An Analysis of the Competitive Advantages and Threats for Micro, Small & Medium-sized Businesses (MSMEs) in Mexico

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An analysis of the competitive advantages and threats for Micro, Small & Medium-sized businesses (MSMEs) in Mexico.

By

Jose Pool Sierra

An undergraduate honors thesis submitted in partial fulfillment of the requirements for the degree of Bachelor of Arts in University Honors and Business Administration, Supply and Logistics Business Administration, Management and Leadership

Thesis adviser Scott DuHadway

Portland State University 2020
Table of Contents

Introduction............................................................................................................................................. 3
Literature Review ........................................................................................................................................ 4
  Micro, Small and Medium-sized Businesses in Mexico............................................................................. 4
  Figure 1. MSMEs in Mexico by the number of employees required.............................................................. 5
    Figure 2. The population of MSMEs in Mexico....................................................................................... 6
    Figure 3. Population of MSMEs by the industry of operation in Mexico.................................................... 6
    Figure 4. MSMEs Classification by revenue generated............................................................................. 7
Characteristics of Medium & Small and Micro-sized Businesses.......................................................... 7
  Figure 5. The relationship between Organizational Size and the Number of Hierarchical levels.............. 8
  Figure 6. Life Expectancy of an MSMEs in Mexico. Source: Merca 2.0................................................... 12
Current Threats for Small Businesses in Mexico.................................................................................. 13
  Internal Factors......................................................................................................................................... 13
  External Factors......................................................................................................................................... 14
Multinational Corporations in Mexico.................................................................................................... 17
  Figure 7. Biggest Multinational Corporation from the U.S operating in Mexico............................................ 19
Structure and advantages of a Multinational Corporation....................................................................... 19
  Drawbacks for Multinational Corporations in the Mexican Market that MSMEs can exploit for their advantage............................................................................................................................. 20
Economies of Scale.................................................................................................................................... 22
  The SCOR model....................................................................................................................................... 23
    Figure 8. (SCOR 12.0 Model by the Supply Chain Council).................................................................... 24
    Figure 9. Definitions and processes of the SCOR model....................................................................... 24
    Figure 10. Strengths, Weaknesses, and Strategies for MSMEs in Mexico.................................................. 27
Application to a Medium Size business in Mexico.............................................................................. 28
  Implementation phases and steps.................................................................................................................. 33
    In the short term...................................................................................................................................... 33
    In the medium term................................................................................................................................. 34
    In the Long Term..................................................................................................................................... 35
Limitations & Constraints....................................................................................................................... 36
Conclusion................................................................................................................................................ 37
References............................................................................................................................................... 38
Introduction

Micro, Small, and Medium-sized businesses have been on the rise during the past decade worldwide. In Mexico, for example, according to the National Institute of Statistics and Geography (INEGI, 2018), there were 4.1 million MSMEs currently operating across the 32 states of the country, based in different industries, such as manufacturing, commerce, retail and derived private services. These businesses have a significant impact on the nation’s economy, encompassing more than 52% of the Gross Domestic Product (Gutierrez, 2018) for the fiscal year of 2018 and covering 41.8% of the overall employment rate (Forbes Mexico, 2018). Thus, they are considered the backbone for the nation's economy. Nevertheless, these types of businesses are vulnerable to many environmental factors, risks, and disruptions in the marketplace. Such as the absence of infrastructure, lack of defined operational strategies in supply chain management, good managerial practices, high competitiveness, and the entry or presence of multinational corporations within the local economy.

Supply Chain Management (SCM), is defined as the broad range of activities required to plan, control and execute a product’s flow from materials to production to distribution in the most competitive option (Rouse, 2019). Supply chain knowledge is crucial for these types of businesses to succeed, but also good managerial practices, defined as the sets of general methods used by firms to achieve better results (Brito and Sauan, 2016).

This thesis focuses on strategic decision making for (MSMEs) based in the Supply Chain Operations Reference model by contemplating six fundamental blocks in the Supply Chain, such as Planning, Making, Sourcing, Delivering, and Returning and Enabling. Likewise, to make such businesses more competitive and thriving in the long run, there is a focus on good
managerial practices as well. Therefore, the combination of supply chain and good managerial practices can, in turn, help MSMEs to develop strategic decisions based on their current strengths and weaknesses. Correspondingly such strategies would assist these businesses to mitigate and avoid the potential obstacles that force them to perish.

