

Volume 2, Issue 2 — January — June — 2018

Journal-Urban-Rural and Regional economy

ISSN-On line 2524-2083

RINOE[®]

RINOE-Republic of Peru

Chief Editor

RAMOS-ESCAMILLA, María. PhD

Senior Editor

SERRUDO-GONZALES, Javier. BsC

Senior Editorial Assistant

ROSALES-BORBOR, Eleana. BsC

SORIANO-VELASCO, Jesús. BsC

Editorial Director

PERALTA-CASTRO, Enrique.MsC

Executive Editor

SUYO-CRUZ, Gabriel. PhD

Production Editors

ESCAMILLA-BOUCHAN, Imelda.PhD

LUNA-SOTO, Vladimir.PhD

Administration Manager

REYES-VILLO, Angélica. BsC

Production Controllers

RAMOS-ARANCIBIA, Alejandra. BsC

DÍAZ-OCAMPO, Javier. BsC

RINOE Journal- Urban-Rural and Regional economy, Volume 2, Issue 2, January a June 2018, is a journal edited semestral by RINOE. La Raza Av. 1047 No.- Santa Ana, Cusco-Perú. Postcode: 11500. WEB: www.rinoe.org, journal@rinoe.org. Editor in Chief: RAMOS-ESCAMILLA, María. ISSN: 2524-2083. Responsible for the latest update of this number RINOE Computer unit. ESCAMILLABOUCHÁN Imelda, LUNA-SOTO, Vladimir. PhD, La Raza Av. 1047 No.- Santa Ana, Cusco-Perú. Postcode: 11500, last updated June 30, 2018.

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

It is strictly forbidden to reproduce any part of the contents and images of the publication without permission of the National Institute of Copyright.

RINOE Journal-Urban-Rural and Regional 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 regional economy: Analysis of growth, Development, and Changes, Size and spatial distributions of regional economic activity, General equilibrium and welfare economic analysis of regional economies, Land use patterns, Econometric and Input-Output models; Household analysis: Housing demand, Other Demand, Regional migration, Regional labor markets, Population; Production analysis and firm location: Housing supply and markets, Other production and pricing analysis, Nonagricultural and nonresidential real estate markets, Input demand analysis, Government policies; Transportation systems: Transportation, Government and private investment analysis, Government pricing; Regional government analysis: Finance in urban and rural economies, Land use and other regulations, Public facility location analysis, Public investment and capital stock, Regional development policy.

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

RINOE Journal-Urban-Rural and Regional Economy is a Journal edited by RINOE® in its Holding with repository in Peru, 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 regional economy: Analysis of growth, Development, and Changes, Size and spatial distributions of regional economic activity, General equilibrium and welfare economic analysis of regional economies, Land use patterns, Econometric and Input-Output models; Household analysis: Housing demand, Other Demand, Regional migration, Regional labor markets, Population; Production analysis and firm location: Housing supply and markets, Other production and pricing analysis, Nonagricultural and nonresidential real estate markets, Input demand analysis, Government policies; Transportation systems: Transportation, Government and private investment analysis, Government pricing; Regional government analysis: Finance in urban and rural economies, Land use and other regulations, Public facility location analysis, Public investment and capital stock, Regional development policy 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

ANGELES - CASTRO, Gerardo. PhD
University of Kent

BUJARI - ALLI, Ali. PhD
Instituto Politécnico Nacional

MIRANDA - GARCÍA, Marta. PhD
Universidad Complutense de Madrid

VARGAS - DELGADO, Oscar René. PhD
Universidad de Santiago de Compostela

MIRANDA - TORRADO, Fernando. PhD
Universidad de Santiago de Compostela

SUYO - CRUZ, Gabriel. PhD
Universidad de Santiago de Compostela

CAMPOS - QUIROGA, Peter. PhD
Universidad Real y Pontifica de San Francisco Xavier de Chuquisaca

GARCIA - ESPINOZA, Lupe Cecilia. PhD
Universidad de Santiago de Compostela

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

BANERJEE, Bidisha. PhD
Amity University

GUZMÁN - HURTADO, Juan Luis. PhD
Universidad de Santiago de Compostela

BARRERO - ROSALES, José Luis. PhD
Universidad Rey Juan Carlos III

ALIAGA - LORDEMANN, Francisco Javier. PhD
Universidad de Zaragoza

GUZMAN - SALA, Andrés. PhD
University of California

PEREIRA - LÓPEZ, Xesús. PhD
Universidad de Santiago de Compostela

BARDEY, David. PhD
University of Besançon

GÓMEZ - MONGE, Rodrigo. PhD
Universidad de Santiago de Compostela

HIRA, Anil. PhD
Claremont Graduate School

FELDMAN, German. PhD
Johann Wolfgang Goethe Universität

IBARRA - ZAVALA, Darío Guadalupe. PhD
New School for Social Research

GARCÍA Y MOISES, Enrique. PhD
Boston University

CHAPARRO, Germán Raúl. PhD
Universidad Nacional de Colombia

VARGAS - HERNANDEZ, José G. PhD
Keele University

BELTRÁN - MORALES, Luis Felipe. PhD
Universidad de Concepción

VILLASANTE, Sebastián. PhD
Universidad de Santiago de Compostela

BLANCO - GARCÍA, Susana. PhD
Universidad Complutense de Madrid

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

DE AZEVEDO - JUNIOR, Wladimir Colman. PhD
Universidade Federal do Amazonas

LUO, Yongli. PhD
Universidad de Chongqing

PALACIO, Juan. PhD
University of St. Gallen

DANTE - SUAREZ, Eugenio. PhD
Arizona State University

D. EVANS, Richard. PhD
University of Greenwich

NIEVA - ROJAS Jefferson. PhD
Universidad Autónoma de Occidente

MANRÍQUEZ - CAMPOS, Irma. PhD
Instituto de Investigaciones Económicas – UNAM

Comité Arbitral

OLIVES - MALDONADO, Carlos. PhD
Universidad Nacional de Cuyo

GALICIA - PALACIOS, Alexander. PhD
Instituto Politécnico Nacional

SAENZ - OZAETTA, Carlos. PhD
Universidad Técnica de Babahoyo

QUISPE, Jimmy. PhD
Universidad Superior Politécnica del Litoral

SOLORZANO - MENDEZ, Víctor. PhD
Universidad Agraria la Molina

HERNÁNDEZ, Carmen Guadalupe. PhD
Instituto Politécnico Nacional

LUIS - PINEDA, Octavio. PhD
Instituto Politécnico Nacional

CAICHE - ROSALES, Willian. PhD
Universidad Tecnológica Empresarial de Guayaquil

GIRÓN, Alicia. PhD
Universidad Nacional Autónoma de México

GARCÍA - ELIZALDE, Maribel. PhD
Universidad Nacional Autónoma de México

HUERTA - QUINTANILLA, Rogelio. PhD
Universidad Nacional Autónoma de México

ORDÓÑEZ - GUTIÉRREZ, Sergio Adrián. PhD.
Universidad Nacional Autónoma de México

MORÁN - CHIQUITO, Diana María. PhD
Universidad Autónoma Metropolitana

PELAYO - MACIEL, Jorge. PhD
Universidad de Guadalajara

CAMELO - AVEDOY, José Octavio. PhD
Universidad de Guadalajara

ACEVEDO - VALERIO, Víctor Antonio. PhD.
Universidad Michoacana de San Nicolás de Hidalgo

SANCHEZ - CANO, Julieta Evangelina. PhD
Universidad Juárez del Estado de Durango

TAVERA - CORTÉS, María Elena. PhD
Colegio de Postgraduados

CONTRERAS - ÁLVAREZ, Isaí. PhD
Universidad Autónoma Metropolitana

VILLALBA - PADILLA, Fátima Irina. PhD
Instituto Politécnico Nacional

SÁNCHEZ - TRUJILLO, Magda Gabriela. PhD
Universidad de Celaya

FERNÁNDEZ - GARCÍA, Oscar. PhD
Instituto Politécnico Nacional

SALAMANCA - COTS, María Rosa. PhD
Universidad Nacional Autónoma de México

MALDONADO - SANCHEZ, Marisol. PhD
Universidad Autónoma de Tlaxcala

PERALES - SALVADOR, Arturo. PhD
Universidad Autónoma de Chapingo

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

NOVELO - URDANIVIA, Federico Jesús. PhD
Universidad Autónoma Metropolitana

GÓMEZ - CHIÑAS, Carlos. PhD
Instituto Politécnico Nacional

VARGAS - SANCHEZ, Gustavo. PhD
Universidad Autónoma Metropolitana

TREJO - GARCÍA, José Carlos. PhD
Instituto Politécnico Nacional

MANJARREZ - LÓPEZ, Juan Carlos. PhD
El Colegio de Tlaxcala

MARTÍNEZ - SÁNCHEZ, José Francisco. PhD
Instituto Politécnico Nacional

COTA - YAÑEZ, María del Rosario. PhD
Universidad de Guadalajara

MARTÍNEZ - GARCÍA, Miguel Ángel. PhD
Instituto Politécnico Nacional

GAVIRA - DURÓN, Nora. PhD
Instituto Politécnico Nacional

BECERRIL - TORRES, Osvaldo U. PhD
Universidad Autónoma del Estado de México

CAPRARO - RODRÍGUEZ, Santiago Gabriel Manuel. PhD
Universidad Nacional Autónoma de México

ISLAS - RIVERA, Víctor Manuel. PhD
Instituto Politécnico Nacional

OLIVO - ESTRADA, José Ramón. PhD
Instituto Pedagógico de Estudios de Posgrado

RUIZ - MARTINEZ, Julio César. PhD
Instituto Politécnico Nacional

PÉREZ - SOTO, Francisco. PhD
Colegio de Postgraduados

SALDAÑA - CARRO, Cesar. PhD
Colegio de Tlaxcala

GARCÍA - ROJAS, Jesús Alberto. PhD
Universidad de Puebla

Assignment of Rights

The sending of an Article to RINOE Journal-Urban-Rural and Regional 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 Peru 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 regional economy: Analysis of growth, Development, and Changes, Size and spatial distributions of regional economic activity, General equilibrium and welfare economic analysis of regional economies, Land use patterns, Econometric and Input-Output models; Household analysis: Housing demand, Other Demand, Regional migration, Regional labor markets, Population; Production analysis and firm location: Housing supply and markets, Other production and pricing analysis, Nonagricultural and nonresidential real estate markets, Input demand analysis, Government policies; Transportation systems: Transportation, Government and private investment analysis, Government pricing; Regional government analysis: Finance in urban and rural economies, Land use and other regulations, Public facility location analysis, Public investment and capital stock, Regional development policy and other topics related to Social Sciences.

Presentation of the Content

In the first chapter we present, *Quality of services under the perception of management of the hotel industry*, by QUIJANO-GARCÍA, Román Alberto, ARGUELLES-MA, Luis Alfredo, MEDINA-BLUM, Fernando and FAJARDO, Mario Javier, with ascription in the Universidad Autónoma de Campeche, as a second article we present, *Design of personalized city tourist trips*, by ELIZALDE-RAMIREZ, Fernando, MAYA-PADRÓN, Cristina and REBILLAS-LOREDO, Victoria, with ascription in the Instituto Tecnológico de Estudios Superiores de Monterrey, Universidad Politécnica de García and Univ. Politécnica de Catalunya, Barcelona, as the following article we present, *Tamales record southern Region State of Yucatan*, by ZARZA-AMADOR, Karol, CAJUM-KÚ, Francisco Rodolfo and SANTOS-CHUC, Joab Jediael, with affiliation at the Universidad Autónoma de Campeche, as next article we present, *Project: Mx Trek Tours Thn* by MAGAÑA-PORRAS, Raul Humberto & OLIVERA-FLORES, Ismael with ascription in the Universidad Tecnológica de Tehuacán.

Content

Article	Page
Quality of services under the perception of management of the hotel industry QUIJANO-GARCÍA, Román Alberto, ARGUELLES-MA, Luis Alfredo, MEDINA- BLUM, Fernando and FAJARDO, Mario Javier <i>Universidad Autónoma de Campeche</i>	1-9
Design of personalized city tourist trips ELIZALDE-RAMIREZ, Fernando, MAYA-PADRÓN, Cristina and REBILLAS- LOREDO, Victoria <i>Instituto Tecnológico de Estudios Superiores de Monterrey</i> <i>Universidad Politécnica de García</i> <i>Univ. Politécnica de Catalunya, Barcelona</i>	10-15
Tamales record southern Region State of Yucatan ZARZA-AMADOR, Karol, CAJUM-KÚ, Francisco Rodolfo and SANTOS-CHUC, Joab Jediael <i>Universidad Autónoma de Campeche</i>	16-20
Project: Mx Trek Tours Thn MAGAÑA-PORRAS, Raul Humberto & OLIVERA-FLORES, Ismael <i>Universidad Tecnológica de Tehuacán</i>	21-27

Quality of services under the perception of management of the hotel industry

Calidad de los servicios bajo la percepción de la gerencia del sector hotelero

QUIJANO-GARCÍA, Román Alberto†*, ARGUELLES-MA, Luis Alfredo, MEDINA-BLUM, Fernando and FAJARDO, Mario Javier

Universidad Autónoma de Campeche Av. Agustín Melgar S/N, Col. Buenavista C.P. 24039 Campeche, Campeche

ID 1st Author: *Román Alberto, Quijano-García* / ORC ID: 0000-0001-7316-1997, Researcher ID Thomson: G-6014-2018, CVU CONACYT ID: 485854

ID 1st Coauthor: *Luis Alfredo, Arguelles-Ma* / ORC ID: 0000-0003-0315-4585, Researcher ID Thomson: S-5454-2018, CVU CONACYT ID: 300184

ID 2nd Coauthor: *Fernando, Medina-Blum* / ORC ID: 0000-0001-6532-0871, Researcher ID Thomson: M-1632-2017

ID 3rd Coauthor: *Mario Javier, Fajardo* / Researcher ID Thomson: S-4886-2018

Received February 11, 2018; Accepted May 03, 2018

Abstract

Selling products or providing services with Quality is a permanent issue any size Within Organizations, specially in the tourism industry globalization Where the services provided Demands That foreign clients to meet international quality standards. In the city of Campeche, small hotels With the city's colonial characteristic style are opening, Which Represents an Important investment in infrastructure made by Their owners but this is not enough to be well perceived by Their guests. The main objective of esta research is to Identify the perception That quality About the hotels' managers as intern customers and Have Largely responsible for the elements operating results. This study is descriptive non-experimental transverse With design, a sample was not Calculated from the population under study, Which is integrated by small hotels, Instead it was built from data of the Mexican Business Information System. The results Obtained through the Quality Perception index Indicate That, Contrary to what was expected, the managers Consider That the services provided by the companies collaborate Where They do not reach adequate quality levels, Which is a point starting to review the Processes That Currently EXECUTE and if Necessary, design new strategies allow them to raise That the quality of services and be competitive Their in the Market Where They Participate.

