi-channel strategy: To maximise exposure and reach different market segments, some companies may consider a multi-channel strategy. For example, have an online shop for specific products and use social media for promotions to reach a wider audience.

ZAVALA-HUERTA, Alejandro, JIMÉNEZ-GARCÍA, Martha and GÓMEZ-MIRANDA, Pilar. Implementation of an e-commerce sales channel for small and medium-sized businesses. Journal of Administration and Finance. 2023

3. Prioritise user experience: Regardless of the channel chosen, user experience should be a priority. Businesses should ensure that customers have an easy and pleasant shopping experience, regardless of whether they are shopping in an online shop, through social media or in a marketplace.

Ultimately, the choice of e-commerce channel will depend on each company's objectives. By making informed decisions and continuously adapting to market demands, small and medium-sized businesses can make the most of the opportunities offered by e-commerce in today's digital world.

References

Al Jamil, A. A., & Ismail, A. A. (2022). The use of 'ecommerce' and 'social commerce in emerging markets': Omani female millennials' experiences. *Information Development*. URL https://doi.org/10.1177/02666669221145411 DOI: doi:10.1177/02666669221145411

Amazon. (1 de Enero de 2023). *Tarifas de Venta*. Obtenido de Amazon : https://vender.amazon.com.mx/precios

Bell, L., McCloy, R., Butler, L., & Vogt, J. (2020). Motivational and Affective Factors Underlying Consumer Dropout and Transactional Success in eCommerce: An Overview. *Frontiers in Psychology*. URL: https://doi.org/10.3389/fpsyg.2020.01546 DOI: 10.3389/fpsyg.2020.01546

Bravo, R., Gonzalez Segura, M., Temowo, O., & Samaddar, S. (2022). How Does a Pandemic Disrupt the Benefits of eCommerce? A Case Study of Small and Medium Enterprise in the US. *Journal of Theoritical and Applied Electronic Commerce Research*, 522-557. URL: https://doi.org/10.3390/jtaer17020028 DOI:https://doi.org/10.3390/jtaer17020028

Carvalho, M., & Mamede, H. S. (2018). The impact of e-commerce on the success of microenterprise retail sector of the Pinhal Interior Norte sub-region of Portugal. *Procedia Computer Science*. URL: https::/doi.org/10.1016/j.procs.2018.10.077 DOI: 10.1016/j.procs.2018.10.077

Changchit, C., Klaus, T., & Treerotchananon, A. (2012). Using Customer Review Systems to Support Purchase Decisions: A Comparative Study Between the US and Thailand. *Journal of Global Information Management*. URL: https://doi.org/10.4018/JGIM.20211101.oa51 DOI:10.4018/JGIM.20211101.oa51

Cuellar-Fernández, B., Fuentes-Callén, Y., & Serrano-Cinca, C. (2021). Survival of e-commerce entrepreneurs: The importance of brick-and-click and internationalization strategies. *Electronic Commerce Research and Applications*. URL: https://doi.org/10.1016/j.elerap.2021.101035 DOI: 10.1016/j.elerap.2021.101035

Doe, J. K., Van de Wetering, R., Honyenuga, B., & Versendaal, J. (2022). Extended contextual validation of stakeholder approach to firm technology adoption: moderating and mediating relationships in an innovaion eco-system. *Society and Business Review*, 506-540. URL: https://doi.org/10.1108/SBR-10-2020-0128 DOI: 10.1108/SBR-10-2020-0128

Kaushik, V., Khare, A., Boardman, R., & Cano, M. B. (2020). Why do online retailers succeed? The identification and prioritization of success factors for Indian fashion retailers. *Electronic Commerce Reseach and Applications*. URL: https://doi.org/10.1016/j.elerap.2019.100906 DOI: 10.1016/j.elerap.2019.100906

Kim, R. (2022). Retail After COVID-19: Use Virtual Reality to Enhance Ecommerce. *IEEE TECHNOLOGY AND ENGINEERING MANAGEMENT CONFERENCE*, 118-123. URL: https://10.1109/TEMSCONEUROPE54743.2022.9801972 DOI: 10.1109/TEMSCONEUROPE54743.2022.9801972

Ley de Impuesto sobre la Renta. (2021). CDMX: DOF.

Li, L. (., Tadelis, S., & Zhou, X. (2020). Buying reputation as a signal of quality: Evidence from an online marketplace. *Rand Journal of Economics*, 965-988. URL: https://doi.org/10.1111/1756-2171.12346 DOI:10.1111/1756-2171.12346

Article

Lokke-Andersen, C. B., Wang, Q. J., & Giacalone, D. (2022). User experience design approaches for accommodating high "need for touch" consumers in ecommerce. *Journal of Sensory Studies*. URL: https://doi.org/10.1111/joss.12727 DOI: 10.1111/joss.12727

Martinez-Lopez, F. J., Li, Y., Feng, C., Liu, H., & Lopez-Lopez, D. (2022). Reducing ecommerce returns with return credits. *Electronic Commerce Research*. URL: https://doi.org/10.1007/s10660-022-09638-5 DOI: 10.1007/s10660-022-09638-5

MercadoLibre. (1 de Enero de 2023). *Costos por vender un producto*. Obtenido de MercadoLibre: https://www.mercadolibre.com.mx/ayuda/Costos-de-vender-un-producto_870

Meta. (1 de Enero de 2023). *Llega los clientes que quieres con comprar en Instagram*. Obtenido de Meta: https://business.instagram.com/shopping

Meta. (1 de Enero de 2023). *Página de Facebook*. Obtenido de Meta: https://www.facebook.com/business/tools/facebook-pages

Salma Dahbi, C. B. (2019). What Hinder SMEs from Adopting E-commerce? A Multiple Case Analysis. *3rd World Conference on Technology, Innovation and Entrepreneurship (WOCTINE)*, 811-818. URL: https://doi.org/10.1016/j.procs.2019.09.118 DOI: 10.1016/j.procs.2019.09.118

Ruifang, Z. (2023). *Analysis of the profit model of social e-commerce -- Taking Pinduoduo as an example*. Bangkok: SIAM University. Obtenido de https://e-research.siam.edu/wp-content/uploads/2023/09/Zhu-Ruifang-MBA-2022-IS-Analysis-of-the-Profit-Model-of-Social-E-Commerce.pdf

Sandina, A. A., Syafitri, L., & Meiriasari, V. (2023). THE EFFECT OF E-COMMERCE AND THE USE OF ACCOUNTING INFORMATION SYSTEMS ON THE REVENUE CYCLE OF MICRO, SMALL AND MEDIUM ENTERPRISES (Study on Culinary MSMEs in Prabumulih City). *JOURNAL OF HUMANITIES, SOCIAL SCIENCES AND BUSINESS*. URL: http://dx.doi.org/10.55047/jhssb.v3i1.818 DOI:10.55047/jhssb.v3i1.818

Shopify. (1 de Enero de 2023). *Precios*. Obtenido de Shopify: https://www.shopify.com/mx/precios

Song, B., Xu, H., & Zhao, L. (s.f.). Open or Not? Operation Strategies of Competitive eCommerce Platforms from an Ecosystem Perspective. *SYSTEMS*. URL: https://doi.org/doi:10.3390/systems11010006 DOI: 10.1016/j.procs.2019.09.118

Sun, L., Lyu, G., Yu, Y., & Teo, C. P. (2020). Cross-Border E-Commerce Data Set: Choosing the Right Fulfillment Option. *Manufacturing & Service Operations Management*. URL:https://doi.org/10.1287/msom.2020.0887 DOI: 10.1287/msom.2020.0887

Usas, A., Jasinskas, E., Zagurska-Antoniuk, V., Savitskyi, V., & Fuhelo, P. (2021). COVID-19 IMPACT ON E.COMMERCE USAGE. *Independent Journal of Management & Production*, S445-S462. URL: https://doi.org/10.14807/ijmp.v12i6.1750 DOI:10.14807/ijmp.v12i6.1750

Wakil, K., Alyari, F., Ghasvari, M., Lesani, Z., & Rajabion, L. (2020). A new model for assessing the role of customer behavior history, product classification, and prices on the success of the recommender systems in e-commerce. *Kybernetes*, 1325-1346. URL: https://doi.org/10.1108/K-03-2019-0199 DOI:10.1108/K-03-2019-0199

Zhang, C., & Ma, H.-M. (2021). Introduction of the marketplace channel under logistics service sharing in an e-commerce platform. *Computers & Industrial Engineering*. URL: https://doi.org/10.1016/j.cie.2021.107724 DOI:10.1016/j.cie.2021.107724.

