

# Strategic Value Propositions to Increase Competitiveness in a Tourism Cluster

**Teresa Verduzco-Garza**  
Industrial Engineering, Engineering School  
University of Monterrey UDEM  
San Pedro Garza Garcia, NL, México  
[Teresa.verduzco@udem.edu](mailto:Teresa.verduzco@udem.edu)

**J. Gerardo Rodríguez Beltrán and José Pablo Nuño de la Parra**  
Popular Autonomous University of Puebla UPAEP  
Puebla, Pue, Mexico  
[jesusgerardo.rodriguez01@upaep.edu.mx](mailto:jesusgerardo.rodriguez01@upaep.edu.mx) ; [pablo.nuno@upaep.mx](mailto:pablo.nuno@upaep.mx)

## Abstract

Tourism is industrial sector that has been strongly affected in the last year. Due to the new normal, and the needs to maintain the safety of visitors, restrictions especially for tourist trips have been decreased. Mexico is positioned as the sixth most important destination worldwide, concentrating a significant and growing number of visitors worldwide. (OMT, 2018). Tourism GDP for Mexico contributes 8.7% in 2019 on the economy of the country but during the second and third trimester of 2020 the indicator decreased 47%, which is complemented by the growth of the original GDP for the tertiary cluster where it shows a growth of 2.87% in 2019 and decreased in 3.4% during 2020. With these parameters the impact of the tourism cluster on the generation of income that drives economic clusters and revitalize society. (Datatur SECTUR, 2019). The present approach defines a strategic alternative on the execution of services in non-traditional clusters, being tourism a cluster with a new business vision and an alternative for local development, becoming an important axis that links industries and services energizing economy worldwide. Applying mainly Porter's models and tools to analyze and design a strategic initiatives and projects to revitalize the tourism in Mexican Southern area, and creating value chains to support and improve social development, is the main approach of this research. Using the Diamond model, five forces analysis, the cluster mapping and other significant tools, this paper presents a strategy to create a new growth model based on clusters development and the recommended creation of specific sub clusters. The results of the research are a long term plan and the proposal of new policies to keep growing in region.

## Keywords

Cluster, competitiveness, value chain, Tourism

## Introduction

The present work allows to define an efficient development alternative on the execution of services in non-traditional clusters, with tourism being a cluster that has generated a change in the business vision and an alternative of local development, it becomes an important axis that links to industries and services and energizes the economy worldwide Mexico is positioned as the sixth most important destination worldwide, concentrating a significant and growing number of visitors worldwide. (OMT, 2018). Tourism GDP for Mexico contributes 3.3% in 2018 on the economy of the country, which is complemented by the growth of the original GDP for the tertiary cluster where it shows a growth of 2.87% in 2018, with these parameters the impact of the tourism cluster on the generation of income in the financial movement that drives economic clusters and as a means of revitalizing society. (Datatur SECTUR, 2018).

The regional clusterization of tourism in Mexico, shows that the third most visited destination after Mexico City and the Riviera Maya, is Cancun, currently represents the best tourist offer in Mexico, receiving both national and international tourists in a significant percentage.

The Cluster of companies that represents the tourism industry in Cancun surpasses any other region in Mexico according to the Geographic Location Coefficient (icluster, 2014) (INEGI, 2014). The presence of global chains of Hospitality of “Great Tourism” in the region of Cancun, as tractor companies and development promoters, compete with each other and have access to the same services.

The integration of other industrial clusters, service providers have grown due to the presence of the tourism cluster in the region, promoting the construction of specific institutions supporting the cluster.

## General Context

### Macroeconomic and Political Environment in Mexico

The Mexican economy grew at a moderate rate of 2% per year during the first half of 2018, due to uncertainty about the renegotiation of the North American Free Trade Agreement (NAFTA), now the United States-Mexico-Canada Agreement (USMCA or TMEC in Spanish), and around the presidential elections weighed on the investment.

However, currency depreciation and increases in energy prices slowed down the trend towards 3% target rate, causing the Bank of Mexico to raise its interest rate in June to a maximum of 10 years of 7.75%. With the 2018 elections and USMCA, uncertainty factors should tend to diminish and support an investment recovery. The resumption of the downward trend in consumer price inflation is expected to support real income growth, which will strengthen consumption and reduce monetary poverty (Government M., 2018).

The fragility in the currency and asset markets before the presidential elections, was reversed by the beginning of August 2018 (World Bank, 2018).

The main risks can be classified into external and internal. On the external side, the global economy, and especially that of the United States, was in slowdown. Likewise, emerging markets remain vulnerable to a tightening of international trade tensions. Although the new administration reiterated its commitment to macroeconomic and financial stability, certain decisions - including the cancellation of the new airport in Mexico City - have raised some doubts about this commitment. External accounts and public debt ratios remain healthy, but Mexico’s economy expanded by just 2% in 2018, according to official statistics, the lowest GDP growth since 2013. (El Economista, 2019). Figure 1 shows comparisons of Global Economic Growth.