Quality, Leadership, Organizational Culture, MSMEs

Resumen

Vender productos o prestar servicios con calidad es un tema que ocupa permanentemente a las organizaciones sin importar el tamaño de las mismas, particularmente en el sector turístico donde la globalización exige que los servicios ofertados a los clientes externos cumplan estándares de nivel internacional. En la ciudad de Campeche se están aperturando pequeños hoteles con el estilo colonial que caracteriza a la localidad con importante inversión por parte de los propietarios en infraestructura, lo cual no es suficiente para que sean bien percibidos por sus huéspedes. Este trabajo tiene como objetivo central identificar la percepción sobre calidad que tienen los gerentes de los hoteles como clientes internos y responsables en gran medida de los resultados de la operatividad. El estudio es descriptivo con diseño no experimental transversal, la población la integran pequeños hoteles a los que no se determinó una muestra considerando su número, sino que fueron censados según datos del Sistema de Información Empresarial Mexicano; los resultados obtenidos a través del índice de Percepción de Calidad indican que, contrario a lo esperado, los gerentes consideran que los servicios otorgados en las empresas donde colaboran no reúnen niveles adecuados de calidad, lo cual es un punto de partida para revisar los procesos que actualmente llevan a cabo y en su caso diseñar nuevas estrategias que les permitan elevar la calidad de sus servicios y ser competitivos en el mercado donde participan.

Calidad, Liderazgo, Cultura organizacional, MSMEs

Citation: QUIJANO-GARCÍA, Román Alberto, ARGUELLES-MA, Luis Alfredo, MEDINA-BLUM, Fernando and FAJARDO, Mario Javier. Quality of services under the perception of management of the hotel industry. Journal-Urban-Rural and Regional Economy. 2018 2-2: 1-9

* Correspondence to Author (email: rq6715@hotmail.com)

† Researcher contributing as first author.

Introduction

Nationally tourism is a source of wealth for Mexico, as it ranks third in foreign exchange earnings after oil activity and dollar remittances sent home by Mexicans working abroad; therefore, retention and development of economic units involved in this market is a priority of economic policy (National Development Plan, 2013-2018 PND)

At the state level the guiding document of the economy (State Development Plan, PED 2015-2021) aims to strengthen the use of Campeche tourism potential to generate economic growth and social welfare through the organization of the sector, to promote a greater flow of investment and financing to increase the competitiveness of activity sustainably.

Main tourist assets the state owns the fortified city of Campeche, the only walled city in Mexico that has the distinction of Cultural Heritage granted by UNESCO in 1999 as well as the distinctive mixed heritage (cultural and natural) is given to the ancient Mayan city of Calakmul protected tropical forests since 2014. it has 16 archaeological sites open to the public where you can appreciate the Mayan culture two site museums and 9 museum spaces (PED 2015-2021).

Rationale

As part of the strategic objectives of PED 2015-2021, the city of Campeche intends to position itself as a final destination, not passing to other parts of the Yucatan Peninsula, thus making the sector rebound an important source of income and employment after the oil activity is focused on Ciudad del Carmen, and is currently undergoing serious economic stability problems; In this sense Campeche tourism MSMEs, must identify their competitive advantages to achieve economic growth. The hotel industry needs companies know their financial situation, level of infrastructure, operation and processes implemented to position themselves in a market that demands quality comprehensive services to domestic and foreign tourism.

Problem Statement

Based on the national survey of occupation and employment at the end of the fourth quarter of 2017 prepared by the INEGI (2018).

The tourism sector provides employment to 7% of the total economically active population, exceeding educational services sector (5%), and lower the construction sector (8%). Regarding its contribution to national GDP, this is equal to 8.7% in the same period

Before the outbreak of the oil crisis that has consequences at international and national level, the federal and state governments have parallel lines of action in tourism policy to strengthen research and knowledge generation in this sector, strengthening their infrastructure and quality of services through a diversification that allows to innovate the supply of them and consolidate destinations in order to position Mexico at the international level in segments such as cultural tourism and ecotourism.

The strategies outlined in the governing documents seek to encourage tourism investments of MSMEs promoting the care and preservation of cultural, historical and natural heritage of the country (PND 2013-2018). Based on the above studies that contribute to the strengthening and development of the companies involved in this sector, to turn them into agencies who offer competitive international services as required by globalization required.

Objectives

This study aims the following objectives:

- a. Identifying quality dimensions and variations in MSMEs of the hotel sector of the city of Campeche.
- b. Set the perception of management regarding hotel services offered at participating organizations.

Theoretical Framework

Castellucci (2009) discusses aspects of quality of tourism services and its problems in terms of organizational culture of tourism businesses in mature called destinations, and whose characteristic saturation of public space, and regulate quality of services, escaza generation capacity thereof and reduced tourist spending in them, as reflected in the stagnation of development.

The author believes that these organizations should be geared towards a culture of quality based on the set of beliefs, values, norms and practices to provide a service that meets customer expectations.

Quality hotel services MSMEs

In researching bonding company, capital and quality Castellucci (2013) points out that the profile of the organizational culture and senior management of tourist service companies constitute one of the main limiting factors when trying to implement management systems quality, which also cognitive and structural components of its capital also limit the development of this culture, it is noteworthy that in those cases where management is made up of entrepreneurs and / or young professional characteristics and attitudes that favor development are noted it becoming an enabling factor.

Meira, and Rojas (2014) developed a bibliometric analysis of the scientific production of research on the quality of tourist services, finding that has generated knowledge on this issue and a set of opportunities for new research, considering that studies developed basically they concentrated in North America, Europe and Asia, giving opportunity to expose the problems in the southern hemisphere. Provide quality services in the hospitality sector, is not a problem of geographical nature, as the phenomenon of globalization requires companies to provide services with identity and world-class, as studied Monsalve and Hernandez (2015) hotels MSMEs, Bucaramanga, Colombia, who identify influential aspects such as loyalty, promotion, innovation, promise of sale, equipment and training of human talent. One result that stands out is the consideration of quality by users at those hotels that provide solutions to the problems that arise and the attitude of workers when addressing the situation.

For its Foronda and Garcia (2009) part, consider that quality is a differentiator in tourist destinations such as axis strategy and forces to renew quality plans developed by organizations, which have promoted the implementation of planning tools in mature and emerging tourist destinations; have strengthened cooperation networks of public and private administrations, they are a way of acting and cause a dynamic effect on the tourism sector in Spain.

However, there are few initiatives that address the problems of the tourism sector, it is necessary to define new lines of work into new segments and avoid unrelated to the competitiveness of destinations and tourism products performances. Spain is among the countries that has focused improving the competitiveness of tourist destinations in service quality in the hotel sector, however the success of their programs depends on the final perception of tourists, either generally or in any particular topic service, as studied Fuentes, Hernandez and Morini (2016), who found that the recognized quality influences the satisfaction you get the client differently depending on the size studied in the sample. It was established that the average quality of services in five star hotels is high and the customer does not notice a significant difference; the differences are greater in three-star hotels,

Ibañez (2011), made a diagnosis of the quality and competitiveness of the tourism sector in Mexico whereas economic globalization intensifies competition between destinations, pointing to the need to undertake efforts to maintain the privileged position held Mexico, who has not it has established a culture of quality and competitiveness which causes their tendency to lag in the ranking of the top tourist destinations in the world, which recommends implementing programs to certify staff training, provide facilities for companies and workers to obtain certifications quality, accurate and updated originate from government institutions information, improving access to information; encourage socially responsible companies to encourage the use of alternative energy and enhance the human resources at all levels, which affects the image the company, the destination and the country offer tourists.

As part of the investigations to diagnose the quality of hosting services, Reyes Guzman and Morales (2015) developed a work that allows them to meet the expectations and perceptions of tourists in Acapulco, Gro., Using the Servqual model, finding that best evaluated variables were human resources, with a perception above expectations, but not in the case of facilities and equipment, which allowed them to point out the need to modernize the traditional areas of tourist destination to regain competitiveness and increase hotel occupancy, which has remained stagnant in recent years in Mexico this port benchmark internationally.

Gutierrez and Rubio (2009), considered the need for a change in the culture of tourism enterprises and identified the human factor as a key element in managing service quality, this by observing the increased competition linked to improved quality and management systems, where finally the human factor mentioned but was not involved as a key player in the development of services to achieve customer loyalty and customer satisfaction; the above defined as single evaluator of quality customer service and the subjectivity of perception.

In seeking to improve the quality management strategies are developed in tourism organizations (Fernandez, Gonzalez and Uzcátegui, 2008), which have been studied from different angles, in this regard analyzed the internal and external factors that determine your address.

The population studied under a population census in Venezuela Falcón states that the strategies that have implemented hosting companies do not have a strategic direction, although they are flexible in their organizational structure, technological capabilities and human talent. Researchers established the need to develop an organizational culture aimed at fostering employee engagement, innovation and audit service quality among users.

Fernandes Bezerra (2015) analyzed the attractiveness and quality of services in Pipa, Brazil, recital 28 service attributes to set expectations and build an array of opportunities, finding the need to improve service in the security aspects, relationship -price and service availability.

War and Cardozo (2010), considered competency management is a tool that helps ensure service quality in tourist inns Tachida Venezuela, these researchers consider the human factor mainly in the sector, therefore, identify the need to train and educate personnel planned, measure their performance and so along with other elements to evaluate the service.

They proposed a tool based on skills and Servqual variables to determine the key positions, both generic skills profiles and specific, seeking to raise demonstrated performance.

Competitiveness in the tourism sector MSMEs

The need for competitive MSMEs is not a local concern but has been detected in different countries and does not exclude the tourism sector as pointed out by Rodriguez and Guisado (2002), in the study of competitiveness and strategic analysis of tourism in Galicia, Spain aware that tourism is able to boost the country's economy, which is reflected in its contribution to GDP, although not all tourist areas exploit their full potential, therefore suggest the need to redefine the collective strategies for maximize their comparative advantages and to transform them into competitive advantages, having as main objective the sustainability of the activity over time.

On the other hand, Lillo, Ramón and Sevilla (2007), analyzed human capital as a strategic factor for the competitiveness of the tourism sector, since they consider it a key piece in a new international context by providing intangible but differentiating values that become competitive advantages.

These authors establish that the personnel that collaborates in the tourist SMEs must have an education derived from policies that elevate the quality of the services training the human resource with which it is counted, and not to which it would be desirable to have.

With the aim of analyzing the relationship between competitive success and four factors of the internal environment of SMEs (human resources, strategic planning, innovation, technology and quality certification) Estrada, García and Sánchez (2009), developed a study where they could establish that highly competitive SMEs for the case of the population studied are those whose products, processes and management have a higher technological level and have a strategic plan, however they found no empirical support for the variables of human resources and quality certification; Based on their results, they point out that innovation should be understood as a permanent process that becomes a way of thinking and managing, and that technology applied to processes can provide companies with a competitive advantage, since it is difficult to imitate; in this sense, the biggest obstacle is making the financial investment for this type of assets.

Ibañez (2011), believes that currently there are factors whose relevance allow us to consider that Mexico is competitive in the tourism market since it has: a) resources and natural and cultural attractions, b) the warmth of the people, c) the tranquility of some tourist destinations despite social conflicts and insecurity in some regions of the country, d) willingness and desire to do things well, e) incorporation and use of technologies in the development of tourism, f) entrepreneurs who believe and bet on the future of Mexico, g) governmental support to the sector as a key element to the economic development of the country, h) potential to develop new market segments, based on the nature of the country's cultural values, framed by friendly environmental practices.

Research Methodology

Kind of investigation

The study is descriptive because it measures or collects information about the variable subject to study. The design is non-experimental cross-sectional since data were collected in a single moment in its natural context, by means of questionnaires administered to the managers of MSMEs of the hotel sector as internal clients of the companies, with the purpose of describing variables and analyzing their incidence. The method used for the collection of quantitative information is through fieldwork and the technique used is the survey (Hernández, Fernández and Baptista, 2014).

Subjects in the study

The population was satisfied with tourism MSMEs from the hotel sector, specifically hotels and hostels that do not belong to hotel chains or franchises in the city of Campeche. The companies identified with this specialty were 26, according to the directory of the Mexican Business System as of February 2, 2016. Of the 26 hotels identified, 23 participated, representing 88% of the initial universe.