Analysis of the tax provisions and development of a proposal for a solution to the tax discrepancy according to the LISR of SMEs

Análisis de las disposiciones fiscales y desarrollo de una propuesta de solución ante la discrepancia fiscal de acuerdo a la LISR de las PyMes

AGUILAR-PÉREZ, Esmeralda†*, HERNÁNDEZ-HERNÁNDEZ, María Elena, SOTO-RIVAS, Soledad and IRIGOYEN-ARROYO, Luis Ernesto

Tecnológico Nacional de México-Instituto Tecnológico Superior de San Martín Texmelucan

ID 1st Author: *Esmeralda, Aguilar-Pérez* / **ORC ID:** 0000-0001-6794-9630, **Researcher ID Thomson:** O-3376-2018, **CVU CONAHCYT ID:** 625314

ID 1st Co-author: *María Elena, Hernández-Hernández* / **ORC ID:** 0000-0001-7172-3802, **Researcher ID Thomson:** O-8193-2018, **CVU CONAHCYT ID:** 927536

ID 2nd Co-author: *Soledad, Soto-Rivas* / **ORC ID:** 0000-0003-3730-7586, **CVU CONAHCYT ID:** 329347

ID 3rd Co-author: *Luis Ernesto, Irigoyen-Arroyo* / **ORC ID:** 0000-0002-2037-1621, **Researcher ID Thomson:** ABC-1173-2021, **CVU CONAHCYT ID:** 472901

Abstract

This article presents the results of the research carried out in the first quarter of 2023 using SMEs in the San Martin Texmelucan region as a study factor. The general objective of the research was to analyze the tax provisions and develop a proposal for a solution to the tax discrepancy in terms of income tax in SMEs. The methodology that was carried out was developing mixed research, the data collection technique was a questionnaire of 30 closed questions with a Likert scale was applied, 376 surveys were applied to different companies in the region of San Martin Texmelucan. The most important contribution made was the design of a tax protection plan for SMEs in order to minimize the economic and criminal consequences of the tax discrepancy.

Resumen

En el presente artículo se presentan los resultados de la investigación realizada en el primer trimestre de 2023 tomando como factor de estudio a las PyMes de la región de San Martin Texmelucan. El objetivo general de la investigación fue analizar las disposiciones fiscales y desarrollar una propuesta de solución ante la discrepancia fiscal en materia de ISR en las PyMes. La metodología que se llevó a cabo fue desarrollando una investigación mixta, la técnica de recolección de datos fue un cuestionario de 30 preguntas cerradas con escala de Likert, se aplicaron 376 encuestas a diferentes empresas de la región de San Martin Texmelucan. La contribución más importante que se realizó fue el diseño de un plan de protección fiscal para las PyMes a efecto de minimizar las consecuencias económicas y penales de la discrepancia fiscal.

Tax Discrepancy, SMBs, Strategy

Discrepancia fiscal, PyMes, estrategia

---

* Correspondence to the author (E-mail: esmeralda.aguilar@smartin.tecnm.mx)
† Researcher contributing first author.

Introduction

The Tax Discrepancy is a legal figure established by the tax authority whose objective is to avoid evasion (Juárez, 2020), which is mainly aimed at individuals through the help of technology and to observe whether taxpayers, through the submission of reports and reports from third parties, of expenditures, expenses, investments and bank deposits among other concepts, know the equivalent link between the income obtained and declared in relation to their expenditures.

The research question is: Will taxpayers be audited by analysing the background of the Tax Discrepancy, and will the situations in which individuals incur in the tax discrepancy be detected so that they avoid filing it?

It is hypothesised that the development of a proposed solution to the tax discrepancy of individuals under Chapter I of Title IV of the LISR will reduce the number of taxpayers in this situation.

This article is made up of 5 sections, initially presenting the methodology that was developed, followed by the results, conclusions, bibliographical references and acknowledgements.

Methodology to be developed

The research carried out was mixed, the information was collected through a questionnaire applied to 376 SMEs, to determine how they approach the issue of tax provisions in the face of tax discrepancy.

It began with a theoretical analysis of the background of tax discrepancy and the way in which the authority carries out audits on individual taxpayers. Subsequently, the LISR was analysed to detect the situations in which individuals incur in tax discrepancy and finally a tax protection work plan was designed to minimise the economic and criminal consequences of the exercise of the authorities' auditing powers.

Has your company filed a tax discrepancy during any of the months of the last year?
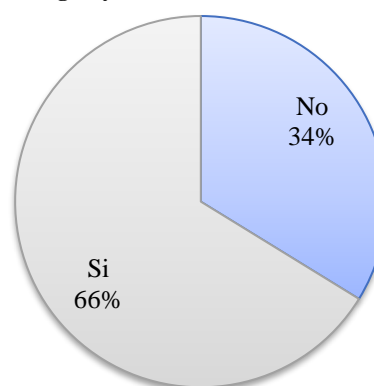
Graphic 1

This graphic shows that 66% of the respondents indicate that they have spent a higher amount compared to the income they received and only 34% indicate that they have not presented such a situation. This indicates a problem as the tax authority may exercise its powers of verification and determine some kind of sanction that affects the finances of SMEs, to solve this problem it is necessary to design a strategy that generates a support to companies to provide a solution to it.
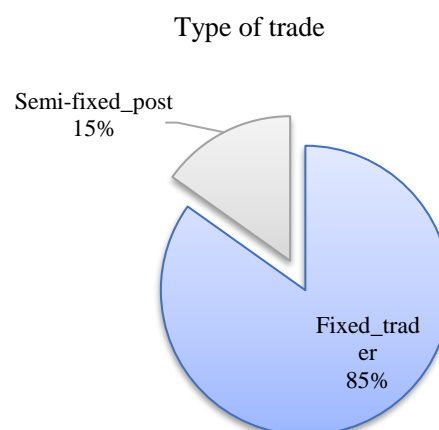
Type of trade

Graphic 2

Of the 376 SMEs surveyed, 85% indicate that their type of trade is with a fixed establishment and that they have an RFC, while only 15% carry out their activities in semi-fixed stalls. This is important to determine the degree of formalisation of the surveyed enterprises and to analyse how strategies are developed to reduce the tax discrepancy in SMEs.

Results

The results obtained in the research carried out in the first quarter of 2023 with respect to the tax discrepancy of SMEs in the San Martin Texmelucan region indicate that with respect to the general objective of analysing the tax provisions and developing a proposal for a solution to the tax discrepancy.

A diagram was prepared based on Article 91 of the Income Tax Law (SAT, 2023), which explains the concept of tax discrepancy.
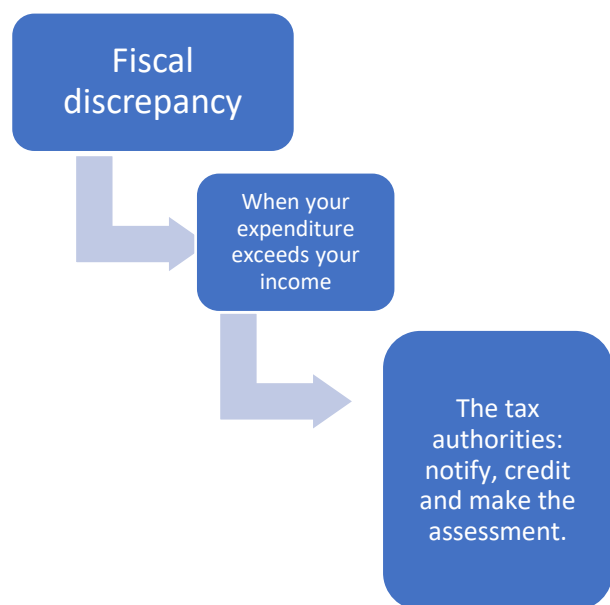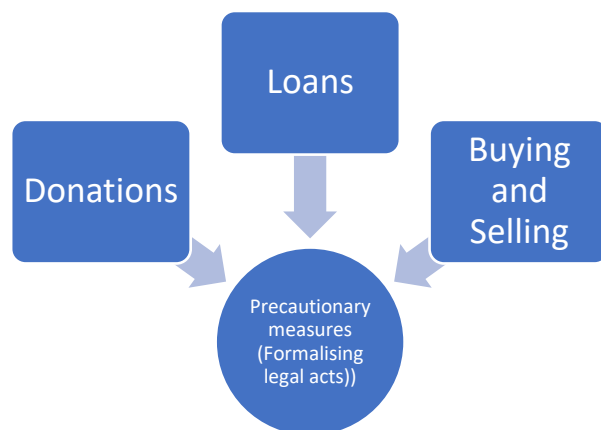

