

Disruption and Development: How the Uneven Growth of Mexico has affected  
Intellectual Property in the Yucatan Peninsula

by

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## **Abstract**

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The Yucatan Peninsula has historically been known as “A world apart” from the rest of Mexico, but given rapid globalization this is changing. It is imperative to understand the unique resources each country or region is capable of producing such as intellectual property in the form of patents, copyrights, and trademarks. For these reasons, this thesis focuses on the reasons behind Yucatan Peninsula’s lack of significant intellectual property creation through critical analysis of Mexico’s Foundational Factors, including, but not limited to, geography and foreign relations, and compilation of data, this thesis will display how the Yucatan Peninsula, by no fault of its own, has fallen behind its Western counterparts and is not utilizing intellectual property to its full potential. Countries cannot afford to lose the opportunity to create and own intellectual property and the Yucatan Peninsula has continually missed out on opportunities due to lack of knowledge on intellectual property and systematic neglect by its own government.

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## Introduction

Intellectual property is one of the most important issues facing global economies today. Intellectual property, or IP, refers to creations of the mind, such as inventions; literary and artistic works; designs; and symbols, names and images used in commerce. IP such as trademarks, patents, and copyrights, are some of the most valuable assets a business can have because of their ability to give recognition and financial benefit to those who invent or create them. However, despite its growing importance, certain regions of the world are not developing IP to their full potential. One such region that is leaving these potentially valuable assets unused is the Yucatan Peninsula.

The Yucatan Peninsula, which includes the states of Yucatan, Quintana Roo, and Campeche, is located in the southeastern region of Mexico. Though Mexico is still considered a developing country, regions other than the Yucatan such as the Central Highlands have been able to develop intellectual property economies.

Throughout Mexico's history uneven development has not been uncommon and the lack of intellectual property development in the Yucatan peninsula is a key example of this. Despite the often-proposed idea that this lack of development is due to the Caste War of the Yucatan in 1847, an uprising mistakenly credited to the indigenous people of the peninsula, this phenomenon cannot only be explained through study of the Maya.

Oscar Martínez best explained this saying:

Though they do have influence, cultural explanations are speculative at best and ideologically and racially suspect at worst. Looking only on cultural environment would be avoiding a number of other factors including the natural environment, natural resources, relations with other regions, and the structure or production and governance (Martínez 12).

I wish to show how all of the named factors, collectively called Foundational Factors by Oscar J. Martínez, have contributed to Yucatan's lack of growth rather than solely focusing on the cultural upheaval present in the region's early history. Use of Martínez's foundation factors model (Figure 1), recently created for his most recent publication, *Mexico's Uneven Development*, is of key importance as it illustrates the intricacies that help form societies and affects their growth. These factors will be discussed at length in relation to the Yucatan Peninsula.

This thesis is split into three sections, each with varying focus on the Yucatan, Mexico, and to a lesser extent, the United States. Though the Yucatan will not always be the sole focus of each chapter, all of the information covered will be in pursuit of clarifying the history from which the Yucatan became the "world apart" that is still struggling to find its place in a Mexico, of which it grew of.

Chapter 1, titled "Foundational Factors", will seek to apply Martínez's Foundational Factors of National Economies model to the Yucatan and the western regions of Mexico in order to isolate differences between them that display how the Yucatan's development was unlike any other region. Some key differences explored will include Mexico's structure of production, geography, population, and external relations both to reveal a brief overview of Mexico and to reveal the place of the Yucatan Peninsula relative to the other regions of Mexico and Mexico as a single nation.

Chapter 2, titled "Mayans, Misunderstandings, and Misappropriation", will address the significant cultural upheaval of the Yucatan Peninsula. This will include the time proceeding and following the Caste War of 1847 and display how its lasting impacts affect the modern Mayan people in the peninsula and surrounding areas where many fled.

This chapter will also highlight the effects of the Mexican government's past cultural policies and the decline of the arts following lack of support by the government.

Chapter 3, titled "Peninsular Property", will discuss the state of the intellectual property market in the Yucatan and draw upon the previous two chapters in order to elaborate on their main ideas.

