RINOE®

RINOE-Taiwan

Journal-Macroeconomics and Monetary Economy

Definition of the Journal

Scientific Objectives

Support the international scientific community in its written production Science, Technology and Innovation in the Field of Social Sciences, in Subdisciplines of General aggregative models: Marxian, Sraffian, Institutional, Evolutionary, Keynes, Keynesian, Post-Keynesian, Neoclassical, Forecasting and Simulation; Consumption, Saving, Production, Employment, and Investment: Consumption, Saving, Capital, Investment, Capacity, Production, Employment, Unemployment, Wages, Aggregate Factor income distribution, Forecasting and Simulation; Prices, Business fluctuations, and Cycles: Price level, Inflation, Deflation, Business fluctuations, Cycles, Forecasting and Simulation; Money and interest rates: Demand for money, Monetary standards and regimes, Government and the monetary system, Determination of interest rates, Term structure of interest Rates, Financial markets and the Macroeconomy, Forecasting and Simulation; Monetary policy, Central banking, and the Supply of Money and Credit: Money supply, Credit, Money multipliers, Monetary policy, Deposit insurance, Central banks and their policies; Macroeconomic-Aspects of public finance, Macroeconomic policy and general Outlook: Policy objectives, Policy designs and consistency, Policy coordination, Fiscal policy, Public expenditures, Investment, and Finance, Taxation, Comparative or joint analysis of fiscal and monetary or stabilization policy, Incomes policy, Price policy, Studies of particular policy episodes, General Outlook and conditions.

RINOE® is a Scientific and Technological Company in contribution to the Human Resource training focused on the continuity in the critical analysis of International Research and is attached to CONACYT-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 - CONACYT Research Centers.

Scope, Coverage and Audience

Journal-Macroeconomics and Monetary Economy is a Journal edited by RINOE® in its Holding with repository in Taiwan, 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 General aggregative models: Marxian, Sraffian, Institutional, Evolutionary, Keynes, Keynesian, Post-Keynesian, Neoclassical, Forecasting and Simulation; Consumption, Saving, Production, Employment, and Investment: Consumption, Saving, Capital, Investment, Capacity, Production, Employment, Unemployment, Wages, Aggregate Factor income distribution, Forecasting and Simulation; Prices, Business fluctuations, and Cycles: Price level, Inflation, Deflation, Business fluctuations, Cycles, Forecasting and Simulation; Money and interest rates: Demand for money, Monetary standards and regimes, Government and the monetary system, Determination of interest rates, Term structure of interest Rates, Financial markets and the Macroeconomy, Forecasting and Simulation; Monetary policy, Central banking, and the Supply of Money and Credit: Money supply, Credit, Money multipliers, Monetary policy, Deposit insurance, Central banks and their policies; Macroeconomic-Aspects of public finance, Macroeconomic policy and general Outlook: Policy objectives, Policy designs and consistency, Policy coordination, Fiscal policy, Public expenditures, Investment, and Finance, Taxation, Comparative or joint analysis of fiscal and monetary or stabilization policy, Incomes policy, Price policy, Studies of particular policy episodes, General Outlook and conditions with diverse approaches and perspectives. That contribute to the diffusion of the development of Science Technology and Innovation that allow the arguments related to the decision making and influence in the formulation of international policies in the Field of Social Sciences. The editorial horizon of RINOE® extends beyond the academy and integrates other segments of research and analysis outside the scope, as long as they meet the requirements of rigorous argumentative and scientific, as well as addressing issues of general and current interest of the International Scientific Society.

Editorial Board

Arbitration Committee

Assignment of Rights

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

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

Declaration of Authorship

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

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

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

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

Plagiarism Detection

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

Arbitration Process

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

Instructions for Scientific, Technological and Innovation Publication

Knowledge Area

The works must be unpublished and refer to topics of General aggregative models: Marxian, Sraffian, Institutional, Evolutionary, Keynes, Keynesian, Post-Keynesian, Neoclassical, Forecasting and Simulation; Consumption, Saving, Production, Employment, and Investment: Consumption, Saving, Capital, Investment, Capacity, Production, Employment, Unemployment, Wages, Aggregate Factor income distribution, Forecasting and Simulation; Prices, Business fluctuations, and Cycles: Price level, Inflation, Deflation, Business fluctuations, Cycles, Forecasting and Simulation; Money and interest rates: Demand for money, Monetary standards and regimes, Government and the monetary system, Determination of interest rates, Term structure of interest Rates, Financial markets and the Macroeconomy, Forecasting and Simulation; Monetary policy, Central banking, and the Supply of Money and Credit: Money supply, Credit, Money multipliers, Monetary policy, Deposit insurance, Central banks and their policies; Macroeconomic-Aspects of public finance, Macroeconomic policy and general Outlook: Policy objectives, Policy designs and consistency, Policy coordination, Fiscal policy, Public expenditures, Investment, and Finance, Taxation, Comparative or joint analysis of fiscal and monetary or stabilization policy, Incomes policy, Price policy, Studies of particular policy episodes, General Outlook and conditions and other topics related to Social Sciences.

Presentation of Content

In a first article we present, *Rural tourism site expectations and future visitor/tourist behavior*, by SOLÍS-RADILLA, María Magdalena & HERNÁNDEZ-LOBATO, Lucio, with adscription at Universidad Autónoma de Guerrero, in the next article we present, *The influence of innovation activities and knowledge management on the competitiveness of manufacturing smes: an empirical study*, by AGUILERA-ENRÍQUEZ, Luis, CUEVAS-VARGAS, Héctor RANGEL-MAGDALENO, Jorge and HERNÁNDEZ-CASTORENA, Octavio, with adscription in the Universidad Iberoamericana, in the next article we present, *Economic sustainability for a textile plant with cultural designs in the department of Chuquisaca*, by CONTRERAS, Roseli & QUIROGA, María, with adscription in the Universidad Mayor Real y Pontifica San Francisco Xavier de Chuquisaca, in the last article we present, *The consumption of alcoholic beverages in the Faculty of Economics and Business Administration of the Universidad Mayor Real y Pontificia San Francisco Xavier de Chuquisaca*, by MENDIETA, Helen, with adscription at Universidad Mayor Real y Pontificia San Francisco Xavier de Chuquisaca.

Content

<div align="center">

Article   **Page**

</div>

Rural tourism site expectations and future visitor/tourist behavior

Expectativas del sitio turístico rural y comportamiento futuro del visitante/turista

SOLÍS-RADILLA, María Magdalena† & HERNÁNDEZ-LOBATO, Lucio

Universidad Autónoma de Guerrero, México.

ID 1st Author: *María Magdalena, Solís-Radilla* / **ORC ID:** 0000-0001-9932-5240, **Web of Science Researcher ID:** AAS-2266-2021, **CVU CONACYT ID:** 520836

ID 1st Co-author: *Lucio, Hernández-Lobato* / **ORC ID:** 0000-0002-1812-9908, **Web of Science Researcher ID:** F-4026-2019, **CVU CONACYT ID:** 509219

Abstract

The objective is to analyse the relationship between expectations and future visitor/tourist behaviour towards a rural beach tourism site in an incipient state of development once the experience has taken place. The relationships are supported by hypotheses that were tested through the application of 224 questionnaires in Playa Michigan, Técpan de Galeana, Gro. The study population are visitors/tourists of national origin. Method: exploratory, quantitative, ex post facto. Results: Despite the fact that most of the expectations were not met, the future behaviour of the visitors/tourists shows a positive tendency to return, to recommend to family and friends and to intend to vacation in the next three years, which can be interpreted as a behaviour of loyalty, as they continue to consider the tourist site of their preference. The theoretical and practical implications of these original findings are discussed.

Marketing, Tourism, Expectations, Future behavior, Rural tourist site

Resumen

El objetivo es analizar la relación entre las expectativas y el comportamiento futuro del visitante/turista hacia un sitio de turismo rural de playa en estado incipiente de desarrollo, una vez que la experiencia ha tenido lugar. Las relaciones se sustentan en hipótesis que fueron contrastadas mediante la aplicación de 224 cuestionarios en Playa Michigan, Técpan de Galeana, Gro. La población de estudio son visitantes/turistas de origen nacional. Método: exploratorio, cuantitativo, ex post facto. Resultados: A pesar de que la mayoría de las expectativas no se cumplieron, el comportamiento futuro de los visitantes/turistas muestra una tendencia positiva a regresar, a recomendar a familiares y amigos y a tener la intención de vacacionar en los próximos tres años, lo que puede interpretarse como un comportamiento de lealtad, ya que siguen considerando el sitio turístico de su preferencia. Se discuten las implicaciones teóricas y prácticas de estos hallazgos originales.

Marketing, Turismo, Expectativas, Comportamiento futuro, Sitio turístico rural

---

* Corresponde to the author (E-mail: lhernandez@uagro.mx)
† Researcher contributing first author.

Introduction

The tourism industry over time has become an activity in constant growth, which has led to the emergence of new tourist sites by the derivation in the tastes and needs of travellers, marking a new era of tourism activity that demands quality tourist experiences that meet the expectations of the tourist, which in turn, becomes a requirement of vital importance for managers of such activity, which although sometimes have information about what customers want and expect from the service fail to meet their expectations (Buffa, 2015; Li, Zhang, Zhang, & Abrahams, 2019; Wang, Qu & Hsu, 2016). The rural tourism segment is in growing demand globally, particularly in Mexico, with tourists seeking authentic and sustainable holiday experiences for rest and relaxation, while representing an opportunity for rural communities with resources that can be harnessed for tourism to develop and promote their culture, environments and social elements, in some cases domestically and in others internationally (Buffa, 2015; Wu & Li, 2017; Ye et al., 2021). In the development of rural tourism sites, community support and engagement plays a basic role in the provision of tourism services, because when meeting the needs and expectations of tourists and the community is combined, the useful tourism life of the tourism site will be prolonged by achieving economic growth, improving quality of life and maintaining environmental quality, achieving sustainability of development for the rural tourism segment (Fun, Chiun, Songan, & Nair, 2014; Sthapit, Coudounaris, & Björk, 2019).

On the other hand, the decision to holiday at a certain tourist destination involves a series of phases ranging from the recognition of the existence of a need for a holiday, the enquiry of information that allows the assessment of possible alternatives, to the choice of the destination that represents the best travel option for the consumer (Corno, 2018; Árpási, 2018). In this context, marketing experts suggest that this process should not end with the choice of the holiday destination, but rather, it is unavoidable to evaluate the behaviour subsequent to the experience, so that the new expectations that arise from the tourism experience are known, as well as the future behaviour that they will assume towards the destination visited (Hendijani & Sulistyo, 2017; Hung, Wang, & Tang, 2015, Kotler & Armstrong, (2017, p.237; Tiwari & Hashmi, 2022).

From the paradigm shift in marketing away from a sales orientation to a customer orientation with a focus on understanding their needs as well as delivering products/services appropriate to them, it becomes a paradigm in which understanding and meeting customer expectations are the key to creating satisfying experiences, which tourism destinations (rural sites) should consider as a guiding principle for evaluating their service delivery (Čivre & Omerzel, 2015). Although there is currently little empirical research focused on how tourism expectations are formed, especially when the geographical setting of study is a rural tourism site.

Tourism activity involves a series of experiences based on the effectiveness with which tourist destinations, with their own social, cultural, historical, economic and service management particularities, have the duty to ensure that these experiences are positive and that they generate expectations in the demand that influence their future behaviour (Mansouri & Ujang; 2016; Torres & López, 2014; Tiwari & Hashmi, 2022). For which it should be kept in mind that expectations are the standard or measure of comparison by which the actual performance of the product/service is judged through the tourist's perceptions (Mahsa & Norsidah, 2016; Wang et al., 2016). In this context, meeting customer expectations is the first step in achieving a quality experience, considering that customer expectations are the customer's assessment of what they expected with the perceived outcome of the experience. Although in the areas of marketing and tourism most studies on expectations do not specify the type of expectation being studied, it is observed that it is used interchangeably to refer to several concepts, including normative and predictive expectations; i.e. normative is conceived as the desired or ideal for the tourist, and predictive is the experience they believe they will achieve; it is the normative expectations of customers that are considered a more useful guide to identify the discrepancy between customer expectations and perceptions of the rural site visit experience (Čivre & Omerzel, 2015; Tukamushaba, Xiao & Ladkin 2016; Hung et al. , 2015; Wu & Li, 2017).

Therefore, in order to understand tourists' expectations in relation to future behaviour, the overall objective of this study is to analyse the expectations generated as a result of visitors/tourists' experience at a rural tourism site and their relationship with their future behaviour.

Theoretical framework and state of the art

The rural site, its tourism attractions and resources

The inclusion of tourism activity in rural sites has its origin in the need to find practices that allow it to develop, since for many decades traditional economic activities have been in crisis (Almeida-García et al., 2016; Fun et al., 2014; Melgosa, 2005; Sugiri & Putri, 2015). On the other hand, new tourism trends that trigger a more competitive environment and new market segments with more informed, spontaneous, independent, interactive tourists with a clear interest in environmental issues are combined, representing an opportunity for rural sites to see tourism as an option that allows them to diversify their productive activities, turning it into a strategy to achieve greater community development, the creation or improvement of infrastructure in general (public services, tourism, hospitality, schools, etc.), increased employment opportunities, and greater employment opportunities, and the creation or improvement of the infrastructure in general (public services, tourism, hospitals, schools, etc.).), increased employment opportunities, and in improving living conditions for the population (Rasoolimanesh et al., 2017; Brandth & Haugen, 2011; Čivre & Omerzel, 2015; Almeida-García et al. 2016; Sthapit, Björk, Coudounaris, 2022). Tourism activity is recognised as an important economic and social activity because of its contribution to the economy of the site where it takes place. A rural site can have attributes that make it attractive to the tourist consumer, i.e. natural, cultural, social, etc., resources that can become tourist attractions that make it interesting and enjoyable, motivating temporary displacements of people, who among other things seek recreation, contact with nature and rest (Sinclair-Maragh & Gursoy 2017; Navarro, 2015; Sugiri & Putri, 2015). To this end, all the resources or attractions that this site has will be subject to changes by its inhabitants, who, by making use of the means at their disposal, will make tourism activity possible (Barrado, 2011; Devine & Ojeda, 2017; Fletcher et al., 2016).

In a rural site, the main agents of change are those who will become future entrepreneurs who, using their skills and creativity, will be responsible for discovering and adapting the opportunities available to them for the development of tourism activity (Devine & Ojeda, 2017; Sugiri & Putri, 2015). Also, a number of elements are required to be successful (natural and human, tourism infrastructure, services, promotion and marketing), especially a positive welcoming attitude from the wider community (Russell & Faulkner, 2004; Sinclair-Maragh & Gursoy 2017). It should be noted that the interaction between tourists and residents is a determining factor for the tourism site to achieve success and sustainability of the tourism activity, since, when there is no willingness and support from residents or they do not show willingness to work in such activity, it can cause negative impacts related to the benefits and costs in the areas: economic, social, cultural and environmental, affecting the development of such tourism activity, hence, the role of the resident is unquestionable (Rastegar, 2019; Andereck et al., 2005). Residents' responses to the impact of tourism development are fundamental, since in the social exchange they can undergo significant changes in lifestyles, which the tourism activity itself originates; therefore, residents' perceptions must be in the sense of a trade-off between the benefits received and the costs of tourism development (Zheng, Ritchie, Benckendorff & Bao. 2019; Rastegar, 2019).

On the other hand, the importance of tourism activity as an inducer of development in a rural site depends not only on the existence of the natural and cultural resources of the place, but also on an effective and integrative planning and management action between the different sectors, which should be constituted as an instrument for the acceleration of tourism and local development, as well as for the preservation of its attractions (natural, cultural) by which this activity is generated. By accessing the possibility of avoiding the destruction of these resources and the development of tourism activity in rural areas, environmental care is becoming a determining element for the differentiation between tourist destinations (Alonso-Almeida and Celemín-Pedroche, 2016; Fun et al., 2014; Rastegar, 2019; Loperena, 2017; Sugiri & Putri, 2015).

According to Line & Costen, (2017); Jaafar, Noor & Rasoolimanesh (2015); Sinclair-Maragh & Gursoy, (2017); Zhang et al., (2021); tourism visiting a rural tourism site primarily aims to experience natural areas that foster environmental and cultural understanding, appreciation, and conservation; seeks out authentic natural and cultural resources that generate unique experiences, which in turn generates a wide range of job opportunities and stimulates entrepreneurship, local economic growth and increases the standard of living of residents.

Scope of the research

Playa Michigan is located in the municipality of Técpan de Galeana, in the state of Guerrero, bordered to the north by Coyuca de Catalán and Ajuchitlán del Progreso, to the east by Atoyac de Álvarez and Benito Juárez, to the south by the Pacific Ocean and to the west by Petatlán (see figure 1).

For the municipality of Técpan de Galena, tourism responds to a need to find actions that allow its rural communities to develop, since traditional economic activities such as agriculture, livestock and fishing have been in crisis for many decades (Melgosa, 2005). Thus, in the search to improve the quality of life that allows them to have access to better food, health services, to reduce educational backwardness, to have basic services in housing, to achieve more and better jobs, etc., the local population turned its attention to the natural beauty of its coast (Playa Michigan), providing it with the necessary resources for its operation as a rural tourist site.

Figure 1 Geographical location of Técpan de Galeana
Source: Own elaboration based on INEGI, 2021

For the start of tourism activity in this rural sun and beach tourist site, the population had to consider the attraction values based on natural resources as raw material, from which they managed to obtain a tourist product with the capacity to attract the tourist consumer who likes contact with nature and the tranquillity that these sites offer (Sancho, 1998; Torres & López, 2014; Sinclair-Maragh & Gursoy 2017).