Figure 1 Comparison of Global Economic Growth 2017

Source: (INEGI & GDP and National Accounts, Comparative Global Economic Growth 2017, 2017)

## Political situation

Andrés Manuel López Obrador (AMLO) emerged as the winner of the presidential election on July 1st, 2018 in Mexico, obtaining about half of the popular vote. The political coalition of AMLO, dominated by the National Regeneration Movement (Morena), a left-wing party was founded in 2014, became the largest group in Congress, which sets the stage for the new president to implement his legislative agenda. The new president took office on December 01, 2018.

The ability of the new president of Mexico to sustain GDP growth and stability while meeting other policy objectives will help determine the trajectory of S&P Global Ratings' credit ratings on the sovereign (our Mexican ratings are BBB + / Stable / A-2 [foreign currency] and A- / Stable / A-2 [local currency]) (Mexican stock exchange, 2019).

According to the Global Competitiveness Report (GCI) competitiveness report for 2017-2018, Mexico is located in position 51 of the competitiveness ranking (WEF, 2017-2018). Figure 2 shows its behavior in the indicators measured by this index and the most problematic factors for doing business.

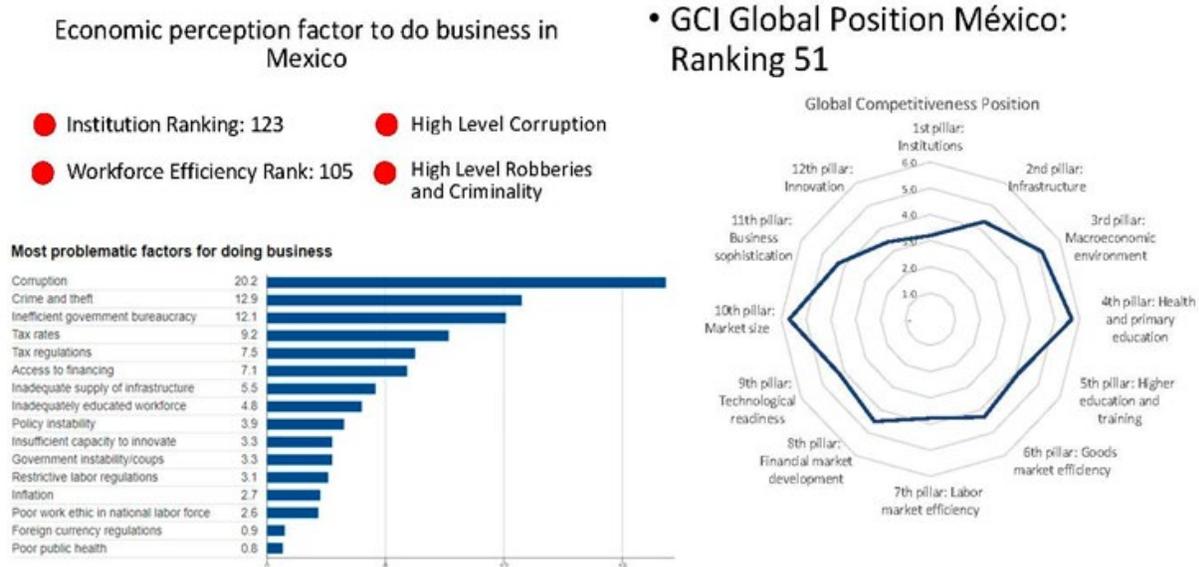


Figure 2: Competitiveness Data of Mexico according to the GCI  
 Source: (WEF, 2017-2018)

## Tourism in Mexico

One of the main economic factors of Mexico is tourism, it has existed since the 1920's and it has been a fundamental engine for the Mexican economy generating many sources of employment, having states that only dedicate themselves to this work.

The magazine "Transport and Tourism " expresses the intention of visitors worldwide to know Mexico. The first months of 2018 brought a global growth of 6% within the tourism industry, according to the World Tourism Organization (UNWTO). This increase has been possible thanks to the diversity of destinations currently offered in the world, coupled with greater digitalization of services and growth in the offer of experiences (Sánchez- Crispín & Propin - Frejomi, 2011).

Based on this data and based on the preferences of its users, Mobility ADO shared the five trends that will mark the tourism cluster in 2019. (Transport and Tourism Magazine, 2018).

1. Mexico City, Cancun and Riviera Maya will be positioned as the places that should be visited according to information from Lonely Planet.
2. Implementation of more agile transfers, from one city to another, and from the moment, the traveler arrives to the terminal. Connection points to leave their cars at home and arrive directly to their transport.
3. The use of mobile devices for planning trips and conducting research on the sites of interest.
4. The generations known as Millennials and Centennials begin to take possession as the consumers that command the market. The products and services they consume comply with a clear interest in the environment; therefore, transport companies have chosen to use units that generate fewer polluting emissions.
5. Add new attractions that complement the trip and become an unrepeatabe experience.

Mexico is positioned as the sixth country worldwide destination that international visitors prefer, according to the World Tourism Organization. See Figure 3.