Figure 1

The results of Specific Objective 2 of Analysing the LISR to detect situations in which individuals incur in tax discrepancies. It is presented through the following cases:

EXAMPLE 1	
DECLARED INCOME	0
BANK DEPOSITS	500,000
+ ACQUISITION OF GOODS	200,000
+ ACQUISITION OF GOODS	250,000
FINANCIAL INVESTMENTS	400,000
TAX DISCREPANCY	1,350,000

Table 1 Cases and examples of tax discrepancy

EXAMPLE 2	
DECLARED INCOME	1,100,000
BANK DEPOSITS	500,000
+ ACQUISITION OF GOODS	200,000
+ ACQUISITION OF GOODS	250,000
FINANCIAL INVESTMENTS	400,000
TAX DISCREPANCY	250,000

Table 2 Example 2 of tax discrepancy

Figure 2 Precautionary measures of the tax discrepancy
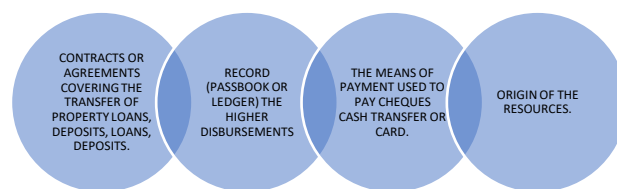
Figure 3 Simulation of legal acts

Retain supporting documentation of income and expenditures made		
Proof of income.	Withholding of salaries, alineation, acquisition of goods, etc.	Contracts or agreements for expenditure, acquisitions, disposal of furniture and real estate.

Table 3 Avoiding simulation of legal acts
Source: (Alva, 2023)
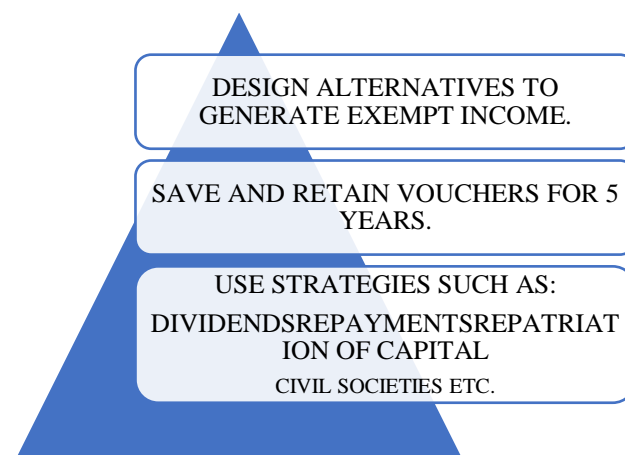
Figure 6 Alternatives for resolving tax discrepancies
Source: (SAT, 2023)

Conclusions

SME owners may be subject to the tax discrepancy procedure when it is found that the amount of expenditures in a calendar year is higher than the declared income or the income that should have been declared.

Expenditures that are considered income will be taken into account as omitted in the chapter declared by the taxpayer or in the other income chapter of Title IV of the LISR (Congreso de la Unión, 2023).

Deposits and transfers between the taxpayer's own accounts, including those made to the spouse or to lineal ascendants and descendants in the first degree, and deposits made in third-party accounts, are considered to be expenditures when it is shown that such deposits are made for the acquisition of goods and services and the payment of consideration for the granting of the temporary use or enjoyment of goods.

In disclosing the amount of the expenditures referred to in the Article, the tax authorities may use any information in their possession, either because it is contained in their files, documents or databases, or because it has been provided by a third party or another authority. The tax authorities shall proceed as follows: they shall notify the taxpayer of the amount of the expenditure detected, the information used to obtain it, the means by which it was obtained and the resulting discrepancy.

References

Alva, R.E. (2023) ¿consecuencias de la discrepancia fiscal? | Diccionario Financiero.

Congreso de la Unión (2023). Ley del Impuesto sobre la Renta

Juárez, H.M. (2020). La discrepancia fiscal, herramienta de fiscalización del sat - Núm. 64.

Servicio de Administración Tributaria (2023). Efectos de Discrepancia Fiscal Artículo 91 - Portal de trámites y servicios - SAT

Servicio de Administración Tributaria (2023). Fundamento Legal Artículo 91 - Portal de trámites y servicios - SAT.

Article

Economic cycles of Mexico based on the global indicator of economic activity[1]

Ciclos económicos de México con base al indicador global de la actividad económica[1]

GALVÁN-CORRAL, Alberto†*, MURILLO-FÉLIX, Cecilia Aurora, QUIROZ-CAMPAS, Celia Yaneth and HINOJOSA-RODRÍGUEZ, Carlos Jesús

Instituto Tecnológico de Sonora, Unidad Navojoa. México.

ID 1st Autor: *Alberto, Galván-Corral* / **ORC ID:** 0000-0002-9625-0324, **CVU CONAHCYT ID:** 93702

ID 1st Co-author: *Cecilia Aurora, Murillo-Félix* / **ORC ID:** 0000-0002-2214-9880, **CVU CONAHCYT ID:** 971874

ID 2nd Co-author: *Celia Yaneth, Quiroz-Campas* / **ORC ID:** 0000-0002-6068-1552, **CVU CONAHCYT ID:** 281305

ID 3rd Co-author: *Carlos Jesús, Hinojosa-Rodríguez* / **ORC ID:** 0000-0002-7576-9338, **CVU CONAHCYT ID:** 237638

Abstract

This study aimed to analyze the classic economic cycles of Mexico, based on the global indicator of economic activity (IGAE) and identify its main features or regularities; The quantitative paradigm was applied, with an econometric approach to classical economic cycles, using time series: global indicator of total economic activity and by sector of activity: primary, secondary and tertiary; The sample included from January 1993 to May 2023. The following were identified: chronology, duration, breadth or depth, volatility and comovement of the cycles, at a total level and by sector of economic activity. The results highlight that the economy has presented three complete cycles and one incomplete, currently the economy is in the recovery phase; The ascending phases last longer than the descending ones; the IGAE of primary, secondary and tertiary activities are procyclical to the total IGAE; The IGAE of secondary and tertiary activities can be considered coincident indicators of the total IGAE, while the IGAE of primary activities can be assumed as a six-month lagging indicator.

Resumen

Este estudio tuvo por objetivo analizar los ciclos económicos clásicos de México, con base al indicador global de la actividad económica (IGAE) e identificar sus principales rasgos o regularidades; se aplicó el paradigma cuantitativo, con enfoque econométrico de los ciclos económicos clásicos, usando, para ello, las series de tiempo: indicador global de la actividad económica total y por sector de actividad: primarias, secundarias y terciarias; la muestra comprendió de enero de 1993 a mayo del 2023. Se identificaron: cronología, duración, amplitud o profundidad, volatilidad y comovimiento de los ciclos, a nivel total y por sector de la actividad económica. En los resultados sobresalen que la economía ha presentado tres ciclos completos y uno incompleto, actualmente la economía se halla en fase de recuperación; las fases ascendentes tienen mayor duración que las descendentes; el IGAE de las actividades primarias, secundarias y terciarias son procíclicas al IGAE total; el IGAE de las actividades secundarias y terciarias pueden considerarse indicadores coincidentes del IGAE total, mientras que el IGAE de las actividades primarias puede asumirse como indicador rezagado con seis meses.