The first section focuses on the literature review that analyzes the characteristics and attributes of a Micro, Small and Medium-sized Businesses in Mexico, their current threats and risks in the marketplace and the reasons and why supply chain strategies are essential for them. Subsequently, there is the discussion of topics, concepts that apply to MSMEs such as the SCOR model (Supply Chain Operations Reference Model), the adaptation of this framework into a medium-sized business in Mexico, and the good managerial policies and procedures they could follow in order to stay competitive.

**Literature Review**

**Micro, Small and Medium-sized Businesses in Mexico**

To understand the structure of MSMEs (Micro Small and Medium-sized Businesses), it is crucial to define them first. These businesses are called MIPYMES (*Micro, Pequeñas y Medianas Empresas*), or MSMEs in the United States, each country and nation treats and categorizes them differently, and there is not an international standard definition for them. However, in this thesis, the interpretation of these types of businesses comes from official Mexican agencies and departments. Furthermore, for the Mexican economy in order to be considered as a MSMEs, according to the National Institute of Statistics and Geography (*Instituto Nacional de Estadística y Geografía*, INEGI, (2018), there are several characteristics
that an organization should have in order to receive this distinction. This is based on the industry it’s operating, the size of its employees, and the number of sales per year. They are privately-owned organizations, created to be profitable, whose overall purpose is to focus on the production, transformation, and provision of services that satisfy the needs and desires of a customer. (*Secretaría de Economía, 2010*)

Every business employs and provides work for various sectors of the Mexican society, as seen in Figure 1, the number of workers required fluctuates in each industry. But in general, a micro-business would have from 0 to 10 employees, a small business would be considered to have from 11 up to 50 employees, and medium-sized businesses from 51 up to 250 workers. The manufacturing sector is the one with the most workers needed or demanded.

**Figure 1 MSMEs in Mexico by the number of employees required**

<table>
<thead>
<tr>
<th>Size of the Business</th>
<th>Commerce</th>
<th>Services</th>
<th>Manufacturing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Large</td>
<td>101+</td>
<td>101+</td>
<td>251+</td>
</tr>
<tr>
<td>Medium</td>
<td>31 up to 100</td>
<td>51 up to 100</td>
<td>51 up to 250</td>
</tr>
<tr>
<td>Small</td>
<td>11 up to 30</td>
<td>11 up to 50</td>
<td>11 up to 50</td>
</tr>
<tr>
<td>Micro</td>
<td>0 up to 10</td>
<td>0 up to 10</td>
<td>0 up to 10</td>
</tr>
</tbody>
</table>

In 2018 according to INEGI, as seen in Figure 2, there were approximately 111,958 Small and Medium-Sized corporations in Mexico, representing 2.7% of the research, while 97.3% were considered as micro-businesses. As mentioned before, these businesses operate in various sectors of the economy, such as Manufacturing, Commerce, and Services, an example of the distribution for each industry, can be seen in Figure 3. However, this does not include the total distribution of all MSMEs in Mexico.
As noted in some of the previous figures, the service industry has the biggest concentration of small and medium-sized businesses and occupies the first place among the other classifications, with 8,751 operating businesses across the country. The commerce sector is in the second range, with 5,349 businesses units, and the manufacturing sector in third place with 4,786 businesses. In terms of Microbusinesses, the concentration of businesses operating in Mexico changes a little bit. The commerce sector took the lead with 1,961 businesses, then services with 938 and in the third place the manufacturing micro-businesses with 403 operating units.
MSMEs have also been categorized based on the total revenue generated within a fiscal year; they have also been identified into three financial groups, as seen in Figure 4. This showcases the average revenue amounts that these businesses generate.

**Figure 4. MSMEs Classification by revenue generated**

<table>
<thead>
<tr>
<th>Stratus</th>
<th>Range (thousands of pesos)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Large</td>
</tr>
<tr>
<td>1</td>
<td>&gt;650 000</td>
</tr>
<tr>
<td>2</td>
<td>200 001 - 650 000</td>
</tr>
<tr>
<td>3</td>
<td>0 - 200 000</td>
</tr>
</tbody>
</table>

**Characteristics of Medium & Small and Micro-sized Businesses**

The structure and the aspects of a business, whether they are MSMEs or large corporations, can be examined by distinguishing their organizational structure design.

An organization that has a few levels in its hierarchy relative to its size, it’s considered a flat organization, while a tall organization is the opposite, considered to have many hierarchy levels relative to its size (Gareth, 2013).