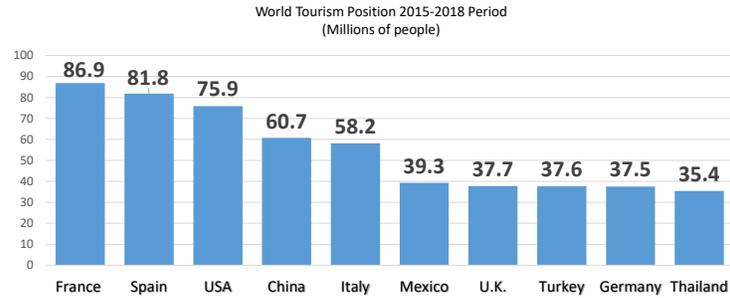
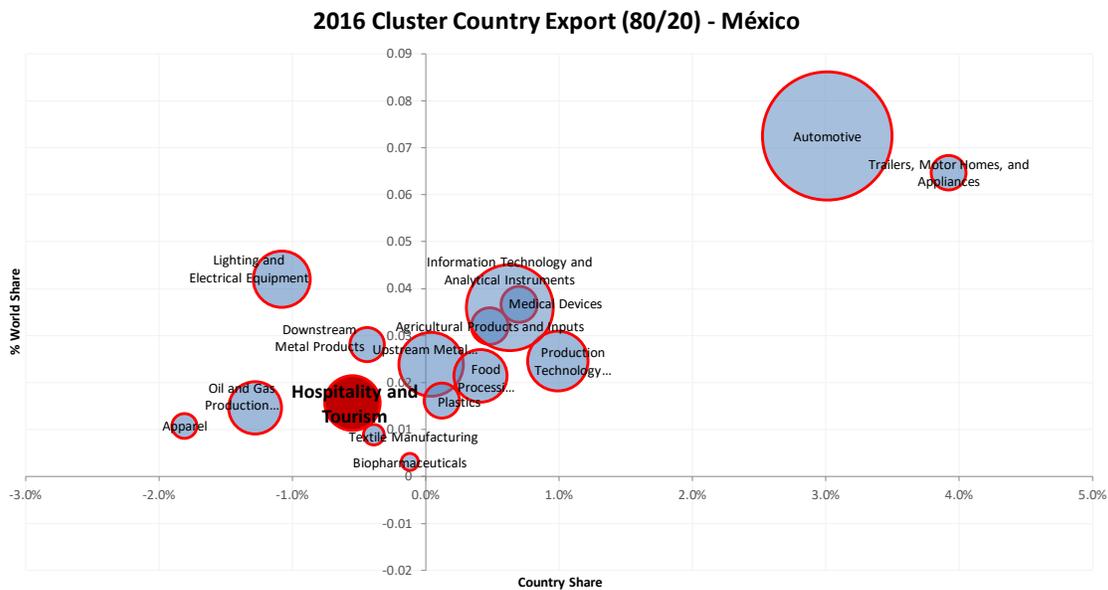


Figure 3 World Tourism Position 2017 period (Millions of people)

Source: Panorama of International Tourism Edition 2019. OMT-UNWTO (data from 2018, latest available)

According to data obtained from Harvard University, tourism worldwide represents a high level of exports to Mexico. Figure 4 shows the behavior of the different industries (80/20) for Mexico.



Source: Cluster Mapping, Institute for strategy and Competitiveness, HBS

Figure 4 Cluster Country Exports in México, 2016

Source: (Harvard Business School, 2016)

According to information from the Ministry of Communications and Transportation (SCT), we find that the influx of both national and international passengers between the different cities of the country, Cancun is an airport with a high visitors traffic (Figure 5 and 6).

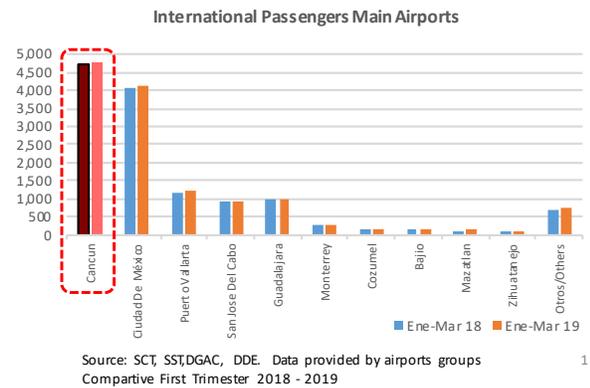
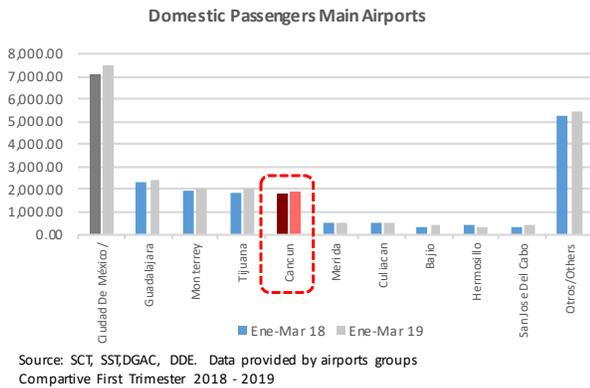


Figure 5: National Passengers

Figure 6: International

**Passengers**

Source: SCT, SST, DGAC, DDE. Data Provided by airports groups–Comparative First Trimester 2018 - 2019

The importance of the tourism industry for the economy of Mexico is manifested in the fact that it ranks as the third most important source of income in the country, behind the automotive industry and the remittances.