According to the locals, Playa Michigan is one of the most sought-after tourist sites and at the same time visited by those who want to relax, be in contact with nature and socialise, as it was tourists from North America who gave this place the name of Michigan because of its supposed similarity to that US state. Formerly known as Isla de Pájaros, it is located 15 kilometres from the municipal capital of Técpan de Galeana, very close to the community of Tenexpa, where there is a pier with boats that take you to Playa Michigan or Isla Pájaros. To get to the Municipality of Técpan de Galena, take National Highway 200 that runs between Acapulco and Ixtapa-Zihuatanejo, 105 km from Acapulco and 135 km from Ixtapa-Zihuatanejo. Arriving at this municipality, one takes a route to the community of Tenexpa, which is 15 km away (INEGI, 2021) and from there it is necessary to cross an estuary, which is precisely where the attraction lies with the magnificent scenery that can be enjoyed during the journey to Michigan Beach. This rural tourist site, besides offering tranquillity and a vast natural attraction, offers the possibility of camping activities. As far as the food and beverage service is concerned, there are establishments where you can find different dishes based on fish and seafood that tourists can taste. There is also the option for visitors to stay in the municipal capital (Tecpan) where most of the services are concentrated, with easy access to transport, a variety of food and beverage establishments very close to the tourist site and essential services to satisfy the expectations of visitors.

Expectations

One of the most important constants in human beings is that we all regularly consume inputs that allow us to satisfy different needs such as: food, clothing, housing, transport, education, services and holidays, among others.

Therefore, when participating in such a dynamic and rapidly evolving market as tourism, it is necessary to know as much as possible about the consumers; what they think, what they want, how they spend their free time, etc. Which means, it is essential that destination decision makers need to know the expectations of individuals, in order to meet their needs (Hendijani & Sulistyo, 2017; Hung et al., 2015; Jaafar & Ramayah, 2017; Wang et al., 2016; Tiwari & Hashmi, 2022), and to achieve more effective destination management and marketing (Corno, 2018). In marketing and psychology literature, the definition of consumer expectations is somewhat diverse, on the one hand, an expectation is defined as a belief about the performance of a destination's attributes prior to experience (Spreng, MacKenzie, & Olshavsky, 1996), and on the other point of view, tourists' expectations can be set by experience-based norms as the standard for comparison of product or service performance (Rasoolimanesh et al., 2017; Damanik & Yusuf, 2022; Hernandez-Lobato et al., 2006; Hung et al., 2015; Wang et al., 2016). That is, tourists' expectations are the preconceived perception of the outcomes of the travel experience, considering that most people undertake leisure travel to satisfy more than one expectation (Hung et al., 2015; Wang et al., 2016; Rasoolimanesh et al., 2017; Tukamushaba, Xiao & Ladkin 2016).

It is through expectations that the expected performance of the product is reflected, generating a frame of reference on which a comparative judgement is formed, which becomes a prediction in the consumer's mind about the anticipated outcomes or transaction performance of the product/service he/she expects to receive in the future (Damanik & Yusuf, 2022; Higgs, Polonsky & Hollick, 2005; Wang et al., 2016). Consumers form their expectations about a product or service at a pre-purchase stage (Oliver, 1980; Xiang, Magnini, & Fesenmaier, 2015; Wang et al., 2016). He or she will then use them as a standard of comparison to evaluate the final result obtained (Oliver, 1981; Teas & Palan, 2003). This allows to know the differences between tourists' expectation and experience and also to find out their future behaviour and intention to revisit the rural site (Hendijani & Sulistyo, 2017).

Fishbein & Ajzen (1975) argue that individuals form beliefs on the basis of direct observation or experience with a situation (descriptive beliefs), information provided by others (information beliefs), or through various inference processes (inferential beliefs). Therefore, if the perception of the obtained outcome exceeds expectations, it means that there is a positive dissatisfaction that makes the consumer feel satisfied with the experience at the destination, while it is one of the main indicators to achieve service quality (Hung et al., 2015; Ye et al., 2021).

Satisfaction increases as the performance/expectation ratio increases (Chunyang, Hailin & Maxwell, 2016; Li et al., 2019). A unique experience is the essence of tourism and the most sought after by tourists, which means that good expectation management is crucial for a destination, as expectations can affect the level of satisfaction as well as future behaviour (Hendijani & Sulistyo, 2017; Ye & Tussyadiah, 2011; Davras & Özperçin, 2021). Re-visit intention is an important indicator of a satisfactory customer experience at the rural site, and can be defined as a post-assessment behaviour after tourists visit the site and are willing to repeat the visit (Hendijani. & Sulistyo, 2017; Li, et al., 2019).

Future behaviour

In models of tourist behaviour such as those of Goodall (1988) and Sönmez & Graefe (1998), they allude to the fact that when tourists decide to take a holiday in a certain tourist destination, they carry out an analysis in an orderly and sequential manner of related actions that give rise to decision mechanisms that conclude when the choice of the destination where they will carry out leisure activities has been finalised. Therefore, the future behaviour that tourists visiting a rural tourism site will assume will largely depend on the experience acquired during the stay; that is, experiencing the direct contact with the natural and cultural environment that it offers, and that contributes in stimulating the satisfaction of the experience, which in turn impacts on achieving behaviours that could turn out to be positive or negative (Árpási, 2018; Armbrecht & Andersson, 2020; Chiu, Lee, & Chen, 2014; Handriana & Ambara, 2016; Stone et al, 2018; Davras & Özperçin, 2021).

To understand how consumers form value associations from travel experiences (Brune et al., 2021; Andereck et al., 2012; Tiwari & Hashmi, 2022) and how these associations influence their future behaviour, it is necessary to analyse how and why tourism consumers behave as they do, which is not an easy task given the number of factors that interact on it and move it to behave differently, depending on the environment it is in (Martínez-García & Raya, 2008; Pap, Dlačić & Ham, 2017; Davras & Özperçin, 2021). According to Ekinci & Hosany (2006), it is from the personality of the destination that positive or negative relationships will be established, which in turn will determine the future behaviour of the tourist.

Future behaviour that shows the real commitment of the customer to repeat the visit goes beyond the purchase indicating the level of customer interactions and connections with the attributes of the rural tourism site, and involves, for example, attention, dialogue, emotions, interactions, sensory pleasure, attributes that contribute to creating a satisfying experience for customers (Pap et al., 2017; Vivek et al., 2014; Zeelenberg & Pieters, 2004; Davras & Özperçin, 2021). It is worth mentioning that, given the very nature of heterogeneity, intangibility, as well as the intensity of interaction inherent during the tourism experience, there is a great capacity to achieve relationships and generate positive future behavioural processes for the destination, with the caveat that not all services are going to have the same capacity to achieve such behaviours that can trigger lasting relationships, as it will depend on the ability to offer pleasurable experiences (Cohen, Prayag, & Moital, 2014; Silva & Correia, 2017; Xiang, Magnini, & Fesenmaier, 2015; Armbrecht & Andersson, 2020).

Behavioural intentions continue to be an important topic in marketing and tourism research, finding that tourists who achieve satisfactory experiences are more likely to repeat the experience, say positive things and recommend it to others (Burbano, Velástegui, Villamarin, & Novillo, 2018; Chen & Chen, 2010; Grappi & Montanari, 2011; Mohaidin, Wei, & Murshid, 2017).

Customers who are dissatisfied are unlikely to repeat the visit, and risk sharing negative information with others. Future behavioural intentions and recommendation are outcome indicators of a satisfactory tourism experience (Prayag, Hosany & Odeh, 2013; Stone et al., 2018; Brune et al., 2021).

Favourable tourism consumer behaviour is assumed to be an indicator of what could be considered as the typical way of defining loyalty (Chen & Chen, 2010; Setó, 2004; Solís, Hernández, Moliner & Sánchez, 2014). The first antecedent is the degree of repeat purchase with the same supplier, which is generated through a process of evaluation by the consumer; the second is a positive attitude towards the product or service, which can create emotional bonds with the customer (Burbano et al., 2018). And emotions have a direct effect on behavioural responses (Derbaix & Vanhamme, 2003; Zeelenberg & Pieters, 2004). This can change the consumption behaviour of tourists, which, even if the rural tourism site being consumed evokes emotions from past experiences in their decision making, can trigger changes that result in unfavourable behaviour for that site (Kim et al., 2019; Vignolles & Pichon, 2014).

Finally, future behaviour associated with a positive attitude can be influenced by environmental factors (family, economy, promotions, etc.), which contribute to the modification of their responses (Irmak, Block & Fitzsimons, 2005; Park & Nicolau, 2018; Vera, 2016), and can generate the setting of new expectations, which will determine the tourist's future behaviour towards a tourist destination (Hernández-Lobato et al., 2006; Solís et al., 2014; Chunyang et al., 2016; Chunyang et al.).

Based on the above, the following hypotheses are proposed:

H1: There is a relationship between the expectations that the tourist has towards a rural tourist site with the future behaviour that the tourist assumes after the tourist experience.

H1a: There is a relationship between the rural tourist site meeting the tourist's expectations and the tourist returning on their next holiday.

H1b: There is a relationship between the rural tourism site meeting the tourist's expectations and the tourist recommending it to family and friends.

H1c: There is a relationship between the rural tourism site meeting the tourist's expectations and the tourist's intention to holiday within the next three years.

H1d: There is a relationship between what the tourist had expected in their stay at that rural tourism site and that they will return on their next holiday.

H1e: There is a relationship between what the tourist had expected from their stay at that rural tourism site and that they will recommend it to their family and friends.

H1f: There is a relationship between what the tourist had expected from their stay at that rural tourism site and the intention to holiday within the next three years.

Methodology

The study corresponds to a quantitative research, where the aim is to relate the expectations that tourists have towards a rural tourist site with their future behaviour after the tourist experience. These relationships are supported by hypotheses that are tested. An Ex Post Facto research process is followed. It is exploratory in nature due to the scarcity of information related to the topic to be addressed, which greatly limits going deeper into it. The Ex Post Facto model, used as an exploratory tool, is very useful when ad hoc statistical methods are used. It is cross-sectional, as the data obtained from the empirical work were collected at a single moment and in a single time (Hernández, Fernández and Baptista, 2014. Given the difficulty of accessing the total population, the non-probabilistic method of convenience was used, selecting subjects according to certain criteria, ensuring that the population considered is as representative as possible. The target population of the study were the national visitors/tourists who were at Michigan Beach, located in the municipality of Tecpan de Galeana in the State of Guerrero, over 18 years of age. To avoid duplication or imitation of responses, the questionnaire was administered to only one person per family or group (Kozak, 2001).

The fieldwork was carried out during the winter holiday period of 2019, considering that there is a significant influx at this time of the year. For the design of the questionnaire and the generation of items, a review of the literature related to the topic of expectations and future behaviour of the tourist towards a rural tourist site was considered, which also allowed us to identify as a starting point a set of items grouped around the variables involved in this study. Once the questionnaire was designed, a consultation with experts and a pre-test with 15 visitors/tourists was carried out.

-Study population	National visitors/tourists at the tourist site over 18 years of age.
-Geographical scope	Michigan Beach, Tecpan de Galeana, State of Guerrero.
-Type of study	Exploratory
-Instrument	Structured questionnaire.
-Sampling technique	Non-probabilistic by convenience.
-Valid questionnaires	244
-Fieldwork	Winter holiday period 2019

Table 1 Technical sheet of the research

After a brief presentation and introduction, the questionnaire was made up of two parts corresponding to each of the variables involved. To evaluate the expectation variable, a five-position Likert-type scale was used, where the tourist surveyed indicates the degree of agreement or disagreement with the two items that comprise it. For the first item: 1=Strongly disagree to 5=Strongly agree and the second item: 1=Very much below my expectations to 5=Very much above my expectations. In relation to the variable Future behaviour, a five-position Likert-type scale was used, consisting of three items where: tourists indicated their degree of agreement or disagreement with the items where: 1=Not definitely to 5=Yes definitely.

Results

In the descriptive analysis of the sample profile, the most representative ages were: 31.4% between 26 and 35 years old, followed by 27.4% between 18 and 25 years old and 19.9% between 36 and 45 years old. Of those surveyed, 50.2% were female and 49.8% were male. In terms of educational level, Bachelor's degree studies were the most representative (51.4%), followed by high school (17.1%) and secondary school (13.9%).

The predominant activity is that of professionals (39%), home workers (19%), employees and students (12%). The highest percentage of tourists are married (58.8%), followed by singles (34.7%) and divorced or widowed (6.5%). In terms of origin, 79.8% came from nearby towns and from the rest of the municipality in the state of Guerrero and 21% from other states in the country. The most common form of transport used was private transport (66%), followed by local public transport (combi, taxi, van, etc. 23%) and regular bus (11%). In relation to the number of days spent at the site, the highest percentage (64.9%) is one and two days and the rest of them up to more than ten days. The monthly income of visitors/tourists was found to be mostly six minimum wages or more (30%), followed by one (24%), two (15%), and four minimum wages (10%).

In relation to the descriptive analysis of the variables involved, the assessments made are the arithmetic means of the responses obtained, as shown in table 2.

		Media
E1	I consider that this rural tourist site meets my expectations.	3.40
E2.	My stay at this rural tourist site was in accordance with what I had expected.	3.02

Table 2 Expectation towards the rural tourism site
Source: Fieldwork

The mean values for expectations are slightly above the neutral point, indicating a slight positive trend in terms of fulfilling expectations at this rural tourist site (3.40) and a value that barely exceeds the midpoint (3.02) on the outcome of the experience in relation to what had been expected. As for the future behaviour variable, the results obtained were above the midpoint, above 4 for all three attributes of the scale, i.e. they show a positive trend in terms of returning to this tourist site on the next holiday (4.35), recommending the tourist site to family and friends (4.39) and the intention to holiday at this tourist site in the next three years (4.21), as can be seen in table 3.

		Media
CF1.	I will return to this rural resort on my next holiday.	4.35
CF2.	I will recommend this rural resort to my family and friends.	4.39
CF3.	I intend to holiday at this rural resort within the next three years.	4.21

Table 3 Future behaviour towards rural tourism development
Source: Fieldwork

Testing the hypotheses

In order to test hypothesis H1, a contingency table analysis was carried out, considering the attributes of each scale in order to establish a correlation between two variables and in order to know the cases that are related to each one.

In hypothesis H1a, of those who will return to this rural tourism site on their next holiday, 97.8% agree that this rural tourism site met their expectations, while 84.1% disagreed and 83.0% neither disagreed nor agreed (neutral) that the site met their expectations, but will also return (see Figure 2).
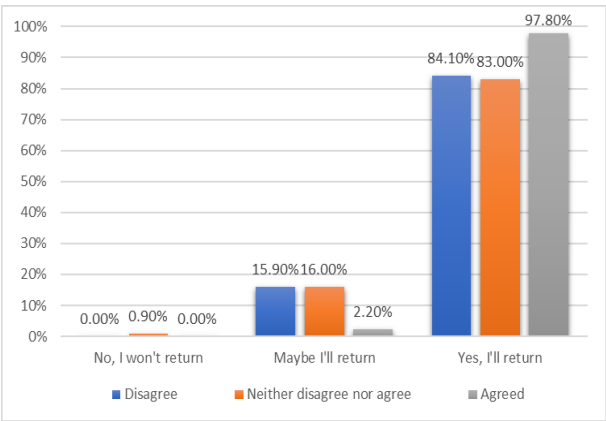
Figure 2 This rural site meets my expectations - I will return to this site on my next holiday
Source: Fieldwork

For the verification of the relationship between variables, the statistical analysis was done by means of the Chi-square test, resulting in no significant differences (0.012), as the asymptotic significance level is within the permitted limit (see table 4).

	Value	gl	Asymptotic significance (bilateral)
Pearson's Chi-square	12.949[a]	4	.012
4 boxes (44.4%) have expected a count of less than 5. The minimum expected count is .18			

Table 4 Chi-square test between the variables E1 and CF1
Source: Fieldwork

In H1b, 97.8% of tourists felt that this rural tourism site met their expectations and would recommend it to their family and friends (See Figure 3). On the other hand, although 93.4% of tourists indicated neither disagree, nor agree (neutral), as well as 86.4% disagreed that the site met their expectations, they would also recommend it.

Figure 3 This rural site meets my expectations - I will recommend this rural tourism site to my family and friends
Source: Fieldwork

In the relationship test for hypothesis H1b by means of the Chi-square test, it was found that its asymptotic significance level exceeds the allowed limit (0.073), but, this test does not indicate strength or relationship between the variables (See table 5).

	Value	gl	Asymptotic significance (bilateral)
Pearson's Chi-square	8.559[a]	4	.073
4 boxes (44.4%) have expected a count less than 5. The minimum expected count is.18			

Table 5 Chi-square test and between variables E1 and CF2
Source: Fieldwork

Therefore, it was analysed by means of Somers' d which indicates the level of strength, significance and direction. The result revealed that it is within the established parameters (0.017), indicating that there is a significant relationship between these two items (See table 6).

			Value	Asymptotic standard error[a]	T approximate[b]	Approximate significance
Ordinal by ordinal	d of Somers	Symmetric	.112	.041	2.393	.017
		E1 dependent	.359	.125	2.393	.017
		F2 dependent	.066	.028	2.393	.017

a. The null hypothesis is not assumed.
b. Use of the asymptotic standard error that assumes the null hypothesis.