As seen in Figure 5, an organization structure can also be identified based on the number of workers or employees currently operating within a business. The greater or lesser the number of workers required, the taller or flatter the organization will be. Therefore, when an organization has more than 1000 workers, its more likely to have 4 levels in its hierarchy, when an organization has reached 3000 thousand workers, it would likely have seven layers and thus consider a tall organization. (Gareth, 2013, pg 145).
Figure 5 The relationship between Organizational Size and the Number of Hierarchical levels

![Graph showing the relationship between organizational size and the number of hierarchical levels.]

Source (Gareth, 2013)

Being this said, based on Figure 1. Mexican MSMEs don’t require a lot of workers and employees in order to operate their businesses; they tend to have a flat organization for which the chain of command is defined by just a few proprietors due to nature and the cultural entrepreneurship context. As mentioned previously, MSMEs that require a higher number of workers belong to the manufacturing sector, with approximately 250 workers. From this chart, we can infer that Micro, Medium, and Small-sized businesses in Mexico may have from 0-2 hierarchical levels in their organizations. Nevertheless, MSMEs managers or owners in Mexico may not know how many levels there are in their organizational structure, and in some instances, they lack the proper organizational structure pertinent to their value creation activities (Soto, 2011).
Rather than focusing on an Organizational structure Aguilar (2013) mentions that business owners tend to rely more on their Entrepreneurial Orientation (EO) to evaluate their performance. People running these businesses tend to become entrepreneurs just by the fact that they are taking risks in order to start and develop a new business idea. However, Mexican entrepreneurs in charge of running these MSMEs, lack the professional administration skills, in-depth knowledge in order to develop a proper business plan and thus begin their entrepreneurship journey without proper strategies. (Sanchez et al., 2017) So it becomes hard to grow and expand operations if such knowledge and information are not considered.

Nevertheless, these are not the only circumstances to consider, aside from a proper plan and strategy, management and leadership styles are also essential for running a business, according to the research-based on Silva, (2017a) most managers in MSMEs tend to have an autocratic, paternalistic, coercive and authoritarian leadership styles, due to the relationship of culture and context. Therefore, most of these businesses tend to share similar characteristics, due that they are “family and traditionally owned, which is also the distinction of their leadership model” (Silva, 2017b).

In other words, these types of businesses are managed by just a few owners and small group of people (Zaridis and Mousilios, 2014), in most of the cases, business stays among family members, and there are fewer stakeholders involved, a key element of this type of administration is that the “power is concentrated on the hands of a person who is considered as the one that knows best” (Luenendonk, 2016.) Which are the business founders and the ones that started with the entrepreneurship idea.
As Baptiste, (2009) mentioned, a less complex organizational structure such as in these types of businesses, the owners are more likely to supervise their operations directly. Such as hiring staff or employees, making sure they get the financial funding to operate, submit purchase orders to their suppliers, and other related activities for their business. Thus, the business's success or failure is ultimately decided or caused by the owner.

As seen in previous Figure 1, some MSMEs don’t require a lot of workers; this is the case for Microbusinesses in general; owners carry out most of the business activities since they don’t have a big workforce at their disposal to delegate task and their overall business strategy is completely bonded with the owners personal objectives (Aguirre and Armenta, 2012)

But in terms of small & medium enterprises, this may change because more workers and individuals are needed since the operations activities of these specific enterprises are greater and more demanding. But it seems that medium-sized business owners also rely on their intrinsic knowledge, personal capabilities, and relying on their family-owned leadership styles. Being this said, the chain of command is structured from top to bottom of the hierarchy. Therefore owners have the final decisions, in the activities that are carried out within their businesses, similarly to the patriarch type of leadership (Gutterman, 2012)

Nevertheless, this management style may have some negative outcomes for businesses, due to the lack of a proper hierarchy, according to Flores, (2014) the structure and organization of MSMEs in Mexico are inclined to have deficiencies in their corporate
governance, planning and even in financing. Therefore, the lack of structure and proper business prompts businesses to take decisions that are not appropriate

Micro, Medium, and Small-sized businesses are important for the Mexican economy just as Freyre (2012) mentions, they should participate in sustainable growth and development opportunities that help the local economy to generate value and wealth. So, these businesses must keep operating in order to provide job opportunities and support the Mexican economy.

Nevertheless, many MSMEs in Mexico face several threats that force them to go out of business and thus perish. According to INEGI (2018), the average lifespan of a business of this type in Mexico is about 7.8 to 8 years. In 2015, the survival expectancy was about seven years (Mora, 2018).