**Cancun Region**

Since its creation in 1971, the city of Cancun, Q. Roo, has become one of the fastest growing cities in the Mexican Republic (INEGI, 2017), Tourism has generated the attraction of large investments and numerous jobs, as well as demanded infrastructure in all clusters, mainly as housing construction for all kinds of social classes. According to information from the National Institute of Statistics and Geography (INEGI), the GDP of Quintana Roo expanded 7.6% for 2016, a growth only surpassed by Aguascalientes, with 9.5% (INEGI, 2017).

The growth of Quintana Roo even exceeds that observed in China, where the economy expanded at a rate of 6.7% in 2016. It also means triple the growth recorded by the average of the Mexican economy last year of 2.7% (Diario de Yucatán, 2017).

**Government**

To take advantage of the country’s tourism potential, several actions must be taken by the government, which are summarized below:

- Strengthen the Institutional Capacities of the Tourism Cluster
- Establish Instruments that harmonize government actions with national tourism policy and promote co-responsibility.
- Promote intergovernmental coordination in tourism.

A project called “linkage model for the creation of innovative and productive gastronomic tourism value chains” was formalized to strengthen the mechanisms for consultation with the academy, the private cluster, the social cluster, and the University of the Cloister of Sor Juana A.C. to support traditional cultivation methods and / or endemic ingredients or with the “designation of origin”, to enhance the tourism cluster (SECTUR, 2017).

**Business environment**

Mexico occupies the sixth place as a tourist destination in the world, and the tourism cluster has seen great advances that are reflected not only in that sixth place as a preferred tourist destination in the world, but in data such as these:

- In 2017, the number of international tourists who visited Mexico increased by 12%, which amounted to 39.3 million.
- Foreign tourism income rose to 8.7%, bringing this amount to \$ 21.3 billion, 59% of tourists were American, 16% Latin American, 11% European, 10% Canadian and 4% from the rest of the world.

- The favorite destinations were the beach, highlighting Cancun, Isla Mujeres, and Nuevo Vallarta (Secretary, 2018).
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### Diamond Analysis of the Cancun Tourism Cluster

As a summary of the Tourism Cluster Diamond in Cancun, the position of tourism in Mexico generates an important competitive advantage. In the last decade, it has shown substantial changes from the development of efficient policies that are controlled from the Ministry of Tourism SECTUR, towards the impulse of foreign investment, and the position of the national tourism brand.

Cancun plays a strategic role for tourism development generating an important concentration on tourism GDP. Recreational tourism spending according to indicators of INEGI, World Bank and the SCT during 2018 represents in trillions of dollars US \$ 125.89 with a contribution to GDP in trillions during 2018 of US \$ 190.99, while the total staff employed in services of 61.13% with an unemployment rate of 3.42% in the country. The employment in the tourism cluster in 2018 represents 3.2% of the total national employment (INEGI, 2017), (World Bank, 2018).

The performance of the Tourism and Hospitality Cluster for the Cancún, QR state is presented in Figure 7. It shows the value added of the tourism cluster of the state relative to the other states in Mexico accord to the last census.

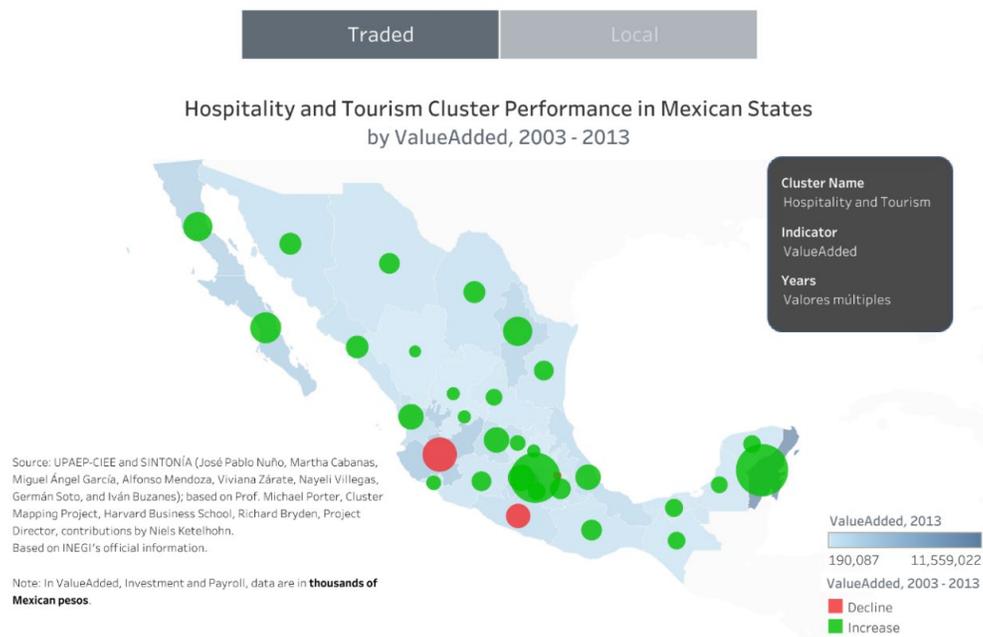


Figure 7 Performance of the Tourism and Hospitality Cluster  
 Source: UPAEP-CIEE and SINTONIA, 2019

### Five Forces Analysis

The development of the tourism cluster has generated a great dependence on international hotel chains that generate volatility in the economic dimension and establish their own conditions, which significantly affect the stability of the tourism.