Instrument

To obtain the quantitative information, the questionnaire designed by Parasuraman, Zeithaml and Berry (1985) was used.

This instrument is linked to the central objective of the research by contributing to the identification of the expectations and perception that hotel managers have regarding the services offered by the participating companies and thus identifying areas for improvement, the elements that comprise it they are indicated in Table 1.

Dimension	Operational Definition	Reagent s	Proportion
Tangibility	It is the operational and administrative infrastructure that serves as the basis for the services offered by the organization.	1, 2, 3, 4	22.2%
Reliability	Processes are developed by the staff of the company through which services are provided.	5, 6, 7, 8, 9	27.7%
Answer's capacity	Operations carried out by employees of the organization in a timely manner.	10, 11, 12	16.7%
Warranty	Conducting processes by staff with attitude and dedication to customer service.	13, 14, 15	16.7%
Empathy	Processes are developed by employees with a sense of identity to the client.	16, 17, 18	16.7%

Table 1 Definitions of the questionnaire administered to the managers of the MSMEs of the hotel sector
Source: Prepared with data from Parasuraman, Zeithaml and Berry (1985)

The instrument considers scores assigned in a Likert scale with values ranging from 1 = strongly disagree, 2 = Disagree 3 = Agree and 4 = agree.

The questionnaire will be added an initial section for socio-demographic information and position of the manager, followed by questions to establish the administrative profile of the organization.

Driveability 3.4 Instrument

Previously he conducted a pilot to assess understanding of the instrument with 10% of the population yielding a Cronbach's alpha of 0.902. Subsequently the test was replicated obtaining the values for the general instrument and dimension same as shown in Table 2.

Dimension	Number of items	Cronbach
Perception of quality	18	.937
Tangibility	4	.887
reliability	5	.874
Answer's capacity	3	.770
Warranty	3	.720
Empathy	3	.535

Table 2 Reliability survey administered to managers of MSMEs in the hotel industry

Source: Prepared based on statistical information

It is pertinent to note that the reliability parameter dimension "empathetic", may be considered under certain standards; however, it must be pointed out exposed by Kerlinger (2002), which states that when a tool does not reach an index that is deemed reliable, this may be because the quantity of reagents was insufficient because few reagents may arise large error by chance or by the interpretation by the individual reagent. In the particular case of the questionnaire used, it contained three questions to measure the dimension under study; Another factor to consider in this result is that the population surveyed was only 23 people.

Procedure for data collection and analysis

Questionnaires were applied personally to hotel managers lasting twenty minutes each, and the data were processed through SPSS version 21 software.

Results

At five dimensions that compose the variable they were determined the mean and standard deviation in order to analyze the near and far reagents assigned values, and the level of dispersion of the responses, same as shown in Table 3.

Dimension	N	Minimum value	Maximum value	Half	Standard deviation
Tangibility	2.3	two	4	2.94	2.0879
reliability	2.3	two	4	3.21	2.5568
Answer's capacity	2.3	two	4	3.05	1.6693
Warranty	2.3	two	4	3.31	1.2960
Empathy	2.3	one	4	3.17	1.3440

Table 3 Descriptive statistics concerning the quality dimensions

In none of the five dimensions close to 4 values were obtained, the highest corresponds to the dimension "guarantee" and less than "tangibility" which indicates that managers of companies believe that staff inspires confidence to customers, but the facilities and infrastructure should be improved. Moreover "reliability" is the dimension that obtained a greater dispersion in the answers which indicates that in most organizations, staff requires more committed to service policies offered by companies in terms of time and characteristics, (Table 4).

Reagent	Minimum	Maximum	Half	Standard deviation
5. If your establishment staff is committed to do something for a certain period of time, meets	two	4	3.17	.650
6. When a customer has a problem, the staff of the establishment shows a sincere interest in solving it	two	4	3.17	.576
7. The staff of the establishment gives an agile and timely.	two	4	3.30	.635
8. The staff of the property offers / services concluded in time promised	two	4	3.22	.518
9. Staff Get your customer discloses the features of the product or service you are receiving	two	4	3.22	.736

Table 4 Descriptive statistics on the reliability dimension

The less dispersion in the opinions of respondents obtained the dimension "guarantee", indicating that overall the staff of participating companies coasting customer confidence inspiring security customers (Table 5).

Reagent	Minimum	Maximum	Half	Standard deviation
13. The staff of your establishment inspires / transmits confidence to customers	two	4	3.13	.458
14. Get your customers feel secure in their facilities	two	4	3.30	.635
15. Get your staff is always friendly with customers	3	4	3.52	.511

Table 5 Descriptive statistics on the security dimension

To establish the influence of sociodemographic factors and administrative profile in the quality of services provided to customers from the perspective of managers, the Student's t test was applied for independent testing (gender, marital status and type of count institution the most recent studies) was studied and ANOVA to establish significant differences between variances (age, education level, age of the company, type of organization, job tenure and number of employees) (Kazmier, 1998).

When analyzing gender, significant differences in dimension "guarantee" were obtained, which allows us to infer that this factor affects subjective aspects such as customer confidence towards staff, according to the opinion expressed by management.

The dimension "tangibility" reported significant differences in assessing the type of school where recent studies whether public or private, and the age of the manager in the position and number of employees of the organization were issued, which may originate from the experience in performing the duties of office; if the number of workers who work in the company and the type of school, it is inferred that this element of the administrative profile influence the decision to participate in courses of non-governmental bodies, organizing formal training for employees, share project information and hiring specialized personnel. Moreover, the dimension "responsiveness" presented statistical differences regarding age factor, which represents an important aspect to assess, since according to the opinion of management may affect the time of operations without errors or availability to solve customer queries by other contributors.

Additionally, in order to have a clearer idea of the perception that managers of companies regarding the quality of the services offered at hotels quantitative analysis was developed to evaluate that perception and get Perceptions Index Quality (IPC), developing the following steps:

- a) The sum of the values assigned to each question was obtained enterprise
- b) The maximum score that could have any company was 72 (4 points maximum of 18 items).

- c) The number obtained in part "a" between 72 and the result was multiplied by 100 to obtain a "Perceptual Quality Index" (CPI) was divided. A higher CPI means that the manager believes that the services offered by the organization have quality (Table 6).

Company	Points per company	Top Score	CPI (%)
one	43	72	56.40
two	64	72	55.81
3	48	72	47.09
4	66	72	81.98
5	64	72	83.14
6	67	72	86.63
7	53	72	69.77
8	69	72	94.19
9	64	72	59.88
10	54	72	67.44
eleven	60	72	86.63
12	62	72	56.40
13	51	72	60.47
14	57	72	69.77
fifteen	57	72	69.77
16	53	72	57.56
17	54	72	58.14
18	54	72	58.14
19	fifty	72	45.93
twenty	48	72	45.93
twenty-one	48	72	31.98
22	54	72	43.02
2. 3	fifty	72	43.02

GCR = quality perception index = Score / Maximum score x 100. The result obtained for each company can be interpreted as the perception of the manager regarding the quality of services provided to external customers, companies which collaborate.

Table 6 Quality Perceptions Index (CPI)

Source: Self Made

The average obtained in the CPI of the study population is 77.29%, which gives an idea of the opinion that having managers surveyed hotels, regarding the quality of its services and that contrary to what one might think not think that the services are adequate despite being workers of the organizations participating in the study.

Conclusions

Discussion of Results

In comparing the results with previous research considered in the theoretical framework, it is observed that the means obtained as a whole for the quality dimensions were not considered high as its average value ranges in three, and tangibility dimension with the lowest value, which indicates that investment in infrastructure is not enough for the standards demanded by domestic and foreign guests in accordance with the opinion of the managers participating in the study organizations, which counteracts suggested by Ibañez (2011) Reyes et. al (2015), who point out that the image of tourism enterprises as a whole raises its level of employment and competitiveness, therefore, it is desirable to assess whether physical investment to date is adequate by the standards of service.

On the contrary, the dimension called guarantee reached the average with the highest average, which indicates that employees are friendly with customers and generates a climate of confidence and security, which confirms that the human factor is a fundamental element in the quality management and should be involved in the processes of providing services. The above is necessary to achieve customer loyalty and satisfaction, (Monsalve and Hernández, 2015 and Gutiérrez y Rubio (2009).

Reliability is the dimension with greater dispersion in the responses expressed by managers, indicating that the views do not agree on the level of commitment from other partners to solve possible problems of the guests, it is desirable to encourage the provision of services based in values, norms and practices to meet customer expectations, (Castellucci, 2009) and Monsalve and Hernandez (2015). Moreover, there is a coincidence in the opinion of management regarding the kindness with which employees treat customers, which can be reinforced by training schemes and measuring their competency-based performance and thus have a better design profiles (war and Cardozo, 2010). Assessment of sociodemographic factors shows that gender affects the levels of trust between the client and staff and school type either public or private, where the last grade of study has been completed, which is reflected in aspects safety, price-service and availability of services (Fernandez and Bezerra, 2015).

Elements related to administrative profile antiquity in the position and the number of employees who work in the company offers differences in the study population, which coincides with the constraints identified by Castellucci (2013), when trying to implement management systems quality, which constitute the leadership of young professionals promotes the development of it as an enabler factor.

Conclusions

The first objective of this research establishes the identification of the dimensions of quality from the point of view of the managers of the participating companies and the present variations in terms of expectations and perceptions, which is 78% based on the values assigned, unexpected situation, since the managers, despite being internal clients, are also employees and responsible for the operation of the hotels.

The index of perception of quality designed to establish the perception of management regarding hotel services offered to the conclusion that the subjects surveyed are aware of the need to raise the quality of them, since the average value obtained is 77% therefore, an analysis of current processes is desirable and propose strategies to facilitate implementation of quality management systems that meet customer expectations.

This research is limiting the number of participating companies and the respondent staff, developing similar studies in other regions can help establish internal and external factors affecting the quality of services offered by companies in the hotel sector which it is reflected in the levels of employment and competitiveness in the market.

References

- Castellucci, D. (2009). La calidad y los servicios en destinos turísticos maduros. *Aportes y Transferencias*. 13, 2 pp. 29-44.
- Castellucci, D. (2013). Empresas, capital social y calidad. Un estudio de casos múltiples en Mar del Plata, Argentina. *Estudios y Perspectivas en Turismo*. 22, 6 pp. 1096-1120.

- Estrada, R., García, D. y Sánchez, V. (2009). Factores determinantes del éxito competitivo en la pyme: Estudio empírico en México. *Revista Venezolana de Gerencia*. 14, 46 pp. 169-182.
- Fernández D. y Bezerra, D. (2015). Factores de atractividad y calidad de los servicios turísticos en el destino Pipa-Brasil. *Estudios y Perspectivas en Turismo*. 24. 2 pp. 205-221.
- Fernández, G., González A. y Uzcátegui, B. (2008). Estrategias gerenciales orientadas a la calidad del servicio en empresas de alojamiento turístico. península de Paraguaná, Estado Falcón Venezuela. *Multiciencias*. 8 pp. 295-301.
- Foronda, C. y García, A. (2009). La apuesta por la calidad como elemento diferenciador en los destinos turísticos: planes renovados. *Cuadernos de Turismo*. 23 pp. 89-110.
- Fuentes, M., Hernández E. y Morini, S. (2016). Q de calidad y satisfacción del turista en el sector hotelero español. *Cuadernos de Turismo*. 37 pp. 203-226.
- Guerra, K. y Cardozo, N. (2010). La gestión por competencias. una herramienta para garantizar la calidad del servicio. caso de estudio posadas turísticas del estado Táchira. *Provincia*. 24 pp. 31-51.
- Gobierno del Estado de Campeche (2016). *Plan Estatal de Desarrollo 2015-2021*. Recuperado el 10 de marzo de 2016 en www.campeche.gob.mx
- Gobierno Federal de los Estados Unidos Mexicanos, Presidencia de la República. (2016). *Plan Nacional de Desarrollo 2013-2018*. México. Recuperado de: www.presidencia.gob.mx
- Gutiérrez, S. y Rubio, M. (2009). El factor humano en los sistemas de gestión de calidad del servicio: un cambio de cultura en las empresas turísticas. *Cuadernos de Turismo*. 23 pp. 129-147.
- Hernández, R., Fernández, C. y Baptista, P. (2010). *Metodología de la investigación*. McGraw Hill, México
- Ibáñez, R. (2011). Diagnóstico de la calidad y competitividad del sector turístico en México. *Cuadernos de turismo*. 28 pp. 121-143.
- Instituto Nacional de Estadística y Geografía (2015). "Información económica". Recuperado el 10 de enero de 2016. www.inegi.gob.mx
- Kazmier, L. (1998). *Estadística aplicada a la administración y a la economía*. México: McGraw-Hill.
- Kerlinger, F.N. (2002). *Investigación del comportamiento*. México: McGraw-Hill
- Lillo, A., Ramón, A. y Sevilla, M. 2007. El capital humano como factor estratégico para la competitividad del sector turístico. *Cuadernos de Turismo* 19, 47-69.
- Meira, A. y Rojas, A. (2014). Análisis bibliométrico de la producción científica de 2002 a 2012 sobre calidad en servicios turísticos. *Estudios y Perspectivas en Turismo*. 23. 04 pp. 645-667.
- Monsalve, C. y Hernández, S. (2015). Análisis de la calidad del servicio de los hoteles pymes de Bucaramanga y su área metropolitana. *Sotavento MBA*. 26 pp. 62-69.
- Parasuraman, A.; Zeithaml, V. y Berry, L. (1985). Servqual: a multiple ítem scale for measuring consumer perceptions of service quality. *Journal of Retailing*. 6.1. pp. 12-40.
- Reyes, D., Guzmán, D. y Morales A. (2015). Diagnóstico de la calidad de los servicios de hospedaje en Acapulco, Guerrero. *Revista Mexicana de Ciencias Agrícolas*. 01 pp. 391-393.
- Rodríguez, M. y Guisado, M. (2003). Competitividad y análisis estratégico del sector turístico en Galicia: consideraciones para la mejora competitiva. *Revista Gallega de Economía*. 12, 1-21.