Cycles, Regularities, Chronology

Ciclos, Regularidades, Cronología

Introduction

The analysis of the existence of increases and decreases in economic activity, known as economic cycles, dates back to the beginning of the last century, among them Kuznets (1926) pointed out the presence of similarities between economies during the economic cycle, while Mitchell (1927) noted the presence of stages or phases in the cycle, recoveries, expansions, recessions and contractions, while Mills (1936) revealed the existence of associations between quantities and prices in expansions and contractions of the economic cycle.

The modern theory of the business cycle determines that there are two basic purposes of its study, on the one hand, there is its systematic determination, which is identified as regularities or facts; while, on the other hand, there is the formulation of general equilibrium models, capable of replicating the regularities or facts of the cycle to evaluate the assumptions of the origin and means of diffusion of economic changes (Arango-Thomas and Castillo, 1999; Cuadra, 2008 and Orellana, 2011); the present analysis is located under the axis of the first purpose.

Kydland and Prescott (1990) were the ones who determined the empirical regularities of the US business cycle, from them, several authors have applied this methodology to identify them in multiple countries; in Chile there is the work of Restrepo and Soto (2006), in Colombia that of Alfonso, et. al (2013), while in Peru, Perea and Mendoza (2013) and Bustamante (2015), in Ecuador by Orellana (2011), specifically in the case of Mexico, the works of Torres (2000), Mejía-Reyes (2003), Mejía, et. al (2004), Erquizio Espinal (2007), Cuadra (2008), Almendra-Arao, et al (2008), González-Estrada and Hernández (2013), Mejía et al. (2013) Erquizio Espinal and Ramírez Rodríguez (2014), Erquizio Espinal and Gracida Romo (2017), Ramírez Rodríguez and Erquizio Espinal (2023), among others; these mentions are more enunciative than limiting; although there are multiple studies on economic cycles, the discussion cannot be considered closed or exhausted.

The purpose of this study was to analyse the classical business cycles in Mexico, based on the total IGAE and by sector of activity, and to identify their main features or regularities, with a sample from January 1993 to May 2023. This analysis is pertinent and relevant since the determination of the stylised facts (also known as empirical facts) or regularities of the business cycle is a matter of great interest, especially following the integration and implementation of the Committee for the Dating of Cycles of the Mexican Economy, This will make it possible, although it is not the central intention of the study, to determine whether the methodology used in this analysis produces the cycles and phases that the Committee itself, under its own criteria, determines.

Using the IGAE to determine Mexico's classic business cycles (total and by sector or type of activity) has advantages, since the National Institute of Statistics and Geography (INEGI) reports it as a monthly indicator, using the same conceptual and methodological reference framework as Mexico's national accounts, which means that the IGAE has a high correlation with the quarterly Gross Domestic Product (GDP), which is generally used to estimate business cycles, and can therefore be considered a magnificent indicator of the behaviour of the product (Heat, 2012).

This document is composed of four parts, the first one corresponds to the introduction, where arguments and general aspects about business cycles are presented, as well as the objective of the research; the second part comprises the methodology, where the type of research, variables, sample or period of analysis are described, as well as the description of the methodology and the procedure used; the third part presents the results and their discussion, as the fourth and last part, the conclusions of the research are presented.

Methodology

This section describes the most relevant methodological aspects employed. The study was quantitative, the data collected were examined by means of an econometric analysis of classical business cycles.

GALVÁN-CORRAL, Alberto, MURILLO-FÉLIX, Cecilia Aurora, QUIROZ-CAMPAS, Celia Yaneth and HINOJOSA-RODRÍGUEZ, Carlos Jesús. Economic cycles of Mexico based on the global indicator of economic activity. Journal of Administration and Finance. 2023

Classical business cycles were identified on the basis of the following variables: total EGAI; EGAI of primary activities (primary EGAI); EGAI of secondary activities (secondary EGAI) and EGAI of tertiary activities (tertiary EGAI); these variables have the following common features: they are seasonally adjusted time series (National Institute of Geography and Informatics, 2018), their periodicity is monthly, the unit of measurement is index (base 2018=100), the sample covered from January 1993 to May 2023. The variables are available for consultation and download at the Economic Information Bank of the National Institute of Statistics and Geography (INEGI).

The classical business cycles were determined based on the definition of Burns and Mitchell (1946), while the dating of the cycles or the identification of turning points was established based on the procedure of Bry and Boschan (1971).

In developing the present study, the following steps were followed: The classical business cycle method or approach was established as the approach to be applied in the present study. The variables with which the classical business cycles were identified (total IGAE and of primary, secondary and tertiary activities) were obtained. The classical business cycles were dated on the variables used, using the Bry-Boschan-Pagan-Harding dating algorithm, available as a complement to the Eviews v10 program. The cycle was determined from initial peak-valley-final peak (Pi-V-Pf), and the two phases of each cycle, descending (Pi-V) and ascending (V-Pf), were also identified. The business cycle dating was carried out following the criteria established by the Mexican Economic Cycle Dating Committee (2022), on the stages the most common style of identifying recession, contraction, recovery and expansion stages was followed. The regularities of Mexico's business cycles calculated were: timing, duration, breadth/depth, volatility and comovement (correlation). Finally, the results are discussed and conclusions of the study are derived.

The business cycle regularities were established following the procedure proposed by Kydland and Prescott (1990): depth or breadth, duration, volatility and correlation (of total IGAE vs. IGAE of primary, secondary and tertiary activities).

According to the chronology, the following features of business cycles by stage or phase are reported: chronology, times, average, minimum and maximum (Heat, 2011, 2012).

The most relevant regularities of the phases of the cycle (rising and falling) are, according to Erquizio Espinal (2007) and Erquizio Espinal, et al. (2020), the following:

- Chronology: the dating of the economic cycle is established, i.e. the date on which the initial peak, the valley and the final peak of each cycle occur, expressed in years, quarters or months.

- Duration: expressed in the number of years, quarters or months that elapse between the initial peak and the trough (downswing) and between the trough and the final peak (upswing).

- Amplitude/depth: is constituted by the difference between the values of the cycle indicator at the initial peak and trough (downswing) and between the final peak and trough (upswing).

- Volatility: determined by the standard deviation of the IGAE/average IGAE, multiplied by one hundred, for each identified cycle, i.e. the standard deviation of the growth rates of the cycle indicator in the downswing and the upswing.

- Based on the cycle chronology, the number of times the cycle occurs, average, minimum and maximum values are reported.

Results

In this section we describe and discuss the results of the classical business cycles in Mexico, first we present the cycles and stylised facts of the total IGAE, then those related to the primary, secondary and tertiary IGAE; the analysis of comovements between the total IGAE and by type of activity is presented at the end.

Next, the classical business cycles based on total GGEI are presented. Graph 1 shows the identification of the business cycles, three complete cycles and one incomplete cycle were determined, table 1 provides more detail on the dating of the cycles.

Article

Graphic 1 Classical business cycles (CEC) of total IGAE, 1993M01-2023M05
Source: Own elaboration, the grey (shaded) part represents the downward phase of the cycle

Cycle	Home	End	Stage	Duration (months)	Cycle (Duration in months)
1	1994M12	1995M05	Recession	6	70
	1995M06	2000M09	Expansion	64	
2	2000M10	2002M01	Recession	16	94
	2002M02	2008M07	Expansion	78	
3	2008M08	2009M05	Recession	10	122
	2009M6	2018M09	Expansion	112	
4	2018M10	2020M05	Recession	20	
	2020M06		Expansion		

Table 1 Chronology of Mexico's CECs from total IGAE, 1993M01-2023M05
Source: Own elaboration

Graphic 1 and Table 1 present the general behaviour of Mexico's economy over the last three decades, identifying three business cycles between December 1994 and June 2020. There were four downswings (recession) and three upswings (expansion), all full cycles are considered atypical cycles, as they are composed of a recession and an expansion. The minimum duration of the full cycle was 70 months, while the maximum duration was 122 months; the shortest recession was 6 months, while the longest recession was 20 months. As for the duration of the expansion, the minimum was 64 months, while the maximum was 112 months. Currently, the economy is in an upswing, specifically an expansionary phase, however, it is not possible to determine or forecast its duration.