For the analysis of the Five Forces, it can be determined that there are important advantages for the context of tourist attraction:

- 1,947,826 national tourists, 4,962,507 international tourists, occupy the hotel service during their visit.
- Average length of stay 106 days.
- Sixth tourist destination worldwide and the second tourist destination in Mexico.
- Competitive prices.
- Exchange rate
- International hotel firms

### Value Chain

The priority of the Tourism Cluster in Cancun is to turn tourism into a development engine for the national economy of Mexico, as well as in the town of Benito Juárez-Cancún municipality, and in the state of Quintana Roo. Through a recompositing of competitiveness created with the new sub clusters from the development of the related industries that Cancun has generated, with a mission of growing through shared value niche projects.

Next, Figure 8 shows the integrated diagram of the value chain of the Cancun Tourism cluster.

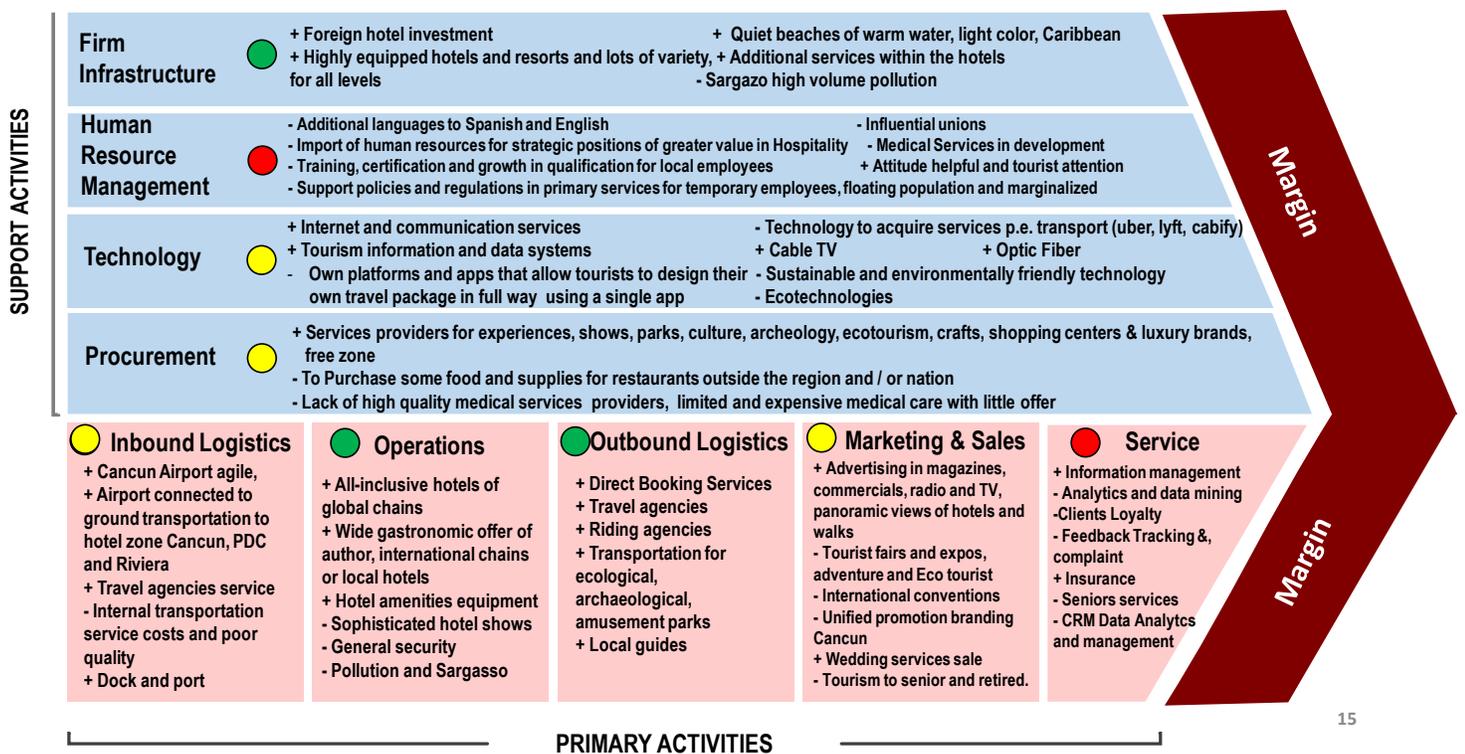


Figure 8: Value Chain

Another of the most important aspects that should be improved is the creation of industrial parks in the city of Cancun, since as shown in the figure below, the related industries have been growing rapidly, in record time, mainly due to the growth and the demand of Cancun as a prefer destiny. However, there are not enough suppliers in the city that can meet the demand, having to depend on foreign suppliers affecting the price and the delivery time.