In terms of who is leading MSMEs in Mexico, about 31% are managed by Women while the 69% by Mne, at least 45% of MSMEs have been active roughly for about 12 years, and 75% of businesses that fall under this category are family businesses (Grupo Financiero Base, 2019)

But as seen in Figure 6, as the years pass on, MSMEs in Mexico tend to fail and, in consequence, shut down. Nevertheless, many MSMEs lack the knowledge and information about developing an organizational structure for their organizations. Founders and owners have not focused on designing a proper hierarchy and a strategic model of governance. (Tovar, 2011). Without a proper structure, a business cannot advance and become successful, just as Yen and Tian (2012) argue, that in order to achieve growth goals in an organization, it is important to create inner orders and relationships among organizational parts that can create a proper organizational structure. Therefore, when all organizational parts are established together with
relations and mechanisms of their coordination, proper functioning of any organization can be ensured. In other words, it is crucial and important for MSMEs to design and defined their organizational structure to survive.

Figure 6. Life Expectancy of an MSMEs in Mexico. Source: Merca 2.0

While analyzing Figure 6 again, it’s visible that just after the first year of operations 32% of the businesses die or shut down, after the second year of operations the amount of deaths or shutdowns doubles to 64% and by the tenth year the number increases to almost 80%. So it is alarming to see how entrepreneurs attempt to start their own business; however, they don’t succeed in the long run. There are many factors associated with failure, but according to Atristain, (2016), such factors are linked to the importance of designing and implementing strategies that fit their core business and be able to rapidly adapt to change. If companies want to gain a competitive advantage, they will have to examine their current threats, weaknesses, and strengths and thus develop a strategy to mitigate such risks and avoid future failure.
Current Threats for Small Businesses in Mexico

MSMEs in Mexico face similar challenges as other similar types of businesses around the world, most of them are based on the type of Business Environment (BE) they are currently operating. These challenges may arise from these specific forces. According to Mukhtar and Mahmood (2014), BE is the set of set guidelines to conduct business, that impacts either positively or negatively the outcome of markets, flow of investments, factor productivity, and the costs associated of doing business, these can either be from internal or external environmental forces.

The ability to manage the environment and such forces are detrimental for the success or failure of all businesses in general, and MSMEs are not the exceptions. They also face challenges that are derived from such internal and external forces.

In this portion of the thesis, there are considerations of such factors and the major obstacles that impede these businesses to thrive in the long run.

Internal Factors

Internal forces are associated with managing a business, such as the nature of entrepreneurship, structure of the organization, strategies developed, and the relationship patterns when an MSMEs faces challenges (Herri and Azizi, 2017). In Mexico, according to Palomo (2005) MSMEs lack planning, proper administration, and organization, deficiencies in operations and production are the major internal forces that such type of business face. Aside from this, access to financial resources& the lack of leadership from owners can also become detrimental forces within MSMEs in Mexico (Aguirre and Armentra, 2012).
Therefore, internal forces are basically associated with managing the businesses and the decisions that are taken by those in charge on a daily basis. If managers are not able to develop strategies based on their internal decision making, it's more likely that such business won’t create value for its customers, but on the contrary, if businesses have the knowledge of management techniques, they would be able to avoid such drawbacks and obstacles. Nevertheless, 88% of businesses are managed without professional help, and 43% of entrepreneurs don’t have an education higher than high school, which means business owners are basically making decisions without a proper strategy. They rather rely on their intrinsic knowledge for business management practices. Thus they make decisions without knowing there is a whole concept or good managerial practices that could have a better impact on their organizations. So it is important for business owners to seek professional advice, such as in consulting firms and derived services. This will ensure the development of proper strategic actions that could push their organizations at a strong competitive edge.

**External Factors**

On the other hand, external forces have a strong influence as well; these are considered as factors that are outside the company’s control, such as the uncertainty and the business environment. Changes in government policy, macroeconomic trends, change of societal trends, technological changes, and social change of culture (Herri and Azizi, 2017). Such factors can have an enormous and direct positive or negative influence on the MSMEs' growth. (Dananjaya and Kuswanto, 2015).

