

# **TOWARDS A VIABLE SYSTEM MODEL FOR MICE TOURISM IN MEXICO**

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## **ABSTRACT**

MICE (Meetings, Incentives, Conferences and Exhibitions) Tourism in Mexico generates more than 501 thousand jobs and contributes 1.43% to the national GDP. According to the World Ranking of the International Congress and Convention Association (ICCA) Mexico is increasingly positioned as a destination for this tourism market, becoming a key driver in the economy.

This tourism activity is characterized to be a large-scale phenomenon, in which an interdependence is generated between the various agents involved creating positive and negative impacts and repercussions on the hosting destinations of the events. That is why is relevant manage this activity as a complex system identifying the relationships of its elements to generate solutions considering its economic, social, cultural, and environmental reality.

In this research is presented the current situation of MICE Tourism in Mexico through the Soft Systems Methodology. In the end, all those components and external agents that make up this tourist segment in Mexico can be identified, as well as the problem situations existing in the system and its environment. This diagnosis guides to the generation of a Viable System Model that allows the system to persist over the time despite the changes that occur in the environment, this by the realization of sustainable events.

Keywords: Viable System Model, Soft Systems Methodology, MICE, Tourism.

## **INTRODUCTION**

Despite the incidence of several events in the world that could reduce the growth of tourism, such as the current global economic crisis, terrorist attacks and other systemic risks (Ramgulam et al., 2012), there has been an increase in last years. According to the United Nations World Tourism Organization (UNWTO) in the forecasts by 2030 is estimated that international tourist arrivals worldwide will grow by 3.3% annually between 2010 and 2030, to reach 1.8 billion. At the same time, international arrivals in emerging economy destinations are expected to continue growing at double the pace (+4.4% year) of advanced ones (+2.2% a year). The market share of emerging economies has increased to 45% by 2014 and is expected to reach 57% by 2030, equivalent to more than 1 billion tourists (UNWTO, 2014).

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By 2015, tourism contributed with 10% to GDP, 1 in 11 jobs and the arrival of 1.186 million international tourists worldwide (UNWTO, 2016). Due to those benefits it is considered by different countries as a key driver activity that generates socio-economic progress altering the economic base, replacing the traditional economic sectors. Mexico is one of those countries where the activity has been boosted, becoming the fourth largest source of income, according to data from the Ministry of Tourism (SECTUR) in 2015 contributed with 8.4% to GDP and generating 8% of jobs.

Within the tourist segments, business tourism is that one which purpose of travel is linked to the performance of work and professional activities. This segment is made up of individual travels and group travels. The group business travels or MICE tourism, as it is denominated, is formed by the organization of Meetings, Incentives, Conferences, and Exhibitions (Mistilis et al., 1999).

MICE tourism in the world captures 58% of the Business Tourism market (ITB, 2014). In Mexico, it generates an output of US \$ 17.7 million and more than 501 thousand direct jobs, with a contribution of 1.5% to the national GDP (CPTM, 2016). According to the International Congress and Convention Association (ICCA), Mexico was in 2015 allocated in the 22<sup>nd</sup> place in the Worldwide Ranking of countries and in the number 4 position in Latin America and North America for the number of meeting per country and the 18<sup>th</sup> place for estimated number of participants with 77,663 delegates. In terms of attracting meetings per cities eight Mexican cities are ranked in the report (ICCA, 2016).

Some of the main characteristics of MICE tourism and which remains its importance are (Oppermann and Chon, 1997; Mistilis and Dwyer, 1999; Zhang et al., 2007; Mohammadi, 2010; Ramgulam et al, 2012; Jones and Li, 2015): i) regulates the seasonality of tourism, ii) contributes to increase average visitor spending, iii) generates direct and indirect jobs, iv) attracts the leaders and generators of knowledge, v) promotes networking, and vi) endorses the local economic activity. Also, it is a broad phenomenon that entails an interdependence between the various stakeholders and it requires the knowledge of economic, social, cultural, and environmental reality within a systemic vision (Carrizo and Vieira, 2009).