### Cluster Map

Figure 9 shows the map of the tourism cluster, where hotels and resorts are located in the central part, while the related industries consists of 40 universities, 24 hospitals, tourism schools, water services, communications, garbage collection, energy, public safety, construction among others.

In the lower right part, the related clusters to develop and are shown in the cluster map since they have a profound impact on the main players. Such clusters are for agribusiness, aquaculture, and metal manufacturing.

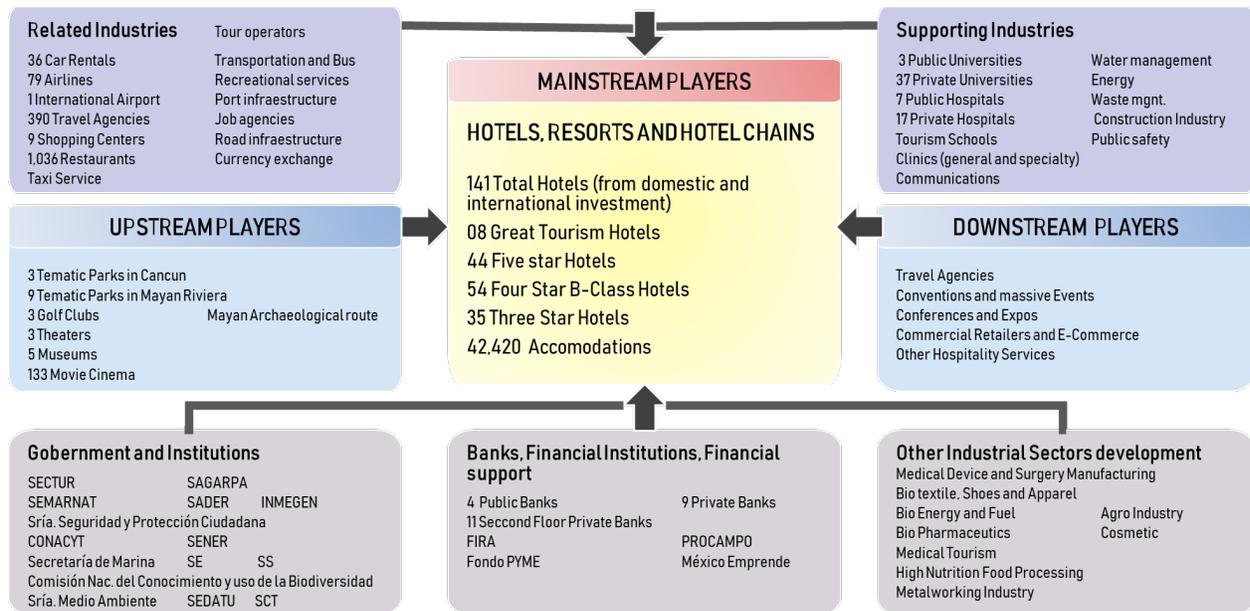


Figure 9: Cluster Map

A unique shared value proposal is presented next, derived from what was found in the previous analyses, and will be developed in detail in the next section.

### Shared Value Proposal: Unique Shared Value Proposition for the Cancun Tourism Cluster

Based on the analysis of the Diamond, the 5 forces, cluster map and value chain, a single shared value proposal is established, which is detailed below:

#### Develop a Tourism sub-cluster: Tourism for retired and Medical – Geriatric

The population pyramid in developed countries is increasing in adults over 65 years and the tendency is to continue increasing (Pyramid, 2019); for example, in the European continent the population of 48 countries is expected to decrease by 15% by 2050 (United Nations, 2019), as well as the worldwide increase in life expectancy in 3 years.

The “senior” segment of the population in first world economies such as Europe, the United States and Canada, is characterized by high purchasing power and stable income due to its retirement plans (Rodríguez, 2014), enjoy good health and conditions to travel and relocate your retirement location in regions with warm-temperate climate and more favorable conditions close to sea level.

In addition, they seek fun and attention promoted by the tourism-related industries, which require specialized medical attention or finding comfortable regions to treat a medical problem. According to INEGI and CONAPO data, older adults in Mexico went from 6.2% of the population to 7.2% of the population and it is expected to continue increasing in the following years (INEGI, Expansión Economía, 2015) waiting for 2020 by 14 million and by 2030 20.4 million older adults (CONAPO, 2019).

This tourism segment tends to be of more demanding quality and seeks comfort and safety in the organization of trips. In addition, you can travel at any time of the year, and spend long periods of stay if the place seems attractive (Alonso, 2017).

On the other hand, it is a group “at risk” given the diseases that are more accentuated with age or are typical of the elderly, as well as the decrease in the functioning of the senses and different organs of the human body.

Given the conditions that Cancun provides and the entertainment and culture infrastructure it currently has, it is an attractive destination, but the lack of security in health services means that senior tourists do not extend their stays.

The development of the tourism sub-cluster aimed at retired senior citizens and geriatric care is proposed, which will allow access to this segment of the population with a lower cost to medical services and care (given the parity of exchange rate), as well as its protection for long periods in retirement homes under a holiday scheme.