Table 6 Somers' d test between variables E1 and CF2
Source: Fieldwork

Regarding H1c, of the tourists who will return to holiday at this rural tourism site within the next three years, 94.6% agreed that this site met their expectations, however, 87.7% of those who neither disagreed nor agreed (neutral) and those who disagreed (79.5%), will also return to holiday at this rural tourism site within the next three years (See Figure 4).
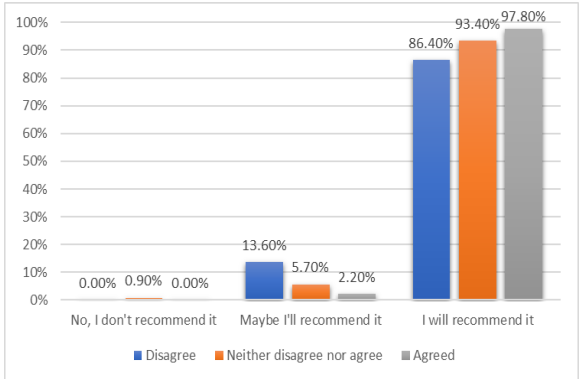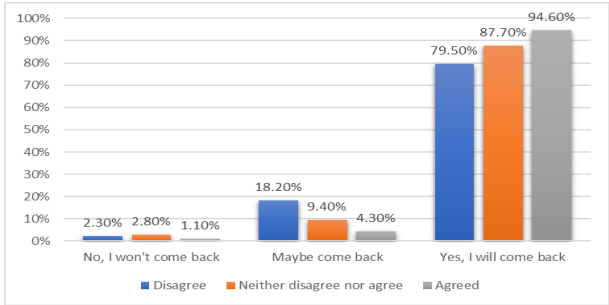

Figure 4 This rural site meets my expectations - I will return to this site within the next three years
Source: Fieldwork

Continuing with the hypothesis testing analysis, we proceeded to perform the H1c Chi-square analysis, which showed that it exceeds the established parameters (0.094) (see Table 7).

	Value	gl	Asymptotic significance (bilateral)
Chi-square Pearson's	7.932[a]	4	.094

a.   4 boxes (44.4%) have expected a count of less than 5. The minimum expected count is .91.

Table 7 Chi-square test between variables E1 and CF3
Source: Fieldwork

The Somers' d test was performed and the significance level was found to be within the limit (0.010), confirming that there is a relationship between the variables analysed (see table 8).

			Value	Error asymptotic standardised error[a]	T approximate[b]	Approximate significance
Ordinal by ordinal	d of Somers	Symmetric	.135	.049	2.575	.010
		E1 dependent	.280	.100	2.575	.010
		F3 dependent	.089	.035	2.575	.010

a. The null hypothesis is not assumed.
b. Use of the asymptotic standard error that assumes the null hypothesis.

Table 8 Somers' d test between the variables E1 and CF3
Source: Fieldwork

For hypothesis H1d, of the tourists who stated that they would recommend this rural tourism site to their family and friends, for 95.6% their experience was above their expectations, for 90.4% it was just what they expected and for 75.6% it was below their expectations, however, they would also recommend it (See Figure 5).
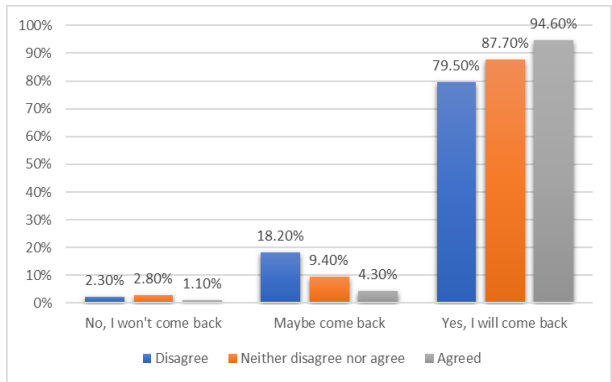
Figure 5 How do you describe your stay at this rural tourism site - I will come back to this site on my next holiday
Source: Fieldwork

To test H1d, the Chi-square analysis was performed, which was within the established parameters (0.003). Likewise, we proceeded to perform the Somers' d analysis, which showed that the significance level was within the limit (0.009), indicating that there is a relationship between the variables analysed (see tables 9 and 10).

	Value	gl	Asymptotic significance (bilateral)
Chi-square Pearson	15.879[a]	4	. 003

a. 4 boxes (55.6%) have expected a count of less than 5. The minimum expected count is .17

Table 9 Chi-square test between variables E2 and CF1
Source: Fieldwork

			Value	Asymptotic standard error[a]	T approximate[b]	Approximate significance
Ordinal by ordinal	d of Somers	Symmetric	.156	.056	2.594	.009
		E1 dependent	.283	.100	2.594	.009
		F3 dependent	.108	.041	2.594	.009

a. The null hypothesis is not assumed.
b. Use of the asymptotic standard error that assumes the null hypothesis.

Table 10 Somers' d test between variables E2 and CF1
Source: Fieldwork

As for H1e, which relates how the tourist describes the outcome of their experience at this rural tourism site with recommending it to their family and friends, the result was that: 100% stated that it was above their expectations, 94.9% that it was just what they expected, and 82.9% that it was below their expectations. However, they stated that they would recommend this rural tourism site to their family and friends (See Figure 6).
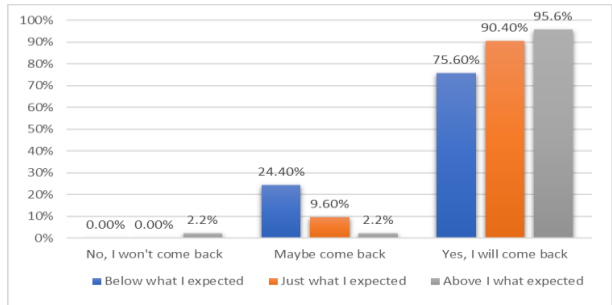
Figure 6 How do you describe your stay at this rural tourism site - I will recommend this site to my family and friends?
Source: Fieldwork

For H1e, the Chi-square test was also performed, which yielded an asymptotic significance level of 0.007, which proves the existence of a relationship between the variable describing the expectation of their stay, with the variable I will return to this rural tourist site (See table 11).

	Value	gl	Asymptotic significance (bilateral)
Chi-square Pearson's	13.964[a]	4	.007

a. 4 boxes (55.6%) have expected a count of less than 5. The minimum expected count is .17.

Table 11 Chi-Square test between the variables E2 and CF2
Source: Fieldwork

To determine the strength, significance and direction of the relationship between these two variables, Somers' d analysis was used, resulting within the limits (0.004), thus confirming the relationship (See table 12).

			Value	Asymptotic standard error[a]	T approximate[b]	Approximate significance
Ordinal por ordinal	d de Somers	Symmetric	.155	.042	2.893	.004
		E1 dependent	.423	.107	2.893	.004
		F3 dependent	.095	.032	2.893	.004

a. The null hypothesis is not assumed.
b. Use of the asymptotic standard error that assumes the null hypothesis.

Table 12 Somers' d-test between variables E2 and CF2
Source: Fieldwork

Finally, H1f proposes a relationship between how tourists describe their experience at this rural tourism site and their intention to holiday at this rural tourism site within the next three years.

The results show that of those who do intend to holiday at this rural tourism site within the next three years, 91.1% said that their stay was just what they expected, 88.9% that their stay was above their expectations and 80.5% that their stay was below their expectations. Despite this, the latter stated that they also intend to holiday here within the next three years (see Figure 7).
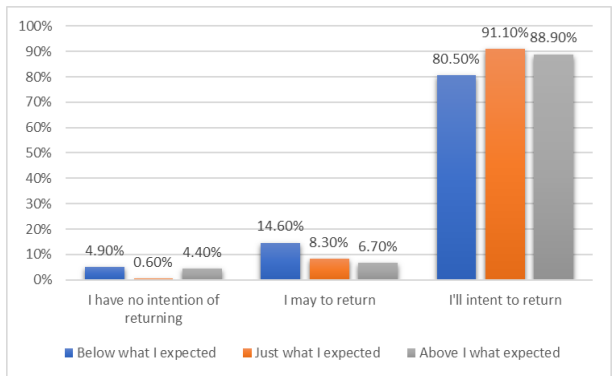

Figure 7 How do you describe your stay at this rural tourism site - intention to holiday at this site within the next three years?
Source: Fieldwork

Finally, for the relationship test of hypothesis H1f, the Chi-square test was performed, which yielded an asymptotic significance level of 0.160, which shows that there is no relationship between the variable describing the stay related to what they had expected, with the variable I intend to holiday within the next 3 years (See table 13).

	Value	gl	Asymptotic significance (bilateral)
Chi-square Pearson's	6.579[a]	4	.160

a. 4 boxes (55.6%) have expected a count of less than 5. The minimum expected count is .17.

Table 13 Chi-square test between variables E2 and CF3
Source: Fieldwork

However, in order to see the strength, significance and direction of the relationship between these two variables, the value that this analysis yields is not within the limits (0.32), so the relationship of the variables analysed is not confirmed (See table 14).

			Value	Asymptotic standard error[a]	T approximate[b]	Approximate significance
Ordinal by ordinal	d of Somers	Symmetric	.063	.063	.987	.324
		E1 dependent	.113	.113	.987	.324
		F3 dependent	.044	.044	.987	.324

a. The null hypothesis is not assumed.
b. Use of the asymptotic standard error that assumes the null hypothesis.

Table 14 Somers' d-test between variables E2 and CF3
Source: Fieldwork

By way of summary, the results of the analysis relating to the testing of the hypotheses are shown (see table 15).

Hypothesis	Relations	
H1:	Expectations → Future behaviour	Accepted in part
H1a:	Meets expectations → Will return on their next holiday.	Accepted
H1b:	Meets expectations → Will recommend to family and friends.	Accepted
H1c:	Meets expectations → Intends to holiday within the next three years.	Accepted
H1d:	The stay is what you expected → You will return on your next holiday.	Accepted
H1e:	The stay is what you expected → You will recommend it to your family and friends.	Accepted
H1f:	The stay is what you had expected → You intend to holiday within the next three years.	Rejected

Table 15 Testing of hypotheses
Source: Fieldwork

Discussion and conclusions

According to the literature review, the purchase decision process for a holiday in a particular tourist destination involves a series of stages that start from the recognition of the existence of the need for a holiday, the search for information, and deciding on the destination until the experience is lived. From the post-consumer evaluation once the experience at the tourist site is over, new expectations may arise that will lead the individual to assume a future behaviour in relation to this tourist site.

Using the structured technique, in an empirically applied instrument in the context of the tourist services provided at Michigan Beach, in the Municipality of Tecpan de Galeana, Gro., Mexico, it was demonstrated that expectations are directly related to the future behaviour of the visitor/tourist. In the profile of the respondents, a segment of the demand is mainly made up of young adults, with an average age of 36 years, most of them married, with a higher and middle level of education, although to a lesser extent some do not have completed studies (local visitors). The majority of those surveyed have a monthly income that can be considered as medium-low (1 to 4 minimum wages) and a smaller percentage earn six or more minimum wages, mainly professionals and to a lesser extent those who work in the home. In terms of origin, the majority of visitors come from towns close to the municipality of Tecpan de Galena, followed by other municipalities in the State of Guerrero and a smaller percentage from other states in the country. They are repeat visitors/tourists, as most of them have been to the site more than eleven times, with an average stay of one day in the case of visitors, and from two to more than ten days in the case of tourists. Although the results suggest that the expectations of most of the respondents were not met, i.e. the experience was not what they expected, they are willing to continue to consider Michigan Beach in the Municipality of Tecpan de Galeana as a tourist site of their preference and to continue to vacation there. The future behaviour of the visitors/tourists shows a positive tendency to return on their next holiday, to recommend to family and friends and to intend to vacation in the next three years, which can be interpreted as a behaviour of loyalty.

This study is not without limitations, despite the fact that scientific criteria have been applied during its development, the exploratory nature does not allow the results to be generalisable, but it sets a precedent so that this type of study can be carried out in other sites or tourist destinations, with larger samples and other market segments, which can be seen as opportunities for improvement in future lines of research related to the subject.

References

Almeida-García, F., Peláez-Fernández, M. Á., Balbuena-Vázquez, A., & Cortés-Macías, R. (2016). Residents' Perceptions of Tourism Development in Benalmádena (Spain). Tourism Management, 54, 259-274. https://doi.org/10.1016/j.tourman.2015.11.007

Alonso-Almeida, M. del M. y Celemín-Pedroche, M. S. (2016). Competitividad y destinos turísticos sostenibles. *Esic Market Economics and Business Journal*, 47(2), 291-306. https://dialnet.unirioja.es/ejemplar/439012

Andereck, K. N. G., McGehee, S. L., & Clemmons, D. (2012). Experience Expectations of Prospective Volunteer Tourists. *Journal of Travel Research,* 51(2), 130-41. https://doi.org/10.1177/0047287511400610.

Andereck, K., Valentine, K, Knopf, R., & Vogt, C. (2005). Residents´ perceptions of community tourism impacts, *Annals of Tourism Research*, 32(4), 1056-1076. https://doi.org/10.1016/j.annals.2005.03.001.

Armbrecht, J., & Andersson, T.D. (2020). The event experience, hedonic and eudaimonic satisfaction and subjective well-being among sport event participants. Journal of Policy Research in Tourism, Leisure and Events, 12(3), 457-477. https://doi.org/10.1080/19407963.2019.1695346

Árpási, Z. (2018). Wellness tourism: What motivates the consumer. Valahian Journal of Economic Studies, 9(1), 87–92. https://doi.org/10.2478/vjes-2018-0009

Barrado, T. D. (2011). Recursos territoriales y procesos geográficos: el ejemplo de los recursos turísticos. *Estudios Geográficos*, LXXII (270), 35-58. https://doi.org/10.3989/estgeogr.201102.

Brandth, B., & Haugen, M. S. (2011). Farm diversification into tourism- implications for social identity? *Journal Rural Studies*, 1(27), 35-44. https://doi.org/10.1016/j.jrurstud.2010.09.002.

Brune, S., Knollenberg, W., Stevenson, K. T., Barbieri, C., & Schroeder-Moreno, M. (2021). The Influence of Agritourism Experiences on Consumer Behavior toward Local Food. Journal of Travel Research, 60(6), 1318–1332. https://doi.org/10.1177/0047287520938869

Buffa, F. (2015). Young tourists and sustainability. Profiles, attitudes, and implications for destination strategies. *Sustainability*, 7(10), 14042-14062. https://doi.org/10.3390/su71014042.

Burbano, A. B. P., Velástegui, E. B. C., Villamarin, J. M. P., y Novillo, C. E. Y. (2018). El marketing relacional y la fidelización del cliente, *Polo de Conocimiento*, 3(8), 579-590. https://polodelconocimiento.com/ojs/index.php/es

Chen, C. F., & Chen, F. S. (2010). Experience quality, perceived value, satisfaction and behavioral intentions for heritage tourists. *Tourism Management*, 31(1), 29–35. https://doi.org/10.1016/j.tourman.2009.02.008.

Chiu, Y.H., Lee, W., & Chen, T. (2014). Environmentally responsible behavior in ecotourism: antecedents and implications. *Tourism Management*, 40, 321-329. http://dx.doi.org/10.1016/j.tourman.2013.06.013.

Chunyang W., Hailin Q., & Maxwell K. H. (2016). Toward an integrated model of tourist expectation formation and gender difference. *Tourism Management,* 54 (2016), 58-71. https://doi.org/10.1016/j.tourman.2015.10.009

Čivre, Z., & Omerzel, G. (2015). The behaviour of tourism firms in the area of innovativeness. *Economic Research-Ekonomska Istraživanja*, 28(1), 312–330. https://doi.org/10.1080/1331677X.2015.1043778

Cohen S. A, Prayag G., & Moital M. (2014). Consumer behaviour in tourism: Concepts, influences and opportunities. *Current Issues in Tourism*, 17(10), 872 -909. https://doi.org/10.1080/13683500.2013.850064.

Corno, F. J (2018). User expectations in intelligent environments. Journal of Reliable Intelligent Environments. 4(4), 189–198. https://doi.org/10.1007/s40860-018-0068-z.

Davras, Ö., & Özperçin, İ. (2021). The relationships of motivation, service quality, and behavioral intentions for gastronomy festival: the mediating role of destination image. *Journal of Policy Research in Tourism, Leisure and Events*, 1-14. https://doi.org/10.1080/19407963.2021.1968881

Derbaix, C., & Vanhamme, J. (2003). Inducing word-of-mouth by eliciting surprise A pilot investigation. *Journal of Economic Psychology*, 24(1), 99–116. http://dx.doi.org/10.1016/S0167-4870(02)00157-5.

Devine, J., & Ojeda, D. (2017). Violence and dispossession in tourism development: A critical geographical approach. *Journal of Sustainable Tourism*, 25(5), 605–617. https://doi.org/10.1080/09669582.2017.1293401

Ekinci, Y., & Hosany, S. (2006). Destination Personality: An Application of Brand Personality to Tourism Destination. *Journal of Travel Research*, 45(2), 127-139. https://doi.org/10.1177/0047287506291603.

Fishbein, M., & Ajzen, I. (1975). *Belief, Attitude, Intention and Behavior: An Introduction to Theory and Research*. Addison–Wesley: Reading, MA.

Fletcher, C., Pforr, C., & Brueckner, M. (2016). Factors influencing Indigenous engagement in tourism development: International perspective. *Journal of Sustainable Tourism*, 24(8-9), 1100–1121. https://doi.org/10.1080/09669582.2016.1173045

Fun, F. S., Chiun, L. M., Songan, P., & Nair, V. (2014). The impact of local communities' involvement and relationship quality on sustainable rural tourism in rural area, Sarawak. The moderating impact of self-efficacy. *Procedia-Social and Behavioral Sciences*, 144, 60-65. http://dx.doi.org/10.1016/j.sbspro.2014.07.274.

Goodall, B., & Ashworth, G. (Eds.). (1988). Marketing in the Tourism Industry (RLE Tourism): The Promotion of Destination Regions (1st ed.). Routledge. https://doi.org/10.4324/9780203068595

Grappi, S., & Montanari, F. (2011). The role of social identification and hedonism in affecting tourist re-patronizing behaviors: The case of an Italian festival. *Tourism Management*, 32(5), 1128–1140. https://doi.org/10.1016/J.TOURMAN.2010.10.001

Handriana, T., & Ambara, R. (2016). Responsible environmental behavior intention of travelers on ecotourism sites. *Tourism and Hospitality Management, 22*(2), 135-150. http://dx.doi.org/10.20867/thm.22.2.4.