Design of personalized city tourist trips

Diseño de viajes turísticos personalizados a la ciudad

ELIZALDE-RAMIREZ, Fernando†*, MAYA-PADRÓN, Cristina and REBILLAS-LOREDO, Victoria

Instituto Tecnológico de Estudios Superiores de Monterrey: Eugenio Garza Sada 2501, Monterrey, N.L., México

Universidad Politécnica de García: Porfirio Díaz 100, Centro, García, N.L., México |

Univ. Politécnica de Catalunya, Barcelona-Tech., Barcelona, Spain

ID 1st Author: *Fernando, Elizalde-Ramirez* / **ORC ID:** 0000-0002-0699-2835, **arXiv Author ID:** ferelizalde, **CVU CONACYT ID:** 389111

ID 1st Coauthor: *Cristina, Maya-Padrón*

ID 2nd Coauthor: *Victoria, Rebillas-Loredo*

Received February 01, 2018; Accepted June 10, 2018

Abstract

In this article we propose a mathematical model to design personalized tourist trips around the city. Suppose you are a tourist who wants to visit specific tourist places, and you have some time available to do it. Due to the closeness and/or available time could be possible to visit another interest points, but you do not know how to perform it. So, you want to have a "route" of tourist places including those places you want to visit and that minimizing the total travel time. Also, it is possible to indicate the start and end points in the route, being the end equal to the starting point or not. We show how this can be modeled as a combinatorial optimization problem, called vehicle routing problem (VRP). Where the "route" will be the personalized plan of points of interest to visit. This plan can be design for one or several days, also considering the walking time you want to do during the tour, and the use of different means of transportation.

City Trip Planner, user preferences, MIP model, routing, VRP

Resumen

En este artículo proponemos un modelo matemático para diseñar viajes turísticos personalizados por la ciudad. Suponga que es un turista que quiere visitar sitios turísticos específicos y tiene un tiempo disponible para hacerlo. Dada la cercanía y/o tiempo disponible, es posible visitar otros puntos de interés, pero no sabe cómo realizarlo. Así, que desea tener una "ruta" de lugares turísticos que incluya aquellos lugares que desea visitar y que minimicen el tiempo total de recorrido. Además, es posible indicar los puntos inicial y final de la ruta, siendo el final igual al de inicio o no. Nosotros mostramos cómo esto puede ser modelizado como un problema de optimización combinatoria, llamado problema de enrutamiento de vehículos (VRP). En donde la "ruta" será el plan personalizado de puntos de interés a visitar. Este plan puede ser diseñado para uno o varios días, considerando también el tiempo caminando que desee realizar su recorrido, y el uso de diferentes medios de transporte..

Planificación de viaje en ciudad, Preferencias de usuario, Modelo MIP, Ruteo, VRP

Citation: ELIZALDE-RAMIREZ, Fernando, MAYA-PADRÓN, Cristina and REBILLAS-LOREDO, Victoria. Design of personalized city tourist trips. Journal-Urban-Rural and Regional Economy. 2018. 2-2: 10-15

* Correspondence to Author (email: fernandoelizalderamirez@gmail.com)

† Researcher contributing as first author.

Introduction

In this article we show how the problem of design of personalized city tourist trips designing can be modeled as a vehicle routing problem (VRP) (Toth,P, & Vigo, D., 2014).

The vehicle routing problem (VRP) is a problem of combinatorial optimization and integer programming what question “What is the optimal set of routes for a fleet of vehicles that must meet the demands of a set given of clients?” It is a generalization of the well-known Problem of Traveling (TSP) (Flood, 1956).

The problem of design of personalized city tourist trips we define as follows:

You have a tourist who wants to visit some tourist places or interest points, this has a set of preferences when selecting the places to visit, such as:

- 1) The time available to travel,
- 2) The inclusion in the plan (tourist trip) of those tourist places you wish to visit,
- 3) The possibility of visiting other tourist places that are close to the points of interest indicated,
- 4) The alternative of establishing a starting point of travel and a final point, where they are not necessarily the same,
- 5) The advantage of having a plan for one or several days,
- 6) The option to determine the time you want to make your walking tour (minimum and maximum time), and,
- 7) The option of using the subway as transportation.

The remainder of this document is organized as follows: A review of the literature related to the problem is presented, methodology used, mathematical formulation, results, conclusions and references.

Literature Review

In the literature we find works that aim to generate tourist routes such as (Cergibozan Ç. & Tasan A.S., 2018), (Vansteenwegen, et. al, 2011), (Garcia, et. al, 2010), however, the objective function is defined in maximizing user satisfaction, defining a score for each site of interest to visit. Finally, the route obtained is subject to selecting those sites that had a higher score.

However, when a tourist visit a city usually have knowledge beforehand of the popular typical places would like to visit. If he has one or several days that he can arrange to make the visits, the problem would be to decide in what way he will travel to include those tourist places and if possible, some that are close to them, to optimize the total time available.

(Borràs, 2014) and (Gavalas, 2014) they carry out a review of the state of the art of the Systems of Recommendation (RS), in tourism. In which both the modeling of the problem, the modeled characteristics and the methodologies used are very varied.

Some methodologies such as *Artificial Intelligence Planning* have been used to represent the problem of personalized city tourist trips (Elizalde, R., et al., 2017), and although they are efficient in finding personalized routes for tourists, the solutions found are not optimal.

In fact, due to the complexity of solving some problems related to the personalization of tourist routes and the large number of works with different characteristics, in the literature it has been chosen to use other non-exact techniques such as genetic algorithms (Maruyama, 2004), guided local search (Wouter, 2008), among many others. It is important to know the scope of this formulation, because as future research we want to improve our solutions implementing another kind of algorithms and techniques more effective.

Methodology

In order to know optimal solutions and its properties by the tourist city trip design problem, we develop a mathematical formulation similar to the Vehicle Routing Problem. The Vehicle Routing Problem (VRP) calls for the determination of the optimal set of routes to be performed by a fleet of vehicles to serve a given set of customers, and it is one of the most important, and studied, combinatorial optimization problems (Toth, P., & Vigo, D., 2014)

We can say that our mathematical modeling is like a VRP, because the routes of the vehicles of the routing problem are as the route plan provided for the tourist to visit tourist places or interest points in a city, and the clients that these vehicles must serve, as the points of interest to visit.

So, the route resulted is a plan that a tourist can follow to make his tourist tour in a city.

Mathematical formulation

We consider a general form on a weighted, symmetric and directed graph $G = (V, A)$, where V is the set of nodes and A is the set of arcs. Let P a set of interest points in a certain city, in this version of the problem, we suppose that the start and end in a route is an interest point, so, we have that all our vertices as $V = P$. Let M the set of transportation line (walking, metro), D the set of days (routes) available by the tourist and R the set of sites that the tourist wants to include strictly in the tour plan. We have next parameters and decision variables:

Parameters:

tv_i : time spend to visit the site $i \in P$,
 $tt_{i,j}^m$: travel time between nodes i and j , $(i, j) \in A$, using the transportation line $m \in M$,
 s_d : point to start the trip in the day $d \in D$,
 e_d : point to end the trip in the day $d \in D$,
 f_d : 1 if the route is close (start and end are the same) and 0 if is open (start and end are different),
 T_d : available time of the tourist at day $d \in D$,
 TMw_d : maximum time that the tourist wants to walk at day $d \in D$,
 Tmw_d : minimum time that the tourist wants to walk at day $d \in D$,

Decision variables: We define x_{ij}^{dm} as binary variable that is equal to 1 if in the day d the tourist uses arc (i, j) in transportation line m , y_p^d equal to 1 if the interest point p is visited in the day d .

With the above notation, our problem can be formulated as:

$$\min \sum_{d \in D} \sum_{m \in M} \sum_{(i,j) \in V} tt_{i,j}^m x_{i,j}^{dm} \quad (1)$$

$$\sum_{(i,j) \in \delta^-(i)} \sum_m x_{i,j}^{d,m} = y_i^d \quad i \in V \setminus \{s, e\}, d \in D \quad (2)$$

$$\sum_{(i,j) \in \delta^+(i)} \sum_m x_{i,j}^{d,m} = y_i^d \quad i \in V \setminus \{s, e\}, d \in D \quad (3)$$

$$\sum_{p \in P} tv_p y_p^d + \sum_{m \in M} \sum_{(i,j) \in V} tt_{i,j}^m x_{i,j}^{d,m} \leq T_d, d \in D \quad (4)$$

$$\sum_{m \in M} \sum_{j \in V} x_{s,j}^{d,m} + \sum_{m \in M} \sum_{j \in V} x_{j,e}^{d,m} = 2, d \in D \quad (5)$$

$$\sum_{m \in M} \sum_{j \in V} x_{j,s}^{d,m} = (1 - f_d), d \in D \quad (6)$$

$$\sum_{m \in M} \sum_{j \in V} x_{e,j}^{d,m} = (1 - f_d), d \in D \quad (7)$$

$$\sum_{d \in D} y_r^d = 1, r \in R \quad (8)$$

$$\sum_{d \in D} y_i^d \leq 1, i \in V \setminus R \quad (9)$$

$$\sum_{(i,j) \in V} tt_{i,j}^1 x_{i,j}^{d,1} \leq TMW_d, d \in D \quad (10)$$

$$\sum_{(i,j) \in V} tt_{i,j}^1 x_{i,j}^{d,1} \geq Tmw_d, d \in D \quad (11)$$

$$\sum_{i \in S, j \notin S} x_{i,j}^{d,m} \leq y_r^d / |S|, S \in V \setminus \{s, e\}, 2 \leq |S| \leq |V - 2|/2, r \in R \quad (12)$$

The objective function (1) find to minimize the total transportation time in each day by the tourist. Constraints (2) and (3) enforce that for each node can be just one 'in-arc' and one 'out-arc' if the touristic place is visited. (4) indicates that the total time (transportation and visit time) available by day cannot be exceeded. With constraints (5)-(7) we relate the in-degree by start and end points. Constraints (8) include in the tour all the points that the tourist wishes to visit, and (9) help us to does not visit a site if that was visited in previous days. To consider the maximum and minimum time the tourist wants to walk we have (10)-(11) and finally, constraints (12) are the well knows subtour elimination constraints adapted for our problem, in this case we need to model these considering the directed form.

Results

The Mathematical formulation was implemented using OPL Optimization Version 12.5, tests were run on Intel Core i7 Gaz with 16 GB.

Instance characteristics

Our instances are inspired to visit Barcelona considering $|P| = \{10,15,20\}$ Two kind of transportation lines M was selected, walking and metro, due to the main interest points in Barcelona are well connected only using metro lines. But, the model can be well adapted to include more transportation lines as bus and tram. To calculate the visit time in each point, we use the tourist information provided by the tourism of Barcelona. About the times $tt_{i,j}^m$, we estimated that using google maps, and times with metro, we selected the minimum transfer time between interest points.

– 10 interest points

Instance 1:

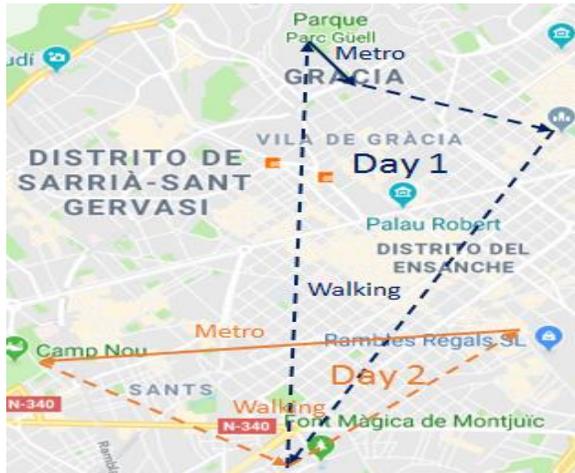


Figure 1 Instance

– The tourist will visit...

- Day: 1-
 - 2-> Ramblas
 - 7-> Camp Nou Stadium Stadium

- Day: 2-
 - 8-> Gràcia
 - 9-> Park Güel
 - 10-> Sagrada Família

With total visit time: 310 min.

The tourist will travel:

- Day: 1
 - in line 1 (walking) 1 - 2, 7-1
 - in line 2 (metro) 2-7

- At day 2
 - in line 1 (walking) 8 -10-1
 - in line 2 (metro) 1 – 9 - 8

With total travel time: 126 min.

Instance 2:

Testing with an open route, the tourist has 2 available days and he want start at “1-Ramblas” and to end in “4-Barceloneta. In the planning must be 7-Camp Nou Stadium, 9-Park Güel 10-Sagrada Família. Respect to the times, we have next table.

The solution is:
The tourist will visit:

- Day: 1
 - 2->Ramblas
 - 3->Gotic Quather

- Day: 2-
 - 5 ->Columbus monument
 - 7 -> Camp Nou Stadium Stadium
 - 9 -> Park Güel
 - 10 -> Sagrada Família

With a visit time: 355 min.

The tourist will travel:

- Day 1
 - in line 1 (walking) 1 - 2 - 3 - 4
 - Day 2
 - in line 1 (walking) 5 - 4, 9 - 10
 - in line 2 (metro) 1 - 9, 7 - 5, 10 - 7
- With a total travel time: 124 min.