Table 2, contains the summary of the stylised facts of Mexico's CECs of the total IGAE, in the three cycles, the duration of the upswing is longer than the downswing, the first cycle had the highest volatility, followed by the third, the second cycle had the lowest volatility, it is also observed that two of the three cycles are above average in their volatility (the first and the third), while the second is below average; in terms of the breadth or depth of the cycles, the third cycle had the greatest depth, followed by the first and second, respectively; only the third cycle has a depth above the average. The descending phase with the greatest depth was that of cycle three, cycles 1 and 3 have a depth above average; with regard to the ascending phase, the greatest depth also corresponds to cycle three, plus cycles 1 and 2 have a depth below average.

Cycle	Chronology	Duration in months			Volatility	Amplitude (depth)		
		Total	Descent	Ascent		Cycle	Descent	Ascent
1	1994M12-2000M09	70	6	64	8.63	13.8	-6.3	20.2
2	2000M10-2008M07	94	16	78	5.82	12.3	-2.6	15.0
3	2008M08-2018M09	122	10	112	7.92	19.9	-7.2	27.2
			Average		7.46	15.3	-5.4	20.8

Table 2 Main facts of Mexico's CECs from total IGAE, 1993M01-2023M05
Source: Own elaboration

Having presented the results of the classical business cycles based on the total IGAE, it is appropriate to present those relating to the IGAE by sector or productive activity: primary, secondary and tertiary, respectively.
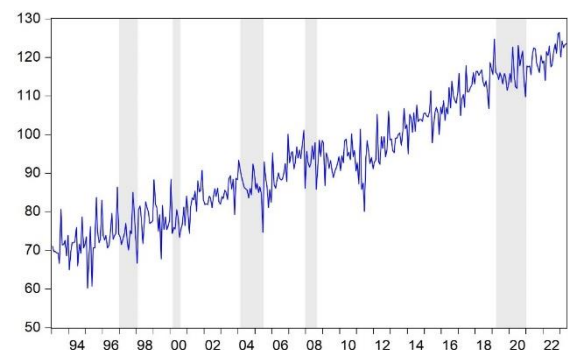
Graphic 2 IGAE CEC of primary activities, 1993M01-2023M05
Source: Own elaboration, the grey (shaded) part represents the downward phase of the cycle

Graphic 2 presents the classical business cycles based on the IGAE of primary activities, showing four complete cycles and one incomplete cycle, further details of the dating of these cycles are provided in table 3.

The behaviour of the Mexican economy over the last three decades based on the IGAE of primary activities is presented in graphic 2 and table 3; four complete and one incomplete business cycles were determined between December 1996 and January 2021. Five downswing and four upswing stages were identified, all cycles can be considered atypical, as they only present recession and expansion stages.

Cycle	Home	End	Stage	Duration (months)	Cycle (Duration in months)
1	1996M12	1998M01	Recession	14	38
	1998M02	2000M01	Expansion	24	
2	2000M02	2000M07	Recession	6	48
	2000M08	2004M01	Expansion	42	
3	2004M02	2005M06	Recession	17	46
	2005M07	2007M11	Expansion	29	
4	2007M12	2008M08	Recession	9	135
	2008M09	2019M02	Expansion	126	
5	2019M03	2020M12	Recession	22	
	2021M01		Expansion		

Table 3 Chronology of Mexico's IGAE CECs of primary activities, 1993M01-2023M05
Source: Own elaboration

The shortest full cycle had a duration of 38 months, while the longest was 135 months; in the downswing the minimum duration was 6 months and the maximum 22 months, while in the upswing the minimum duration was 24 months and the maximum 126 months. Assessing the most recent years, the economy is currently in an upswing, starting in January 2021, specifically in expansion, but it is not possible to specify the duration of the upswing.

		Duration in months			Amplitude (depth)			
Cycle	Chronology	Total	Descent	Ascent	Volatility	Cycle	Descent	Ascent
1	1996M12-2000M01	38	14	24	6.3	0.3	-7.5	7.8
2	2000M02-2004M01	48	6	42	5.4	16.6	-1.0	17.7
3	2004M02-2007M11	46	17	29	5.7	-7.8	-16.1	8.2
4	2007M12-2019M02	135	9	126	8.6	32.6	-0.2	32.8
				Average	6.5	10.4	-6.2	16.6

Table 4 Main facts of Mexico's CECs from the IGAE for primary activities, 1993M01-2023M05
Source: Own elaboration

Table 4, contains the summary of the stylised facts of the IGAE of primary activities, in all cycles the duration of the upward phase was longer than the downward phase, the last (fourth) cycle is the one with the highest volatility of all, the first three cycles present a volatility below the average, while only the fourth (last) cycle is above the average; regarding the depth of the cycles, cycles 2 and 4 are above average, while cycles 1 and 3 are below average, cycle 4 is the deepest and cycle 3 the shallowest, additionally, cycle 3 has a negative amplitude, which means that the fall of the IGAE in the downward phase was higher than the increase in the upward phase. The descent phase with the greatest depth corresponds to cycle three, cycles 1 and 3 present depth above the average, while cycles 2 and 4 have depth below the average; on the ascending phase it is observed that, the one with the greatest depth corresponds to cycle 4, above the average are cycles 2 and 4, while below cycles 1 and 3 are cycles 2 and 4 and cycles 4 and 4 are cycles 4 and 4.

Graphic 3 IGAE CEC of secondary activities, 1993M01-2023M05
Source: Own elaboration, the grey (shaded) part represents the downward phase of the cycle

Graphic 3 shows the classical business cycles based on the IGAE of secondary activities, showing six complete cycles and one incomplete cycle, a more detailed dating of the cycles is shown in table 5.

Graphic 3 and table 5 present the development of the Mexican economy over the last three decades based on the IGAE of secondary activities, six complete economic cycles were established between May 1994 and May 2020.

Seven stages of the downward phase and six of the upward phase were established, all of which are considered atypical cycles, given that they only present the recession and expansion stages. The longest complete cycle was the first, with a duration of 76 months, and the shortest was the third with 22 months; as for the downswing, the minimum duration was 9 months (cycle 5) and the maximum was 24 months (cycles 6 and 7); the minimum duration of the upswing was 8 months (cycle 6) and the maximum was 58 months (cycle 1); the minimum duration of the upswing was 8 months (cycle 6) and the maximum was 58 months (cycle 6); the minimum duration of the upswing was 8 months (cycle 6) and the maximum 58 months (cycle 6).

| Cycle	Home	End	Stage	Duration (months)	Cycle (Duration in months)
1	1994M05	1995M10	Recession	18	76
	1995M11	2000M08	Expansion	58	
2	2000M09	2002M03	Recession	18	71
	2002M04	2006M08	Expansion	53	
3	2006M09	2007M08	Recession	12	22
	2007M09	2008M06	Expansion	10	
4	2008M07	2009M05	Recession	11	49
	2009M06	2012M07	Expansion	38	
5	2012M08	2013M04	Recession	9	38
	2013M05	2015M09	Expansion	29	
6	2015M10	2017M09	Recession	24	32
	2017M10	2018M05	Expansion	8	
7	2018M06	2020M05	Recession	24	
	2020M06		Expansion		

Table 5 Chronology of Mexico's CECs of IGAE secondary activities, 1993M01-2023M05
Source: Own elaboration

Based on the last incomplete cycle, the economy goes through the upward phase, specifically in the expansion stage, from June 2020 onwards, although it is not possible to estimate its duration. Table 6 contains the summary of the stylised facts of the GDP of secondary activities, it is observed that in most of the cycles the duration of the ascending phase is longer than the descending phase, only cycle 3 does not present this characteristic; the first cycle is the one that presented the highest volatility of all, while the third one the lowest, cycles 1, 2, and 4 present volatility above the average, while cycles 3, 5 and 6 their volatility is below the average; in terms of the breadth or depth of the cycles, the first cycle has the greatest depth, cycles 3 and 6 have a negative breadth, which implies that the fall of the IGAE in the downward phase was greater than its increase in the upward phase, cycles 1, 2, 4 and 5 have a depth above average, while cycles 3 and 6 have a depth below average.