Hendijani, R. B., & Sulistyo, L. I. H. (2017). Tourists' expectation and perception regarding holiday in Jakarta, Indonesia. *Journal of Environmental Management and Tourism*, 8, 4(20), 919-926. http://dx.doi.org/10.14505/jemt.v8.4(20).22.

Hernández, S. R., Fernández, C. y Baptista, L. (2014). *Metodología de la Investigación (Sexta Edición)*. México: McGraw–Hill.

Hernández-Lobato, L., Solís-Radilla, M. M., Moliner-Tena, M. A., & Sánchez-García, J. (2006). Tourism Destination Image, Satisfaction and Loyalty: A Study in Ixtapa-Zihuatanejo, Mexico. *Tourism Geographies*, *8*(4), 343-358. https://doi.org/10.1080/14616680600922039.

Higgs B., Polonsky M. J., & Hollick, M. (2005). Measuring expectations: forecast vs. ideal expectations. Does it really matter? *Journal of Retailing and Consumer Services*, 12, 49-64. https://doi.org/10.1016/j.jretconser.2004.02.002

Hung, K., Wang, S., & Tang, C. (2015). Understanding the normative expectations of customers toward Buddhism-themed hotels: a revisit of service quality, *International Journal of Contemporary Hospitality Management*, 27(7), 1409-1441.https://doi.org/10.1108/IJCHM-12-2012-0264.

INEGI (2021). Instituto Nacional de Estadística, Geografía e Informática. *Anuario Estadístico del Estado de Guerrero, México.* Recuperado en: https://www.inegi.org.mx/.

Irmak, C., Block, L. G., & Fitzsimons, G. J. (2005). The placebo effect in marketing: Sometimes you just have to want it to work. *Journal of Marketing Research*, 42(4), 406–409. https://doi.org/10.1509/jmkr.2005.42.4.406.

Jaafar, M., Noor, S. M., & Rasoolimanesh, S. M. (2015). Perception of young local residents toward sustainable conservation programs: A case study of the Lenggong World Cultural Heritage Site. *Tourism Management*, 48, 154-163. https://doi.org/10.1016/j.tourman.2014.10.018

Kim, S., Ki, L. S., Lee, D., Jeong, J., & Moon, J. (2019). The effect of agritourism experience on consumers' future food purchase patterns. *Tourism Management*, 70, 144-152 https://doi.org/10.1016/j.tourman.2018.08.003.

Kotler, P., & Armstrong, G. (2017). Principle of marketing (2nd ed.). Pearson Holding South African (Pty) Ltd.

Kozak, M. (2001). Repeaters behavior at two distinct destinations. *Annals of Tourism Research*, *28*(3), 784–807. https://doi.org/10.1016/S0160-7383(00)00078-5

Li, Y., Zhang, H., Zhang, D., & Abrahams, R. (2019). Mediating urban transition through rural tourism, *Annals of Tourism Research*, 75, 152-164. DOI: https://doi.org/10.1016/j.annals.2019.01.001.

Line, N. D., & Costen, W. M. (2017). Nature-Based tourism destinations. *Journal of Hospitality & Tourism Research,* 41(3), 278–300. https://doi.org/10.1177/1096348014538053

Loperena, C. (2017). Honduras is open for business: Extractivist tourism as sustainable development in the wake of disaster? *Journal of Sustainable Tourism*, 25 (5), 618–633. https://doi.org/10.1080/09669582.2016.1231808

Mansouri, M., & Ujang, N. (2016). Tourist' expectation and satisfaction towards pedestrian networks in the historical district of Kuala Lumpur, Malaysia. *Asian Geographer*, *33*(1), 35-55. https://doi.org/10.1080/10225706.2016.1185639

Martínez-García, E., & Raya, J. M. (2008). Length of stay for low-cost tourism. *Tourism Management*, 29(6), 1064-1075. https://doi.org/10.1016/j.tourman.2008.02.011.

Melgosa, A. F. J. (2005). El Turismo rural en la provincia de Ávila. Una experiencia de desarrollo local. *8° Congreso de Turismo Universidad y Empresa. Fundación Universitat Empresa.* 335-344. Recuperado en: https://dialnet.unirioja.es/servlet/articulo?codigo=2238334

Mohaidin, Z., Wei, K. T., & Murshid,M. A. (2017). Factors influencing the tourists' intention to select sustainable tourism destination: A case study of Penang, Malaysia. International *Journal of Tourism Cities*, 3(4), 442–465. https://doi.org/10.1108/IJTC-11-2016–0049

Navarro, D. (2015). Recursos turísticos y atractivos turísticos: Conceptualización, clasificación y valoración. *Cuadernos Turismo*, 35, 335-357. Recuperado en: http://www.redalyc.org/articulo.oa?id=39838701014

Oliver, R. (1981). Measurement and Evaluation of Satisfaction Process in Retail Settings, *Journal of Retailing*, 57, 25-48. DOI: https://doi.org/10.1007/BF02723476

Oliver, R. L. (1980). A cognitive model of the antecedents and consequences of satisfaction decisions. *Journal of Marketing Research*, *17*, 460-469. http://dx.doi.org/10.2307/3150499.

Olson, J. C., & Dover, P. (1979). Disconfirmation of consumer expectations through product trail. *Journal of Applied Psychology*, 64, 179–18. http://dx.doi.org/10.1037/0021-9010.64.2.179.

Pap, A., Dlačić, J., & Ham, M. (2017). What makes the theatre audience return? the role of engagement in predicting future behavior. *Tourism in South East Europe, 4*, 423-435. http://dx.doi.org/10.20867/tosee.04.38.

Parasuraman, A., Zeithaml, V.A., & Berry, L. L. (1994). Reassessment of expectations as a comparison standard in measuring service quality implications for further research. *Journal of Marketing*, 58(1), 111-124. DOI: http://dx.doi.org/10.2307/1252255.

Park, S., & Nicolau, J. L. (2018). If you, tourist, behave irrationally, I'll find you! *Tourism Management*, 69, 434–439. https://doi.org/10.1016/j.tourman.2018.06.017.

Prayag, G., Hosany, S., & Odeh, K. (2013). The role of tourists' emotional experiences and satisfaction in understanding behavioral intentions. *Journal of Destination Marketing & Management*, 2(2), 118-127. https://doi.org/10.1016/j.jdmm.2013.05.001.

Rasoolimanesh, S. M., Roldán, J. L., Jaafar, M., & Ramayah, T. (2017). Factors Influencing Residents' Perceptions toward Tourism Development: Differences across Rural and Urban World Heritage Sites. Journal of Travel Research, 56(6), 760–775. https://doi.org/10.1177/0047287516662354

Rastegar, R. (2019). Tourism development and conservation, do local resident attitudes matter?. International Journal of Tourism Sciences 19(3), 181-191. https://doi.org/10.1080/15980634.2019.1663998

Russell, R., & Faulkner, B. (2004). Entrepreneurship, chaos and the tourism area lifecycle. *Annals of Tourism Research*, 31(3), 556-556. https://doi.org/10.1016/j.annals.2004.01.008

Sancho, A. (1998). *Introducción al turismo.* OMT, Madrid, España.

Setó, D. (2004). *De la calidad del servicio a la fidelidad del cliente*. Madrid, España: Editorial ESIC.

Silva, R., & Correia, A. (2017). Places and tourists: Ties that reinforce behavioural intentions. *Anatolia*, 28(1), 14–30. https://doi.org/10.1080/13032917.2016.1240093

Sinclair-Maragh, G., & Gursoy D. (2017). Residents' Identity and Tourism Development: The Jamaican Perspective. International Journal of Tourism Sciences 17(2),107–125. https://doi.org/10.1080/15980634.2017.1313472

Solís, R. M. M., Hernández, L. L., Moliner, T. M. A. y Sánchez, G. J. (2014). Análisis Exploratorio de la fidelidad y los principales conceptos relacionados en turismo: El caso Ixtapa-Zihuatanejo. *Revista de Estudios Empresariales. Segunda época*, *1*(2014), 90-112. Recuperado de http://revistaselectronicas.ujaen.es/index.php/REE/article/view/911.

Sönmez, S. F., & Graefe, A. R. (1998). Influence of terrorism risk on foreign tourism decisions. *Annals of Tourism Research*, 25, 112–144. https://doi.org/10.1016/S0160-7383(97)00072-8

Spreng, R. A., MacKenzie, S. B., & Olshavsky, R. W. (1996). A Reexamination of the Determinants of Consumer Satisfaction. *The Journal of Marketing*, *60*(3), 15-32. https://doi.org/10.1177/002224299606000302

Sthapit, E., Coudounaris, D. N., & Björk, P. (2019). Extending the memorable tourism experience construct: An investigation of memories of local food experiences. *Scandinavian Journal of Hospitality and Tourism*, 19(4-5), 333–353. https://doi.org/10.1080/15022250.2019.1689530

Stone, M. J., Soulard, J., Migacz, S., & Wolf, E. (2018). Elements of Memorable Food, Drink, and Culinary Tourism Experiences. Journal of Travel Research, 57(8), 1121–1132. https://doi.org/10.1177/0047287517729758

Stone, M. J., Soulard, J., Migacz, S., & Wolf, E. (2018). Elements of Memorable Food, Drink, and Culinary Tourism Experiences. Journal of Travel Research, 57(8), 1121–1132. https://doi.org/10.1177/0047287517729758

Sugiri, A., & Putri, A. K. (2015). Equity Issues in Benefits Distribution: The Case of Kreo Cave Tourism in Semarang, Indonesia. *Journal of Sustainable Development,* 8(8), 171-181. http://dx.doi.org/10.5539/jsd.v8n8p171.

Teas, R. K., & Palan, K. M. (2003). Disconfirmed Expectations Theory of Consumer Satisfaction: An Examination of Representational and Response Language Effects. *Journal of Consumer Satisfaction, Dissatisfaction and Complaining Behavior*, *16*, 81-100. Recuperado de: https://search.proquest.com/docview/204700568?accountid=15297.

Tiwari, R., & Hashmi, H. (2022). Integrating concepts of destination image, travel motivations, expectation, and future behavior to create a model of wellness travel intentions, International Journal of Spa and Wellness, 5(2), 185-206, https://doi.org/10.1080/24721735.2022.2057714

Torres, D. A., & López, P. F. (2014). Measuring sustainable tourism at the municipal level. *Annals of Tourism Research*, *49*(3), 127-142. https://doi.org/10.1016/j.annals.2014.09.003

Tukamushaba, E., Xiao, H., & Ladkin, A. (2016). The effect of tourists' perceptions of a tourism product on memorable travel experience: Implications for destination branding. European Journal of Tourism, Hospitality and Recreation,7(1) 2-12. https://doi.org/10.1515/ejthr-2016-0001

Tukamushaba, E., Xiao, H., & Ladkin, A. (2016).The effect of tourists' perceptions of a tourism product on memorable travel experience: Implications for destination branding. European Journal of Tourism, Hospitality and Recreation,7(1) 2-12. https://doi.org/10.1515/ejthr-2016-0001

Vera, J. (2016). Two paths to customer loyalty: The moderating effect of the differentiation level strategy in the performance-satisfaction-value-intentions relationship. *The Journal of Product and Brand Management,* 25(2), 171-183. https://doi.org/10.1108/JPBM-01-2015-0789.

Vignolles, A., & Pichon, P. E. (2014). A taste of nostalgia: Links between nostalgia and food consumption, Qualitative Market Research. *An International Journal*, 17(3), 225–238. https://doi.org/10.1108/QMR-06-2012-0027.

Vivek, S. D., Beatty, S. E., Dalela, V., & Morgan, R. M. (2014), A generalized multidimensional scale for measuring customer engagement. *Journal of Marketing Theory and Practice*, 22(4), 401-420. https://doi.org/10.2753/MTP1069-6679220404.

Wang, C., Qu, H., & Hsu, M. K. (2016). Toward an integrated model of tourist expectation formation and gender difference. *Tourism Management*, 54, 58-71. https://doi.org/10.1016/j.tourman.2015.10.009.

Wu, H.-C., & Li, T. (2017). A study of experiential quality, perceived value, heritage image, experiential satisfaction, and behavioral intentions for heritage tourists. *Journal of Hospitality & Tourism Research*, 41(8), 904–944. https://doi.org/10.1177/1096348014525638

Xiang, Z. P., Magnini, V., & Fesenmaier, D. R. (2015). Information Technology and Consumer Behavior in Travel and Tourism: Insights from Travel Planning Using the Internet. *Journal of Retailing and Consumer Services.* 22(10), 244-249. 10.1016/j.jretconser.2014.08.005.

Ye H., & Tussyadiah, P. L. (2011). Destination visual image and expectation of experiences. *Journal of Travel & Tourism Marketing*, 28(2), 129–144. https://doi.org/10.1080/10548408.2011.545743.

Ye, S., Wei, W., Wen, J., Ying, T., & Tan, X. (2021). Creating Memorable Experience in Rural Tourism: A Comparison between Domestic and Outbound Tourists. Journal of Travel Research, 60(7), 1527–1542. https://doi.org/10.1177/0047287520951641

Zeelenberg, M., & Pieters, R. (2004). Beyond valence in customer dissatisfaction: A review and new findings on behavioral responses to regret and disappointment in failed services. *Journal of Business Research,* 57(4), 445–455. http://dx.doi.org/10.1016/S0148-2963(02)00278-3.

Zhang, Y., Xiong, Y., Lee, T. J., Ye, M., & Nunkoo, R. (2021). Sociocultural Sustainability and the Formation of Social Capital from Community-based Tourism. Journal of Travel Research, 60(3), 656–669. https://doi.org/10.1177/0047287520933673

Zheng, D., Ritchie, B., Benckendorff, P., & Bao. J. (2019). Emotional responses toward Tourism Performing Arts Development: A comparison of urban and rural residents in China. *Tourism Management*, 70. 238-249. https://doi.org/10.1016/j.tourman.2018.08.019.

The influence of innovation activities and knowledge management on the competitiveness of manufacturing smes: an empirical study

La influencia de las actividades de innovación y la gestión del conocimiento en la competitividad de las PYME manufactureras: un estudio empírico

AGUILERA-ENRÍQUEZ, Luis†, CUEVAS-VARGAS, Héctor RANGEL-MAGDALENO, Jorge and HERNÁNDEZ-CASTORENA, Octavio

Universidad Iberoamericana, México.

ID 1st Author: *Luis, Aguilera-Enríquez*

ID 1st Co-author: *Héctor, Cuevas-Vargas*

ID 2nd Co-author: *Jorge, Rangel-Magdaleno*

ID 3rd Co-author: *Octavio, Hernández-Castorena*

Abstract

This research aims to show the influence of innovation activities and knowledge management on the competitiveness of manufacturing small and medium enterprises (SMEs). For this, with a sample of 150 SMEs in the manufacturing sector in the state of Aguascalientes, Mexico, a multiple linear regression analysis was performed in order to evaluate the correlation among the variables used. The results obtained provide empirical evidence that innovation activities and knowledge management have a positive and significant impact on the competitiveness of the companies studied.

Competitiveness, SMEs, Innovation

Resumen

Esta investigación tiene como objetivo mostrar la influencia de las actividades de innovación y la gestión del conocimiento en la competitividad de las pequeñas y medianas empresas (PYMES) manufactureras. Para ello, con una muestra de 150 PYMES del sector manufacturero del estado de Aguascalientes, México, se realizó un análisis de regresión lineal múltiple con el fin de evaluar la correlación entre las variables utilizadas. Los resultados obtenidos aportan evidencia empírica de que las actividades de innovación y la gestión del conocimiento tienen un impacto positivo y significativo en la competitividad de las empresas estudiadas.

Competitividad, PYMES, Innovación

† Researcher contributing first author.

Introduction

In the present day, the importance of small and medium enterprises (SMEs) to the national and international economy is indisputable. According to the figures produced by the most recent economic census carried out by the National Institute for Statistics and Geography (INEGI) in 2009, SMEs in Mexico represent 4.8% of all companies in the country. Furthermore, they generate 26.4% of the Gross Domestic Product and 31.2% of formal employment.

With very similar figures, SMEs are also very important to the state of Aguascalientes with, according to INEGI, 5.14% of businesses being this size. Additionally, SMEs provide 24.85% of the Gross Domestic Product in the state, and 25.81% of economically active people found employed in a business with these characteristics (INEGI, 2009).

The manufacturing industry occupies a position of transition in the state. 10.52% of the manufacturing businesses in the state are small or medium in size (INEGI, 2009). According to the figures produced by INEGI in 2012, Aguascalientes has been one of the states in which the manufacturing industry, with 27.1%, occupies first place in the generation of Gross Domestic Product; furthermore, employment is principally provided by the manufacturing sector, at a level of 30.4%. The total level of remuneration made to people employed by the manufacturing industry rises to 48.7% of the total remunerations to the employed population in the state.

Despite the importance of this type of company, one of the principal problems that they face is a lack of innovation. The 2010 Business Environment Survey —Problems Encountered by Businesses in the Industrial Sector‖ conducted by the National Chamber for the Transformation of Industry (CANACINTRA) identified the principal problems encountered by businesses of this type. The results show that industrial companies are not able to adequately become competitive due to a lack of technological innovation, to which attested 20% of the 472 industrial companies surveyed (CámaraNacional de la Industria de Transformación, 2010).

Combined with the foregoing, and in order to keep themselves fully functioning, 13% of the companies surveyed do not use new suppliers. Reestablishing relationships with existing suppliers, with whom a greater effort is made to incorporate greater innovation in products, is seen as a viable alternative to follow in order to confront contemporary challenges (Varma, Wadhwa&Deshmukh, 2006). For their part, SME manufacturers are in the same situation in that that they find it difficult meeting the challenge of adequately competing with their rivals due to a lack of innovation and development activities (CámaraNacional de la Industria de Transformación, 2010).

On the other hand, companies are placing ever greater importance on the treatment and conversion of information, knowledge, and abilities in the workforce, and to this end, knowledge management. These changes have been identified by various researchers as processes through which companies' values are displaced into intangible values Jones, 2004; Maldonado, Martínez&García, 2012).