Despite these characteristics that become benefits for destinations hosting meetings events, the MICE tourism also faces major challenges (Dwyer, 2005; Kasim, 2006; Chok et al., 2007; Zamzuri et al., 2011; Ramgulam et al., 2012) since it can have negative economic impacts such as inflationary effects, excessive demand for resources, development and socio-economic exploitation unbalanced, socio-cultural dislocation; as well as environmental effects that are derived from the use of energy, transport and water, as well as the production of waste during the realization of this kind of events.

Generally, the growth of MICE Tourism, as like in tourism in the main, creates both positive and negative effects on incomes and the host community. It has been possible to demonstrate the advantages that this activity generates to a country's income, through some studies of economic relevance (Kim et al., 2003; Deery et al., 2005; SECTUR, 2010; Jones and Li, 2015), however there is a lack of studies that have been conducted in the discussion of actual practices in the organization of events that include cultural and environmental impacts.

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Australia has been a worldwide pioneer in the development of tourism research regarding sustainable management and preservation of its culture, as well as research on MICE Tourism (Dwyer et al., 2001; McCabe, 2008; Chiang et al., 2012). Globally, several authors have approached the study of MICE tourism given the relevance and implications that the phenomenon entails. However, it is limited and persisting ample discussion in the authors from an acceptance of the appropriate terminology to be used in this tourism activity. In addition, the studies are carried out with a mechanistic-reductionist approach restraining the study of the general problematic presented by the MICE tourism, there is no research that addresses the study of the sustainability of the activity, which leads to viability in the realization of meetings in this tourism segment.

According to Molina (1991), nowadays tourism should be considered as a product of culture in the broad sense, so the economic researches used to explain its significance are insufficient, although noteworthy, because they do not contemplate and neither ponder the dimensions of the phenomenon.

Therefore, it is needed the development of a viable MICE tourism strategy that should include the generation of systemic value for the actors that contain it, covering the complexity of the system, that is, it should exhibit sufficient variety to deal with the external reality in a holistic vision. To achieve it, is imperative that all MICE tourism players collaborate and play their respective role in ensuring the viability of the industry (Ramgulam and Raghunandan, 2012); If the companies that make up this sector, do not have environmental and social responsibility will be difficult to survive, since although this sector has shown their value to generate income, it should not degrade its environment (Zamzuri et al., 2011).

In this research is presented the current situation of MICE Tourism in Mexico through the Soft Systems Methodology (SSM). In the end, are identified all those components that make up this tourist segment in Mexico, as well as the relations among them and the problem situations existing. This diagnosis guides to the generation of a Viable System Model that allows the system to persist over the time despite the changes that occur in the environment, this by the realization of sustainable events.

## **METHOD AND METHODOLOGY**

### **Method**

According to the characteristics of the object of study mentioned above, this research was carried out using the systems approach and systemic methodologies. The systems approach appears as a response to the analytical, mechanistic, causal method of classical science (Bertalanffy, 2006), which seeks to solve system problems, that is, of interrelations among many variables. What it provides, is a methodological approach that helps us to conduct our thoughts in an orderly, renewed, and efficient way when we face new and much more complicated problems that include totality (Francois, 2004).

The systems approach, accepting the basic propositions of science, assumes that the world contains structured wholes that can maintain its identity under a certain range of conditions

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and which present certain general principles of "wholeness" (Checkland, 2001). Systemic thinking seeks to build models with sufficient variety (ability to deal with complexity).

### Methodology

In order to select the according methodology to the present research, it was used the Jackson Context - Problem Grid (Jackson, 2003) in which, according to the author, a metasystem of systemic methodologies is presented, taking as variables the participant or participants that will be decision makers in the problem situation, as well as the nature of the system in which the problem is found (simple or complex).

Due to the characteristics of the system in study and as can be observed in figure 1, the system is Complex (Systemic) with many elements, which are highly interrelated. These systems are largely related to their environment and evolve. Regarding the relation of the decision makers, it is Pluralist. In this type of relationship, the participants have different values and beliefs, different interests and objectives, but finally there is a fundamental commitment to achieve an agreement or a main objective.