Recently Mexico has suffered from high levels of violence and insecurity that has cost the country USD $268 billion only in 2018 (Institute for Economics and Peace, 2018).
is mainly due, that business exchanges are disrupted, transactions are discouraged, and people
and businesses are shuttered. This can be considered as an external environmental factor that
directly affects all businesses, even large enterprises such as the multinationals; therefore,
MSMEs are not exempt either. They are the first organizations that struggle, due that business
owners are fearful of the potential drawbacks of the high violence rates and other related
aspects. According to the *National Survey on Productivity and Competitiveness of Micro, Small
and Medium Enterprises* (ENAPROCE) 2018. Business owners prefer not to grow and scale
due to the extorsion and high levels of violence and insecurity the country is facing. In some
circumstances, such external forces are away from the proprietor's control and thus need to
collaborate with authorities to better advance their operations. A current example of this is the
current robbery of cargo trucks and the kidnap of vehicles full of merchandise from the most
transited Mexican highways, according to Reuters (2018), this kind of robbery doubled in the
past years to approximately 2,944, pointing out that the situation is getting really hard and
dangerous for companies. Even for MSMEs, because the financial impacts would be
devastating for them, especially if they rely on such merchandise or product to keep operating.

Another external force that could be considered is globalization, and although all the
benefits globalization brings to developing countries like Mexico, there are also some negative
impacts for Medium, Small & Micro-sized businesses competing in the marketplace. It is clear
that regardless of the efforts of many policymakers to create a base for MSME to participate in
the economy, new paths are needed in order to allow MSMEs to join certain activities in niches
such as in Supply Chain Activities (Mundin et al., 2000) MSMEs don’t have access or the
proper knowledge to access foreign markets and therefore can’t not leverage as much from their
potential advantages compared to large organizations, that have the knowledge and the infrastructure to internationalize their activities (Calof and Beamish, 1995) In other words, some business owners may not have the capacity of proper instruction to either import or export their products. If they had access to these activities, they would be better off and thus increase their competitive advantages.

On the other hand, many MSMEs face threats from Multinational Corporations (MNC), according to Nida and Muhammad (2019). These types of corporations pose a serious threat to the local companies of the host country, by intensifying the competition for them since MSMEs in developing countries are vulnerable and thus can’t compete with these giants.

There has been an accelerated growth worldwide for multinational corporations in developing countries (Ferdausy, 2009) and Mexico is not the exception, due to globalization and new trade agreements, such as the USMCA (US- Mexico and Canada treaty, previously known as NAFTA-North America Trade Agreement) the access of multinational corporations to the Mexican market has increased during the past decades, such treaty has allowed multinationals to expand their operations to Mexico and their ability to internalize portions of their value-added chains (Rugman and Gestrin, 1993) in order to generate more value for their organizations.

It is important to mention that these well-established corporations already have a powerful infrastructure and the ability to impact and use the economies of scale for their advantage, offering products and services at a much lowered price, something they define as cost leadership strategy (Nida and Muhammad, 2019). Also, their business model has proven to work in their country of origin. Due to such factors, it is hard for MSMEs in Mexico to
compete with these well-established corporations, pushing local business owners and entrepreneurs to shut down their operations and close their doors permanently.

Once again, these MSMEs fail to develop strategies that could be of great importance for their survival, such as in their Supply Chains, General Management, and the use of proper managerial knowledge in order to compete with such MNCs. When compared to the Multinationals, such businesses lack the preparation and the expertise of a well-established infrastructure. Therefore, they don’t have the same impact on economies of scale, buying in bulk, and leveraging on price. But rather, use their economies of scope as a potential competitive advantage.

Therefore, in order to mitigate such risks and drawbacks further in the thesis, there are recommendations based on the SCOR model (Supply Chain Operations Reference Model) as a potential competitive tool these businesses could use. Due to the nature of MSMEs, the SCOR based model would be unknown for them, but once implemented, it would allow such businesses to leverage more from the current advantages they have as opposed to the multinational corporations that also have drawbacks and potential risks.

**Multinational Corporations in Mexico**

Globalization has made it possible for Multinational Corporations of enterprises to penetrate foreign markets, especially those in the developing world since Mexico started softening its regulations towards foreign investments and opened a clear path of regulation for these transnationals.

But first, it’s important to define a Multinational Corporation is commonly considered as an enterprise that controls and manages assets in at least two countries (Ferdausy, Rahman, 2009). In other words, these are businesses and corporations that operate...
in other markets aside from their own, and they are considered as direct foreign investment. A Multinational corporation, according to (Khabarova, 2018) seeks to penetrate in foreign markets in order to “gain benefit from the resources and labor costs considering the host country economy as an important strategic element of the company’s market share.” Multinational corporations tend to “replicate and transfer their current practices from one country to another” (Kogut 2003). Since their Business model has proved to be effective in their domestic markets, MNCs seek further expansion in order to maximize their revenue and return on investment for their stakeholders.