The downward phase with the greatest depth was the first cycle, while the upward phase with the greatest depth also corresponds to the first cycle.

		Duration in months				Amplitude (depth)		
Cycle	Chronology	Total	Descent	Ascent	Volatilidad	Ciclo	Total	Descent
1	1994M05-2000M08	76	18	58	9.86	11.2	-13.0	24.3
2	2000M09-2006M08	71	18	53	3.89	6.6	-5.4	12.1
3	2006M09-2008M06	22	12	10	0.61	-0.2	-0.3	0.07
4	2008M07-2012M07	49	11	38	3.58	3.5	-8.8	12.4
5	2012M08-2015M09	38	9	29	1.72	4.6	-1.3	5.9
6	2015M10-2018M05	32	24	8	0.63	-0.4	-2.0	1.5
	Average				3.38	4.2	-5.2	9.4

Table 6 Mexico's CECs' main facts from the IGAE secondary activities, 1993M01-2023M05
Source: Own elaboration
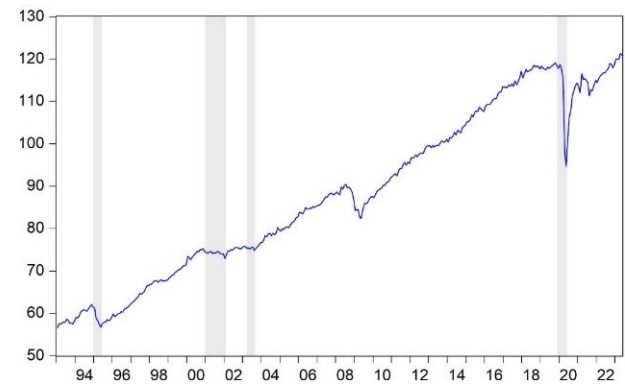
Graphic 4 CEC of the IGAE of tertiary activities, 1993M01-2023M05
Source: Own elaboration, the grey (shaded) part represents the downward phase of the cycle

Graphic 4 and table 7 show the behaviour of the Mexican economy over the last three decades based on the IGAE of tertiary activities. Three complete and one incomplete business cycles were identified between December 1994 and June 2020. Four downswings and three upswings were identified, all cycles are considered atypical, as they only present two stages: recession and expansion.

Cycle	Home	End	Stage	Duration (months)	Cycle (Duration in months)
1	1994M12	1995M05	Recession	6	72
	1995M06	2000M11	Expansion	66	
2	2000M12	2002M01	Recession	14	27
	2002M02	2003M02	Expansion	13	
3	2003M03	2003M08	Recession	7	201
	2003M09	2019M10	Expansion	194	
4	2019M11	2020M05	Recession	7	
	2020M06		Expansion		

Table 7 Chronology of Mexico's CECs of the IGAE for tertiary activities, 1993M01-2023M05
Source: Own elaboration

GALVÁN-CORRAL, Alberto, MURILLO-FÉLIX, Cecilia Aurora, QUIROZ-CAMPAS, Celia Yaneth and HINOJOSA-RODRÍGUEZ, Carlos Jesús. Economic cycles of Mexico based on the global indicator of economic activity. Journal of Administration and Finance. 2023

The shortest complete cycle was the second with 27 months of duration, while the longest complete cycle was the third with 201 months; regarding the downward phase, the minimum duration was 6 months and the maximum 194 months, which corresponded to the first and third cycle respectively; the upward phase presented the minimum duration in the second cycle with 13 months and the maximum in the third cycle with 194 months. Based on the incomplete cycle, the economy is in an upward phase, specifically in an expansionary phase, starting in June 2020, but its duration cannot be anticipated.

Cycle	Chronology	Duration in months				Amplitude (depth)		
		Total	Descent	Ascent	Volatilidad	Ciclo	Total	Descent
1	1994M12-2000M11	72	6	66	8.27	13.0	-4.7	17.7
2	2000M12-2003M02	27	14	13	0.88	0.3	-1.5	1.8
3	2003M03-2019M10	201	7	194	13.80	43.2	-0.5	43.7
			Average		7.65	18.8	-2.2	21.1

Table 8 Main facts of Mexico's CECs from the IGAE of tertiary activities, 1993M01-2023M05
Source: Own elaboration

Table 8 shows the summary of the stylised facts of the IGAE of tertiary activities, it can be observed that in most of the cycles the duration of the upward phase is longer than the downward phase, only the second cycle, out of three, does not present this characteristic; cycle three is the one that presented the highest volatility of all, while cycle two presented the lowest volatility; in terms of the breadth or depth of the cycles, cycle three was the deepest and cycle two the shallowest; in terms of the downward phase, cycle one was the deepest and cycle three the shallowest; while the deepest upward phase was cycle three and cycle two the shallowest.

Indicator	Stages	Times	Average duration (months)
IGAE (total)	Recession	4	13.0
	Expansion	3	84.7
	Cycle	3	95.3
IGAE Primary Activities	Recession	5	13.6
	Expansion	4	55.3
	Cycle	4	66.8
IGAE Secondary Activities	Recession	7	16.6
	Expansion	6	32.7
	Cycle	6	48.0
IGAE Tertiary Activities	Recession	4	8.5
	Expansion	3	91.0
	Cycle	3	100.0

Table 9 Summary of Mexico's CECs, 1993M01-2023M05
Source: Own elaboration

Table 9 presents a summary of Mexico's classical business cycles according to the total IGAE and by sector of activity. In general terms, the duration of the cycles, based on the total IGAE is 95.3 months, comparing the duration of the cycles by type or sector of activity versus the total IGAE, primary activities present cycles with a shorter duration of approximately 29 months, which in terms of years represents a little more than 2 years in the reduction of the duration of the cycle, the cycle of secondary activities, lasts on average 47. 3 months less than the total IGAE cycle which represents a decrease of almost 4 years, the average cycle length of tertiary activities is the only one that is above the total cycle length by 4.7 months. As far as recessions are concerned, those of the total cycle last on average 13 months, in primary activities they last on average 13.6 months, which is practically equal to the total, while recessions in secondary activities last 3.6 months longer than those of the total cycle. Finally, the duration of expansions in the total cycle is 85 months, while by type or sector they last 55.3, 32.7 and 91 months on average, respectively.

Table 10 shows the cyclical behaviour of the total IGAE and its components by type of activity, under the period of analysis from January 1993 to May 2023, the cross-correlations of each variable with the total IGAE are reported. It is noticed that the IGAE of primary, secondary and tertiary activities are procyclical to the total IGAE, it is also noticed that the cycle of primary activities follows the cycle of total IGAE by six months, in other words, the cycle of primary activities lags the cycle of total IGAE by six months, while the cycles of secondary and tertiary activities are contemporaneous or coincidental to the cycle of total IGAE.

	Correlation of total IGAE with		
Variable X	IGAE of Activities Primary	IGAE of Activities Secondary Activities	IGAE of Activities Tertiary Activities
$X_{(t-6)}$	0.9320	0.8944	0.9761
$X_{(t-5)}$	0.9332	0.8958	0.9780
$X_{(t-4)}$	0.9321	0.8983	0.9803
$X_{(t-3)}$	0.9312	0.9012	0.9829
$X_{(t-2)}$	0.9311	0.9066	0.9865
$X_{(t-1)}$	0.9325	0.9146	0.9910
X	0.9368	**0.9185**	**0.9944**
$X_{(t+1)}$	0.9353	0.9079	0.9924
$X_{(t+2)}$	0.9334	0.8950	0.9889
$X_{(t+3)}$	0.9325	0.8857	0.9860
$X_{(t+4)}$	0.9341	0.8787	0.9839
$X_{(t+5)}$	0.9351	0.8727	0.9820
$X_{(t+6)}$	**0.9370**	0.8668	0.9806

Table 10 Cyclical behaviour of the total IGAE and by type of activity
Source: Own elaboration, correlation is significant at the 0.01 level (bilateral).