The conclusion of this thesis will illustrate not only the importance of the covered material to the Yucatan Peninsula and Mexico, but also its global importance.

### **Thesis Statement**

Throughout Mexico's history the Yucatan Peninsula has developed differently than any other region in the country and, because of this, has an underdeveloped IP Industry. The differences in regional context, as referenced by Martínez's model, have led to different paths including a lack of development due to geographic separation, lack of government control, cultural unrest, and lack of focus on intellectual property as a viable source of economic gain.

### **Methods**

This thesis is a case study drawing on several different sources of data collection including secondary sources and the available data from primary sources to be discussed in limitations. Using comparative historical analysis, this thesis continually discusses Western Mexico to illustrate the stark differences between West's Central Highlands and Southeast's Yucatan Peninsula. Though their differences in intellectual property are not mentioned until the third chapter due to lack of specific relevant information, to be



discussed in limitations, the historical background of the two referenced regions is important to understand as it allows for a greater understanding of how different these two regions have been for hundreds of years.

### **Limitations**

An undergraduate student wrote this thesis over the course of one year. Though these factors should not have a significant impact on this thesis, the time and resources necessary to complete it were not satisfactory to address all potentially important information or, in most cases, to find this information. Unlike the United States, Mexico, and much of Central America, do not keep detailed information on file. As can be seen in this transcript excerpt from the ICI Course Pack with Crown Counsel/Registrar Office of BELIPO with Deborah Wagnon, Lawyer and Founder of the International Classroom Initiative, and Candace Fisher, Crown Counsel & Deputy Registrar Belize Intellectual Property Office, much of the world is far behind the United States in terms of resources for data collection and dissemination in addition to lack of resources related to intellectual filings and patent examination.

WAGNON: We are always talking about the difference between the US copyright office and USPTO patent and trademark office and they're very separate and distinct, in the way they operate and the standards. You're very different, you're doing it all here. So, is that ever problematic or confusing?

BELIPO: It's not confusing, but it is problematic. Because as you can see from our staff structure, there's only about 7 of us. The volume of the work we get and each year our trademark and applications increase. So each year there's more application to deal with. We have 1 person who deals with new applications. So she's the one who has to check the classification for each application to make sure... For patents, most of them come through the PCT filing system, so by the time they get to us they've already been examined by WIPO. If they get to us and say that it is not patentable, they send in an amended patent claim. Because we don't have a patent examiner in Belize, we have an MOU with the Mexican office

and they do our patent examinations. So we do it online, we have to scan the entire file, make it through the system to Mexico, they examine it, and they send it back to us, and then we continue the process.

WAGNON: I had heard there was something being farmed out essentially to Mexico...

BELIPO: Yes, and a lot of countries do it because a lot of countries and developing countries don't have patent examiners. If you go to Africa, I understand the Mexican examiners go there and do training. A lot of countries contract out the examinations. (Wagnon)

This was a constant problem for which there was no solution during the time this thesis was written. Hopefully data collection and keeping in Mexico and Central America will improve over time, but this thesis does not have the benefit of any such progress. Given these limitations in both time and resources, some parts of this thesis may seem incomplete or lacking in detail, especially relating to Chapter 3's Intellectual Property filing numbers, but it is as detailed as possible given current available data.

## **Chapter One:** **Foundational Factors**

Martínez's Foundational Factors of National Economies Model (See Figure 2 for the full model) displays how multiple factors pertinent to the functioning of a country are interconnected and affect its national economy. The difficulties in illustrating each of these points is how to keep them separated, but still analyze their connections. This chapter, unlike the next two is further divided into subsections including: Structure of Production, Geography and Climate, Population, and External Relations.

### **Structure of Production**

By looking at Mexico's past structures of production, historic precedent can be analyzed to provide a basis for judgment of how and why its structure of production exists now.

During the late 1800's to early 1900's, Mexico was a predominantly agricultural country but, as manufacturing underwent significant expansion and modernization, the Mexico City region dominated industrial production. In addition to Mexico City, several more western Mexican city centers such as Monterrey, Durango, and Coahuila rose in economic prominence. This was a direct result of the modernization of Mexico and was aided by its connections with the United States both physically, by railway, and commercially, by American business ties.