– 15 interest points

Instance 1:

This open route is starting at “8-Gracia”and end at “1-Ramblas”. In the planning must 10-Sagrada Família, 6-Magic Font, 3-Gotich Quather and 5-Columbus monument. In table “” we have the times by this instance.

The tourist will visit:

- Day: 1-
 - 2->Ramblas
 - 3->Gotic Quather
- Day: 2-
 - 5-> Columbus monument
 - 6-> Magic Font
 - 7-> Camp Nou Stadium
 - 10-> Sagrada Família

With visit time:335 min.

The tourist will travel:

- Day 1
 - in line 1(walking) 4 - 3
 - in line 2(metro) 3 - 2
 - in line 1(walking) 2 - 4

Day 2

in line 1(walking) (4, 10) = 14
 in line 2(metro) (10, 6) = 1
 in line 1(walking) (6, 7) = 1
 in line 2(metro) (7, 5) = 1
 in line 1(walking) (5, 4) = 1

With a travel time: 168 min.

– **Instance 2:**

The close route is starting at “4-Barceloneta”. In the planning must be 7- Camp Nou Stadium, 9- Park Güel 10-Sagrada Familia. In table “” we have the times by this instance.

The tourist will visit:

Day: 1-

- 2->Ramblas
- 3->Gotic Quarter

Day: 2-

- 5-> Columbus monument
- 6-> Magic Font
- 7-> Camp Nou Stadium
- 10-> Sagrada Familia

With visit time:335 min.

The tourist will travel:

Day 1

in line 1(walking) 4 - 3
 in line 2(metro) 3 - 2
 in line 1(walking) 2 - 4

Day 2

in line 1(walking) 4 - 10
 in line 2(metro) 10 - 6
 in line 1(walking) 6 - 7
 in line 2(metro) 7 - 5
 in line 1(walking) 5 - 4

With a travel time: 168 min.

	n10_1		n10_2		n15_1		n15_2	
Available time	300	600	600	600	360	480	660	660
Max. time walking	120	180	120	180	120	180	120	180
Min. time walking	60	60	60	60	30	120	60	120

Table 1 Times instances BCN_N10-N20 (min)

In general, by instances BCN_N10-N20 solving times are between 10-70 secs, these times are such fast and reasonable in this kind of problems. By another hand, our problem is complex when the number of nodes growth. We will see that in next results.

– **20 interest points**

With these instances, model only is able to get solutions with 24-21% optimality gap. Down, we can see the characteristics by the three instances tested and the obtained gaps.

	1	2	3
R	2	6	2
K	2	2	2
D	1	1	0
S	1	1	1
E	7	7	1

Table 2 Parameters by instances BCN_N20

Instance	gap(%)
BCN_N20_1	21.06
BCN_N20_2	23.81
BCN_N20_3	21.44

Table 3 Results instances 20 interest points

Conclusions

In this paper, we presented a VRP model to represent the problem Design of Personalized City Tourist Trips. Where a set of characteristics are considered: time available, tourist places that I wish to visit, visit to nearby places, start and end of route, planning several days, walking time, use of subway.

Using OPL/Cplex optimizer, some small instances and two kind of transportation lines (walking and metro) applied to Barcelona city were tested. By instances with 10-15 nodes it is possible to get solution in reasonable time, but with 20 nodes onwards our problem is intractable.

As future work we want to implement a Branch & Cut algorithm and to strengthen this formulation, because actually all subsets $S \subset V$ are generated with OPL and it is a determining factor for not obtaining the results with the instances of 20 nodes (or more). Also, we consider implementing this methodology in software available and interactive to users, as a mobile application or a web site.

References

- Toth, P., & Vigo, D. (Eds.). (2014). *Vehicle routing: problems, methods, and applications*. Society for Industrial and Applied Mathematics.
- Flood, M. M. (1956). The traveling-salesman problem. *Operations Research*, 4(1), 61-75.
- Cergibozan Ç., Tasan A.S. (2018) Tourist Route Planning with a Metaheuristic Approach. In: Viles E., Ormazábal M., Lleó A. (eds) *Closing the Gap Between Practice and Research in Industrial Engineering. Lecture Notes in Management and Industrial Engineering*. Springer, Cham
- Baldacci, R. & Mingozzi, A. . (2009). A unified exact method for solving different classes of vehicle routing problems. *Mathematical Programming*, 120, pp.347-380.
- Vansteenwegen, P., Souffriau, W., Vanden Berghe, G. & Van Oudheusden, D. (2011). The City Trip Planner: An expert system for tourist. *Expert Systems with Applications*, 38, pp.6540-6546.
- Garcia A., Arbelaitz O., Linaza M.T., Vansteenwegen P., Souffriau W. (2010) Personalized Tourist Route Generation. In: Daniel F., Facca F.M. (eds) *Current Trends in Web Engineering. ICWE 2010. Lecture Notes in Computer Science*, vol 6385. Springer, Berlin, Heidelberg
- Borràs, J., Moreno, A. & Valls, A.. (2014). Intelligent tourism recommender systems: A survey. *Expert System with Applications*, 41, pp.7370-7389
- Batet, M., Moreno, A., Sánchez, D., Isern, D., & Valls, A. (2012). Turist@: Agent-based personalised recommendation of touristic activities. *Expert Systems with Applications*, 39, 7319–7329.
- Moreno, A., Valls, A., Isern, D., Marin, L., & Borràs, J. (2013). SigTur/e-destination: Ontology-based personalized recommendation of tourism and leisure activities. *Engineering Applications of Artificial Intelligence*, 26, 633–651.
- Elizalde, F., Maya, C. & Rebillas, V. (2017). Generation of customized tourist routes using AI Planning. *RINOE Journal-Business administration and business economics; Marketing; Accounting*, 1, pp.11-20.
- Maruyama, A., Shibata, N., Murata, T., Yasumoto, K., & Ito, M.. (2004). A personal tourism navigation system to support traveling multiple destinations with time restrictions. *18th International Conference on Advanced Information Networking and Applications*, 2, pp.18-21.
- Gavalas, D., Konstantopoulos, C., Mastakas, K. & Pantziou, G. (2014). Mobile recommender systems in tourism. *Journal of Network and Computer Applications*, 39, pp.319-333.
- Wouter Souffriau, Pieter Vansteenwegen, Joris Vertommen, Greet Vanden Berghe & Dirk Van Oudheusden (2008) A personalized tourist trip design algorithm for mobile tourist guides, *Applied Artificial Intelligence*, 22:10, 964-985.

Tamales record southern Region State of Yucatan

Registro de tamales Región sur del Estado de Yucatán

ZARZA-AMADOR, Karol†*, CAJUM-KÚ, Francisco Rodolfo and SANTOS-CHUC, Joab Jediael

Universidad Autónoma de Campeche Av. Agustín Melgar S/N, Col. Buenavista C.P. 24039 Campeche, Campeche

ID 1st Author: *Karol, Zarza-Amador* / ORC ID: 0000-0002-7647-6326, Researcher ID Thomson: S-8662-2018, CVU CONACYT ID: 733698

ID 1st Coauthor: *Francisco Rodolfo, Cajum-Kú* / ORC ID: 0000-0002-3202-5881, Researcher ID Thomson: S-8669-2018, CVU CONACYT ID: 733670

ID 2nd Coauthor: *Joab Jediael, Santos-Chuc* / ORC ID: 0000-0002-0997-136X, Researcher ID Thomson: S-8685-2018

Received February 15, 2018; Accepted May 03, 2018

Abstract

The tamale is an endemic food of Mexican gastronomy and nowadays a standard Yucatan cuisine, esta being the support of many families versatility and STI Because of flavors, the use of various ingredients, as much as products and techniques Brought from the old continent; Also on wich culinary techniques and utensils from the mayan Community, Have Been Adapted. They are made to hold the hard work and long days, Also for festivities or traditional parties. The tamal has many changes Suffered Since its origin, changes That Have Been influenced by other continents's cuisines, the ones That Brought Them With a variety of products That came to stay, products like achiote, oils, wheat flours, and many others. The Ones That Have Been perfectly accord to dress and potentiate the delightful flavor of every Already Existing variety of tamale.

Tamal, Endemic food, Yucatan, Cuisine

Resumen

El tamal es un alimento endémico de la gastronomía mexicana y estandarte de la cocina yucateca en la actualidad, siendo este sustento de muchas familias por su versatilidad en sus sabores, uso de diferentes ingredientes, así como de los productos y técnicas traídas del viejo continente; las cuales han sido adaptadas desde los tipos de cocción e instrumentos de elaboración propios de la comunidad maya. Elaborados para un diario vivir y resistir las largas jornadas de trabajo, así como para festividades, fiestas patronales o tradicionales. El tamal ha sufrido cambios desde su origen, estos influenciados por cocinas de distintos continentes, las cuales trajeron consigo variedad de productos que llegaron para quedarse como el achiote, aceites, harinas de trigo, entre otros. Los cuales han sido sincronía perfecta para aderezar o potencializar el ya de por si exquisito sabor de cada una de las variedades existentes de tamales, siendo la región sur del estado de Yucatán el elegido para comenzar con un "Registro de tamales región sur del estado de Yucatán" que si bien no será algo definitivo en su contenido, pero si un acercamiento a un sin fin de preparaciones que se elaboran en el estado.

Tamal, Alimento endémico, Cocina yucateca

Citation: ZARZA-AMADOR, Karol, CAJUM-KÚ, Francisco Rodolfo and SANTOS-CHUC, Joab Jediael. Tamales record southern Region State of Yucatan. Journal-Urban-Rural and Regional Economy. 2018 2-2: 16-20

* Correspondence to Author (email: chefkarolzarza@gmail.com)

† Researcher contributing as first author.

Introduction

Registration tamales in the southern region of the state of Yucatan is the collection, rescue and dissemination of technical laborarlos preparation, ingredients that make up as well as the similarities of each; framing processes for their realization. Given the identity of each region that produces, dates for implementation or circumstances for processing according to the tradition that frames the food culture in Yucatan, and the emphasis that religion which influences many uses and customs for making these based on the criteria. To carry out the registration will start from villages in the southern region of the state taking as reference points the most representative villages. Such research will be used as regional criminal record, to store in the culinary history of the Yucatan. Within emerging needs in culinary research are the need to have records of each and their cultural and religious distinctions and thus spread the structure of each of them.

The importance of this research is based on the need to show and promote the importance of the traditional gastronomic culture to tenants, such as followers of Yucatecan mestizo cuisine, with the focus of traditional cooks (as) preparations that characterize the benefits of use of each ingredient being El Maiz the protagonist for the elaboration of these in a great majority. Traditional Yucatecan cuisine has established guidelines if traditional cuisine is spoken, although each region has similarities in its preparation and preparation, you also have abysmal characteristics for its execution. Culturally Yucatan has chefs (as) who have been formed mostly culturally with ideals for the preservation of their recipes. However, they have undergone changes for generations to come, which have involved many ingredients and their elaboration, since they have had to find a way to elaborate them since their ancestors have taken many of these recipes to the grave or simply do not share the same. need or the pleasure to communicate their culinary knowledge.

The state of Yucatan has great professional chefs and amateurs who have made the Yucatecan gastronomy a national emblem, which mostly lacks research that allows its disclosure, because there are no records and no background that can mention them.

In the Yucatecan collection there are books for the preparation of the most characteristic such as chicken mucbil, tamal strained, tamales torteados, arm of queen, to name a few, however these do not have a historical sustenance or indicate the origin of their emergence or regions that they elaborate, these investigations show generalities of Yucatecan cuisine recipes but without a theoretical support able to collect and disseminate about cuisine to the region and typical of the gastronomy that allows enriching the culture of the Yucatecan population and not pockets. Maintaining standardized recipes and recreating them at the foot of each chef would be like saying that we can have cooking processes framed by times, quantities and units of measure, taking into account that traditional Yucatecan cuisine is mostly structured by people belonging to the Mayan culture.

Which according to INEGI for 2010 the Mayan speaking population oscillates between 30.3%, making the list of ingredients are similar or written the Mayan language [1], using as units of measurement or elaboration processes typical of traditional Yucatecan cuisine, language that is translated into Spanish even though it is sometimes difficult to understand, mostly idioms, which is far from a technical language used in professional cooking.

Mexican cuisine has been recognized since 2010 as Intangible Cultural Heritage of Humanity by the United Nations Educational, Scientific and Cultural Organization (UNESCO) [2]; this mention has set the tone to enhance and generate greater competitiveness within the specialties than in the gastronomic field.

A record is an acknowledgment of a certain situation that is considered relevant. The term may refer to a large number of circumstances that have in common the fact of leaving settled a specific phenomenon with its specific characteristics in order that there is knowledge about it for third parties or for a control [3].

Yucatan converges the wine culture, chocolatiers, artisans, restaurateurs and hospitality from a gastronomic perspective. They have pointed to Mexico as one of the world's destinations with the greatest influx, from its beaches, towns, to its great cosmopolitan cities.

Giving rise to greater opportunities and capacity for local and national economic development, which according to the statement 47 - Mexico's tourism activity recorded historical figures during the first quarter of this year, a period in which more than 10 and a half million people visited some destination of our country. Only in the month of March the flow of international tourists added four million tourists, reported the Ministry of Tourism (Sectur) of the Government of the Republic [4].

And only in Yucatan in the first quarter of 2018 according to data from the DataTur Hotel Monitoring Program, the main tourist centers of the State registered a total of 752,872 tourists-night, of which 80.3% corresponds to national visitors and 19.7% to international visitors, with an average visitor stay of 1.70 nights [5].