According to the grid, there are six quadrants and systems methodologies for those quadrants, which are shown on figure 1. That is why the system in study, falls under the Soft Systems Thinking.

		PARTICIPANTS		
		UNITARY	PLURALIST	COERCIVE
S I M P L E  S Y S T E M S  C O M P L E X	<b>Hard Systems Thinking</b>	<b>Soft Systems Approaches</b>	<b>Emancipatory Systems Thinking</b>	
	<b>Systems Dynamics</b>	<b>Soft Systems Approaches</b>	<b>Postmodern Systems Thinking</b>	
	<b>Complexity Theory</b>	<b>Soft Systems Approaches</b>	<b>Postmodern Systems Thinking</b>	
	<b>Organizational Cybernetics</b>	<b>Soft Systems Approaches</b>	<b>Postmodern Systems Thinking</b>	
	<b>Organizational Cybernetics</b>	<b>Soft Systems Approaches</b>	<b>Postmodern Systems Thinking</b>	
	<b>Organizational Cybernetics</b>	<b>Soft Systems Approaches</b>	<b>Postmodern Systems Thinking</b>	

**Figure 1. Methodologies according the Context-Problem, (Jackson, 2003).**

### *Soft Systems Methodology*

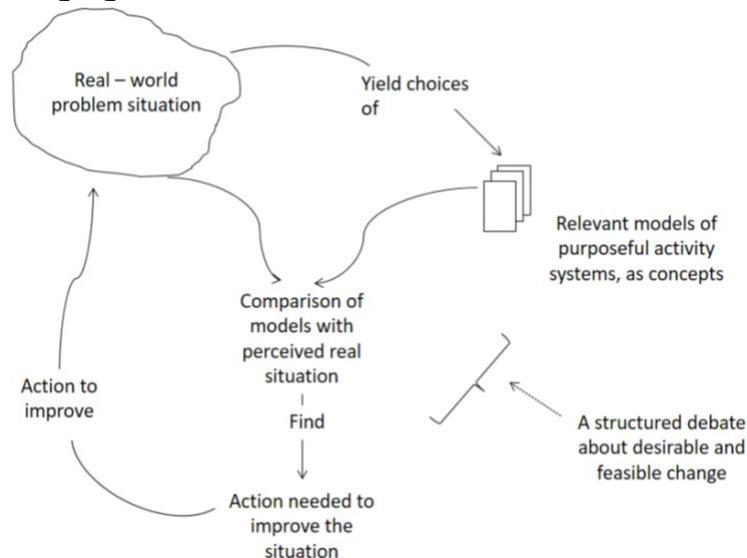
Soft systems are those phenomena containing a high social, political, and human component. In these systems, there is complexity and confusion; however, this can be explored by the observer as a learning system (Checkland, 2001). In this type of systems, it is unknown what and how we are going to study it.

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According to Checkland (2001), it is a methodology of social reality, based on the phenomenology derived sociologically by Weber and philosophically by Husserl. Therefore, the researcher becomes a participant in the action and the process of change becomes the object of study.

Figure 2 represents the steps of the methodology, which, according to Checkland (2001), are described in a logical sequence and not necessarily in the sequence in which it is used, neither is it restricted its usefulness to the use of each one of its steps, but they adapt these and their sequence to the situation to be solved.

The methodology contains two types of activities: "real world" activities, which necessarily include the human factor in the problem situation and "systems thinking" activities which involve other systems thinking, requiring the use of a higher order language or metalanguage.



**Figure 2. Soft Systems Methodology, (Checkland, 2001)**

## RESULTS

As results of the investigation were obtained, on the one hand, the conformation of the MICE tourism in Mexico as a system and the identification of its elements, and on the other hand, the diagnosis of the current situation through the identification of the relations of the system and the conflict situation.