Conversely, at the time of this growth, encouraged by the then president turned dictator Porfirio Diaz's policy implementation, the Yucatan was still only accessible by boat (Rugeley 10) with a railway not coming for nearly a century (Martínez 123). Additionally, the Caste War and consistent violencias had begun to decimate, or had

decimated, the towns and small cities (Rugeley 10) that could have grown into manufacturing or other production centers (Martínez 37). Unfortunately, even if the Yucatan were accessible and able to sustain a production economy, this modernization would not have been likely to benefit the residents of the peninsula. The advancements, while lucrative for many members of the Mexican upper class, increased the gap between the rich and poor, led to food shortages, and increased poverty throughout the lower classes, especially members of indigenous communities.

Despite these great advancements in industry under Porfirio Diaz, the Mexican people realized the severity of their distaste for the dictator and conflicts began to emerge. Finally, reaching a boiling point in 1910, the Mexican Revolution began. Though this was devastating for western Mexico, specifically the Central Highlands where the government is still based, this change benefitted the Yucatan Peninsula whose production of henequen, a crop grown primarily in the peninsula, increased by 86% due to their continued separation from the rest of Mexico. (Walker 78)

Following the end of the war the Yucatan was still widely inaccessible as the railroad was being build into the mid-1960s. During this time, agriculture reemerged not only with increased production, but also increased outside interests in the country. A notable example of this was when Nobel Prize winner Norman Borlang and the Rockefeller foundation, in cooperation with the Cooperative Mexican Agricultural Program and Maize and Wheat Improvement Program, conducted research to launch the “Green Revolution”. This “Revolution” was a result of the organizations’ studies showing how to increase crop yield through the development and use of pesticides and crossbreeding of species. Though these efforts were successful and no doubt created

intellectual property in the form of pesticide formulations and new sub-species and revenue following production for purchase in the market, these developments were mainly for the Central Highlands. (West and Augell 384) To add to the support for the Central Highland's domination, during the time of the "Green Revolution" more than half of the value of the nation's manufacturers was concentrated either in or around Mexico City. Cities including Monterrey, Puebla, and Guadalajara were notable despite the latter two still being miniscule in comparison to the dominant force of Mexico's capital city.

The other side of this manufacturing that is important to note is the effect it had on the lower class. Looking at Figure 3 the downward trend of the real minimum salary from 1980 through 2012 is drastic and easily visible. The constant cuts to the wages of workers made, and continues to make, Mexico a desirable country to those companies looking for cheap labor abroad. This might have been acceptable in the past, but, as we move into the present, this structure of production has remained largely unchanged and has become unstable. With competition from similar markets such as China, Mexico has lost valuable revenue that has undeniably contributed to other problems including corruption, the rise of drug cartels, and, as is pertinent to this thesis, lack of innovation due to lack of financial stability in the vast majority of the Mexican population.\

### **Geography and Climate**

Perhaps the most prominent foundational factor in regard to the Yucatan and its relationship to other regions of Mexico is geography. With the Sierra Oriental and Occidental mountain ranges running along Mexico's major coasts in the East and West (See figure 4) it is understandable why Mexico is such a centrally concentrated country.

However, the most jarring realization of understanding the insurmountability of these mountains is that they inhibited nearly all East-West connections. They were the main roadblocks, both literally and figuratively, that kept the Yucatan and other coastal areas isolated well into the 20<sup>th</sup> century. In addition to these geographic difficulties, the unforgiving climate of the peninsula also presented problems for the development of industry.

The development of the Yucatan without the influence of Western Mexico was beneficial to its ability to create its own culture, but the uncontrollable factors were difficult to manage. Being burdened by climactic problems such as hurricanes that devastated the peninsula leaving many Maya without land to grow food, and soil that made agriculture difficult, and isolation that prevented aid in the event of emergency, the peninsula was not a popular destination for people looking to form businesses. Even foreigners as far back as the 1820s and 30s commented on the unfavorable nature of the Yucatan in addition to health concerns given the prevalence of diseased mosquitos.