There is no doubt, Mexico has turned out to be attractive for foreign firms due to its proximity to the U.S. According to the World Bank (2018), Mexico captured 31.6 billion USD in Foreign direct investment inflows.

Another, an indicator of the aggressive entry of MNCs is based on El Consejo Ejecutivo de Empresas Globales (The Executive Council of Global Companies, CEEG) there are approximately 42 multinational companies present in Mexico, representing 10% of Mexico’s GDP (Pallares, 2015). As seen in Figure 7. Some of the MNC from the U.S present in Mexico are: “Walmart de Mexico & CentroAmerica,” General Motors, Fiat Chrysler, Citigroup Banamex, Dow, Dupont, Mondelez International Mexico, Mars Mexico, Pfizer Mexico, 3M Mexico, etc.
Structure and advantages of a Multinational Corporation

According to Khanna et al., (2005), Successful companies develop strategies for doing business in emerging markets. In other words, when an MNC decides to enter an emerging market like Mexico or any other market aside from their own, they have a clear structure, plan, and strategy prior to carrying out their investment. Thus, this becomes a competitive advantage for them, because executives from multinational companies are used to operating in countries with well-developed institutional infrastructures and equipped to deal with any potential issue or contingencies (Khanna & G. Palepu, 2006).
Gareth (2013) mentions that firms attempt to follow a strategy based on their needs and business models such as a 1) a multidomestic strategy, 2) an international strategy 3) a global strategy and 4) a transnational strategy. Thus, coordination and integrations of global activities are needed once a corporation moves from domestic to global operations. In terms of structure models, MNCs try to use international division structure, area division structure, product division structure and global matrix structure (Alam, et al., 2016). Therefore, MNs develop their strategy based on their core competencies and the type of service they provide, but there is no doubt they have the knowledge, capacities, and structure to penetrate new foreign markets. There are essential elements managers within such corporations consider in advance in the decision-making process, such as the business strategy, entry modes, threats, and opportunities in the markets. (Yee and Yazdanifard, 2012).

Since their main objective is growth, MNCs need to make sure to yield a better return of investment for their stake and shareholders and don’t fail in the process. Thus they won't limit themselves in knowing all the facts and developing a proper business plan in order to succeed in a new market. Therefore if they see the business opportunity is viable, they will more likely go for it, but if high-level executives figure that there are too many risks in entering into a developing country, its likely to happen the opposite and thus avoid such investment.

**Drawbacks for Multinational Corporations in the Mexican Market that MSMEs can exploit for their advantage**

Many multinational corporations face the issue of establishing themselves in emerging markets. Despite their clear and well established organizational culture and design. It is really hard for all these companies to have the most accurate and reliable information for the market they are attempting to penetrate, since domestic representatives, that is the host country
authorities, will only portray the positive and the potential advantages and thus hide the negative aspects, just to appeal to more MN into the market. (Yee and Yazdanifard, 2012). Therefore, if MNCs don’t have the best information it would be harder to make quick and rapid decisions. This would become an opportunity for local and domestic businesses, since they would be more aware of the business environment and thus be able to react at a more rapid way to issues they may face.

There are cultural and adaptation barriers related to political and situational uncertainty in the market. Multinational businesses, as mentioned before, may have a well-defined organizational structure and precise operations. However, they may lose track of their overall purpose, and it is known that many MNCs seek emerging markets to generate more growth and profits for their stakeholders and shareholders. However, in the process of doing so, they may lose their competitive advantages, such as providing high-quality products and services by focusing heavily on economies of scale, buying in bulk and selling it for cheaper. One clear example of this is Walmart that pursued the so called “Every Day Low Price” to all parts of the world, including Mexico (Yee and Yazdanifard, 2012).

Therefore this may have counterproductive outcomes, such as that those products won’t satisfy the quality standards desired by the customers.

Also, Multinational corporations may develop the belief that their existing domestic models, let's say the ones established in the United States, would work similarly in emerging markets such as the one in Mexico. When the culture and traditions are way different, therefore MNCs may wrongly believe that their businesses would work just by the fact they are already proven to work in their home countries. Furthermore, MSMEs could leverage these drawbacks, by providing higher customer service for their clients and making sure they are getting the best...
products and services. Also by heavily focusing on their economies of scope, MSMEs could master and improve the products and services they are offering in the market and thus differentiate themselves from their competitors by extending their uniqueness to a variety of product ranges at their disposal.