GALVÁN-CORRAL, Alberto, MURILLO-FÉLIX, Cecilia Aurora, QUIROZ-CAMPAS, Celia Yaneth and HINOJOSA-RODRÍGUEZ, Carlos Jesús. Economic cycles of Mexico based on the global indicator of economic activity. Journal of Administration and Finance. 2023

The determination of classical cycles according to the total IGAE and by type of activity made it possible to identify three complete cycles and one incomplete cycle for total and tertiary activities, one more complete cycle for primary activities, i.e. 4 complete cycles and one incomplete cycle, while for secondary activities 2 more cycles, i.e. six complete cycles and one incomplete cycle; according to the total cycles and by type of activity the economy goes through the upward phase or expansion stage, despite the differences in where the last recession phase ended and the last, and current, expansion phase started.

The results can be summarised as follows: Based on the total IGAE, three complete and one incomplete business cycles were identified; based on the current cycle, the economy is in an upward or expansion phase, due to the fact that the recession phase ended in May 2020, which coincides with the business cycles defined by the Mexican Economic Cycle Dating Committee (2022).

The duration of the upswings in the business cycle is longer than the duration of the downswings, both in the business cycles determined by the total IGAE and primary, secondary and tertiary activities, which is in line with Kydland and Prescott (1990), Heath (2012) and the Mexico Business Cycle Dating Committee (2022). The average business cycle volatility of the total IGAE is slightly higher than the average volatility of the IGAE cycles by primary and secondary activities, while the IGAE cycle of tertiary activities has the highest value, These results differ from those obtained by Cuadra (2008) as he found higher volatilities in the GDP cycle of manufacturing activities vs. the total GDP cycle, and also differ from those of González-Estrada and Hernández (2013) as they report a volatility of agricultural GDP of almost three times higher than the volatility of the GDP cycle.

Regarding the average amplitude of the cycle, the results are consistent with those corresponding to volatility, the amplitude of the total cycle is greater than that of the cycles of primary and secondary activities, but less than that of the cycle of tertiary activities, which also coincides with the amplitude of the upswing phase (expansion), as for the downswing phase, the greatest amplitude is observed in the cycle of primary activities, followed by the amplitude of the total cycle, followed by the amplitude of the cycle by secondary and tertiary activities, respectively.

From the above analysis it follows that business cycles are recurrent and non-periodic, which is consistent with Mitchell (1927) and Burns and Mitchell (1946). Finally, the comovements of the IGAE cycle by type of activity with respect to the total IGAE cycle, all variables, by primary, secondary and tertiary activity are procyclical to the total IGAE, while the IGAE of primary activities follows the total IGAE by six months, consequently it is considered a lagging indicator; the IGAE of secondary and tertiary activities are contemporaneous with the total IGAE, which partially coincides with the results of Cuadra (2008) who reports that the GDP of manufacturing activities is procyclical and contemporaneous with total GDP, and also partially coincides with the results of González-Estrada and Hernández (2013) since they report that agricultural GDP is procyclical with GDP and they differ in that they identify that agricultural GDP is a coincident indicator of GDP.

Acknowledgements

Conclusions

The objective of this research was met, as Mexico's economic cycles were analysed under the classical cycle approach, identifying their main features or regularities, taking as a reference period from January 1993 to May 2023.

Mexico's economy has presented three complete cycles, considering the last three decades. As of today, the economy is in its fourth cycle, specifically it is located in the ascending phase, in the expansion stage since June 2020. Based on the IGAE of primary, secondary and tertiary activities, four, six and three complete cycles and one incomplete cycle are determined, respectively, in all cycles there is coincidence in that the current stage is ascending, specifically, expansion, however the beginning varies depending on the sector of activity based on which the economic cycle is determined; based on primary activities the expansion began in January 2021, in June 2020 if the cycle is determined based on secondary or tertiary activities.

Mexico's business cycles are recurrent and non-periodic, the upward phases are longer or more prolonged than the downward phases. The total IGAE cycle is more volatile than the IGAE cycles by primary and secondary activity, but not by tertiary activities.

The depth of the total cycle is lower than that of the tertiary activity cycle and greater than those of the primary and secondary activity cycle, this is consistent for the upward phase, however, for the downward phase, the greatest depth is for the primary activity cycle, followed by the total, secondary and tertiary activity cycles, respectively.

The IGAE of primary, secondary and tertiary activities are pro-cyclical to the total IGAE; the IGAE of secondary and tertiary activities are coincident indicators, while the IGAE of primary activities is a lagging indicator (by six months) to the total IGAE.

The present study can be taken as a benchmark for extending analyses of this nature; the investigation of business cycles is a topic of interest that stimulates debate. Future analyses can be elaborated by including more variables, by using variables with quarterly periodicity, or by determining business cycles of either growth or acceleration, including under the approach of synchronisation of national or international business cycles.

References

Alfonso, V., Arango, L., Arias, F., Cangrejo, G., & Pulido, J. (2013). Ciclos de negocios en Colombia, 1975-2011. *Lecturas de Economía*, *78*, 115–149. https://doi.org/10.17533/udea.le.n78a14463

Almendra-Arao, G., González-Estrada, A., & Mora-Flores, J. S. (2008). Los ciclos económicos de México y sus regularidades empíricas. *Agrociencia*, *42*(3), 299–311. https://agrociencia-colpos.org/index.php/agrociencia/article/view/629

Arango-Thomas, L. E., & Castillo, M. (1999). *¿Son estilizadas las regularidades del ciclo económico? Una breve revisión de la literatura*. https://doi.org/10.32468/be.115

Bry, G. y Boschan, C. (1971) *Cyclical Analysis of Time Series: Selected Procedures and Computer Programs,* Technical Paper 20, NBER, New York. https://www.nber.org/books-and-chapters/cyclical-analysis-time-series-selected-procedures-and-computer-programs

Burns, A. y Mitchell, W. (1946) *Measuring Business Cycles*, NBER, New York. https://www.nber.org/books-and-chapters/measuring-business-cycles

Bustamante, R. (2015). Características estilizadas de los ciclos económicos de la economía peruana: 1980-2014. *Serie de Documentos de Trabajo Omega Beta Gamma*, *02–2015*, 1–16. https://economia.unmsm.edu.pe/data/doc_trab/02-2015-OBG.pdf

Comité de Fechado de Ciclos de la Economía de México. (2022). *Reporte de puntos de giro, recesiones y expansiones de 1980 a 2020*. https://comitefechadocicloseconomicos.mx/wp-content/uploads/2022/08/Reporte_CFCEM.pdf

Cuadra, G. (2008). *Hechos Estilizados del Ciclo Económico en México* (No. 2008–14; Documento de Investigación). https://www.banxico.org.mx/DIBM/web/documento/visor.html?clave=2008-14&locale=es_MX

Erquizio Espinal, A. (2007). Identificación de los Ciclos Económicos en México, 1949-2006. *Problemas Del Desarrollo : Revista Latinoamericana de Economía*, *38*(150). https://www.probdes.iiec.unam.mx/index.php/pde/article/view/7674

Erquizio Espinal, A., & Gracida Romo, J. J. (2017). Ciclos económicos clásicos en México el caso de Sinaloa y Sonora 1900-1926. *Paradigma Económico*, *9*(1), 27–58. https://paradigmaeconomico.uaemex.mx/article/download/4846/3251/

Erquizio Espinal, A., & Ramírez Rodríguez, R. (2014). La recesión de 2009 y la expansión 2010–2012 en las entidades federativas de México. *Estudios Fronterizos*, *15*(30), 181–213. https://doi.org/10.21670/ref.2014.30.a07

González-Estrada, A., & Hernández, A. L. E. (2013). Regularidades de las fluctuaciones cíclicas de la producción agropecuaria de México. *Revista Mexicana de Ciencias Agrícolas*, *4*(3), 367–380. https://cienciasagricolas.inifap.gob.mx/index.php/agricolas/article/view/1199

Heath, J. (2011). Identificación de los ciclos económicos en México; 30 años de evidencia. *Realidad, Datos y Espacio, Revista Internacional de Estadística y Geografía*, *2*(2), 19–31. https://rde.inegi.org.mx/index.php/2011/05/08/identificacion-de-los-ciclos-economicos-en-mexico-30-anos-de-evidencia/

Heath, Jonathan. (2012). *Lo que indican los indicadores : cómo utilizar la información estadística para entender la realidad económica de México* (INEGI, Ed.; Primera). Instituto Nacional de Estadística y Geografía. https://www.inegi.org.mx/contenido/productos/prod_serv/contenidos/espanol/bvinegi/productos/estudios/indican_indi/indica_v25iv12.pdf

Instituto Nacional de Estadística y Geografía. (2018). *Metodología del ajuste estacional 2017*. https://www.inegi.org.mx/contenidos/productos/prod_serv/contenidos/espanol/bvinegi/productos/nueva_estruc/702825099060.pdf

Kuznets, S. (1926). *Cyclical fluctuations, retail and wholesale trade*. New York. Adelphi.