Following the completion of the railway connection in the 1950s, which, along with other roadways projects, faced “chronic abandonment” (Martínez 119), Yucatan began fixing some of the aforementioned problems and was given a second life as a tourist destination. With its cenotes<sup>1</sup>, caverns, Mayan ruins, and tropical resorts, the state Yucatan became the home of the “Riviera Maya” and allowed tourism to take over as the area’s predominant activity (Martínez 91). This drastic change in industry and marketing position was not just for one state of the peninsula. Quintana Roo, which remained a federal territory until 1974, had an economy that largely consisted of small-scale

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<sup>1</sup> Underground caves created following the collapse of limestone which reveal the now vast underground cave systems

agriculture, ranching, logging, and fishing. Then, with the planned development of Cancun, similar to the United States' creation of Las Vegas, tourism took over as the dominant industry and cemented the tourist economy of the peninsula.

Being able to interact more readily with the Western regions was beneficial in creation of this newfound industry, but still left the peninsula far behind the Central Highlands region of Mexico that had already experienced the benefits of the railway in the form of a tripled internal market. Interestingly, this lag on the benefits of the railways to coastal and separated areas was also seen in the state of Guerrero, known for its lacquer boxes that will be discussed more at length in Chapter 3. In short, following the ability to move their products, the Indians of Guerrero were forced to work on sugar plantations rather than create the art they had, and would again, become known for.

The development of railroad transportation was beneficial for both of these regions economically, but culturally it was another step back towards the ideal that all of the land and resources of Mexico were meant to be used for the benefit of a powerful ruling class while the lower class, consisting of the Maya following the Caste War and the Indians of Guerrero, was meant to be subservient without argument.

Adding to the continuing problems of these remote regions, it is understood that “Urban development is dependent on accessibility to efficient and cost-effective transport, and Mexico has historically displayed that it had not been a beneficiary of that type of access” (Martínez 129). This quote was meant to display the difficulties Mexico as a whole had to face, but Yucatan takes this a step further. In a country that has problems with urban development before accessibility, the isolation of the Yucatan only

further confirms the near impossibility, given the facts of the time, of growing urban centers and increasing economic power throughout the peninsula.

### **Population**

The general population of Mexico has always been diverse and widely dispersed throughout the country. This has allowed for great cultural development, but it has also lead to visible patterns showing how the indigenous populations and members of the lower class have been abused and neglected. Small areas of wealth and poverty linked to location such as the Central Highlands and Southern regions respectively are also evident. Lastly, it has also allowed a large gap between the wealthy and impoverished of Mexico that continues today.

Though the specific neglect of the indigenous population will not be addressed in this chapter, the statistics displaying it are important and stated perfectly by Martínez:

The indigenous population in Mexico has traditionally had the highest levels of deprivation being continually neglected by the government, their relative isolation both physical and culturally created through things such as language barriers. The issue of language reveals itself by showing that in 2000, 85% of people who spoke indigenous languages were living below the poverty line and though this was improved upon in 2010, the percentage of impoverished indigenous language speakers was still 79% (Martínez 57).

These numbers might be less alarming if not for the understanding that many of the people who speak these indigenous languages, as noted by Martínez, have been isolated and are not widely spread out throughout the country. The Yucatan has been a frequent example of this with much of the Mayan population speaking indigenous languages, experiencing discrimination based on old Caste War grudges, and being geographically separated and, therefore, cut off from the dissemination and diffusion of new ideas.



As has been frequently stated, Mexico City and the Central Highlands are central geographically, culturally, economically, and politically with little influence coming from areas outside of this “core”. Mexico city itself has more than 20 million residents and produces nearly 2/5 of the total GDP. Though it would be better for Mexico to be a multi-core state with the nation’s wealth and capabilities being spread among many areas it was simply not gifted with that ability geographically and the dominance of the Central Highlands will likely allow all other regions, including the Yucatan, to remain behind if for no reason more than deviation from their respective industries, such as tourism, being potentially disastrous (Martínez 89).