In this sense, Maldonado et al. 2012, quoting McAdam & Reid 2001 , show how SME's low competitiveness could be related to a low level of investment in knowledge management.

To be successful in ever more globalized and highly competitive markets, companies need to develop new ideas which translate into useful, transmissible and conservable knowledge. From this emerges the necessity of studying the influence of innovation activities and knowledge management on companies levels of competitiveness. This research, through surveys conducted with managers in a sample of 150 companies from the manufacturing sector in Aguascalientes, obtained the results analyzed here through the technique of Multiple Regression, with support from the statistical program IBM SPSS Statistics version 21. The results show innovation activities and knowledge management as having a positive and significant influence on the competitiveness of SME manufacturers.

Literature review

Innovation activities and the competitiveness of SME manufacturers

Currently, the growth of organizations demands, among other options, the reinforcement of innovation activities (Jiménez, 2006). To do this, it is important to emphasize that, with the influence of innovation activities, organizations need to have a greater level of competitiveness, especially SME manufacturers Valentinavičius, 2005 . In their research, Pavón& Goodman (1981) consider that innovation activities influence companies in such a way as to be reflected both in business results and in a gradual increase in competitiveness (Brunnermeier&Cohen, 2003).

SME manufacturers, through their staff responsible for operational activities, are concerned with the updating of the methods and strategies that enable them to control their innovation activities in the best way possible, in order to make their company ever more competitive (Cho, Leem& Shin, 2008). In this way, on being developed in organizations, all innovation activity should have as an objective the standardization of operations, such as procedures, on being integrated into the organizational activity of the manufacturing SME (Kickert, 1979; Saren, 1984; Vrakking&Cozijnsen, 1993). This means that it is important that all innovation is for the benefit of the organizations, so that each activity undertaken internally adds elements to ensure that the company has better results and is, therefore, more competitive (Bessant& Grunt, 1986).

It is important, therefore, to show that innovation activity is the result of a process of analysis and study focused on improving some part of the operations on which SME manufacturers rely (Fernández, 1995; Velázquez, 2007;Aguilera, González & Hernández, 2013). To this end, all innovation activity that is carried out in each of the company's internal processes needs to use strategies that deliver both a beneficial system and a registry of the results of each improvement implemented. With this the company can evaluate whether the innovation will be a key element in making it more competitive and, with this, enabling it to perform better (Fernández, 1995; Macdonald, 2000; Aguilera et al., 2013).

The European Commission(2011) considers that innovation activity is a key element for the growth and competitiveness of an organization, which informs those business people seeking to invest in this option, enabling them to see companies as benefitting in each of the instances of this type of investment Jaffe & Palmer, 1997; Mineikaitė, 2013 . Innovation activity has been converted into an essential part of the development of a region and, of course, a company. Currently, for this reason, many researchers associate this activity with business results in terms of the competitiveness of manufacturing companies Sternberg, 2000; Cho et al., 2008; Mineikaitė, 2013.

For the Organization for Economic Co-operation and Development (OECD), innovation activity has been an important element in normalization. As, from the international point of view, this is something that should be established, great efforts have been undertaken in the generation of proposals significant for organizations competitiveness and performance, especially for manufacturing SMEs that demonstrate the following typology (Sternberg, 2000; Panne, Beers &Kleinknecht, 2003; Chía, 2004; Ozcelik&Taymaz, 2004; Fagerberg, Mowery & Nelson 2005; Rodríguez, 2013):

- Innovation in products: Considered as goods and services which are constantly required for cosmetic improvements, the adoption of technology, and functional adaptations, according to the requirements of the market.

- Innovation in processes: Focused on substantial improvements which can be either operational or administrative, and which have a strong impact on companies' productivity, effectiveness, and competitiveness.

- Organizational innovations: These understand improvements and structural adjustments, as well as organizations, from the perspective of the implementation and/or improvement of administrative processes applied to each of the company's operational areas.

Innovation activities are fundamental to making businesses, such as manufacturing SMEs, more competitive (Chía, 2004; Ozcelik&Taymaz, 2004; Rodríguez, 2013). To this end the following hypothesis is proposed:

H1: The competitiveness of the manufacturing SMEs in Aguascalientes is positively and significantly influenced by innovation activities.

Knowledge management and competitiveness in the SME

Based on various studies conducted by other researchers, some authors define knowledge management as the interchange of knowledge between individuals with the aim of constructing an information system which can be used, once information has accumulated (Crnjar, 2006; Bernal, Turriago& Sierra, 2010), to establish a relationship with educational systems. Intervention, in this context, on the part of technology and internet systems, then gives a sense of benefit and positivity to the management of information useful for individuals' development Blanco and Bernal, 2009 . In particular, this benefits manufacturing SMEs in their continual search for improved performance and competitiveness (Andreu, Baiget&Salvaj, 2004; Crnjar, 2006).

It is hoped that knowledge management in organizations will be a key element, whose objective will be to cooperate in the improvement of business systems in order to create more competitive organizations in the face of the dynamic and aggressive contemporary business environment (Bergeron, 2003; Andreuet al., 2004). In this sense, it is important to emphasize that business people must be aware that the knowledge generated by individuals is of great importance to the achievement of business objectives, and to facilitate the sense that, through procedures and techniques, individuals need to learn and grow in order to be better able to carry out their duties Črnjar, 2006.

From an entrepreneurial and business point of view, and through the integration of elements such as strategies, policies, techniques and specific procedures (Earl, 2001), knowledge management is an activity through which an operational system can be established. Besides the business objectives involved, this system focuses on enabling managers to achieve results in terms of manufacturing SME´s levels of performance and competitiveness. This development of the individual also has great benefit for the organization in general (Bernal, Fracica& Frost, 2012; Aguilera, Sandoval, Torres & Rodríguez, 2013).

From a strategic point of view, knowledge management requires the interrelationship between implicit and explicit knowledge in all intellectual activity and learning. This allows individuals to find and make collaborative use of knowledge as a group in the interest of ensuring that organizations are seen to benefit from these types of individual actions (Bernal et al., 2012). From the point of view of many companies, knowledge management is the intentional and systematic strategy in which intellectual capital is integrated into business activities with the aim of contributing to the organization's performance and competitiveness Bergeron, 2003; Črnjar, 2006 .

Being of intentional and systematic characters, knowledge management, the administration of human and technological resources, work systems, and other organizational structures all enable companies to optimize their resources, as seen in their contribution to the innovation required by the company for improved performance. For this, the generation of knowledge and its appropriate use enables SME manufacturers to achieve an improved level of development and use of resources. This is so that the operational systems will benefit in that they are able to rely on an accumulation of knowledge generated by the individuals that form part of the company, which will in turn facilitate the work of any other individual working within the same company (Dalkir, 2005).

The basic objective of knowledge management is to develop excellence in a business, and to work to ensure that this type of organization is competitive in the market. For this, it is important to ensure that knowledge is a key element within the organization, guaranteeing its performance and position in these ever more demanding markets. In this sense, knowledge management should consider the following elements: The efficient development of new and existing knowledge, taking into account the strategy of the organization and the objectives of the individual employees; the selective distribution of new knowledge and the transfer of knowledge to other employees; an efficient distribution of knowledge, such as the information given to all those within the organization; and, the optimal use of the knowledge generated Črnjar, 2006 .

For the companies and the individuals involved, knowledge represents a way of having intangible assets whose value depends on how they should be put into practice. This is depends on the business policies and practices that enable this knowledge to acquire specific value for both the institution and the individual. Knowledge is an important element to consider in terms of business performance, which leads to the consideration that the measurement of knowledge management is not an exact science, as in the case of accountancy or the basic sciences.

This measurement should, therefore, be broad and conducted depending on the sector on which the knowledge management study is focused (Davidson & Voss, 2002; Crnjar, 2006).

It is important to emphasize that, on effectively taking advantage of the benefits of knowledge management, organizations and especially manufacturing SMEs find it easier to become competitive in that there is an added value to human capital, as much for individuals as the companies themselves (Pascale, 2005; Wiig, 2009). In this sense, among the benefits that companies can obtain through knowledge management are innovation and development, the improvement and optimization of intellectual capital, the increase of knowledge as well as the abilities of the individual, and with these improve both internal and external client services (Despres&Chauvel, 2000; Davidson & Voss, 2002; Crnjar, 2006; Aguilera et al., 2013).

Through the application of knowledge management, a business system can augment its profitability, create a harmonious environment between the employees and ensure the sustainability and competitiveness of the organization. Knowledge management initiatives can create added value for the organizations, based on the fact that the use of knowledge is a key element that can improve the companies' performance and competitiveness, providing a significant benefit for both clients and individuals within the same organization (Sveiby, 2004; Crnjar, 2006; Aguilera et al., 2013).

Knowledge management within an organization naturally involves people, technology and processes. It is important to emphasize the general consensus that knowledge management depends on the context, the processes and forms of execution of other functions and processes. This leads to the emphasis that there are important reasons that a company should promote the following (Navas&Guerras, 1998; Vázquez, Sánchez & Rodríguez, 2012):

- The creation of exponential knowledge benefits for those learning and developing themselves from the same source, with an impact focused on giving them a greater level of performance in the activities generated within the business.

- Develop the capacity of businesses to rapidly respond to clients, the creation of new markets, the development of new products and new dominant technologies, based on the fact that knowledge management takes advantage of and maximizes concentrated information for internal use within the organizations.

- Build mutual confidence between employees and the knowledge held by their manager to the point where, finally, there is an expectation of incrementing and encouraging cooperation in terms of time management for whichever of the tasks assigned to the individuals within the organizations.

- Manage both the knowledge generated by the experts in a field and the retention of the same, with the aim that the information obtained be of advantage to the business dynamic of the organizations in which said information is concentrated.

In this way, the following hypothesis is posited: (Despres&Chauvel, 2000; Davidson & Voss, 2002; Crnjar, 2006; Aguilera et al., 2013)

H2: The competitiveness of manufacturing SMEs in Aguascalientes is positively and significantly influenced by knowledge management.
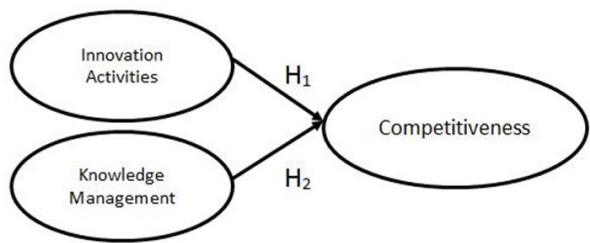
Theoretical model

Figure 1 Design of theoretical model

Materials and methods

An empirical study was carried out with a quantitative focus of a correlational and transverse type, through multiple linear regression analysis. The instrument on which the study was based comprises 52 items measured on a Lickert type scale from 1 to 5, which registers from total disagreement up to total agreement, and which was conducted with the managers at manufacturing SMEs in the state of Aguascalientes, México.

The study described above analyzed the use of knowledge management and innovation activities in manufacturing SMEs in Aguascalientes for improved business competitiveness. The 2014 Business Directory database from the Sistema de InformaciónEmpresarial de México (the Mexican Business Information System, or SIEM) in the state of Aguascalientes (Department of Finance, 2014), was taken as the reference for the development of this study, in which are registered 5,209 businesses until 14th February of the same year, of which 793 pertain to the industrial sector, and of these, 250 are SMEs.

This study, using a simple random sampling method with a 95% confidence level and a 5.1% margin of error, applied a personalized survey style measurement to a sample of 150 SMEs from the industrial manufacturing sector in Aguascalientes. Said information is presented in Table 1, which makes reference to the research design.

Characteristics	Research
Population*	250 Small and Medium Enterprises
Graphic Area	State of Aguascalientes, México
Object of the study	Manufacturing SMEs of between 11 to 250 workers
Information collection method	Personal interviews with managers
Sampling method	Simple random sampling
Sample size	150 SMEs
Sampling error	±5.1% error, 95% confidence level (p=q=0.5)
Field work	September to October 2012

Table 1 Research design
Source: Sistema de Información Empresarial de México (SIEM), 2014

For the preparation of the measurement instrument, 3 blocks were used: innovation activities, knowledge management, and competitiveness.

To measure innovation activities, innovation in products, innovation in processes, and innovation in management were considered (Zahra &Covin, 1993; Kalantaridis&Pheby, 1999; Frishammar&Hörte, 2005; Madrid-Guijarroet al., 2009). The study had a reliability level of .890, in line with Cronbach's alpha coefficient, as consistency between the variables can be interpreted (Nunnally & Bernstein, 1994).

With respect to knowledge management, the four dimensions proposed by Bozbura (2007) were considered:

1) Employee training measured using a scale of 5 items adapted by Bontis (2000) and the OECD (2003).

2) Policies and strategies for knowledge management measured with a scale of 13 items and adapted by Bozbura (2004, 2007)

3)   The creation and acquisition of external knowledge, measured with a scale of 5 items adapted by the OECD (2003) and Bozbura (2007).

4)   Effects of the organizational culture on knowledge management, measured with a scale of 4 items and adapted by the OECD (2003) and Bozbura (2007), which has a reliability level of .921, in line with Cronbach's alpha coefficient, as consistency between the variables can be interpreted (Nunnally & Bernstein, 1994).

With respect to measurement of competitiveness, the three factors presented by Buckley et al. (1988) were taken into account: 1) financial performance, measured by a scale of 6 items; 2) cost reduction, measured by a scale of 6 items; and 3) the use of technology, measured by a scale of 6 items, with a reliability level of .922, in line with Cronbach's alpha coefficient as consistency between the variables can be interpreted (Nunnally & Bernstein, 1994).

The instrument was submitted to a statistical reliability test, which was carried out using Cronbach's alpha coefficient with the constructs based on the instrument. The results drawn from said test being .952, which can be used to interpret that the study is reliable and that there is consistency between the variables (Nunnally & Bernstein, 1994).

Results

This study aimed to verify the applicability conditions of the multiple linear regression analysis applied to the research model in order to determine the influence of knowledge management and innovation activities on the competitiveness of manufacturing SMEs in Aguascalientes. To this end, normality, homoscedasticity and lineality tests were carried out, finding that the variables which are the objects of this study do not present any type of normality, homoscedasticity and lineality problem. What proceeds from the multiple linear regression analysis conducted using the software SPSS Statistics V21 is presented in Table 2, which gives a model summary, which was used to obtain an R value of .806, and an R² value of .650.

This indicates that, together, the variables of knowledge management and innovation activity are matched by 80.6% with the competitiveness of manufacturing SMEs in Aguascalientes, and that, together, they explain 65% of the competitiveness of manufacturing SMEs in Aguascalientes.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.756ᵃ	.571	.568	.526	
2	.806ᵇ	.650	.645	.477	1.485
A. Predictor variables: (constant), innovationactivity					
B. Predictor variables: (constant), innovationactivity, knwoledgemanagement					
C. Dependent variable: competitiveness					

Table 2 Model summary
Source: Original production based on the results of multiple linear regression

From the results of the linear regression presented in Table 3, it can be concluded that around 62.6% of the competitiveness of manufacturing SMEs in Aguascalientes is due to innovation activities. This significantly influences competitiveness, with a value t of 11.643, to a level of significance of 0.001. In same way, the knowledge management variable influences the competitiveness of the manufacturing SMEs in Aguascalientes by 30.9%, with a value t of 5.738. Together, innovation activities and knowledge management explain 64.5% of competitiveness, with a value F of 136.297, which is significant for its value of p < 0.001. In terms of the collinearity statistics, an FIV of 1.214 was obtained, which indicates that the model does not present multicollinearity problems due to the proximity to the number one (Hair, et al., 1998).

Variables	Competitiveness
Innovation activities	0.626*** (11.643)
Knowledge management	0.309*** (5.738)
Adjusted R²	0.645
F-statistic	136.297***
Highest FIV	1.214
***P < 0.001 The value between parentheses represents the value of "t"	

Table 2 Results of the linear regression analysis
Source: Original production based on the results of the multiple linear regression

The model has also been validated by dividing the sample into two sub-samples and, on being run with the two sub-samples, the results obtained are similar in terms of R^2, due to there being no more than a 10% difference between these and the original sample (Hair, et al., 1998).

According to the results obtained, equation Y, which represents the competitiveness of manufacturing SMEs in Aguascalientes, is presented below.

Competitiveness = β_0+ (β_1*innovation activities) + (β_2*knowledge management) + e

With the objective of presenting anomalous observations, Figure 2 shows the studentized residuals and whether there are data that serve as outliers. These are presented in the upper part of the graph above the red line, and below the red line in the lower part, which shows the limits of the two standard errors.
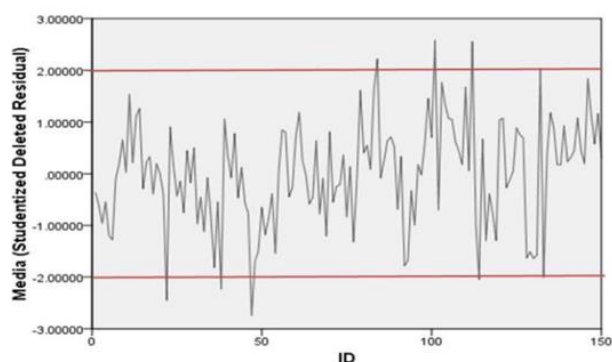

Figure 1 Graph of studentized residuals
Source: Original production based on the results of the multiple linear regression

Therefore, the results obtained in this study verify its hypotheses. Regarding H1, the results (β= 0.626, p < 0.001) indicate that innovation activities have significant effects on the competitiveness of manufacturing SMEs in Aguascalientes. This is due to the fact that innovation activities positively influence the competitiveness of manufacturing SMEs in Aguascalientes by 62.6%, and that, therefore, H1 is accepted. With regard to H2, the results obtained (β= 0.309, p < 0.001) indicate that knowledge management has significant effects on the competitiveness of manufacturing SMEs in Aguascalientes. This is by virtue of the fact that knowledge management positively influences the competitiveness of manufacturing SMEs in Aguascalientes by 30.9%, and that, therefore, H2 is accepted.