**Economies of Scope**

Economies of scope are a strategy with the objective to obtain “cost savings that result when an organization is able to use underutilized resources more effectively” (Gareth 2013) due that they can be shared among different products or tasks. The economies of scope can also be considered as a supply chain strategy since economies of scope influence the variety decision through the various cost (Xiao et al., 2015). In other words, by using economies of scope, there is a potential competitive advantage for firms and their supply chains, due that this involves lower average costs and more profit creating by increasing sales, in a new, related market (Pettinger, 2017)

**Economies of Scale**

According to (Gareth, 2013) Economies of scale are defined as “cost savings that result when goods and services are produced in large volume on automated production lines.” Multinational corporations use this strategy to reduce their transaction costs and thus maximize their profits, by doing so, they also are able to provide cheaper or low-cost goods and services for their customers. People living in undeveloped countries, like Mexico, are constrained by the price of products and services due to their lower purchasing power. Thus they seek to find
products that are under their budgets; this is why, according to Nida and Muhammad (2019), Multinational capture most of the market share from the hosting country by using the economies of scale but at the expense of hurting other businesses in the process.

MNC leverage this tool, and they gain a competitive advantage in their Supply Chains. According to Van Buren (2019). Businesses that use economies of scale are benefited from specialization, administration, technical, purchasing, and buying services. The use of economies of scale in bigger corporations has a negative impact on Small and Medium-sized businesses and creates another barrier for them to compete

**The SCOR model**

The SCOR model is known as the Supply Chain Operations Reference model, defined and developed by the Supply Chain Council in 1996, it has gone through improvements and enhancements over time, and the most recent update was launched in 2017. Such a model has gained a lot of popularity in the industry as well as in research (Essakly et al., 2019). SCOR is currently the principal supply chain framework, combining business processes, performance metrics, practices, and people skills into a unified structure (APICS, 2017). The main purpose is to create better supply chains and to improve decision making.

The SCOR model, according to Ntabe et al., (2014), allows users to understand the processes involved in a business organization and to identify the vital features that lead to customer satisfaction. The formal structure of the framework can be seen in Figure 8.
It is organized into six major components, such as (Plan, Source, Make, Deliver, Return, and Enhance), and additionally, it is subdivided into process categories, elements, tasks, and abilities. (Ntabe et al., 2014). See Figure 9 for a detailed definition of each process within the framework.

**Figure 9. Definitions and processes of the SCOR model.**

<table>
<thead>
<tr>
<th>Component</th>
<th>Process</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plan</td>
<td>Determining resources, requirements and establishing the supply chain requirements</td>
</tr>
<tr>
<td>Source</td>
<td>Obtaining goods and services to meet the planned or actual market demand.</td>
</tr>
<tr>
<td>Make</td>
<td>Production activities and the processes that relate to accomplishing finished products in order to make them market-ready.</td>
</tr>
<tr>
<td>SCOR Model</td>
<td>Description</td>
</tr>
<tr>
<td>------------</td>
<td>-------------</td>
</tr>
<tr>
<td><strong>Production</strong></td>
<td>Production, networks and managing equipment and facilities.</td>
</tr>
<tr>
<td><strong>Deliver</strong></td>
<td>Delivering the finished products and services to meet customer demand. This includes logistics, transportation and distribution management within the supply chain.</td>
</tr>
<tr>
<td><strong>Return</strong></td>
<td>Activities linked to returning or receiving products &amp; raw materials from customers or suppliers.</td>
</tr>
<tr>
<td><strong>Enable</strong></td>
<td>Activities associated with gathering Business Rule requirements, facilities performance, data resources, contracts, compliance and risk management.</td>
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In terms of applicability, the SCOR model has proved to work in businesses located in developed nations; they have implemented the model successfully with its building blocks (Georgise et al., 2012). Therefore it is not wrong to say that the integration of this framework has helped multinational corporations to improve their supply chains and make strategic decisions in various operational aspects of a company by assessing the relationships from the supplier to satisfying a customer’s needs.

Georgise et al., (2012) also mentions that practices of this kind currently in operation in businesses situated in developed countries can undoubtedly be similarly of great benefit to
organizations in developing countries. Furthermore, the SCOR model was developed in order to be suitable for any size operation (Malapit, 2018). Thus small and medium-sized businesses in Mexico can also leverage from this tool and gain a competitive advantage and strengthen their Supply Chains. Managers in charge of these SME can expect to use the SCOR framework to diagnose their supply chain functions and strategically plan improvements for weak areas (Thakkar et al., 2009). Therefore, it could be used as a performance metric and make continuous improvement.