Kydland, F. E., & Prescott, E. C. (1990). Business Cycles: Real Facts and a Monetary Myth. *Federal Reserve Bank of Minneapolis Quaterly Review*, *14*(2), 3–18. https://doi.org/10.21034/qr.1421

Mejía, P., Ochoa, S., & Díaz, M. Á. (2013). De la recesión a la recuperación: Producción y empleo en México y el Estado de México. *Problemas Del Desarrollo*, *44*(173), 133–162. https://doi.org/10.1016/S0301-7036(13)71878-9

Mejía, P. R., Martínez, J. A. G., & Rendón, W. L. B. (2004). *Ciclos económicos industriales clásicos en México*. http://polux.cmq.edu.mx/libreria/index.php?option=com_docman&view=download&alias=216-di0850323&category_slug=docum-investigacion&Itemid=189&accept_license=1

Mejía-Reyes, P. (2003). Regularidades empíricas en los ciclos económicos de México: producción, inversión, inflación y balanza comercial. *Economía Mexicana Nueva Época*, *XII*(2), 231–274. http://www.economiamexicana.cide.edu/num_anteriores/XII-2/Pablo_Mejia.pdf

Mills, F.C. (1936) Prices in recession and recovery: A survey of recent changes. New York. NBER. https://www.nber.org/books-and-chapters/prices-recession-and-recovery-survey-recent-changes

Mitchell, W.C. (1927) *Business cycles. The problem and its setting*. NBER, New York. https://www.nber.org/books-and-chapters/business-cycles-problem-and-its-setting

Orellana, M. (2011). Hechos estilizados del ciclo económico de Ecuador: 1990-2009. *Universitas*, *15*. https://doi.org/10.17163/uni.n15.2011.02

Perea, H., & Mendoza, I. (2017). Perú: ¿Cómo son sus ciclos económicos? In *Observatorio Económico Perú*. https://www.bbvaresearch.com/wp-content/uploads/2017/01/Observatorio-Ciclos-03-01-2017.pdf

Ramírez Rodríguez, R., & Erquizio Espinal, A. (2023). Ciclos económicos e indicadores del mercado de trabajo en la Frontera Norte de México. *Indiciales*, *1*(5), 22–35. https://doi.org/10.52906/ind.v1i5.48

Restrepo, J. E., & Soto, C. (2006). Regularidades empíricas de la Economía Chilena: 1986 - 2005. *Economía Chilena*, *9*(2), 15–40. https://repositoriodigital.bcentral.cl/xmlui/bitstr eam/handle/20.500.12580/3482/BCCh-rec-v09n2ago2006p015-040.pdf?sequence=4&isAllowed=y

Torres, G. A. (2000). Estabilidad en *Variables Nominales y el Ciclo Económico: El Caso de México* (No. 2000–03; Documento de Investigación). https://www.banxico.org.mx/publicaciones-y-prensa/documentos-de-investigacion-del-banco-de-mexico/%7BF7B17128-B05C-1672-21A9-6DB3BB8DF4B3%7D.pdf

[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)

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

* 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]
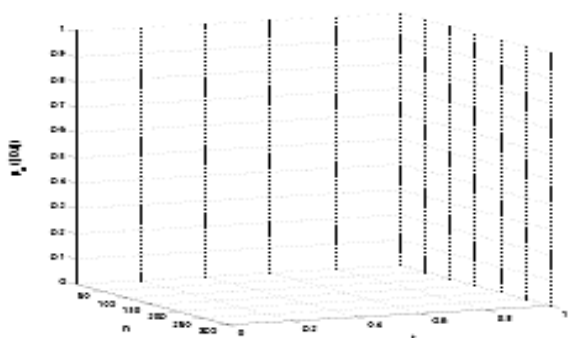
Graphic 1 Title and *Source (in italics)*

Should not be images-everything must be editable.
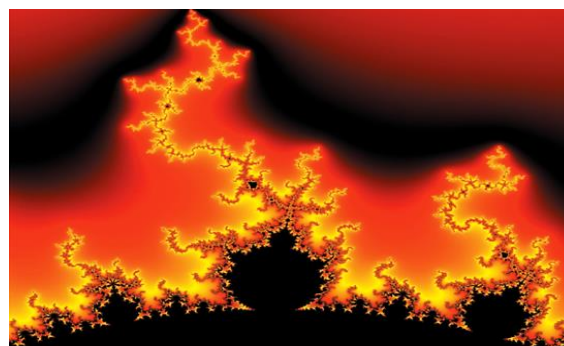
Figure 1 Title and *Source (in italics)*

Should not be images-everything must be editable.

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:

$$Y_{ij} = \alpha + \sum_{h=1}^{r} \beta_h X_{hij} + u_j + e_{ij} \qquad (1)$$

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.

Annexes

Tables and adequate sources

Thanks

Indicate if they were financed 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 Originality Format Author and Coauthors.

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

–   Authentic Signature in blue colour of the Conflict of Interest Format of Author and Co-authors.

Reservation to Editorial Policy

Journal of Administration and Finance 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. ECORFAN® 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 ECORFAN-Mexico, S.C 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 Journal of Administration and Finance 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 ECORFAN-Mexico, S.C. In its Holding Bolivia 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.

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 ECORFAN® 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

GOOGLE SCHOLAR (Citation indices-Google)
LATINDEX (Scientific Journals of Latin America, Spain and Portugal)
MENDELEY (Bibliographic References Manager)
REDIB (Ibero-American Network of Innovation and Scientific Knowledge- CSIC)
RESEARCH GATE (Germany)
V|LEX (Global Legal Intelligence Platform)

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
ArticleTranslation
Article Publication
Certificate of Article
Service Billing

Editorial Policy and Management

21 Santa Lucía, CP-5220. Libertadores -Sucre–Bolivia. Phones: +52 1 55 6159 2296, +52 1 55 1260 0355, +52 1 55 6034 9181; Email: contact@ecorfan.org www.ecorfan.org

Journal of Administration and Finance

"Management models, analysis for increasing productivity, customer service and profitability"
CERINO-MADRIGAL, Francisco Javier, NEME-CALACIH, Salvador, BARROSO-TANOIRA Francisco Gerardo and BERTTOLINI-DÍAZ, Gilda María
Universidad Juárez Autónoma de Tabasco

"Implementation of an e-commerce sales channel for small and medium-sized businesses"
ZAVALA-HUERTA, Alejandro, JIMÉNEZ-GARCÍA, Martha and GÓMEZ-MIRANDA, Pilar
Instituto Politécnico Nacional

"Analysis of the tax provisions and development of a proposal for a solution to the tax discrepancy according to the LISR of SMEs"
AGUILAR-PÉREZ, Esmeralda, HERNÁNDEZ-HERNÁNDEZ, María Elena, SOTO-RIVAS, Soledad and IRIGOYEN-ARROYO, Luis Ernesto
Tecnológico Nacional de México - Instituto Tecnológico Superior de San Martín Texmelucan

"Economic cycles of Mexico based on the global indicator of economic activity"
GALVÁN-CORRAL, Alberto, MURILLO-FÉLIX, Cecilia Aurora, QUIROZ-CAMPAS, Celia Yaneth and HINOJOSA-RODRÍGUEZ, Carlos Jesús
Instituto Tecnológico de Sonora