Conclusion

In an ever globalized environment, it is important to be prepared to face the challenges of a dynamic, and even unstable, market. Aspects such as innovation and knowledge management represent factors of great importance to the competitiveness of organizations, and, considering the factors shown here, represent a more effective way of confronting the challenges posed by the external environment.

In terms of innovation, great interest in this area has been awoken in researchers, who have taken it into consideration as part of their research, reaffirming it as a determinant in business performance and an influence on competitiveness, a reality shared by manufacturing SMEs in Aguascalientes. The results obtained in this study allow the inference that innovation activity positively influences the competitiveness of the sample of SMEs from the manufacturing industry featured here.

Within innovation activities, it is possible to emphasize the importance of the intervention of specialized external consultancy as an agent of innovation performance, which has repercussions on the competitiveness if the company.

Owing to their high level of specialization in particular themes, specialized external consultancy services, also known as ―outsourcing‖, commonly have greater knowledge of the current situation in the industry itself, which is then manifested in both the organization in question and others. These consultants also provide a more objective perspective, as well as maintaining up-to-date information and future trends useful for the decision-making process, enabling the explosion of innovation activities in SMEs.

On the other hand, SME managers must maintain an awareness of the importance of the generation and consolidation of knowledge in various functions and processes in the company. This enables the motivation of employees in order that the innovations developed are converted into useful.

AGUILERA-ENRÍQUEZ, Luis, CUEVAS-VARGAS, Héctor RANGEL-MAGDALENO, Jorge and HERNÁNDEZ-CASTORENA, Octavio. The influence of innovation activities and knowledge management on the competitiveness of manufacturing smes: an empirical study. 2022

Knowledge for the organization. Moreover, innovations can be transmitted to colleagues horizontally, diagonally and vertically, both on descending and ascending axes, without leaving to one side their transfer to new staff, who will be able to apply this new dexterity to their functions and facilitate their incorporation into the company.

Finally, it is relevant to emphasize the necessity of establishing mechanisms, through policies and programs, which facilitate and incentivize the generation and development of knowledge. This is with the objective of ensuring that this is consolidated in the company and that those employees who possess this knowledge achieve permanency in their post, and, in the case of retirement, the knowledge generated is passed on and continues being developed in the company.

Limitations

Within the limitations, it should be emphasized that the surveys were answered from the point of view of managers from the companies, which is likely to have lent subjectivity to their answers. Furthermore, the quantity of companies studied may not be representative on comparing them with all the companies in the manufacturing industry in the state of Aguascalientes, which is only slightly above thirty percent. Future research could evaluate the possibility of widening the focus of the study, considering that, with companies of different dimensions, a comparative industrial analysis can be carried out in other geographic areas and/ or sectors of production in order to increment the validity of the theoretical model used. Finally, it is advised that new constructs are established with the variables used to amplify the results and compare them with the conclusions presented in this article.

References

Aguilera, E. L., González, A. M. y Hernández, C. O. (2013). La influencia de la actividad innovadora en la actividad de operación en la pyme de Aguascalientes para una mejor competitividad empresarial: un estudio empírico. Global Conference on Business and Finance Proceedings. 8 (1). ISSN 1941-9589 ONLINE & ISSN 2168-0612 USB Flash Drive 1011.

Aguilera, E. L., Sandoval, R. C. A. G., Torres, R. J.J. y Rodríguez, C. R. (2013). La gestión del conocimiento como elemento de competitividad en la industria manufacturera en Aguascalientes. Global Conference on Business and Finance Proceedings, 8 (1). ISSN 1941-9589 ONLINE & ISSN 2168-0612 USB Flash Drive 642.

Andreu, R., Baiget, J. y Salvaj, E. (2004). Gestión del conocimiento y competitividad en la empresa española. Barcelona: CapGemini-IESE.

Bergeron, B. (2003). Essentials of Knowledge management. New Jersy:Wiley

Bernal, C., Turriago, A. y Sierra, H. (2010). Aproximación a la medición de la gestión del conocimiento empresarial. Revista Administer, 16. 31- 49.

Bernal, T. C. A., Fracica, N. G. y Frost. G. J. S. (2012). Análisis de la relación entre la innovación y la gestión del conocimiento con la competitividad empresarial en una muestra de empresas en la ciudad de Bogotá.

Bessant, J. y Grunt, M. (1986). Management and manufacturing innovation in the United Kingdom and West Germany (Aldershot: Gower).

Blanco, C. y Bernal, C. (2009). Percepciones sobre la gestión del conocimiento por parte de una muestra de directivos. Cultura, Tecnología y Patrimonio, 4(7). 81-97.

Bontis, N. (2000). Intellectual capital and business performance in Malaysian industries. Journal of Intellectual Capital, 1 (1), (pp. 85-100).

Bozbura, F.T. (2004). Measurement and application of intellectual capital in Turkey. The Learning Organization. An International Journal, 11 (4/5), (pp. 357-367).

Bozbura, F.T. (2007). Knowledge management practices in Turkish SMEs. Journal of Enterprise Information Management, 20 (2), (pp. 209-221).

Bradley, K. (1997). Intellectual capital and the new wealth of nations. Business Strategy Review, 53-62.

Brunnermeier, S. y Cohen, M. (2003). The Determinants of Environmental Innovation in US Manufacturing Industries. Journal Environmental Economics and Management, 45(1). 278-293.

Buckley, J.P., Pass, L.C., y Prescott, K. (1988). Measures of international competitiveness: A critical survey, Journal of Marketing Management, 4(2), 175-200.

Cámara Nacional de la Industria de Transformación. (2010). Encuesta de Entorno Empresarial 2010:
"Principales problemas que afectan a las empresas". México: CANACINTRA.

Chía, G. J.A. (2004). La obtención sistematizada de información sobre la actividad innovadora de las empresas por medio de las encuestas nacionales de innovación. Ciencias de la Información, 35 (3).

Cho, Y.J., Leem, Ch.S. y Shin, K.T. (2008). The relationships among manufacturing innovation, competitiveness and business performance in the manufacturing industries of Korea. International Advanced Manufacturing Technology, 38(1). 840-850.

Črnjar, K. 2006 . Contribution of knowledge management to the development of the hotel enterprise's competitiveness. International Conference of the Faculty of Economics Sarajevo.

Cruz, J., Hernández, O., & Rangel, J. (2014). La influencia del café de Judith en Octavio y Jorge (y el jaguar). Revista de chistes de la UAA, 20-32.

Dalkir, K. (2005). Knowledge management in the theory and practice. Oxford: Elsevier

Davidson, C. y Voss, P. (2002). Knowledge management. Auckland: Tandem Press.

Despres, C. y Chauvel, D. (2000). Knowledge Horizons, The Present and the promise of KM.
Boston:BH.

Earl, M. (2001). Knowledge Management Strategies: Toward Taxonomy. Journal of Management Information Systems, 18(1). 215-233.

Edvinson, L., & Malone, M. (1999). El capital Intelectual: cómo identificar y calcular el valor de los
recursos intangibles de su empresa. Barcelona, España: Gestión 2000.

European Commission. 2011 . Innovation Union Scoreboard. The Innovation Union's Performance Scoreboard for Research and Innovation.

Fagerberg, J., Mowery, D. C. y Nelson, R. R. (2005). The Oxford Handbook of Innovation. New York: Oxford UniversityPress.

Fernández, I. (1995). La Formación para la Gestión. Formación Para la Innovación. 111.

Frishammar, J. and Hörte, S., (2005 , ―Managing external information in manufacturing firms: the impact of innovation performance‖, Journal of Product Innovation Management, Vol. 22, pp. 251-266.

Hair, J.F., Anderson, R.E., Tatham, R.L. y Black, W.C. (1998). Multivariate Data Analysis (5th Edition). New Jersey: Prentice Hall.

Instituto Nacional de Estadística y Geografía. (2009). Micro, Pequeña, Mediana y Gran Empresa:
"Estratificación de los Establecimientos". Censo Económico 2009. Aguascalientes: INEGI.

Instituto Nacional de Estadística y Geografía. (Junio 2012). Perspectiva Estadística Aguascalientes.

INEGI.

Jaffe, A. y Palmer, K. (1997). Environmental Regulation and Innovation: A. Panel Data Study. TheReview of Economics and Statics, 79(4). 610-619.

Jiménez, A.E. (2006). Diseño y Aplicación de una Metodología para la elaboración de la estratégica tecnológica en la Empresa de Desmonte y Construcción de Pinar del Rio. Tesis en opción al grado científico de Máster en Ciencias Económicas. Universidad de Pinar del Rio.

Jones, K. (2004). An investigation of activities related to knowledge management and their impacts on competitivieness. Lexington, Kentucky: University of Kentucky.

Kalantaridis, C. and Pheby, J., 1999 , ―Processes of innovation among manufacturing SMEs: the experience of Bedfordshire‖, Entrepreneurship and Regional Development, Vol. 11, pp. 57-78.

Kickert, W. J. M. (1979). Organization of decision-making. A systems-theoretical approach (Amsterdam: North-Holland Publishing Company).

Macdonald, S. (2000). Information for Innovation: Managing Change from an Information Perspective. Oxford University Press, Oxford UK.

Madrid-Guijarro, A., Garcia-Perez-De-Lema, D. and Van Auken, H., 2009 , ―Barriers to innovation among Spanish manufacturing SMEs‖, Journal of Small Business Management, Vol. 47 No. 4, pp. 465-488.

Maldonado, G., Martínez, M., & García, R. (2012). La influencia de la gestión del conocimiento en el nivel de competitividad de la Pyme manufacturera de Aguascalientes. Investigación y Ciencia de la Universidad Autónoma de Aguascalientes, 24-32.

McAdam, R., &Reid, R. (2001). SME and large organization perception of knowledge management:
comparisons and contrast. Journal of Knowledge Management, 231-241.

Mineikaitė, E. 2013 . Innovative activity opportunities for the development of lithuania_s regions:
methodological approach. Regional Formation and Development Studies, 2 (10).

Navas, J. E. y Guerras, L. A. (1998). La dirección estratégica de la empresa. Teoría y aplicaciones.
Madrid: Cívitas.

Nunnally, J.C. and Bernstein, I.H. (1994), PsychometricTheory, 3ª Ed. New York: McGraw-Hill.

OECD. (1997). Oslo Manual. Proposed Guidelines for collecting and interpreting technological innovation data. Eurostat.

OECD. (2003). Measuring Knowledge Management in the Business Sector. Ottawa, Canada: Organization for Economic Cooperation and Development (OECD), Minister of Industry.

Ozcelik, E. y Taymaz, E. (2004). Does innovativeness matter for international competitiveness in developing countries. Research Policy, 33(1). 409-424.

Panne, G., Beers, C. y Kleinknecht, A. (2003). Success and Failure of Innovation: a Literature Review. International Journal of Innovation Management, 7(3). 309.

Pascale, R. (2005). Gestión del conocimiento, innovación y productividad: Exploración del caso de la industria manufacturera uruguaya. Recuperado el 7 de enero de 2010, de http://www.uoc.edu/in3/dt/esp/pascale0605.html

Pavón, J. y Goodman, R. (1981). Proyecto MODELTEC. La Planificación del Desarrollo tecnológico. Madrid: CDTI-CSIC. 19.

Rodríguez, M. J. (2013). Las dificultades en el desarrollo de productos como actividad innovadora: la perspectiva del diseño industrial. RevistaGestión y Estrategia.

Saren, M. A. (1984). A classification and review of models of the intra-firm innovation process. Research and Developmentmanagement, 14(1). 14.

Secretaría de Economía. (14 de febrero de 2014). Sistema de información Empresarial Mexicano. Obtenido de Directorio de Empresas: http://www.siem.gob.mx/siem/estadisticas/estadotamanoPublico.asp?tam=3&p=1

Sternberg, R. (2000). Innovation Networks and Regional Development – Evidence from the European Regional Innovation Survey: Theoreticla Concepts, Methodological Approach, Empirical Basis and Introduction to the Theme Issue. European Planing Studies, 8 (4). 389.

Sveiby, K. (2004). What is Knowledge http://www.sveiby.com/articles/KnowledgeMan agement.html. Accessed 10 May 2012. management?

Valentinavičius, S. 2005. Innovation as an Accelerator of Competitiveness and Economic Development. Ekonomika, 70(1). 50.

Varma, S., Wadhwa, S., &Deshmukh, S. (2006). Implementing supply chain management in a firm:
issues and remedies. Asia Pacific Journal of Marketing and Logistics, 223–243.

Vázquez, A. G., Sánchez. G. J. y Rodríguez. C. R. (2012). Impact of Knowledge Management and Intellectual Capital on Competitiveness of SMEs Manufacturing in the Western Region of Mexico. CF, 10(1).

Velázquez, L. G. (2007). Porque y como innovar en las pequeñas y medianas empresas. Disponible en:
http://www.gestiopolis.com

Vrakking, W.J. y Cozijnsen, A.J. (1993). Monitoring the quality of innovation processes and innovation successes, Journal of Strategic Change, 2, 65-81.

Wiig, K. (2009). Knowledge Management for the Competitive Enterprise. Arlington, TX: Knowledge Research Institute.

Zahra, S. and Covin, J., 1993, ―Business strategy, technology policy and firm performance‖, Strategic Management Journal, Vol. 14 No. 6, pp. 451-478.

Economic sustainability for a textile plant with cultural designs in the department of Chuquisaca

Sustentabilidad económica para una planta de textiles con diseños culturales en el departamento de Chuquisaca

CONTRERAS, Roseli*† & QUIROGA, María

Universidad Mayor Real y Pontificia de San Francisco Xavier de Chuquisaca – Unidad de Producción Científica y Tecnológica. Calle Junín esquina Estudiantes. Bolivia.

ID 1st Author: *Roseli, Contreras*

ID 1st Co-author: *María, Quiroga*

Abstract

The idea to create a plant for processing textiles is creating and Textile Company with artisanal designs and cultural identity own of Chuquisaca which could generate economic movement in the department, satisfying the necessities that could emerge in the market segments; because the textiles are the prized cultural expression and is possible to know the history of each culture.

Business, cultural design, textiles

Resumen

La idea de crear una planta de transformación textil está creando una empresa textil con díseños artesanales e identidad propia de Chuquisaca que pueda generar movimiento económico en el departamento, satisfaciendo las necesidas que pudieran surgir en los segmentos del mercado; porque los textiles son la expresión cultural preciada y es posible conocer la historia de cada cultura.

Negocios, Diseño cultural, Téxtiles

---

* Correspondin author: (E-amil: rossy_15-27@hotmail.com)

† Researcher contributing first author.

Introduction

The market study includes the analysis of the demand and supply of textile clothing for the personal use of families who purchase the product made from raw materials existing in the country and with designs of cultural identity, which gives it as one of the advantages.

Textile products are a manifestation, a clear and tangible sample of the history of each culture. The textiles are made with the characteristic materials of each region and each place, the fibres, the shape of the yarns, the technologies used for spinning, the fabrics produced, the dyes used for dyeing, the dyeing techniques, the importance and language of the colours, the figures of the weaving, the uses of the fabrics, clothing, ritual fabrics, industrial fabrics, fabrics for the home, all of this shows the ability of the people and their life.

Now for the creation of such an enterprise a marketing plan is needed which should have a structure that prevents the omission of important information and ensures that it is set out in a logical manner. A properly prepared marketing plan produces a lot with a relatively small amount of concentrated effort. For example, it serves as a map, informs new participants of their role in the realisation of the plan and the achievement of the objectives, helps in assigning responsibilities and tasks, helps to realise future problems, opportunities and threats, as well as describes the market environment, including competitors, economic conditions, technological situations, social and cultural factors as well as the resources available to the company, among others.

The product that concerns the present research is the commercialisation of textiles with cultural identity produced in the Department of Chuquisaca and specifically in the city of Sucre, which are products of mass consumption and are becoming more and more popular. This product that is presented are fabrics with cultural designs such as images of the Jalq "a zone or the Tarabuco Zone, these fabrics will be used to manufacture different garments for the consumption of the population of Sucre and at a national level.

Weaving

Weaving is done using a loom and two sets of threads, called warp (or foot) and weft respectively. The warp threads run along the loom, while the weft threads run in a transverse direction. The weft is supplied from the sides of the loom from bobbins which are changed automatically or manually when the yarn runs out. The loom shuttle passes the weft yarns through the loom, interlacing them perpendicularly with the warp.

By changing the number of warp threads and altering the sequence in which they are lifted or lowered, different patterns and textures are achieved. During weaving, a temporary protective coating known as a primer protects the warp threads from damage.

Dyeing and printing

Cotton can be dyed in different ways: fabrics can be dyed after weaving (piece dyeing), loose fibres can be dyed in a vat (raw dyeing) and, finally, the yarn or filament can be dyed before weaving (yarn dyeing).

The main method for printing patterns on cotton is roller gravure printing; in this process the pattern is engraved on copper rollers (one roller for each colour) and the depressions in the rollers are filled with printing paste; the fabric is then passed over the rollers.

Finishing process

In addition to dyeing and printing, the fabric is given other finishes to improve its appearance and qualities, such as treatments to improve the crease resistance of textiles such as cotton that do not have the elasticity of wool or silk. The latest developments in crease-resistant finishes are durable iron-on or permanent press finishes; in addition to achieving crease resistance, these finishes provide permanent creases.

Various chemical treatments can also improve shrinkage, stain and soil resistance. Other finishing processes protect against thread slippage or damage caused by mould, moths or fire.

Market research methodology

For the market study, both primary and secondary sources are taken into account.

The primary sources are exploration, observation and surveys directed at the population of Sucre, because this is where the largest number of people with medium and high incomes are to be found, who can normally buy the product more frequently.

Supply will be determined through the production data of companies in the department or nationally, and demand will be determined through the survey applied to the population of Sucre who require new products made in the city of Sucre.