There is a theme of dominance that is fitting of the upper class in Mexico and is easily visible in the population. Those of Hispanic descent tend to be more wealthy, unlike the already noted indigenous, live in the dominant region of the Central Highlands, and are likely a part of the top 10% of the population that holds more than 40% of Mexico’s wealth. The income distribution data from the years 1950 and 2000 display this even more thoroughly:

In 1950, the top 10 percent of the population received 45.5% of all income while the bottom 20% received only 5.6% of all income. 50 years later, in 2000, the same dominance by the top 10% was easily seen with them receiving 42.7% and the bottom 20% receiving even less at 3.2%. During this time the middle 40 and middle high 30 remained relatively unchanged with slight gain by the middle high with 30 % in 2000 (Martínez 57).

Much like the indigenous populations which have been isolated and neglected, those outside of the top 10% in Mexico have been unable to advance in its current society due to lack of government interest and systematic oppression.

## **External Relations**

Porfirio Diaz has had the quote “Poor Mexico, so far from God so close to the United States.” attributed to him. Regardless of the sayings’ origin, the truth in this phrase cannot be avoided. During the time Porfirio was in power this statement would likely have been in reference to the land loss they suffered, but now it could be attributed to the control of American corporations on Mexican businesses.

During the development of commerce and industry in Mexico much of the machinery they used to begin manufacturing was made in the U.S., consumer goods were both legally and illegally coming into Mexico, and enterprising Americans were involved in the development of Mexico solely for economic gain. An example of this was during the 1800s through 1910 when industries that drew others to Mexico included coal mining and other manual labor. Before and during the transition into a manufacturing economy American businessmen would create ties with Mexican business and abuse their newfound power to increase their profits by decreasing those of their Mexican partners.

In the present day, similar involvement by the U.S can be seen in the entertainment industry. Now that creations of the mind, specifically those subject to intellectual property protection such as coding, music, film, and other entertainment and technology are becoming more valuable and highly regarded, American companies have sought to use Mexico and Mexican minds to create it. Music has been recorded in Mexico, but belongs to companies such as Universal who have a presence in Mexico in an attempt to find talent they can export to larger markets, namely the United States. Rather than a Mexican artist being grown in Mexico, many young artists are exported to the U.S. in hopes they will succeed in the larger market place. Though this can be

beneficial, it is again, American companies using their southern neighbors to have an advantage in the global economy.

Though already grim, this section would not be complete without brief discussion of NAFTA. NAFTA was proposed for many reasons and Mexico, while certainly interested in strengthening their relationship with Canada and the US, was also interested in trying to increase jobs. However, NAFTA and other forms of foreign direct investment, despite the drastic increases in manufacturing they encouraged in Mexico, did not lead to development among the people who needed it most. What began with this rise of manufacturers in Mexico was a sort of rise in economic power without the corresponding international respect. Mexico was praised for its newfound place as one of the most open economies in the world. This title, again while true, gave power to the wrong people and led to no gains for the average Mexican person. In fact, this new place in the world economy harmed many generations to come by cementing Mexico's place as a home to cheap manufacturing and laborers without the political power to change their station. This led not only to the well known problems of Mexico, including corruption and the cartels, but also set a precedent for prioritizing the status quo rather than challenging the structure of production. (Martínez 224)

## **Chapter Two:** **Mayans, Misunderstandings, and Misappropriation**

The Yucatan Peninsula, much like the people who once inhabited it, is often taken at face value as a novelty. The previously mentioned resorts and tourist destinations blind the uninformed person to the travesties that took place on the peninsula including, most notably, the Caste War of 1848. Though many other tragedies such as the loss of Mayan culture and life due to colonialism were also horrible, the Caste War encompasses all the perceived wrongs toward every involved party in the conflict. The war, often blamed for Yucatan's lack of growth economically, has simply been misunderstood with the underlying reasons for the initial conflict being buried by decades of knowledge based on the European perspective.

The general understanding of the Caste War, which has gone largely unchallenged, is that the Maya, the indigenous group native to the Peninsula, were unhappy following the arrival of the Spaniards in their land. After decades of oppression and abuse, the Maya formed militias and began slaughtering any and all Spaniards they could find without restraint. In this version of the story, Spaniards fled in an attempt to save their lives and flooded into Belize or Guatemala. However, this is not the only story of the Caste War. In Rugeley's *Rebellion Now and Forever: Mayas, Hispanics, and Caste War Violence in Yucatan, 1800-1880* calculated violence and a different origin are immediately highlighted.