The approach to this value proposition requires important elements of immediate treatment, for example, the reduction of energy costs and the use of sustainable generation technologies to keep Cancun as an attractive alternative. Also, contain the problem of sargassum invasion on the beaches of Cancun, so that they remain clean at all times of the year and continue to attract tourism

### **Shared Value Projects derivates from the Unique Value Proposition**

Below are the suggested recommendations and projects, as well as the action phase and its relationship with other cluster projects, consolidating an attractive and unique shared value proposal for the development of this **Medical-Geriatric Retirement Tourism sub-cluster**, as well as the **new Sargasso industry cluster** and the **new Bio Energies cluster**, which will allow to move from an economy supported by capital and foreign investment tourism, to the generation of productivity, diversification of activity towards manufacturing in high industry value (such as medical and surgical), sophistication of the human resource towards high-value services and subsequently promoting innovation in medical-pharmaceutical research derived from the sargassum problem, as well as research to turn it into the opportunity to start a new industry of Bio and Eco Energies as well as the textile and footwear industry with bio materials (Varillas, 2019), food industry of high nutritional value, and the impulse of the aquaculture of said algae to meet the demand and create greater sources of better paid employment in a transversal way with the development of this sub-cluster and its derived clusters.

The proposed recommendations and projects are placed in 3 phases of action according to the time where each project is recommended to execute. They are also classified according to their objective where there are 4 different categories:

- 1) **Productivity:** The productivity objective is to systematize the cluster to reach efficiency levels, which will serve to "educate" the diamond little by little and advance to the next objective level.
- 2) **Sophistication:** The objective of sophistication is that once the cluster is efficient, raise its position in research and development to increase its value proposition and improve the level of knowledge and competitiveness of the region's social system by developing new products and services with greater value and attractiveness.
- 3) **Innovation:** At the third level, the innovation objective satisfies the investment in research and development of new technologies, creation of high-value products that can be imported into other regions and that increase the attraction of monetary and intellectual capital in the region, so that the diamond is “perfected”.
- 4) **Support:** This last objective satisfies the projects necessary to support the growth and evolution of the diamond towards an innovation economy

The enablers refer to the enabling impact on different value segments, such as infrastructure, demand, human resources, high value employment, ecology and high value research. The suggested parties refer to the institutions involved for the operation of the proposal, as well as the private and activity clusters that must also intervene.

Finally, Linked Clusters (C) and Sub-Clusters (SC) correspond to clusters and sub clusters that will be positively influenced with the development of projects and value propositions.

As mentioned above, future related clusters that can act together creating shared value towards the sophistication of the Cancun region are based on the treatment and production of sargassum, the products derived from it and the innovation in new products and related industries that could supply and create.

Sargasso, for example, can be used in the textile and footwear industry, generating bio materials for the production of ecological shoes, for example. (Morgan, 2019).

According to research from institutions such as MIT and Universities in California and Australia, sargassum can be used as a component of livestock feed that can reduce the methane they emit in their digestion (40-60%) and impact on the reduction of the footprint carbon (Temple, 2018).

Other research supports that sargassum can be used in an innovative way in the cosmetic, pharmaceutical and additive industries in foods of high nutritional value (Varillas, El Universal, 2018) (Notimex, 2018), while companies such as ExxonMobil investigates in the formulation of low emission fuel and biogas from sargassum, as well as the Yucatan Research Center in accelerating the transformation process using fungi and microorganisms that increase the efficiency of micro reactors to generate biogas that can be used directly in power generation (Zanolli, 2019).

## **Conclusions and recommendations**

Based on the previous analyses (Cluster Map –CM-, Value chain –VC-, and Diamond), the research team has come to the following conclusions and recommendations with shared value.

In summary, what is proposed is the generation of a high-value sub-cluster, and derived from the current tourism situation in Cancun, innovative high-value clusters that potentialize other clusters can be developed in parallel. Derived from the unique value proposition on the Sub-Cluster of retirement and medical-geriatric tourism, the following clusters are derived:

### **Sargassum Cluster production and manufacturing cluster, which in turn would impact the following clusters:**

- Technology and manufacturing of heavy machinery
- Apparel and Bio Textile
- Bio Plastics
- Bio Pharma
- Production and processing Aquaculture products

**Generation of the Bio - Eco Energy Cluster**, from sargassum and other sustainable sources, which in turn would generate influence and impact on the development of bio fuel and bio energy.

These clusters are of high value in innovation, aiming to give the region's society a better education and better jobs of greater value, which favor the purchasing power of the inhabitants and thereby improve their living conditions, reducing the economic gap and turning Cancun into a more attractive and prosperous region for its population.

### **Future State Vision of Clusters after the Value Proposition is Implemented.**

The knowledge about tourism that has already been developed in the Cancun region will be decisive for the success of this project, in addition to the population adopting new knowledge to work in future new sources of employment. Derived from the **Sub cluster of medical and geriatric tourism, the industrial cluster of Medical-Surgical Manufacturing** can be favorably affected, as well as Research in Bio Medicines. On the **Sargasso production and manufacturing cluster** there would be an important influence.