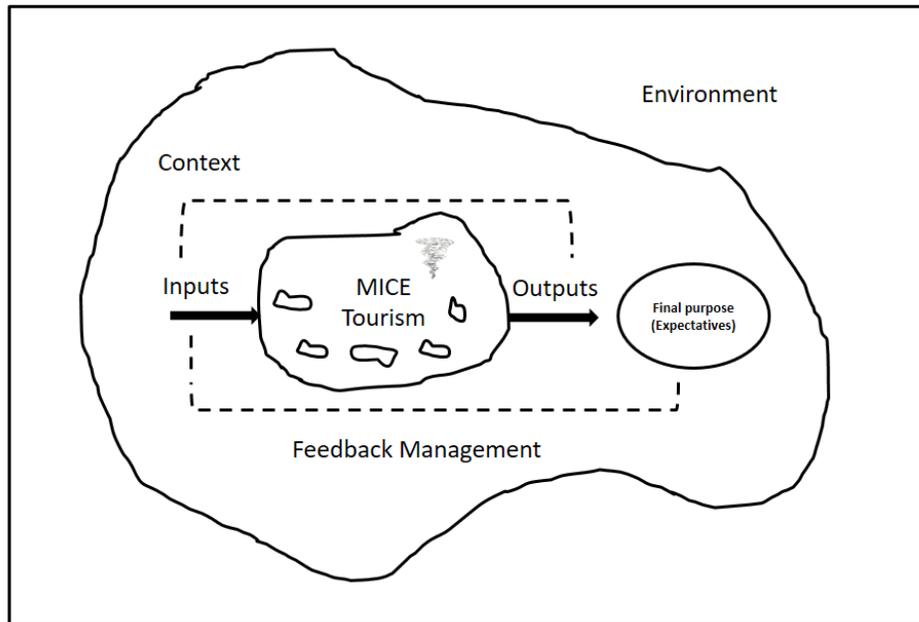
### **MICE tourism as a system**

The system was studied as a second order cybernetic process in which the role of the human or observer in the construction of systems models and other observers is studied. As a result, it was identified the MICE Tourism in Mexico as a black box in which the processes of transformation are produced. Its entries today are delimited by the organization of events and through the transformation process become a generation of economic value. It is desired construct a model intended to have as entries the organization

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of Sustainable Events that translate it into the generation of systemic value for the total system. This system must be feedbacked to achieve the objective of the total system, which will be the generation of the systemic value. Figure 3 shows the MICE tourism system.

This system can be defined as a living, open, concrete, with an assigned objective, socio-technical and complex system. It is considered as a complex system since it is a heterogeneous system with collective behaviors emerging at different scales derived from the non-linear interrelations between the different elements of the system and the stakeholders.



**Figure 3. MICE Tourism System.**

Once the system is delimited, this research uses the first stages of the SSM to make a diagnosis of the current situation of the system under study.

### **Current situation of MICE Tourism**

Following the SSM, the first stage is identified the real-world problem situation, to improve the performance of the study, the SSM in seven stages of Checkland (2001) was used.

In stage 1 called “The problem situation unstructured”, the description of the phenomena where the problem was perceived was made, without emphasizing the problem itself, it is a first approach was made without giving any type of structure to the situation. Specifically, for the MICE tourism system in Mexico, is showed all those sub-systems that make up it, as well as all those stakeholders.

In figure 4 it is shown in a holos as first level the MICE Tourism as a system under study. The following recursive levels present the stakeholders, as well as government regulators

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and organizations involved in the development of MICE Tourism. Also figure 5 shows in another recursive level, those elements that make up the system.