Supply and demand projections will be made using growth rate or trend techniques according to the behaviour of the data.

Population

Data from the National Institute of Statistics (INE) was taken into account, which projects a population of 74,210 families in the city of Sucre for the year 2012, of which 59,293 families belong to the urban districts 1, 2, 3, 4 and 5, which will be used to carry out the respective surveys.

Number of men and women		
Municipality	Men	Women
Sucre	112716	124764
Total		237480

Table 1 Number of population in the municipality of Sucre

Delimitation of the target market

The target market for the research of this project is the population of the city of Sucre. Survey

A survey will be carried out among 382 families in districts 1, 2, 3, 3, 4 and 5 of the city of Sucre. In order to carry out the survey, a structured questionnaire was designed with closed and multiple-choice questions, so that the families surveyed have several options of answers according to their tastes and preferences.

Data processing

The data processing was carried out through the following steps:

First, the survey data was tabulated by creating a database in Microsoft Excel 2010. Afterwards, the corresponding analysis was carried out according to the results obtained.

Demand analysis

For the study of the demand, the project is based on the flow that exists in the market where families buy clothes for common use.

Current demand

In order to calculate the current demand, certain tools will be used to obtain the estimated data according to the surveys that will be carried out with the families of the city of Sucre.

Survey results

The results obtained from the surveys carried out on the representative sample are presented below.

Question 1		
15-20	15	4%
21-25	21	5%
26-30	77	20%
31-35	107	28%
36-40	68	18%
41-45	22	6%
46-50	41	11%
51-55	33	9%
Total	384	100%

Table 2 Average age of most frequent shoppers

Question 2		
Bolivian	93	21%
Brazilian	55	12%
Argentina	86	19%
Chilean	81	18%
Mexican	67	15%
Others	71	16%
Total	453	100%

Table 3 Most preferred industries

Question 3		
Quality	189	27%
Brand	121	17%
Resistance	167	24%
Presentation	106	15%
Price	75	11%
Other	38	5%
Total	696	100%

Table 4 Textile preference

Question 4			
Definitely	Yes	77	21%
I would buy			
Yes I would buy		152	41%
Indifferent		60	16%
Would not buy		39	10%
Definitely	No	44	12%
Would Buy			
Definitely			
Total		372	100%

Table 5 Well-known brands in the Sucre market

Supply - demand analysis

The analysis of supply and demand was carried out using certain formulas in order to calculate the existing demand and supply.

Obtaining projected demand

The following formula is used for the projection of demand:

$$Dn. = Do (1+ I) n \qquad (1)$$

Where

Dn. = Future demand?

Do = Current demand 1,329,330.00

I = growth rate of consumption GDP (INE) 2.41%.

n = number of years 10 years

Replacing it we have

Dn. = 1,329,330.00(1+0.0247)1

Dn. = 1.361.367

Study of the offer

Several factors that determine the textile market in the city of Sucre are taken into account, such as the brands that are on the market, the amount of production, and the projected supply is established by means of a statistical formula.

Current supply of textiles

Countries	%	Total offer
Bolivia	5,43%	72.183
Argentina	9,20%	122.298
Brazil	9,53%	126.685
Chile	12,50%	166.166
Colombia	10,17%	135.193
Uruguay	8,67%	115.253
Venezuela	12,13%	161.248
Ecuador	13,40%	178.130
Paraguay	9,20%	122.298
Peru	9,90%	131.604
Total	100%	1.331.058

Table 6 Supply of textiles Sucre

At present, the current supply of textiles in Sucre comes from different countries, where we can see that only 5.43% are Bolivian and the rest are from different countries such as Argentina, which supplies 9.20%, and other countries such as Chile, Colombia, Uruguay, Venezuela, Ecuador and others, as detailed in the table above.

Projection of the textile supply

To make the supply projection, the following formula is taken into account:

$$On = Oo (1+ I) n \qquad (2)$$

Where:

On = Future supply

Oo = Current supply

I = supply growth rate (NSI)

n = number of years

1.331.058

1,25 %

10 years

Replacing we have:

On = 1,331,058(1+0.0125)1

On = 1.347.696

Effective offer	Years	%	Projected supply
1.331.058	1	1,25%	1.347.696
1.347.696	2	1,25%	1.364.543
1.364.543	3	1,25%	1.381.599
1.381.599	4	1,25%	1.398.869
1.398.869	5	1,25%	1.416.355
1.416.355	6	1,25%	1.434.060
1.434.060	7	1,25%	1.451.985
1.451.985	8	1,25%	1.470.135
1.470.135	9	1,25%	1.488.512
1.488.512	10	1,25%	1.507.118

Table 7 Projected supply of textiles

The projection is made taking into account the growth of the current supply of textiles in Sucre, taking into account the 1.25% growth rate, with this data the projected supply for 10 years is obtained.

Market balance

Year	Demand	offer	Demand unmet
2013	1.361.367	1.347.696	13.670
2014	1.394.176	1.364.543	29.633
2015	1.427.775	1.381.599	46.176
2016	1.462.185	1.398.869	63.315
2017	1.497.423	1.416.355	81.068
2018	1.533.511	1.434.060	99.452
2019	1.570.469	1.451.985	118.484
2020	1.608.317	1.470.135	138.182
2021	1.647.078	1.488.512	158.566
2022	1.686.772	1.507.118	179.654

Table 8 Market balance

The market balance is determined by existing and projected supply and demand.

By subtracting the demand from the supply, the unsatisfied demand is determined. According to the market balance, a comparison of demand and supply shows that there is a current unsatisfied demand, which will grow in the next 10 years, showing that there is a higher demand for textiles.

Summary of results

- The lack of local production of textiles becomes an opportunity to expand the production of this type of product in order to satisfy the existing demand, and the preservation of cultural identity, the idea of the project is to produce textiles with cultural designs.

- Textiles' main competitors come from other countries.

- In the department of Chuquisaca there are no textile companies, which gives us an opportunity to enter the market with the idea.

- According to the market research it has been determined that there is an unsatisfied demand for textiles, which becomes more noticeable for the population as the years go by, which gives us an opportunity to cover the unsatisfied demand in Sucre and the possibility to open other national and international markets.

Conclusions

In the department of Chuquisaca there is enough raw material for the transformation into fabrics, because every year the amount of cotton production is growing.

According to the market research it has been determined that there is an unsatisfied demand for textiles with cultural designs and an interest in consumption.

The size of the textile company is established in relation to the production, there is unsatisfied demand and technological production capacity.

The location is optimal as there is adequate space for the development of the plant in the airport area because it has all the necessary conditions for its implementation. The textile production process helps to generate economic movement. The investment to implement the plant is Bs. 1,727,505.00. The fixed investment is Bs. 973,850.00, the deferred investment is Bs. 696,512.00 and the working capital amounts to the sum of Bs. 57,233.00.

The economic-financial analysis of the project has determined that the NPV of the textile plant with cultural designs is Bs.134,406.33 and the IRR is 18.28%, which makes the project economically and financially viable.

The benefit-cost ratio is 2.94 units, demonstrating the convenience of investing in the project. Therefore it can be established that the Project is Economically and Financially Feasible.

Recommendations

To carry out the investment because the net present value (NPV) is greater than zero and the internal rate of return (IRR) exceeds the discount rate, therefore it is recommended to invest in the project.

It is recommended to elaborate a strategic control that explains in detail how the project will be implemented.

In the medium term it can be recommended to expand the production of the company to supply the unsatisfied demand at national level.

In order to make the project profitable, it is important to achieve the proposed income and to keep the cost structure in line.

To carry out complementary market studies to look for new target markets in the interior of the country.

References

Armas José Teoría y técnicas de investigación, Túpac, Katari, Sucre Bolivia, 1992.

Aguirre, Juan A. Introducción a la Evaluación, Económica y Financiera de Inversiones Industriales 1ra. Ed. San José, Costa Rica: Editorial IICA, 2009.

Andrade E., Simón Preparación y Evaluación de Proyectos Editorial Lucero S.R.Ltda. Segunda Edición, Lima-Perú, 2006.

Baca Urbina, Gabriel Evaluación de Proyectos Editorial Mc Graw Hill. Cuarta Edición. Colombia, 2005.

Cainco Cámara de Industria, Comercio Análisis de la economía boliviana en el año 2009, Servicios y Turismo de Santa Cruz –Centro Boliviano de Economía – CEBEC, Santa Cruz, Bolivia, 2009

SDPCH = Informe 2010 de Secretaria de Desarrollo Productivo de Chuquisaca, "Producción de textiles en Chuquisaca"

Carvajal, Fernando Proyectos de Inversión 4ta. ed.; Lima. Editorial San Marcos, 2008.

Czinkota, M. R. y Kotabe M. Administración de Mercadotecnia 2da Edición. Edit. Thomson. México, 2006

Gordon LL. Investigación de Mercado, principios fundamentales, 2da Edición, Editorial Trillas, Mexico, D.F., 2004.

Gobierno departamental autónomo de Chuquisaca "Plan de Desarrollo Departamental (PDD)", Sucre, Bolivia, 2010-2014

Handabaka G. Jorge ¿Cómo incrementar sus ventas?. Editorial Palomino E.I.R.L. Lima, Perú. 2006.

Honorable alcaldía municipal de Sucre Plan de Desarrollo Municipal de Sucre, Sucre, Bolivia, 2010.

Instituto nacional de estadística, (INE) www.ine.com, La Paz, Bolivia, 2012.

The consumption of alcoholic beverages in the Faculty of Economics and Business Administration of the Universidad Mayor Real y Pontificia San Francisco Xavier de Chuquisaca

El consumo de bebidas alcohólicas en la facultad de ciencias económicas y empresariales de la Universidad Mayor Real y Pontificia San Francisco Xavier de Chuquisaca

MENDIETA, Helen†*

Universidad Mayor Real y Pontificia San Francisco Xavier de Chuquisaca, Bolivia.

ID 1st Author: *Helen, Mendieta*

Abstract

This article refers to the consumption of alcoholic beverages in the students of the faculty of economics and business, stating the preference to have each of these products contains a degree of alcohol, by statistical analysis. So this way to publicize the incalculable consequences given to the company and get reduce the level of acquisition of liquor drunk by young students. This preference is that college students have little knowledge regarding alcoholic beverages or arriving at this service for other reasons whether personal or influence of others.

Alcoholic beverages, Alcohol, Society, Knowledge, Service

Resumen

Este artículo se refiere al consumo de bebidas alcohólicas en los estudiantes de la facultad de Economía y Empresariales, indicando la preferencia por que cada uno de estos productos contiene un grado de alcohol, comprobando mediante estadístico. Así de esta forma dar a conocer las incalculables consecuencias dadas a la empresa y conseguir reducir el nivel de adquisición de licor bebido por los jóvenes estudiantes. Esta referencia es que los estudiantes universitarios tienen poco conocimiento respecto a las bebidas alcohólicas o llegan a este servicio por otros motivos ya sean personales o por influencia de otros.

Bebidad alcohólicas, Alcohol, Sociedad, Conocimiento, Servicio

Citation: MENDIETA, Helen. The consumption of alcoholic beverages in the Faculty of Economics and Business Administration of the Universidad Mayor Real y Pontificia San Francisco Xavier de Chuquisaca. Journal-Macroeconomics and monetary economy. 2022. 6-11:36-42.

---

* Corresponding author: (E-mail: helencita310@gmail.com)
† Researcher contributing first author.

Introduction

Alcoholic beverages are mostly purchased by young people in adolescence and youth, there are no gender differences as both genders consume them equally and it is another point where gender equity is present [2012].

In the city of Sucre, due to the fact that it is a student city because of the San Francisco University, there are more young people than adults, and therefore the consumption of beverages is even higher. The lack of knowledge of the harm caused is one of the variables that influence young people's consumption, as well as the lack of parental control, which affects the majority of young people.

Although everyone knows that alcohol is harmful, it is not socially frowned upon in the same way that drugs, for example, are. In addition to being a socially condoned "vice", alcohol has a multi-billion dollar industry behind it.

It is therefore necessary to study the preferences of young university students in the Faculty of Economics and Business Administration, in view of the wide range of products in the alcoholic beverages sector that are offered on the market.

Theoretical framework

Author	Contribution	Own contribution
René Landero Hernández, María Elena Villarreal González [Landero & Villarreal, 2011]	Different social nuclei form part of the part of the celebrations and festivities of these students, who are mostly minors. of these students, most of whom are minors. observed that the consumption family consumption, as well as that of friends, can be found at are related positively related to students' alcohol alcohol consumption.	Agreed: Because ingestion of Beverages alcoholic beverages most of it comes from the home either from celebrations or discussions within the home.
María de la Villa Moral Jiménez, Anastasio Ovejero Bernal [Moral & Ovejero, 2011]	Youth alcohol consumption represents, at the culture Mediterranean culture, a practice characterized by uses recreational uses, linked to processes of group interaction and identity.	Agreed: Each person seeks to identify with some group and is often the reason for to fall into alcohol.
Orlando Scoppetta dg, augusto Pérez Gómez, Carlos Lanziano Molano, [Scoppetta, Perez, & Lanziano, 2011]	There is a kind of transition in the alcohol consumption of adolescents from the time they start Secondary education, with a pattern of consumption very moderate, no taste for alcohol, drinking with drinking with family members, and then moving on to higher heavier	Agreed: The change of environment or grade level makes students feel need to experience different things. different things. Example: Alcohol.
Zuleima Cogollo-Milanés, Katherine M. Arrieta-Vergara, Sandra Blanco-Bayuelo, Lina Ramos-Martínez, Karen, Zapata y Yuranis Rodríguez-Berrio [Cogollo, Blanco, Ramos, Zapata, & Rodriguez, 2011]	Alcohol consumption (OR=1.94) (CI: 1.28-2.93) as well as cocaine use. As well as cocaine use (OR=1.95) (CI: 1.06-3.58) were associated with dysfunctionality.	Agree: Since every behaviour is behaviour is influenced from the family.
Gustavo Adolfo Calderón Vallejo, Ángela María Parra Bastidas. [Calderon & Parra, 2012]	The population student population student population see considered vulnerable, due to a the demands academic demands that required by the University context, in addition of the practices social practices y recreational practices practices linked to consumption of legal substances, such as alcohol within on the population student population.	From agreed: University students tend to be influenced very easily. very easily.

Table 1

Methodology to be developed

The methodology is based on a descriptive, cross-sectional study and statistical analysis.

Participants: Students from the faculty of economic and administrative sciences participated in the research.

Instrument: The survey technique was used to obtain the data, which allows the results to be extrapolated to the total number of university students in the faculty.

Procedure: The objectives and the way in which the research would be carried out were explained and the model of the instrument was provided. Subsequently, the evaluators were trained, the questionnaire was administered with mass application and completed anonymously. Their participation was voluntary, and the data obtained was confidential; it would only be used in the analysis of results and conclusions. The students were warned that there were no right or wrong answers, and they were asked to answer with the utmost sincerity and honesty.

Statistical analyses: The statistical package SPSS, 17.0 (SPSS Inc., Chicago, IL, USA) was used to perform the descriptive analysis and adjust for the effect of possible confounders. [Ruiz, Ruiz, & Zamarripa, 2012].

Results

Different measures of central tendency were used to obtain the following results to give a statistical analysis such as:

Arithmetic mean:

Age	f	x*f	
17	1	17	$X = \frac{1957}{98}$
18	8	144	
19	34	646	$X = 19.97$
20	27	540	
21	14	294	
22	9	198	
23	2	46	
24	3	72	
25	0	0	
Total	98	1957	

Table 1 The preference of the students of the Faculty of Economic and Administrative Sciences to beer

Age	f	X*f	
17	1	17	$X = \frac{574}{29}$
18	6	108	
19	8	152	
20	4	80	$X = 19.79$
21	5	105	
22	4	88	
23	0	0	
24	1	24	
25	0	0	
Total	29	57	

Table 2 The preference of students at the Faculty of economic and administrative sciences to rum

Age	f	X*f	
17	2	34	$X = \frac{743}{37}$
18	5	90	
19	8	152	
20	6	120	$X = 20.08$
21	8	168	
22	5	110	
23	3	69	
24	0	0	
25	0	0	
Total	37	743	

Table 3 The preference of students at the Faculty of economic and administrative sciences to whisky

Age	f	X*f	
17	1	17	$X = \frac{982}{50}$
18	10	180	
19	16	304	
20	12	240	$X = 19.64$
21	5	105	
22	4	88	
23	1	23	
24	0	0	
25	1	25	
Total	50	982	

Table 4 The preference of students at the Faculty of economic and administrative sciences to vodka

Age	f	X*f	
17	0	0	$X = \frac{278}{13}$
18	0	0	
19	4	76	
20	2	40	$X = 21.38$
21	2	42	
22	1	22	
23	1	23	
24	0	0	
25	3	75	
Total	13	278	

Table 5 The preference of students at the Faculty of economic and administrative sciences to singani

The arithmetic mean is a central tendency that allowed us to measure the variables observed with respect to the preferences of the students towards the consumption of alcoholic beverages. In this analysis, singani is the variable that has the highest tendency to be consumed by the students of the Faculty of Economic and Administrative Sciences.