In Figure 10, you can see in more detail, the favorable impact of what was proposed as a Future State Vision of Clusters after the Value Proposition Implementation:

**• Sub Cluster Tourism retired medical-geriatric**

- Medical- Surgical manufacturing
- Research and Bio Medicine

**• Sargassum production and Manufacturing cluster**

- Heavy machinery manufacturing and Technology
- Apparel y Bio Textil
- Bio Plastic
- Bio Pharmaceutical
- Aquaculture products production and processing

**• Sargassum Bio Energy Generation Cluster**

- Bio Fuel
- Bio Electricity

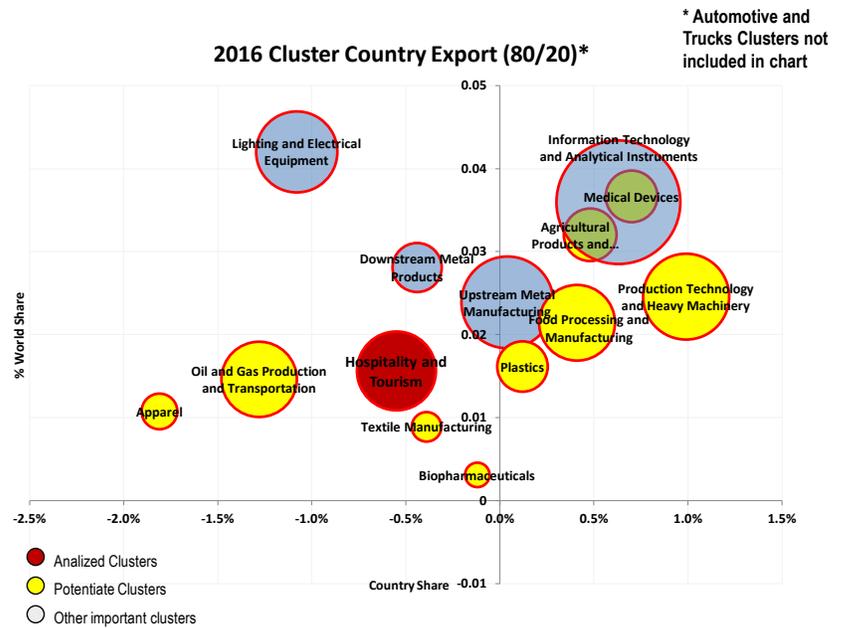


Figure 10. Sub clusters and Clusters linked, future state vision

Source: Prepared by author based on information of Cluster Mapping, Institute for Strategy and Competitiveness, HBS

Investment in these clusters, the diversification of economic activity (although on a smaller scale) in the manufacturing cluster, as well as the attraction of manufacturing companies related to the industries of the new clusters and sub-clusters, will be a decisive factor for the training and execution of the proposals and projects listed above.

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### Biographies

**Dr. Teresa Verduzco-Garza**, is a professor and researcher for the Engineering School in University of Monterrey, Mexico (UDEM) at the Industrial and Systems Engineering department. Her research and experience focuses on Clusters for competitiveness, Logistics clusters, Supply Chain Management, Operations Management, Supply Chain Strategy. Received her Ph.D. Degree in Management for Supply Chains from the UANL Autonomous University in Nuevo Leon, Mexico during 2018. Developed a combined research stay at Orkestra Institute for Cluster and Competitiveness and Deusto University in Basque Country, Spain during 2019. Nowadays, she works with important clusters in Mexico, developing supply chain and Logistics Synergies (Co-Loading) projects for competitiveness in the Automotive cluster (CLAUT) and other regional clusters, as well as strategic planning initiatives, supply chain network mapping for Agrifood cluster (Agro Alim). Has published his works in journals with national and international scientific circulation, has participated as a speaker in important conferences in forums such as IEOM, SISE, IISE, ASEM, TCI Global Conferences in countries such as the USA, Colombia, South Korea, Canada, the Netherlands, France and other European countries. Additionally, she is an active member of IEOM, APICS and TCI Network International Competitiveness Institute, as well as of the Harvard Business School network of the Institute for Strategy and Competitiveness.

**J. Gerardo Rodríguez Beltrán** is Civil Engineer with a Doctorate in management and marketing at UPAEP. With 30 years of experience in the construction sector, director of Briq enterprise.

**José Pablo Nuño de la Parra.** Bachelor of Industrial Engineering at the University of the Americas. Master of Industrial Engineering at the University of Arkansas. Doctorate from Oklahoma State University. He received the “Duc In Altum” award from UPAEP, for his leadership having been selected by Harvard and MIT to be part of their network of alliances. He received the recognition of entrance to the “Hall of Fame” by the Institute of Strategy and Competitiveness of the University of Harvard Business School. He entered the “Industrial Engineering Academy” at the University of Arkansas. He has given conferences in Mexico, USA, Europe, and South America, and published more than 120 articles and contributed to 2 books by Dr. Hamdy Taha. He has supervised more than 60 doctoral theses, and multiple master's and bachelor's projects. He is currently the General Director of Internationalization at UPAEP. He is a member of the National System of Researchers in Mexico (SNI), level I.

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