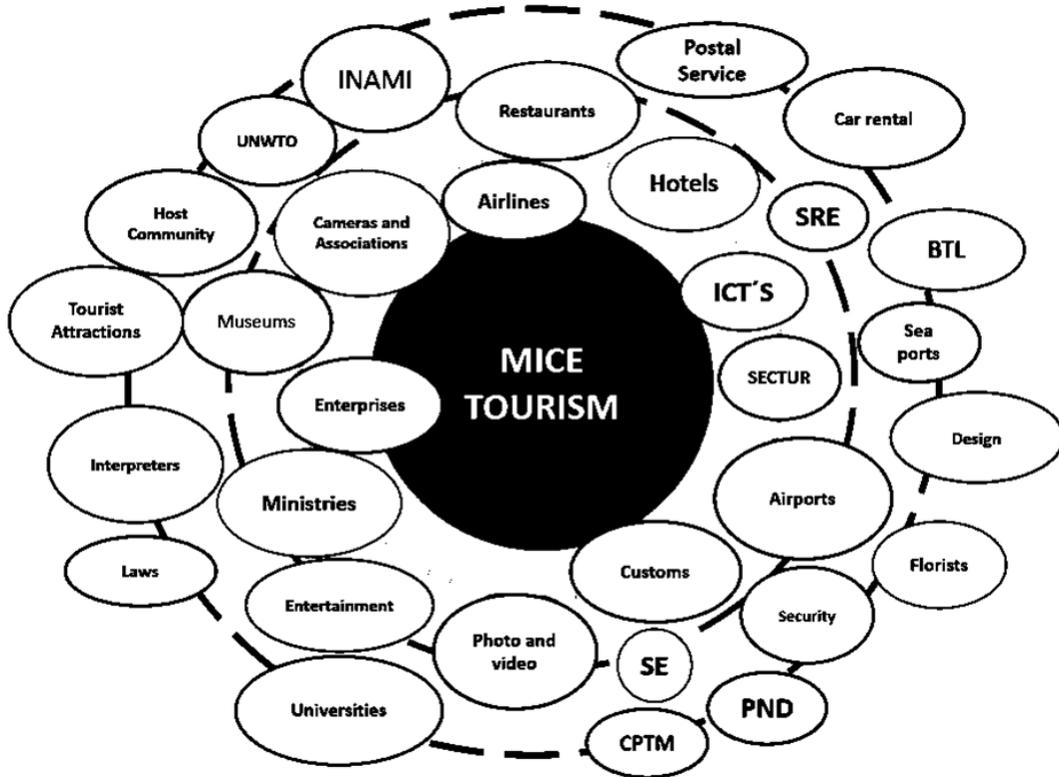


Figure 4. MICE Tourism and its Stakeholders.