Making Yucatan one of the tourist destinations to visit the country, for its historical, cultural, gastronomic and fine arts. Appearing as one of the states with greater security and gastronomic richness influenced by the Mayan and emerging culture of the European continent, which positions it to be visited.

That said, the gastronomic panorama highlights the food culture of the state, framing its peculiar ingredients and uses; giving guidelines to the registration of tamales being these the basis of the Yucatecan diet, because neither socioeconomic status has prevented the consumption or deterioration of these preparations, which have been equal or compared with dishes from kitchens such as the French one due to its elaboration time, complexity, versatility and harmony of flavors.

Tamale cooking techniques

Techniques before the conquest:

Roast:

Directly with the coals, or using the comal as a diffuser of heat, or in the ash or in underground ovens (barbecue or pib).

Boil:

Cook in a bowl with water or steamed, wrapping food in different edible leaves [6].

Techniques after the conquest:

Fry:

Make a raw food to be able to eat, having enough time in boiling oil or fat.

Smoke:

To smoke some food for its preservation or to impart a certain flavor [7].

Methodology to be developed

To achieve the results, a structure based on the contents addressed will be used as tools, which will guide the investigation for the registration of tamales and strengthen the Yucatecan gastronomy. The registry is of great importance, since currently there is general information on net preparations of Yucatecan culture, however these do not address in a qualitative sense the Yucatecan tamales. This in order to apply a methodology to the Yucatecan cuisine to define and classify the characteristics of the kitchen.

The state of Yucatán is divided into 106 municipalities grouped into 7 regions [8]. Being the 7th South Region, formed as follows:

Region VII- South
Ticul
Akil
Chapab
Chumayel
Dzan
Mama
Maní
Mayapán
Muna
Oxkutzcab
Sacalum
Santa Elena
Teabo
Tekax
Tekit
Tixméhuac
Tzucacab

Table 1 Region VII- South

Components for the preparation of the tamal.

Independently of the region, the municipalities of the South of Yucatan share characteristics of ingredients at the time of elaboration, however each cook (a) differs from cooking techniques, seasoning and cooking styles.

According to what corresponds to the coating of the tamales, whether the determination of cooking, ceremony, use of ingredients or region, the variables are very concise when it comes to making them, they can be: banana leaf, corn leaf (fresh or dried), holy leaf and plastic. Regarding the cooking applied to each of these, regardless of the holiday or ceremony, they are listed below: steamed, in Pib (underground oven), baked (conventional oven), baked in non-enveloped mold (conventional oven) and roasted.

However, these are not the only tamales elaborated and consumed, it should be noted that most of the Yucatecan tamales and their other varieties are made for special occasions, whether Mayan ceremonies, festivities or general festivities for example: chanchamitos, tamale de chaya, of species, of confetti, tamale of xpeelón, tamal of holy leaf, the pib (better called mubil chicken) to celebrate the dead and offer, as well as the huajicol that is offered to the gods of the mountain and the Mayan milpas. It is traditional to thank the gods for their harvests through a Mayan ceremony that they perform every two years, because they indicate that it is important to be grateful and respectful.

Results

An investigation is enriched by qualities granted by the inhabitants, which allow us to have a panorama of the diversification of their cuisine of Mayan origin, mestizo and in many cases influenced by cuisines from other continents, which converge whatever the technique used, the materials for its elaboration, communities and those who elaborate it, the tamales of Yucatecan cuisine can vary for its filling, use or custom, according to the tables of ingredients to be used in its preparation and its comparison of the record. Which resemble and match each identity, below we show a series of tables sorting by list used for the preparation of tamales:

Classification	Ingredients
Spices:	Annatto,, cloves, garlic, black pepper, tabasco pepper, cloves, salt,
Herbs and / or flavorings:	Oregano, epazote, coriander, chaya, holy leaf,
Meat Products:	Birds: chicken, chicken, turkey.
	Red meats: pork.
	Game animals: rabbit, quail, armadillo, iguana, deer.

Grain:	New or nixtamalized corn, beans, spur, new or tender beans, pumpkin seed, ibes.
Citrus:	Bitter orange.
Vegetables:	White onion, purple onion, guaje tomato.
Chilies:	Chile xcat ik (chile huero), sweet chile, chile seco (chawa), chile habanero, chile maax, chile clown.
Groceries and / or Accessories:	Nixtamalized corn dough, wheat flour, baking powder, lard, egg, white message, red message, aluminum foil oil, plastic to act as a tamale wrap.

Table 2 Classification of ingredients

Therefore we say that according to the data collection in introspection of each town, the information collected shows that the tamales mostly elaborated and consumed by its inhabitants any day of the week are:

Ticul	Torteados of: chicken, shredded pork, ground pork, coladas, queen's arm, coladas
Akil	Pieces of: chicken, shredded pork, ground pork
Chapab	Baked in pib and in oven, torteados of: chicken, shredded pork, ground pork.
Chumayel	Baked in pib and in the oven, served with: chicken, shredded pork, ground pork, coladas and queen's arm.
Dzan:	Pieces of: chicken, shredded pork, ground pork, casseroles
Mama	Pieces of: chicken, shredded pork, ground pork, casseroles
Maní	Baked in pib and in the oven, made of: chicken, shredded pork, ground pork, coladas, mucbil chicken and queen's arm
Mayapán	Baked in pib and in the oven, made with: chicken, shredded pork, ground pork
Muna	Baked in pib and in the oven, made of: chicken, shredded pork, ground pork, coladas, mucbil chicken and queen's arm
Oxkutzcab	Baked in pib and in the oven, made of: chicken, shredded pork, ground pork, coladas, mucbil chicken and queen's arm
Sacalum	Pieces of: chicken, shredded pork, ground pork, casseroles
Santa Elena	Pieces of: chicken, shredded pork, ground pork, casseroles
Teabo	Baked in pib and oven, made of: chicken, shredded pork, ground pork, coladas, mucbil chicken, queen's arm and roasts
Tekax	Baked in pib and oven, made of: chicken, shredded pork, ground pork, coladas, mucbil chicken, queen's arm and roasts
Tekit	Baked in pib and oven, made of: chicken, shredded pork, ground pork, coladas, mucbil chicken, queen's arm and roasts

Tixméhuac
Baked in pib and in the oven, made with: chicken, shredded pork, ground pork, casseroles, accordion, queen's arm and roasts
Tzucacab
Baked in pib and in oven, torteados of: chicken, shredded pork, ground pork, coladas, reyna arm and roasts.
Observations: it is worth mentioning that each of the tamales mentioned is mostly replicated in the villages listed, either for festivity or season changing cooking technique, process or ingredient.

Table 3 Comparative table

Annexes

The bibliography shows us endless preparations, which can vary in ingredients currently nonexistent in the preparation of tamales, however there is a book called the splendor and grandeur of Mexican cuisine [9] that classifies tamales of Yucatecan origin, which explains in a list the inputs to produce them, however it does not include the preparation method, which in its pages makes a display of historical background, versions and uses of corn as well as a breakdown of tamales around the country, alluding to Yucatan and its numerous contribution in this variety of tamales, which we will list below: Tamal "soft wedding" also called strained, Tamale de chaya (Dzoto Bicha), Tamal snack or espelón, Tamale de venado (chacha-huajes) , Tamales yuyos, Tamales de nacapitu, Tamales de canane, Tamales pictes, Tamales de yerba santa, Tamales de hoja de milpa, Tamales de cuchunuc, Tamales mexicanos de elote nuevo, Tamales Torteados and Tamales Mexicanos del Sureste.

Conclusions

The tamale is an ancestral food with sweet and salty varieties of corn, with or without filling, meat and cooking variants, providing a caloric value with high fiber and protein content for the alimentary functioning necessary for a long day of work.

Whatever these factors may be, we conclude that the tamale is indispensable in a Mexican diet and cuisine, as well as in Yucatecan cuisine, which praises it for serving mostly tamales with the quintessential trilogy of corn, beans and chili. Which makes us think that although its structure and composition is not the most complex preparations, if it is clear that the flavors of these releases the first unequaled mouthful, aromas and flavors from spicy, acid, earthy and meat.

Thus also generating among the Yucatecan community a banner worthy of spreading to future generations, as well as to our visitors who mostly return to the state of Yucatan for its gastronomy full of peculiarities.

References

- [1] Rodríguez, Yazmín. 2016 Más de 800 mil personas hablan maya en el sureste. Artículo periodístico. <http://www.eluniversal.com.mx/articulo/estados/2016/08/10/mas-de-800-mil-personas-hablan-maya-en-el-sureste>"
- [2] Fernández, Elena 2016 La gastronomía mexicana ha sido reconocida desde el año 2010 Patrimonio Cultural Inmaterial de la Humanidad Artículo periodístico <https://www.forbes.com.mx/forbes-life/gastronomia-mexicana-patrimonio-de-la-humanidad/>
- [3] "Definición de registro" <https://definicion.mx/registro/>
<https://definicion.mx/registro/>
- [4] [consulta online: en Yucatán en el primer trimestre del 2018 según datos del Programa de Monitoreo Hotelero DataTur] <https://www.gob.mx/sectur/prensa/visitaron-mexico-mas-de-10-millones-y-medio-de-turistas-internacionales-primer-trimestre-de>
- [5] [consulta online: en el estado registraron un total de 752,872 turistas-noche] http://www.sefotur.yucatan.gob.mx/files/content/general/derrama_economica/a701394ec2b75a0f646aa626f954cef8.pdf
- [6] [consulta online: técnicas de cocción] <http://tesis.ipn.mx/bitstream/handle/123456789/23563/TESINA%20GASTRONOMIA%20PREHISPANICA%20MEXICANA.pdf?sequence=1&isAllowed=y>
- [7] "Definición de freír" <http://dle.rae.es/?id=IRkiFdF>
- [8] "Municipios de Yucatán <http://www.yucatan.gob.mx/estado/municipios.php>
- [9] I poured, Sebastian, 1994: There is a book called the splendor and grandeur of Mexican cuisine [9] which ranks Yucatecan tamales origin. Splendor and grandeur of Mexican cuisine. Mexico: Diana.

Project: Mx Trek Tours Thn

MAGAÑA-PORRAS, Raul Humberto†* & OLIVERA-FLORES, Ismael

Universidad Tecnológica de Tehuacán. Prolonging 1 sur No. 1101 San Pablo Tepetzingo. Tehuacan, Puebla, Mexico CP 75859

ID 1st Author: *Raul Humberto, Magaña-Porras*

ID 1st Coauthor: *Ismael, Olivera-Flores*

Received January 11, 2018; Accepted May 09, 2018

Abstract

The municipality of Tehuacan and ITS region unique climate and orography Have; semi desertic zones value is so high That the biggest ecological zone in Its kind was created here: the Tehuacan-Cuicatlán Biosphere Reserve. It has, ITS Among attractions, the first SPA in America: San Lorenzo's spring, as well as paleontological Several speleological and archaeological sites, as well as other places man with a huge potential to Increase Tehuacán's touristic industry. This priceless heritage is completely underused: there is not a single company in the zone offering high-quality touristic services, NEVERTHELESS a single one offering the whole spectrum of touristic services Involving every aspect of professional tourism business should. Evidence shows a great number of That tourists in esta zone are outlanders, many of them from foreign country clubs. Tehuacan is an attractive region to them Because of Its multiple archaeological sites, traditions, culture, gastronomy and history. Domestic market is well used to this kind of attractions, due to the large amount in Mexico, tough few places can offer the touristic ensemble owns Tehuacan. Alternative tourists are our target market. This project shows the way to high-quality Set A tourism business up, use and promotion of trough each single factor conforming ITS touristic heritage, natural Either, geological, historical or culturally

Resumen

El municipio de Tehuacán y su región, cuentan con un clima y orografía singulares; la importancia de las zonas semidesérticas es tal, que se creó la reserva ecológica más grande del mundo en su tipo: la Reserva Ecológica Tehuacán- Cuicatlán. Cuenta con el primer SPA del continente americano: el manantial de San Lorenzo, y existen también zonas paleontológicas, arqueológicas, espeleológicas y muchos sitios con gran potencial para desarrollar la industria turística de la región. Este gran patrimonio está desaprovechado en su totalidad; no existe una sola empresa en la región que brinde de manera individual servicios turísticos, y mucho menos una que conjugue todos los aspectos que la actividad turística conlleva. La evidencia indica que la mayoría de los turistas que visitan la región radican fuera del estado de Puebla, siendo muchos de ellos extranjeros. La región resulta atractiva por sus zonas arqueológicas, tradiciones, cultura, gastronomía e historia. El mercado doméstico está habituado a todos estos atractivos, y existe una innumerable cantidad de sitios que los ofrecen en nuestro país, si bien, pocos lugares ofrecen el conjunto de atractivos que la región de Tehuacán posee. El mercado de Turismo Alternativo es nuestro mercado target. El presente proyecto muestra la forma en que se puede implantar una empresa de servicios turísticos en la ciudad de Tehuacán, a través del uso y promoción de todos los elementos que conforman sus atractivos, ya sean naturales, geológicos, históricos o culturales. La idea de crear una empresa de servicios turísticos que permita dar a conocer y explotar el patrimonio turístico de la región de Tehuacán, creando un impacto social y económico positivo para sus habitantes, surge cuando Carlos Cruz y Raúl Magaña notan que la Ciudad de Tehuacán y su región, a pesar de haber sido destinos turísticos de primer nivel durante la primera mitad del siglo XX, ha dejado de interesarse en este sector.