During the substantial amount of time the Yucatan developed away from the influence of Western Mexico, it was governed by many small groups of people spread throughout the region. This came to be known as Pueblo politics. In this form of governance, those who either had money or familial connection could easily manipulate

anyone who was in power. This bred corruption and was detrimental to all members of the lower class including Maya, Mestizos, and poor Hispanics. As this practice continued more and more *violencias*<sup>2</sup> were observable throughout the peninsula. What is often forgotten is that these groups of people who were committing violent action were often not connected to each other and had different reasons for their actions. It was not until the Caste War that any unity formed among groups.

Some had fought in hopes of being exempt from taxes under a new government, others because their options were fight or be killed, and still others who were influenced by Mayan religious leaders who manipulated their religion in an attempt to rid their land of Hispanics and Mestizos (Rugeley 39, 60). Though this was a clearly complicated beginning to a lasting conflict, the number of different factions involved reveals that the Maya were not the cause of the war nor inherently violent. What drove most of the participants in the *violencias* and subsequent war can be traced back to the Foundational Factors of the peninsula including lack of monetary support from the West, lack of communication with the government, and corruption by those who aspired to the level of those in Western Mexico that they could not hope to match in wealth. Given the long time occupancy of the Yucatan Peninsula and the often-overlooked issue of religion in creation of the tension that led to violence within the region, it is understandable that this history is far less widely known.

With this knowledge of the Caste War being largely ignored, it is not surprising that, given the upheaval of the region caused by what were essentially extremist groups,

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<sup>2</sup> *Violencias* were instances/ times of violent action in a particular place, in this situation against people in power, people seen as oppressors, or people that were detrimental to those who were committing the acts of violence.

the Maya are still looked down upon today in not only the Yucatan, but also in the regions where many Maya fled. The Magaña family in Belize is an example of this, and the patriarch of the family has been open in saying that the use of Mayan culture as a marketing tool by tourism agencies is deplorable when the Mayan people inhabiting the countries that have gained from the tourism are just as neglected as they were during the times preceding the war more than a century ago.

It is clear that, despite continual popular belief, the Maya being blamed for everything from less development to stunting the growth of industry is simply incorrect and does more harm than many realize. Even with this knowledge readily available, inhabitants of Yucatan and the surrounding Belize and Guatemala have long since chosen to deplore Mayas because of the teachings of the Caste War and ousting of their families in the 1800s leading to continuing tension that has impeded potential progress.

This conflict, though not the fault of the Maya, is unfortunately not unique. Though there was far less violence in the region of Guerrero, the indigenous community living in the Southern mountains was known for their creation of lacquer boxes that, to this day, are housed in the Museums of Mexico. However, as was briefly mentioned in Chapter 1, following the regions occupation by Spanish colonists fewer and fewer clans continued with their art. It was not until the years following the Mexican revolution that there was a wave of individuals who wanted to relearn the art form. This was fortunate and unfortunate because at the time that the government was also piloting a program to encourage cultural integration so that there could be a singular Mexican identity rather than many including, if not especially, indigenous cultures. Thankfully this did not discourage those who were rediscovering their craft because “From the 1920s through

today the lacquered boxes and gourds of Olinala have enjoyed a reputation as among the most Mexican of Mexico's arts." Additionally, in 1994 the World Trade Organization granted Mexico a Geographical Indicator (GI), to be discussed in the next chapter, on the name "Olinala" (López 20).

### **Chapter 3:** **Peninsular Property**

With the background now given, the root of this thesis can be addressed. The first chapter displayed how the Yucatan fell behind due to factors outside of their control. The second chapter addressed the Maya, their misplaced role in stunting the growth of the Yucatan, and how the Mexican government has historically treated culture and indigenous artistic pursuits. This chapter will highlight the limited instances of intellectual property creation throughout Mexico and the Yucatan Peninsula.