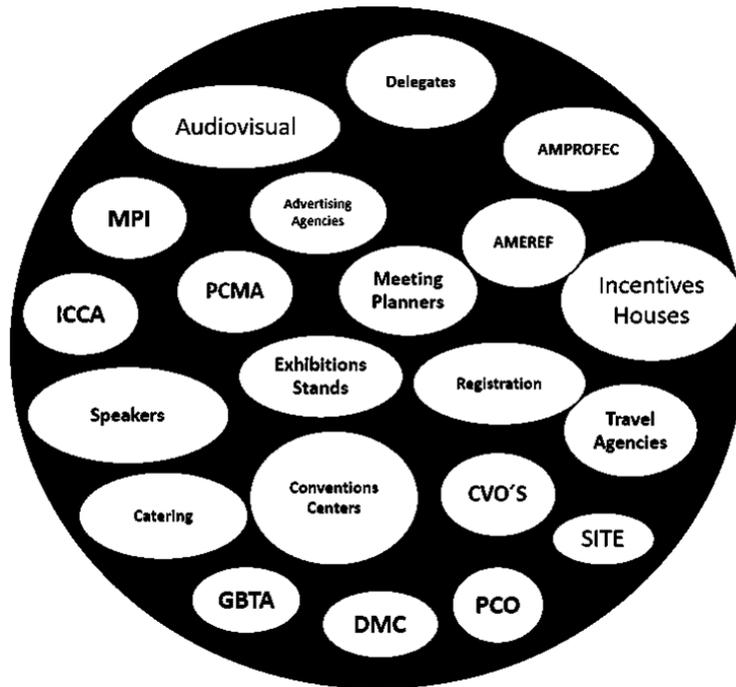
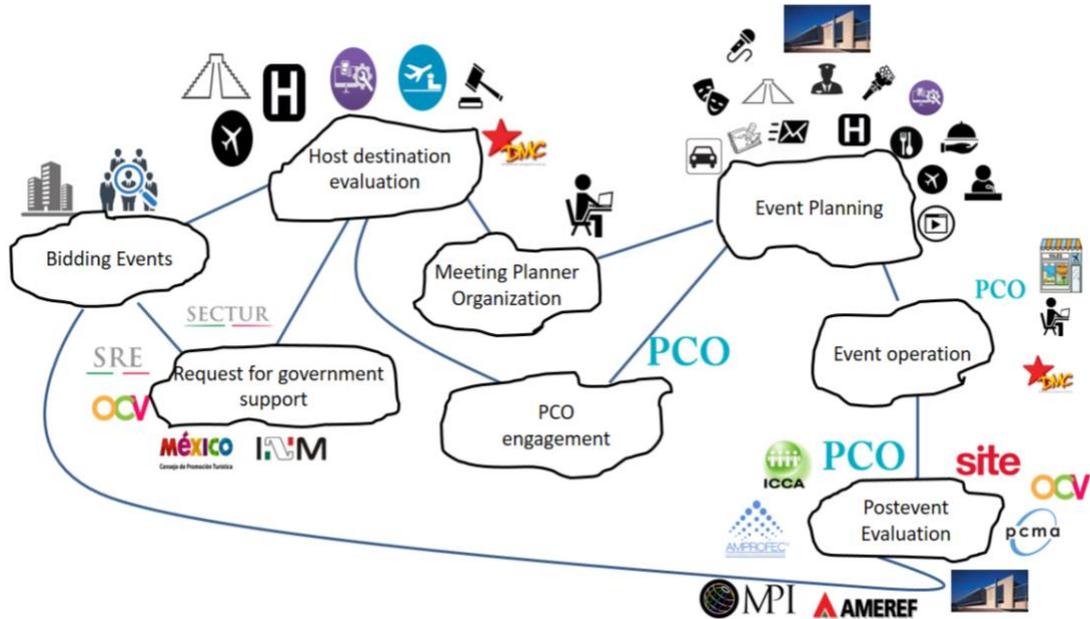


Figure 5. Components of MICE Tourism.

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Then, in stage 2 of the methodology denominated the “The problem situation structured”, the situation of the problem was formed through enriched visions, which describe the organizational structure, activities, and interrelations of this. The objective is to accommodate the anomalies presented in the system and relate them to the general problem.

In figure 6, as enriched picture, is shown the structure of main activities of MICE tourism and in Table 1 is showed the relations founded in the systems and those conflict relations are highlighted in grey color.



**Figure 6. Enriched picture of MICE Tourism.**

**Table 1. Activities and interrelations in MICE Tourism.**

Element	Relation	Element
Airports	Support in the management of arrivals of MICE delegates	MICE Tourism
Advertising Agencies	Contracting of services / Joint operation of events / Sale of advertising services for events	PCO
Travel Agencies	Offer of tourist services for the transfer to the event or on site	Delegates
Travel Agencies	Full or partial recruitment of event management services / Offers complementary services for events	PCO
AMEREF	Training and Certification / Collect Statistical Information / Attraction of International Events	Conventions Centers
AMPROFEC	Training in exhibitions / Collect statistical information	PCO
Tourist Attractions	Post-tours and accompanying program	Delegates
Cameras and Associations	Incentives in the organization of events in the country // Linking with suppliers for the organization of events	CPTM
Cameras and Associations	Hiring services for the integral planning of business events // Managing associations	MICE Tourism
Incentives Houses	Contracting of services for Incentives travel	DMC
Conventions Centers	Rental of Conventions Centers / Bid for international events	PCO