Citation: MAGAÑA-PORRAS, Raul Humberto & OLIVERA-FLORES, Ismael. Project: Mx Trek Tours Thn. Journal-Urban-Rural and Regional Economy. 2018 2-2: 21-27

* Correspondence to Author (email: rq6715@hotmail.com)

† Researcher contributing as first author.

Introduction

The municipality of Tehuacan and its region have a unique climate and topography; the importance of semi-desert areas is such that the world's largest ecological reserve of its kind was created: the Tehuacan Cuicatlán Ecological Reserve. SPA has the first American continent: the fountain of San Lorenzo, and paleontological, archaeological, speleological areas and many sites with great potential to develop the tourism industry in the region there too.

This great wealth is wasted as a whole; there is no single company in the region to provide tourism services individually, let alone one that combines all aspects that tourism brings.

Problem Statement

The need to promote tourism in the region of Tehuacan and boost social welfare.

Justification

The region is attractive for its archaeological sites, traditions, culture, cuisine and history. The domestic market is accustomed to all these attractions, and there are countless sites that offer in our country, although few places offer the set of attractions that the region has Tehuacan. Alternative Tourism market is the target market.

Overall objective

Tehuacan promote the region as a tourist destination nationally; offering its rich heritage through the use of digital marketing tools, achieving an effective presence in the market, contributing with this to a professionalization of tourism infrastructure while generating economic and social benefits.

Specific objectives.

- Structuring and implementing national survey of tourists
- Design a multimedia platform to publicize both the patrimonial wealth of the region, such as enterprise services.
- Structuring and implementing innovative and effective for the best use of existing infrastructure and schemes.

- Implement an effective chain low key recommendation advertising.
- Recruit and train tourism professionals in the region.

Historical context

The municipality of Tehuacan and its region have a unique climate and topography; the importance of semi-desert areas is such that the world's largest ecological reserve of its kind was created: the Tehuacan Cuicatlán Ecological Reserve. SPA has the first American continent: the fountain of San Lorenzo, and paleontological, archaeological, speleological areas and many sites with great potential to develop the tourism industry in the region there too.

This great wealth is wasted as a whole; there is no single company in the region to provide tourism services individually, let alone one that combines all aspects that tourism brings.

Background

The wealth of resources which has the area has been known and recognized for centuries; and since pre-therapeutic use of the waters of the springs it was done. There was a time when the city of Tehuacan was a health tourist destination was recognized worldwide. With the onset of intensive industrialization of the area, tourist activity was declining, reaching the point where both the trace and the original architecture of the city, causing tourism decrease to only marginal levels were lost. There is, however, another kind of heritage that never exploded adequately and sufficiently, both that intangible, as the Day of the Dead or the treks to Cerro Colorado each May 3 as the tangible: gastronomy, reserve biósfera, attractive scenery, hiking trails, and, of course, archeology, paleontology and speleology, to mention only the most relevant. This project seeks to create a company that is able to use all that wealth of attractions, and use them to have a tourism offer world class again, and chosen to do strategy is through the integration of tourism services offered to market alternative tourism, which is the one most interested in making that kind of tourism that is increasingly moving away from traditional: foreign tourists looking for no longer spend their staying holiday in a international chain hotel in one of the beautiful Mexican beaches but an experience that leads them to know something further.

The traditions and old, beautiful and exotic cultures, landscapes, and if this will we combine archeology, many species of flora and fauna endemic to the area, and if it was not enough, the fossils abound in the region, we are sure to give them those experiences with the quality and warmth that characterize MX TREK TOURS THN

State of the art

National tourism

The growth of the national tourist activity has been sustained throughout the last decades; the National Development Plan 2012-2018 contemplates a 21.3% increase in hotel occupancy, with a positive impact on the Tourism Balance, which had, in 2013 alone, a surplus of 3.13 billion dollars, this being the result of a set of income for 7,119 million dollars. (SECTUR, 2013) The National Tourism Policy focuses on four factors for the development of this activity in the country:

- Sort and transform the sector to make it more efficient and effective.
- Advance in innovation and in the competitiveness of the tourist offer.
- Give new impetus to the promotion of tourism investment and the promotion of Mexican products and destinations in and out of the country.
- Guarantee the economic, environmental and social sustainability of the sector.

Being an activity that contributes 8.4% of GDP, its importance in the country's economy is decisive.

The SECTUR (Secretariat of Tourism), through the CESTUR (Center for Advanced Studies in Tourism), focuses on the generation of knowledge and innovation platforms, whose application in the sector, its dissemination and transfer to the states, impact on the tourism competitiveness at the level of companies, tourist management of destinations and the entire country. To achieve the above, there is a Sectoral Fund for the Research, Development and Technological Innovation in Tourism CONACYT-SECTUR, by means of which follow-up, to different investigations focused on the resolution of specific problems of the sector.

The projects that have been followed up in the period reported are the following:

- Study of vulnerability and adaptation program to climate variability and climate change in ten strategic tourist destinations, as well as proposal of an early warning system for extreme hydrometeorological events.
- Model of application of sustainable measures in the hotel industry in Mexico.
- Community tourism companies of nature: factors of success or failure.
- Regional mapping of domestic tourism flows
- Methodology on the dimensioning and characterization of the demand that consumes cultural, natural, sun and beach and artificial resources in Mexico.
- Methodology for measuring the competitiveness of service providers enrolled in the certifications and seals of quality of the Ministry of Tourism, as well as one related to the implementation of tourism observatories. (SECTUR, 2013)

Development of the tourist culture

The development of an efficient tourism culture will allow the different participants in the sector to interrelate in a better way and interact appropriately with the natural and cultural environment. The tourist culture in Mexico is then presented as a need, oriented towards:

- The communities of children and young people participate in a learning process that allows them to be better prepared to understand, get involved and participate successfully in the tourist activity.
- The tourism service providers are interested in training and certification of their skills to operate and provide quality services.
- Entrepreneurs (micro, small and medium) establish processes and quality systems that ensure the safety and competitiveness of their services.

Theoretical Framework

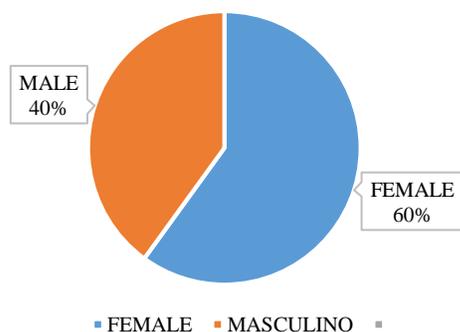
Definition of tourism demand

We define as tourist demand the set of attributes, values, services and products that the market (the publics) require from tour operators, to satisfy certain needs for leisure, leisure, free time or vacations.

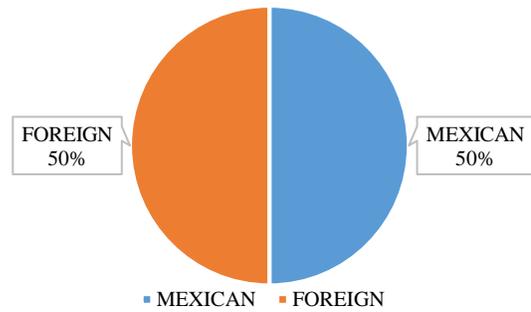
Tourism demand operates in the context of a market in which various tourism operators intervene offering certain products and services, and which also supposes the existence of a set of geographic spaces and places where these services are carried out, all of which happens in the framework of a free game of supply and demand. (Rodríguez, 2013)

The growth of the tourist offer has been constant since the beginning of the last century; technology has allowed for increasingly long trips in shorter and shorter periods; According to the UN World Tourism Organization (UNWTO), current tourism market trends are moving away from traditional destinations and accommodations, as well as from common recreational activities.

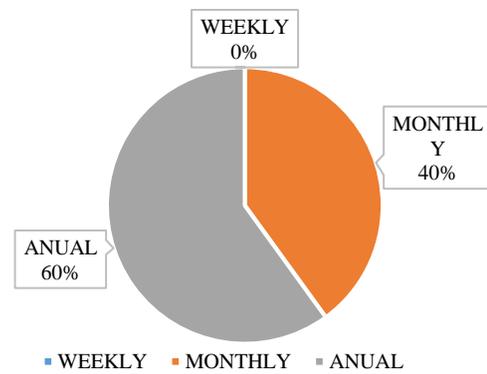
According to the UNWTO book "Rural Tourism in the Americas and its Contribution to Job Creation and Heritage Conservation", the development of tourist activity in areas with alternative attractions, whether natural, historical, anthropological, gastronomic and a long etcetera, it is an alternative that allows communities not only to increase their income, alleviating poverty, but also to make the heritage known, exploiting it in a respectful and intelligent way, offering the market new and original options for tourism. (WORLD TOURISM ASOCIATION, 2003)



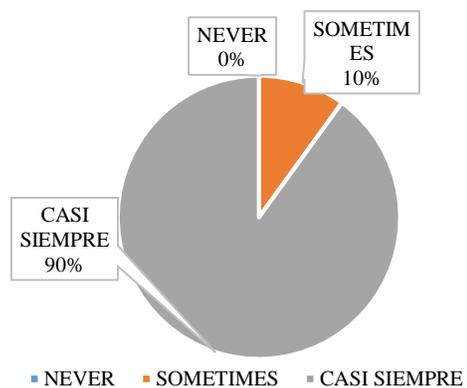
Graphic 1 Gener



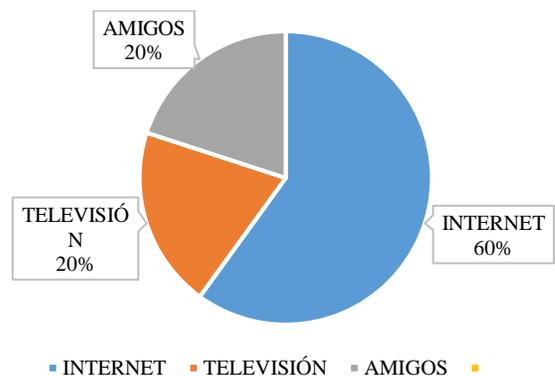
Graphic 2 Nationality



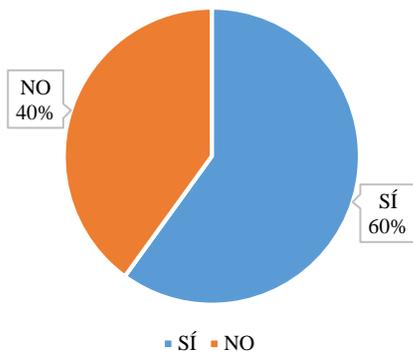
Graphic 3 Travel frequency



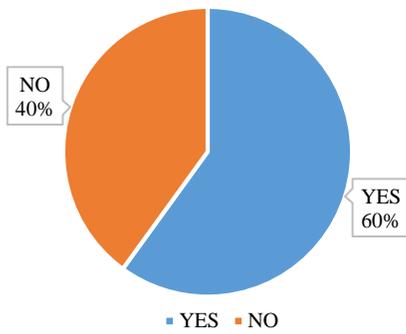
Graphic 4 Do you receive tourist information?



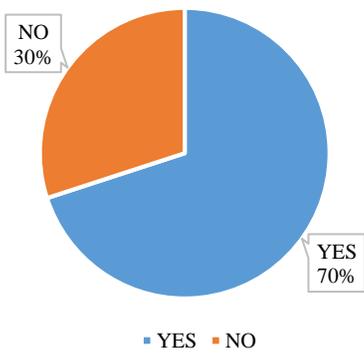
Graphic 5 Information



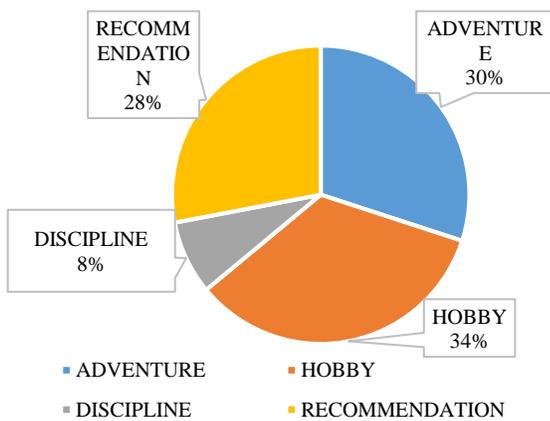
Graphic 6 Information on complete Tourism



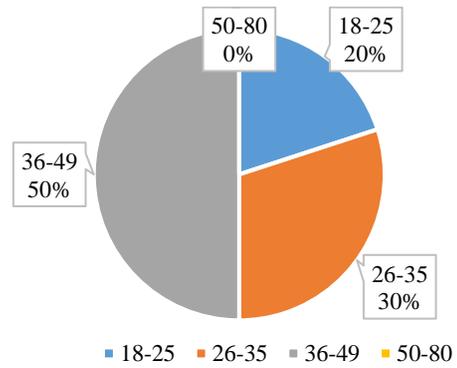
Graphic 7 You are family with alternative