The Median

Age x	f	X*f	
17	1	1	$\frac{98}{2} = 49$
18	8	9	
19	34	43	
20	27	70	$70 > 49 =$
21	14	84	$> FI$
22	9	93	$> N/2$
23	2	95	
24	3	98	$If\ 43 < 49$
25	0	98	$=> Me$
Total	98		$= 20$

Table 6 The preference of the students of the faculty of economic and administrative sciences students' preference for beer

Age x	f	X*f	
17	1	1	$\frac{29}{2} = 14.5$
18	6	7	
19	8	15	
20	4	19	$15 > 14.5$
21	5	24	$=> FI$
22	4	28	$> N/2$
23	0	28	
24	1	29	$If\ 7$
25	0	29	$< 14.5 =$
Total	29		$> Me$
			$= 19$

Table 7 The preference of students at the Faculty of economic and administrative sciences to rum

Age x	f	X*f	
17	2	2	$\frac{37}{2} = 18.5$
18	5	7	
19	8	5	
20	6	21	$21 > 18.5$
21	8	29	$=> FI$
22	5	34	$> N/2$
23	3	37	
24	0	37	$If\ 15$
25	0	37	$< 18.5 =$
Total	37		$> Me$
			$= 20$

Table 8 The preference of students at the Faculty of Economic and Administrative Sciences for whisky economics and business administration to whisky

Age x	f	X*f	
17	1	2	$\frac{50}{2} = 25$
18	10	11	
19	16	27	
20	12	39	$27 > 25 =$
21	5	44	$> FI$
22	4	48	$> N/2$
23	1	49	
24	0	49	$If\ 11 < 25$
25	1	50	$=> Me$
Total	50		$= 19$

Table 9 The preference of the students of the Faculty of Economics and Administrative Sciences for vodka and administrative sciences to vodka

Age x	f	X*f	
17	0	0	$\frac{13}{2} = 6.5$
18	0	0	
19	4	4	
20	2	6	$8 > 6.5 =$
21	2	8	$> FI$
22	1	9	$> N/2$
23	1	10	
24	0	10	$If\ 6 < 6.5$
25	3	13	
Total	13		

Table 10 The preference of students at the Faculty of economic and administrative sciences to singani

In the same way, measures of dispersion were used to acquire the following results and perform statistical analysis as well:

Variance, standard deviation and coefficient of variance.

Age x	f	x*f	(x-X)	(x-X)²*f	X²*f	
17	1	17	-2.97	8.82	289	
18	8	144	-1.97	31.04	2592	$X=19.97$
19	34	646	-0.97	31.96	12974	$V_X=190.84/98=1.95$
20	27	540	0.03	0.024	10800	$V_X=39971/98-(19.97)^2=9.07$
21	14	294	1.03	14.84	6174	$O; S=1.39$
22	9	198	2.03	37.08	4356	$CV=S/X$
23	2	46	3.03	18.36	1058	$CV=1.39/19.97=0.069 = 6.9\%$
24	3	72	4.03	48.72	1728	
25	0	0	5.03	0	0	
Total	98	1957		190.84	39971	

Table 11 The preference of the students of the faculty of economic and administrative sciences for beer and administrative sciences to beer

Age	f	X*f	(x-X)	(x-X)²*f	X²*f	
17	1	17	-2.79	7.78	289	
18	6	108	-1.79	19.22	1944	$X=19.79$
19	8	152	-0.79	4.99	2888	$V_X=76.65/29=2.64$
20	4	80	0.21	0.18	1600	$V_X=11438/29-(19.79)^2=2.77$
21	5	105	1.21	7.32	2205	$O; S=1.62$
22	4	88	2.21	19.54	1936	$CV=1.62/19.79=0.082 = 8.2\%$
23	0	0	3.21	0	0	
24	1	24	4.21	17.62	576	
25	0	0	5.21	0	0	
Total	29	574		76.65	11438	

Table 12 The preference of the students of the Faculty of Economic and Administrative Sciences for rum and administrative sciences to rum

Age	f	X*f	(x-X)	(x-X)^2*f	X^2*f
17	2	34	-3.08	18.97	578
18	5	90	-2.08	21.63	1620
19	8	152	-1.08	9.33	2888
20	6	120	-0.08	0.038	2400
21	8	168	0.92	6.77	3528
22	5	110	1.92	18.43	2420
23	3	69	2.92	25.58	1587
24	0	0	3.92	0	0
25	0	0	4.92	0	0
Total	37	743		100.75	15021

X= 20.08
V_X=100.75/37=2.72
V_X=15021/37-(20.08)^2=2.77
O; S=1.65
CV=1.65/20.08=0.082 = 8.2%

Table 13 The preference of students at the faculty of economics and administrative sciences for whisky and administrative sciences to whisky

Edad	f	X*f	(x-X)	(x-X)^2*f	X^2*f
17	1	17	-2.64	6.97	289
18	10	180	-1.64	26.89	3240
19	16	304	-0.64	6.55	5776
20	12	240	0.34	1.39	4800
21	5	105	1.36	9.25	2205
22	4	88	2.36	22.28	1936
23	1	23	3.36	11.29	529
24	0	0	0	0	0
25	1	25	5.36	28.73	625
Total	50	982		113.35	19400

X= 19.64
V_X=113.35/50=2.27
V_X=19400/50-(19.64)^2=2.27
O; S=1.51
CV=1.51/19.64=0.077 = 7.7%

Table 14 The preference of students at the Faculty of Economics and Business Administration for vodka and administrative sciences to vodka

Age	f	X*f	(x-X)	(x-X)^2*f	X^2*f
17	0	0	-4.38	0	0
18	0	0	-3.38	0	0
19	4	76	-2.38	22.66	1444
20	2	40	-1.38	3.81	800
21	2	42	-0.38	0.29	882
22	1	22	0.62	0.38	484
23	1	23	1.62	2.62	529
24	0	0	0	0	0
25	3	75	3.62	39.31	1875
Total	13	278		69.07	6014

X= 21.38
V_X=69.07/13=5.31
V_X=6014/13-(21.38)^2=5.51
O; S=2.30
CV=2.30/21.38=0.107 =10.7%

Table 15 The preference of the students of the Faculty of Economic and Administrative Sciences for singani and administrative sciences to singani

These indicators allowed us to describe the variability of each of the products that make up a data set, in this case the preference to consume is beer because it has the smallest deviation.

Conclusions

In conclusion, young people in the Faculty of Economics and Administrative Sciences prefer to drink beer.

Those who consume the most are students between 19 and 20 years of age, students spend a lot of money on the purchase of these drinks. The average amount they spend is between 50 Bs minimum and 250 Bs maximum.

In this way, the consequences that lead students to consume and have a preference for different alcoholic beverages is the fact that in our environment, the majority reach alcohol by pure learning and imitation, it is known that there are a series of illnesses that are generated in the family and that, however, do not have a hereditary basis, but are transmitted from one person to another by virtue of coexistence.

According to the above mentioned, personal needs for autonomy, competence and relationships are conditioned either by different socio-cultural factors (making friends, feeling a member of a group or achieving social acceptance), or by personal factors (feeling pleasure and satisfaction in practising).

Alcohol is present in all our homes, both directly and indirectly, and excessive and continuous ingestion of this drug is not usually given too much importance, as long as it does not disturb the established personal, family and social order.

Acknowledgements

References

Abad, J. R. R., Ruiz-Juan, F., & Rivera, J. I. Z. (2012). Alcohol y tabaco en adolescentes españoles y mexicanos y su relación con la actividad físico-deportiva y la familia. Revista Panamericana de Salud Pública, 31(3), 211-220.

Aguilar, J., Aguilar, A., & Valencia, A. (2011). Un modelo explicativo del consumo de alcohol entre estudiantes de licenciatura. Ac Inv Psi, 3(1), 491-502.

Armas, D. M. H., Sigler, M. R. S., Ríos, M., Rodríguez, D., & Javier, S. B. ALCOHOLISMO Y ADOLESCENCIA.

Calderón Ordoñez, L. A., & Cardona Gómez, G. D. P. (2012). Diseño de un programa en prevención de consumo abusivo de alcohol en jóvenes universitarios.

Calderón Vallejo, G. A., & Parra Bastidas, Á. M. (2012). Imaginarios sobre el consumo de alcohol en estudiantes de cuatro universidades de Medellín. Revista Virtual Universidad Católica del Norte, 1(36), 287-310.

Cano, Á. M. T., Gómez, A. P., & Díaz-Granados, O. S. (2011). Influencia de variables del entorno social sobre la ocurrencia de situaciones problemáticas asociadas al consumo de alcohol en adolescentes. Adicciones, 23(4).

Chau, C., & Van den Broucke, S. (2012). Consumo de alcohol y sus determinantes en estudiantes universitarios limeños: estudio de focus group. Revista de Psicología, 23(2), 269-291.

Cogollo-Milanés, Z., ARRIETA-VERGARA, K., Blanco-Bayuelo, S., Ramos-Martínez, L., Zapata, K., & Rodríguez-Berrio, Y. (2011). Factores psicosociales asociados al consumo de sustancias en estudiantes de una universidad pública. Revista de Salud Pública, 13(3), 470-479.

De la Fuente, R. (2013). El alcoholismo y el abuso del alcohol: visión de conjunto.

Gorenc, K. D. (2013). Bases para construir la Prueba Diagnóstica de Alcoholismo Latinoamericana (PDAL). Revista de Neuro-Psiquiatría, 56(4), 203-219.

Gorenc, K. D., Abreu, L. F., Alarcón, G., Ardila, R., Infante, C., Kruger, H., ... & Vega-Delgado, G. (2013). El diagnóstico de alcoholismo en estudiantes de medicina desde un enfoque transhispano-americano: México, Colombia, Perú (Lima y Cuzco) y Ecuador. Revista de Neuro-Psiquiatría, 62(3-4), 242-284.

Hernández, R. L., & González, M. E. V. (2013). Consumo de alcohol en estudiantes en relación con el consumo familiar y de los amigos. Psicología y Salud, 17(1), 17-23.

López, J. (2014). Validez del Autoinforme en el consumo de bebidas alcohólicas.

Medina-Mora, M. (2013). El consumo de alcohol en México y sus problemas asociados.

Medina-Mora, M. E., Villatorio, J. A., López, E. K., Berenzon, S., Carreño, S., & Juárez, F. (2013).

Los factores que se relacionan con el inicio, el uso continuado y el abuso de sustancias psicoactivas en adolescentes mexicanos.

Mondragón, L., Saltijeral, M. T., Bimbela, A., & Borges, G. (2013). La ideación suicida y su relación con la desesperanza, el abuso de drogas y alcohol.

MoNSAlvE, A. S., ESPINoSA, X. P., & ESPINoSA, Á. F. (2011). Consumo de alcohol en jóvenes universitarios. Avances en Psicología Latinoamericana, 29(1).

Monteiro, M. G. (2013). Alcohol y Salud Pública en América Latina:¿ cómo impedir un desastre sanitario? Alcohol and Public Health in Latin America: how to prevent a health disaster?. Adicciones, 25(2), 99-105.

Moral Jiménez, M. D. L. V., & Ovejero Bernal, A. (2011). Consumo abusivo de alcohol en adolescentes españoles: tendencias emergentes y percepciones de riesgo. Universitas Psychologica, 10(1), 71-88.

Natera, G., Casco, M., Herrejón, E., & Mora, J. (2013). Interacción entre parejas con diferente patrón de consumo de alcohol y su relación con sus antecedentes familiares de consumo en México.

Pérez, C. L., & Vinaccia, S. (2014). Prevención del abuso en el consumo de alcohol en jóvenes universitarios: Lineamientos en el diseño de programas costo-efectivos. Psicología y salud, 15(2), 241-249.

Pilatti, A., Godoy, J., & Brussino, S. (2011). Expectativas hacia el alcohol y consumo de alcohol en niños y adolescentes de Argentina. International Journal of Psychology & Psychological Therapy, 11(1).

Pons, J., & Buelga, S. (2011). Factores asociados al consumo juvenil de alcohol: una revisión desde una perspectiva psicosocial y ecológica. Psychosocial Intervention/Intervencion Psicosocial, 20(2). Puig-Nolasco, Á., Cortaza-Ramirez, L., & Pillon, S. C. (2011). Consumo de alcohol entre estudiantes mexicanos de medicina. Revista latino-Americana de Enfermagem, 19, 714-721.

Rojas, E., Medina-Mora, M. E., Juárez, F., Carreño, S., Villatoro, J., Berenzon, S., & López, E.

(2013). El consumo de bebidas alcohólicas y variables asociadas entre los estudiantes de México.

Scoppetta, O., Pérez Gómez, A., & Lanziano Molano, C. (2011). Perfiles asociados al consumo de alcohol de adolescentes escolarizados mediante análisis de correspondencias múltiples.

Vergara, K. A., Cárdenas, S. D., & Martínez, F. G. (2011). Consumo de alcohol y problemas asociados en estudiantes de una universidad pública de Cartagena. Revista Colombiana de Psiquiatría, 40(2), 215-228.

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

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

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

<u>*International Identification of Science - Technology and Innovation*</u>

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

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

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

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

Abstract (In English, 150-200 words)

Objectives
Methodology
Contribution

Keywords (In English)

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

Abstract (In Spanish, 150-200 words)

Objectives
Methodology
Contribution

Keywords (In Spanish)

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

Citation: Surname (IN UPPERCASE), Name 1st Author, Surname (IN UPPERCASE), Name 1st Co-author, Surname (IN UPPERCASE), Name 2nd Co-author and Surname (IN UPPERCASE), Name 3rd Co-author. Paper Title. Journal-Macroeconomics and Monetary Economy. Year 1-1: 1-11 [Times New Roman No.10]

---

* Correspondence to Author (example@example.org)
† Researcher contributing as first author.

Instructions for Scientific, Technological and Innovation Publication

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]
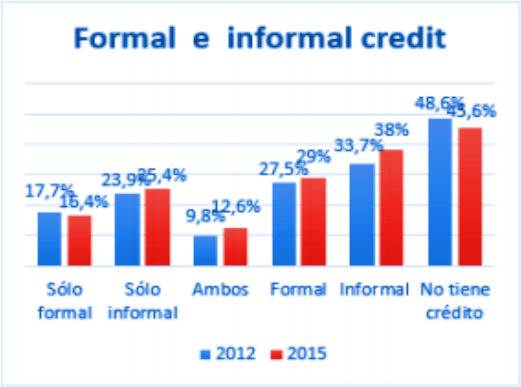
Graphic 1 Title and Source (in italics).

Should not be images-everything must be editable.

Figure 1 Title and Source (in italics).

Should not be images-everything must be editable.

Products	Industry	Chocolate Business
Food and beverage provision services	Processed food	
	Cultural tourism	Commercial chocolate (national and international brands)
Cultural Services	Agroindustry	Museums of chocolate

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:

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

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

Methodology

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

Results

The results shall be by section of the Article.

Annexes

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

Surname (IN UPPERCASE), Name 1st Author, Surname (IN UPPERCASE), Name 1st Co-author, Surname (IN UPPERCASE), Name 2nd Co-author and Surname (IN UPPERCASE), Name 3rd Co-author. Paper Title. Journal-Macroeconomics and Monetary Economy. Year 1-1: 1-11 [Times New Roman No.8]

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 <u>Originality Format</u> Author and Coauthors

-Authentic Signature in Color of the <u>Acceptance Format</u> of Author and Coauthors

Reservation to Editorial Policy

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

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

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

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

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

Article title:

– The sending of an Article to RINOE Jounal-Macroeconomics and Monetary Economy emanates the commitment of the author not to submit it simultaneously to the consideration of other series publications for it must complement the Format of Originality for its Article, unless it is rejected by the Arbitration Committee, it may be withdrawn.

– None of the data presented in this article has been plagiarized or invented. The original data are clearly distinguished from those already published. And it is known of the test in PLAGSCAN if a level of plagiarism is detected Positive will not proceed to arbitrate.

– References are cited on which the information contained in the Article is based, as well as theories and data from other previously published Articles.

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

– Consent has been obtained from those who have contributed unpublished data obtained through verbal or written communication, and such communication and Authorship are adequately identified.

– The Author and Co-Authors who sign this work have participated in its planning, design and execution, as well as in the interpretation of the results. They also critically reviewed the paper, approved its final version and agreed with its publication.

– No signature responsible for the work has been omitted and the criteria of Scientific Authorization are satisfied.

– The results of this Article have been interpreted objectively. Any results contrary to the point of view of those who sign are exposed and discussed in the Article.

Copyright and Access

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

Article Title:

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

Principles of Ethics and Declaration of Solution to Editorial Conflicts

Editor Responsibilities

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

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

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

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

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

Responsibilities of the Editorial Board

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

Responsibilities of the Arbitration Committee

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

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

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

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

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

Responsibilities of the Authors

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

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

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

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

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

Information services

Indexation - Bases and Repositories

Research Gate   (Germany)
Google Scholar   (Citation indices-Google)
Mendeley   (Bibliographic References Manager)

Publishing Services:

Citation and Index Identification H.
Management of Originality Format and Authorization.
Testing Article with PLAGSCAN.
Article Evaluation.
Certificate of Double-Blind Review.
Article Edition.
Web layout.
Indexing and Repository
ArticleTranslation.
Article Publication.
Certificate of Article.
Service Billing.

Editorial Policy and Management

Distrito YongHe, Zhongxin, calle 69. Taipei - Taiwan. Tel: +52 1 55 2024 3918, +52 1 55 6159 2296, +52 1 55 4640 1298; Correo electrónico: contact@rinoe.org www.rinoe.org

Journal-Macroeconomics and Monetary economy

"Rural tourism site expectations and future visitor/tourist behavior"
SOLÍS-RADILLA, María Magdalena & HERNÁNDEZ-LOBATO, Lucio
Universidad Autónoma de Guerrero

"The influence of innovation activities and knowledge management on the competitiveness of manufacturing smes: an empirical study"
AGUILERA-ENRÍQUEZ, Luis, CUEVAS-VARGAS, Héctor RANGEL-MAGDALENO, Jorge and HERNÁNDEZ-CASTORENA, Octavio
Universidad Iberoamericana

"Economic sustainability for a textile plant with cultural designs in the department of Chuquisaca"
CONTRERAS, Roseli & QUIROGA, María
Universidad Mayor Real y Pontificia de San Francisco Xavier de Chuquisaca

"The consumption of alcoholic beverages in the Faculty of Economics and Business Administration of the Universidad Mayor Real y Pontificia San Francisco Xavier de Chuquisaca"
MENDIETA, Helen
Universidad Mayor Real y Pontificia San Francisco Xavier de Chuquisaca

www.rinoe.org