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CPTM	Generation of strategies by destination for the promotion of tourism and attraction of international events	CVO'S
CPTM	Execution of budget allocated for the promotion of the segment internationally // Regulation through the National Policy of Congresses and Conventions in Mexico // Training	MICE Tourism
CPTM	Promotion of MICE Tourism and report on the development of the activity // Generation of studies of value and growth of the segment	SECTUR
Delegates	Obtaining a visa for events / Request for consular advice	INAMI
Delegates	No relation	Host Community
Exhibitions Stands	Providing of services of design and installation of stands / Joint operation of events	PCO
Enterprises	Hiring services for the integral planning of business events	PCO
GBTA	Certification	Meeting Planners
Hotels	Provision of spaces for the realization of MICE events, as well as catering services and accommodation. // Joint organization of events	MICE Tourism
ICCA	Statistical information update for Meetings Tourism	MPI
ICCA	Compilation of Statistical Information on MICE Tourism	CVO'S
ICCA	Compilation of Statistical Information / Updating and trends	PCO
ICCA	Conduct studies of MICE trends and impacts	UNWTO
Airlines	Provision of air tickets for delegates and transportation of material for events // Joint bidding with MICE companies for the attraction of international events	MICE Tourism
Meeting Planners	RFPs events	PCO
Meeting Planners	Travel Logistics for Events	Delegates
MPI	Certification and learning about trends in the organization of congresses and conventions	PCO
MPI	Certification and learning about trends in the organization of congresses and conventions	Meeting Planners
CVO'S	Provide destination information and promotional material	Delegates
CVO'S	Promotes and preserves the attractions of the destination	Tourist Attractions
OCV'S	Promotion to attract international events	MPI
CVO'S	Collaboration in facilitating the granting of visas to attract international events	INAMI
CVO'S	Support in the promotion for the attraction of international events	PCO
CVO'S	Promotion to attract international events	Conventions Centers
CVO'S	Joint bidding with MICE companies for the attraction of international events	Meeting Planners
UNWTO	Recommendations for the sustainable development of the activity, as well as valorization of the relevance of the activity	MICE Tourism
PCO	Contracting of services for the organization of an event in the destination to which the DMC belongs	DMC
PCO	Contracting of exhibitions stands assembly services	Exhibitions stands
PCO	Contracting of food services / Joint organization of small events such as seminars or conferences	Catering
PCO	Contracting of registry services / Database management	Registration
PCO	Contracting of services / Joint operation of events	Audiovisual
PCO	Contracting services for events	Speakers
PCO	Collaboration in the facilitation of visas for delegates	INAMI
PCO	Contracting of services for the import of materials for the organization of events	Custom Services
SECTUR	Regulation of the tourist segment, training, and national and international promotion.	MICE Tourism
SECTUR	Contribution of national statistical information of MICE Tourism // Collaboration for the development of studies and implementation of improvements of the segment	UNWTO

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SECTUR	Request for resources and support in necessary activities for the development of MICE Tourism	Ministries
SECTUR	Coordination in development of agendas for MICE Tourism, budget allocation, collection of local statistics.	SECTUR (local)
SITE	Certification and learning about trends in the organization of incentive travels	Incentives Houses
MICE Tourism	Promotion and preservation of the national tourist attractions as part of the tourist product.	Tourist Attractions
MICE Tourism	Regulation for the correct development of MICE Tourism	Laws
MICE Tourism	Innovation in the realization of business events	ICT'S
MICE Tourism	No relation	Host Community
MICE Tourism	No relation	Universities
Universities	Exit of students with specialized programs in MICE Tourism // Generation of specialized studies for the improvement of MICE Tourism	MICE Tourism

Stage 3 “Root definitions of relevant systems” was used to elaborate definitions of what, ideally, according to the different "Weltanschauung" involved is the system. A root definition expresses the main objective of an activity system with a definite purpose. The construction of these definitions is based on six factors that must be explicit in them, they are grouped under the CATWOE mnemonics: clients, actors, process of transformation, Weltanschauung or vision of the world, owner of the system and the environment.

Accordingly, the root definition for the MICE Tourism System was defined as follows: “The MICE Tourism System in Mexico is a system owned by the Ministry of Tourism that promotes the generation of systemic value through the organization of sustainable events, which generates greater benefit for the actors that make it up”.