In Chapter 1 under External Relations, the example of the U.S. using Mexico in a similar way as they did during other times of development was used. The IP filing numbers reveal this to be true. In 2012 there were 191 patent filings that came from Mexico. However, during that same year it was noted that there was significantly more innovation by Mexicans that was not able to be shown through this number of filings because much of their work was either conducted in the United States or created as works for hire while working with American companies. Though this increase in Mexican innovation should seem promising, working and making their creations in America has changed what could potentially be Mexican filings for Mexicans or Mexican corporations and turning them into American filings and property of American corporations. This work, that could greatly benefit Mexico from this creation, becomes the property of The United States and fuels American progress over Mexican progress. This lack of innovation in Mexico, even in the most technologically advanced areas, hurts the regions, like the Yucatan, that have never been parties to the privilege the Central Highlands bring and will remain unable to compete.



Despite this unfortunate reality, the Yucatan has developed some intellectual property in the form of touristic and collective trademarks. The touristic trademarks are the most aligned with the Yucatan due to the large amount of tourism and tourist resorts, which all have trademarks in order to be recognizable amongst competitors in the region. Collective trademarks are slightly different and show the side of the Yucatan that is sometimes ignored: the local population. As defined by Ms. Hendricks, a lawyer in Cancun, a collective trademark “benefits a small group of families (350) but with the rules of use of the [larger brands]” The example she used to illustrate this was the Chakay collective trademark, which was “an association that was created through the alliance of six fisheries organizations, namely: Chinchorro; Punta Allen; Punta Herrero; María Elena; Mahahual, And Xcalak” (Hendricks). The reason these collective trademarks exist is to enhance the ability of formerly smaller companies to compete through the ability, not only to work together, but also to receive brand recognition. According to the same pamphlet, this use of collective trademarks has benefitted “300 families, and more than 50 families of captains, sailors, lobster trap manufacturers, and administrative staff.” This development is a step toward increasing intellectual property production and use, but without more diversification including patents and copyright, as has been done in Mexico City, the Yucatan will remain behind in IP production.

However, despite this lack of diversification in the Yucatan and extensive intellectual property development in general, some progress has been made over the years with Mexico having several Geographical Indicators and appellations of origin including one for habanero chili peppers in the Yucatan. This excerpt from the Symposium on the

International Protection of Geographical Indications lists other names that have become protected internationally for Mexico:

In this connection, Mexican appellations of origin are protected and internationally registered. Tequila has been registered since April 13, 1978, as number 669; Mezcal, since March 9, 1995, as number 731; Talavera since July 17, 1998, as number 883; and Olinalá since March 7, 1995, as number 732. As regards the appellations of origin Café Veracruz, Ámbar de Chiapas and Bacanora, those appellations are already being processed for international registration purposes (Cisneros 3).

These appellations of origin, though not specific to the Yucatan Peninsula, show that Mexico does have experience with intellectual property and, with a push in the right direction, may be able to encourage its production more in the future.

## Conclusion

The growth of regions economically is far more than a question of desire. Foundational Factors outside the control of both countries and regions, greatly affect any area's ability to create industry. The Yucatan Peninsula has been no different. Its challenges in creating an Intellectual Property industry being rooted in the foundations of the country they are a part of and the peninsula's unfortunate lack of support throughout its development and disruption. The misunderstanding of its history further contributes to this problem as many locals and those from surrounding countries still blame the Maya for a conflict they did not create that has a shadow still hanging over the region.

These problems alone should not create an environment unfriendly to the development of IP, but the lack of education surrounding them does. By understanding the factors that have impeded progress, policymakers and informed citizens can begin taking the first steps in addressing them. Understanding that Mexico was not given the best land geographically, that this led to uneven development in the Southeast, that the national economy suffers by remaining export and manufacture heavy, that learning the more unbiased history of the Caste War could begin to lessen the stigma that comes from being Maya, and that innovation is a viable option that could give rise to a more stable economy by Mexicans and for Mexicans is important and largely understated.

More importantly, this applies not only to Mexico or the Yucatan Peninsula, but also to any country, region, or group of people that have had difficulty harnessing intellectual property in order to compete in the global market.