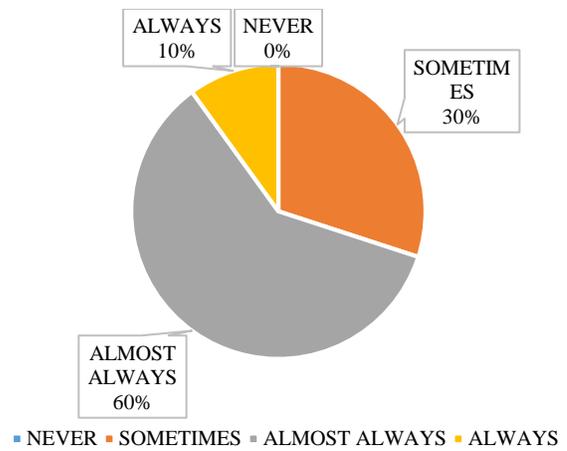
Graphic 8 Alternative Tourism



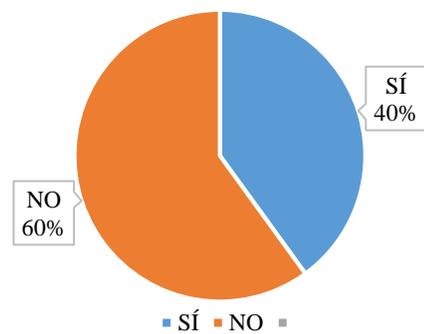
Graphic 9 Information



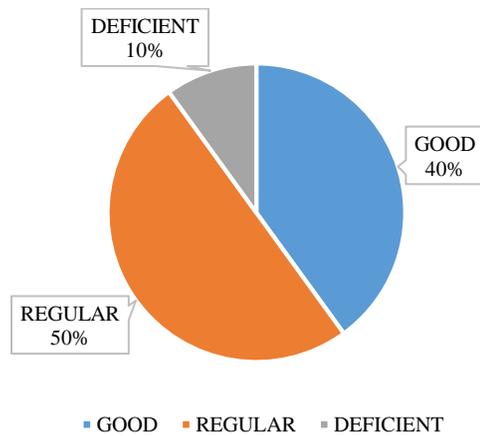
Graphic 11 Age



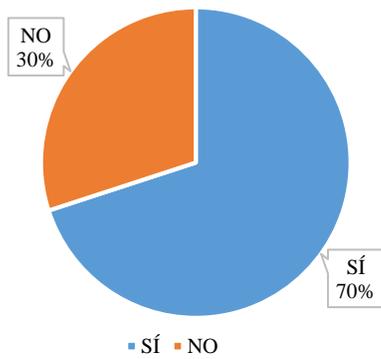
Graphic 12 Information on ourism



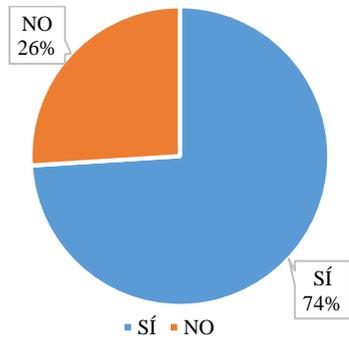
Graphic 14 Information on tourism



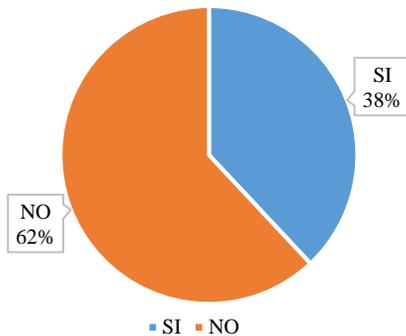
Graphic 14 Online information



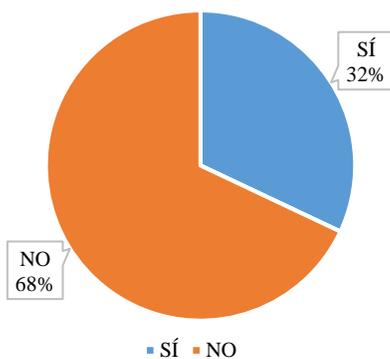
Graphic 15 Need for tourist



Graphic 16 Online Serist



Graphic 17 Use of tourismAgencies



Graphic 18 Information Visitors

Conclusion

Tourism development worldwide is an effective resource for the generation of wealth; The so-called "industry without chimneys" generates income in the range of billions of dollars.

It is important to promote the development of the tourism industry, which can only be achieved through an effective promotional activity that makes use of the new virtual tools, because its efficiency, wide use and ease of access, provide a capacity for dissemination before seen.

If the tourist heritage of the Tehuacán region is efficiently disseminated, new sources of income will be created that will allow the communities to eliminate poverty and generate their own sources of employment.

References

Greek National Tourism Administration. (25 de junio de 2013). *How to establish a rural tourism business*. Obtenido de www.visitgreece.gr

INEGI. (1 de febrero de 2017). *INEGI.ORG.MX*. Obtenido de http://buscador.inegi.org.mx/search?q=TEHUAC%C3%81N%20PUEBLA&client=ProductosR&proxystylesheet=ProductosR&num=10&getfields=*&sort=date:D:S:d1&entsp=a__inegi_politica_p72&lr=lang_es%7Clang_en&oe=UTF-8&ie=UTF-8&entqr=3&filter=0&site=ProductosBuscador&len=1

Lascaráin, H. C. (1998). *Ecoturismo, naturaleza y desarrollo sostenible*. México D.F.: Diana.

Merca2.0. (25 de Marzo de 2016). *Merca2.0*. Obtenido de <http://www.merca20.com/descarga-la-radiografia-del-consumidor-mexicano/>

mundoejecutivoexpress. (1 de mayo de 2016). *mundoejecutivoexpress.mx*. Obtenido de <http://mundoejecutivoexpress.mx/nacional/2016/01/05/turismo-canadiensemexico-aumento-2015>

Nieva García, Á. (2004). *Turismo alternativo: una nueva forma de hacer turismo*. México D.F.: Secretaría de Turismo.

Riviera, B. B. (2011). *Tourism: Investing in energy and resource efficiency*. San José de Costa Rica: World Tourism Organization.

Rodríguez, M. L. (12 de octubre de 2013). *WORDPRESS.COM*. Obtenido de <https://aulasvirtuales.wordpress.com/2013/10/12/caracteristicas-de-la-oferta-y-la-demanda-turisticas/>

Secretaría de Turismo. (2013). *Mercados emisores. Estados Unidos*. México D.F.: SECTUR.

Secretaría de Turismo. (25 de junio de 2017). *sectur.gob.mx*. Obtenido de <http://www.sectur.gob.mx/work/models/sectur/Resource/5975/1/images/Agenda21.pdf>

SECTUR. (2013). *Primer informe de labores 2012-2013*. México D.F.: SECTUR.

Sergio Cervantes, P. S. (5 de febrero de 2017). *ITAM.MX*. Obtenido de direccionestrategica.itam.mx/

SIIMT. (2007). *Análisis del mercado internacional del turismo de cultura*. México D.F.: SECTUR.

siimt.com. (6 de febrero de 2017). *Inteligencia de Mercados*. Obtenido de http://www.siimt.com/en/siimt/siim_perfil_del_turista_canadiense

Steck, B. (1999). *Sustainable Tourism as a Development Option*. Eschborn: Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ) GmbH.

WORLD TOURISM ASOCIATION. (2003). *Rural Tourism in the Americas and its Contribution to Job Creation and Heritage Conservation*. En *Rural Tourism in the Americas and its Contribution to Job Creation and Heritage Conservation*. New York: World Tourism Association ISBN: 978-92-844-0663-0.

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

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

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

International Identification of Science - Technology and Innovation

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

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

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

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

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

Abstract (In English, 150-200 words)

Objectives
Methodology
Contribution

Abstract (In Spanish, 150-200 words)

Objectives
Methodology
Contribution

Keywords (In English)

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

Keywords (In Spanish)

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

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

* Correspondence to Author (example@example.org)

† Researcher contributing as first author.

Introduction

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

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

What is your added value with respect to other techniques?

Clearly focus each of its features

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

Explanation of sections Article.

Development of headings and subheadings of the article with subsequent numbers

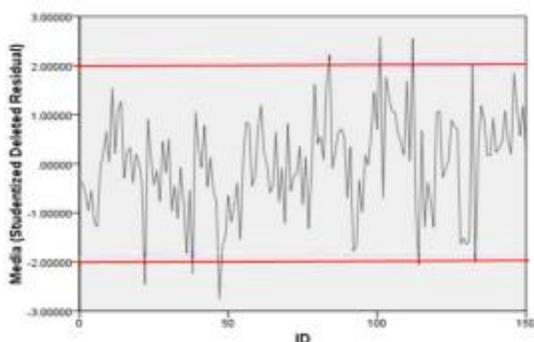
[Title No.12 in Times New Roman, single spaced and Bold]

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

Including graphs, figures and tables-Editable

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

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



Graphic 1 Title and Source (in italics).

Should not be images-everything must be editable.

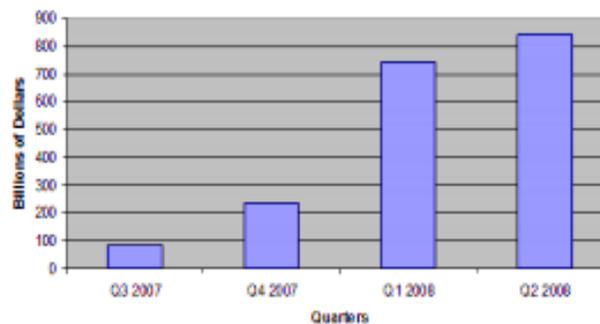


Figure 1 Title and Source (in italics).

Should not be images-everything must be editable.

	CLUSTER				
	1	2	3	4	5
SOLVENCY	3.31852	-1.1404	-1.15872	0.39771	-0.25761
LIQUIDITY	0.30333	-0.22337	-0.09989	-3.44381	0.54441
SIZE	0.43530	-0.17872	-0.60025	1.22512	0.77877
PROFITABILITY	0.51014	-3.48323	0.20618	-0.1863	0.02273

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:

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

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

Indicate if they were financed by any institution, University or company.

Conclusions

Explain clearly the results and possibilities of improvement.

References

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

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

Technical Specifications

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

Journal Name
Article title
Abstract
Keywords

Article sections, for example:

1. *Introduction*
2. *Description of the method*
3. *Analysis from the regression demand curve*
4. *Results*
5. *Thanks*
6. *Conclusions*
7. *References*

Author Name (s)
Email Correspondence to Author
References

Intellectual Property Requirements for editing:

-Authentic Signature in Color of Originality Format Author and Coauthors

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

Reservation to Editorial Policy

RINOE Journal-Urban-Rural and Regional 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 Journal-Urban-Rural and Regional 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 Peru 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 Peru for its RINOE Journal-Urban-Rural and Regional Economy, 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 Coauthors	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
Article Translation
Article Publication
Certificate of Article
Service Billing

Editorial Policy and Management

244 - 2 Itzopan Street. La Florida, Ecatepec Municipality México State, 55120 Zipcode, MX. Phones: +52 1 55 2024 3918, +52 1 55 6159 2296, +52 1 55 4640 1298; Email: contact@rinoe.org www.rinoe.org

RINOE® Journal-Urban-Rural and Regional Economy

Chief Editor

RAMOS-ESCAMILLA, María. PhD

Senior Editor

SERRUDO-GONZALES, Javier. BsC

Senior Editorial Assistant

ROSALES-BORBOR, Eleana. BsC

SORIANO-VELASCO, Jesús. BsC

Editorial Director

PERALTA-CASTRO, Enrique. MsC

Executive Editor

SUYO-CRUZ, Gabriel. PhD

Production Editors

ESCAMILLA-BOUCHAN, Imelda. PhD

LUNA-SOTO, Vladimir. PhD

Administration Manager

REYES-VILLAO, Angélica. BsC

Production Controllers

RAMOS-ARANCIBIA, Alejandra. BsC

DÍAZ-OCAMPO, Javier. BsC

Associate Editors

AALÍ-BUJARI, Ali. PhD

IGLESIAS-SUAREZ, Fernando. BsC

MIRANDA-GARCIA, Marta. PhD

CHIATCHOUA, Cesaire. PhD

VARGAS-DELGADO, Oscar. PhD

Advertising & Sponsorship

(RINOE®-Mexico-Bolivia-Iran-Pakistan-Nicaragua-Cameroon-Spain-Ecuador-Colombia-Peru-Taiwan-Chile-Western Sahara), sponsorships@rinoe.org

Site Licences

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

Management Offices

Loa 1179, Cd. Sucre. Chuquisaca, Bolivia

S/C Zacharie kamaha, Street: Boulevard de la Liberté, Apartamente: Immeuble Kassap, Akwa- Douala. CP-5963, Republic of Cameroon

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

1047 La Raza Avenue -Santa Ana, CP-11500. Cusco-Peru.

YongHe district, ZhongXin, Street 69. Taiwan-Taipei.

Agueinit # 4, Wilaya de Awserd, Sahara Occidental

Journal-Urban, Rural and Regional economy

“Quality of services under the perception of management of the hotel industry”

QUIJANO-GARCÍA, Román Alberto, ARGUELLES-MA, Luis Alfredo, MEDINA-BLUM, Fernando and FAJARDO, Mario Javier

Universidad Autónoma de Campeche

“Design of personalized city tourist trips”

ELIZALDE-RAMIREZ, Fernando, MAYA-PADRÓN, Cristina and REBILLAS-LOREDO, Victoria

Instituto Tecnológico de Estudios Superiores de Monterrey

Universidad Politécnica de García

Univ. Politécnica de Catalunya, Barcelona

“Tamales record southern Region State of Yucatan”

ZARZA-AMADOR, Karol, CAJUM-KÚ, Francisco Rodolfo and SANTOS-CHUC, Joab Jediael

Universidad Autónoma de Campeche

“Project: Mx Trek Tours Thn”

MAGAÑA-PORRAS, Raul Humberto & OLIVERA-FLORES, Ismael

Universidad Tecnológica de Tehuacán



2 5 2 4 2 0 8 3

ISSN 2524- 2083



www.rinoe.org