Based on the root definition, relevant systems are extracted, there are core human activity systems. The relevant systems are framed by the CATWOE mnemonic, these elements have been tested through various studies as useful and necessary for the elaboration of the root definition; However, they are not exclusive of other elements considered relevant. The relevant systems considered for the study are:

- **Clients:** In this study, it is represented by the associations and organizations that contract the services for the organization of events, as well as by the delegates that attend it. However, it also has internal customers such as suppliers, in addition to the populations where these events are held.
- **Actors:** The actors are those elements of the system that intervene in the performance of activities that allow the operation of the system. In the MICE Tourism system, the actors are the Ministry of Tourism (SECTUR), as well as the users of this system.
- **Process of transformation:** In this study, it is intended that the transformation process is given by the organization of sustainable events that generate systemic value.
- **Weltanschauung or vision of the world:** It gives meaning to the process of transformation and is defined as the image or reality that a person is formed about a situation. In the MICE tourism system, the vision of the world is perceived that

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generating systemic value in the MICE tourism will generate benefits for all the actors of the system.

- **Owner:** Is the decisions maker in the system and in the same way can limit the operation of it according to its interests. In this study, the owner of the system is the Ministry of Tourism.
- **Environment:** Is everything that in the making of decisions is alien to the system and by which it is somehow affected. For this case, the environment is formed by the tourist regulation, as well as the national and local budgets.

### **DISCUSSION**

Through the first three stages of the SSM, a diagnosis of the current situation of MICE Tourism in Mexico was obtained. Some of the main conflict situations that were found are:

- **Government support issues for the Meetings sector.** - The governments of cities often invest or provide support for the construction of convention centers, in which in some cases the destination has no vocation to attract MICE events, so it is not possible to recover the investment, which can be used in other investments that really benefit the population.
- **Adequate levels of infrastructure.** - Infrastructure is a basic variable for choosing a destination for the realization of MICE events. Sometimes becomes inadequate, especially for large events.
- **Service and training.** - There is a shortage of internationally certified personnel. Certifications of MICE sector associations, such as the Certified in Exhibition Management (CEM) of the International Association of Exhibitions and Events (IAEE), the Certified Incentive Specialist (CIS) of the Society of Incentive Travel Excellence (SITE) and the Certified Meeting Professional (CMP) of the Convention Industry Council (CIC).
- **Normativity.** - As a tourist segment of incipient creation but rapid growth, the MICE tourism is regulated through the tourist laws and policies; however, having their own characteristics, there are gaps in the laws that do not allow to correctly regulation of the activity.
- **Valuation of the economic, social, and cultural situation.** - When the cultural and socio-economic origins of tourists are very different from those of the local population, the results of their relation may be favorable for business tourists, but explosive for the local population. However, tourist activity can play a key role in providing cultural information and sensitizing tourists to the social consequences of their actions.

Also, there was highlighting the lack of consideration of elements that are part of the system, on the other hand, the lack of encouraging by the Ministry of Tourism (SECTUR) and the Mexico Tourism Board (CPTM) towards the development of sustainable events that ensure the viability of the activity and therefore derive benefits for the actors of the total system, including those that are not currently considered.

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### **CONCLUSIONS**

MICE Tourism is a complex socio-technical system, in which collective behaviors at different scales emerge due to the large number of non-linear interrelations between its components. Due to the rapid growth of the activity, certain challenges are not addressed satisfactorily. These challenges are common to different destinations and are presented at different levels.

There are just a few researches done in the world for MICE Tourism and less are those that have been carried out at the Mexican context.

Given the characteristics of the system, its study was pertinent through the Soft Systems Methodology (SSM), since the methodology focuses on the study of problems derived from human activity and its social interaction. By applying the SMS to the system under study, negative collective behaviors were detected, which refuse the organization of sustainable events.

Finally, continuing with the methodology, in the “Conceptual Models” stage, is recommended the use of the Viable Systems Model (VSM). The VSM is a model that has as objective the viability of the organizations using tools adapted to the degree of complexity that the changes of the environment need. The model distinguishes five subsystems, which are in continuous interaction to keep the system in a state of homeostatic equilibrium, that is, under control. The regulatory process seeks to ensure the short- and long-term survival of the system, through processes of learning, adaptation, and evolution (Beer, 1994).

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