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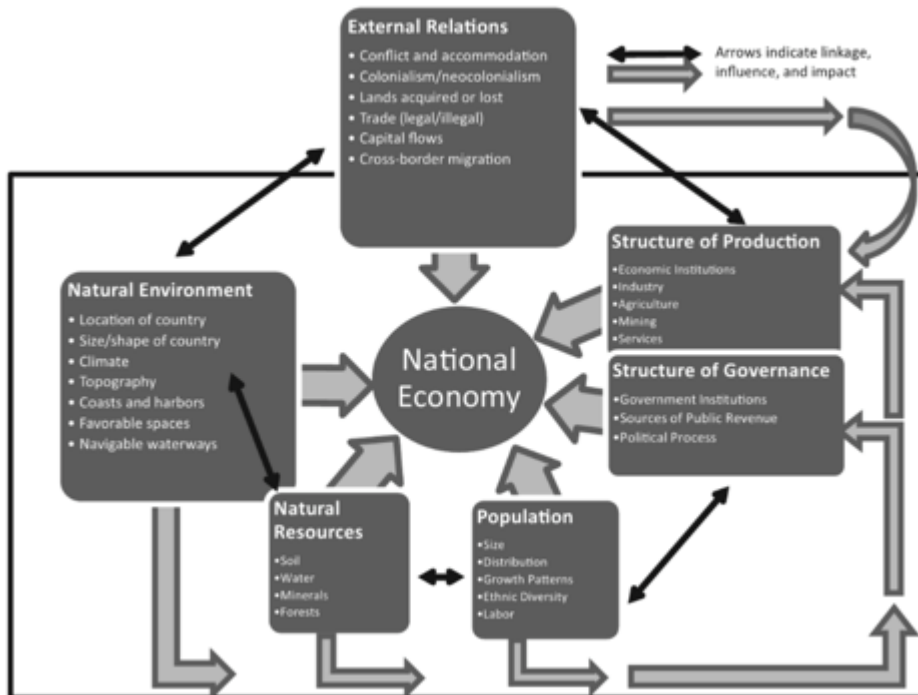
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Figure 1



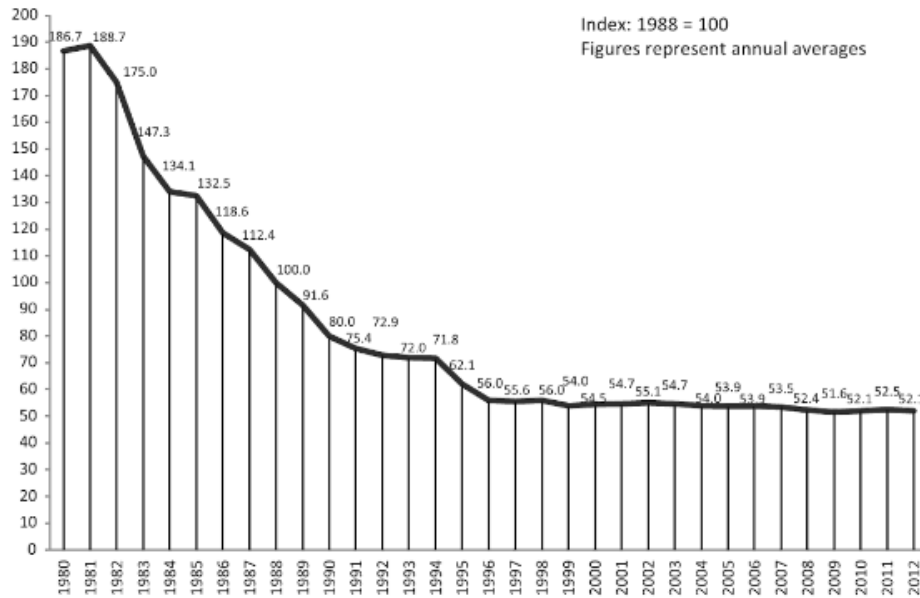
Current Political Map of Mexico; Source: Martínez (80)

Figure 2



Martínez's Foundational Factors of National Economies Model; Source: Martínez (6)

Figure 3



Evolution of Mexico's Real Minimum Salary 1980- 2012; Source: Comisión

Nacional De Los Salarios Mínimos

Figure 4



Topography of Mexico; Source: Martínez (85)