Since Mexico belongs to the USMCA Free trade agreement, businesses in Mexico have to maintain or start relationships with U.S corporations, which are based on a developed world. Thus, it is important for Mexican corporations to have a well and clearly defined strategy similar to businesses that are following this strategy.

The SCOR model is intended to help Mexican firms considered as Medium and Small-sized businesses to improve their Supply Chain Operations, as mentioned previously in the first sections of this thesis, many companies in Mexico fail to survive the first year of operations. Supply Chain strategic management can have a greater impact on these types of businesses if they are successfully integrated.

According to a research from Garcia and Giachetti (2010) of using experts to develop a supply chain maturity model in Mexico, authors allowed a group of Mexican professionals to integrate supply chain strategies and models, such as the SCOR framework, and they point out that such experts could accurately assess an actual enterprise and thus make recommendations based on such tools, they also conducted the application of the frameworks in local firms and thus indicated that their study could work in an actual industry and thus make improvements for their decision making. Therefore, it is viable for micro, small, and medium-
sized businesses in Mexico to adapt their operations and develop a strategy in terms of Plan, Source, Make, Deliver, Return, and Enable. (See Figure 10)

**Figure 10. Strengths, Weaknesses, and Strategies for MSMEs in Mexico**

| Framework analysis to gain competitive advantages for MSMEs in Mexico |
|---|---|---|
| **SCOR model** | **Strengths** | **Weaknesses** | **Strategy** |
| **Plan** | • Economies of scope  
• Strong customer service  
• Flexibility  
• Adaptability  
• Faster decision making  
• Strong Inventory management | • Lack of clear and defined organizational structure, operations and supply chain procedures.  
• Deficiencies in operations and production.  
• Inadequacy leadership styles from owners. | • Define a clear organizational structure  
• Define a clear chain of command and span of control.  
• Improve techniques in Supply Chain and Management and Leadership |
| **Source** | • Access to local & domestic markets  
• Provide high quality products and services. | • Absence of strong supplier relationships.  
• Single and Sole Source Procurement  
• Only have a few suppliers and vendors | • Create Supplier Relationships,  
• Add more suppliers to the business network  
• Leverage more from economies of scope  
• Use Economies of scale in sections of the supply chain that don't compromise quality and core competences for the corporation. |
| **Make** | • Customized supply chain products & services  
• Lack of economies of scale  
• Higher transaction & operating costs  
• Access to global or foreign markets or internationalization  
• Lack of financial resources | | • Produce high quality products  
• Target customers that want customized products and services  
• Improve packaging services aligned with brand and company’s |
| **Deliver** | • Faster distribution and logistics  
• Not clear and defined Supply Chain Distribution channels  
• Not massive distribution fleet or transportation vehicles | | • Develop a strategy for Logistics Management and reduce costs of transportation without compromising the delivery of products  
• Define the Supply Chain Distribution Channel that fits the business core competences. |
The framework describes the strengths, weaknesses that most Small and Medium-sized businesses in Mexico have. It is worth to mention the characteristics among companies are different, but there is a generalization from all the situations they face. For instance, in the weaknesses section, there is an analysis of the general drawbacks and issues that most of these businesses face, such as the lack a clear organizational design and proper business strategy, sole source procurement, poor access to economies of scale, risk mitigation strategies in case there is a disruption, etc. Therefore, the culmination of these problems results in poor decision making and failure overall.

However, based on the six main characteristics of the SCOR model for Micro, Medium and small-sized businesses in Mexico can develop a new competitive advantage that would allow them to be more competitive and keep their operations up afloat for a more extended period of time.

### Application to a Medium Size business in Mexico

In this section, there is the potential application of Figure 10 for a Medium size business in Mexico that, for the purpose of this thesis, is called Produce Inc. (in order to gain privacy and anonymity). This firm is located southeast of the Yucatan Peninsula in Mexico. It

<table>
<thead>
<tr>
<th>Return</th>
<th>Enable</th>
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<tbody>
<tr>
<td>• Make sure to have a good return on assets and hold inventory.</td>
<td>• Ability to make faster internal decisions and improvements.</td>
</tr>
<tr>
<td>• Not clearly defined strategy in reversed logistics</td>
<td>• Not defined supply chain management business model or characteristics</td>
</tr>
<tr>
<td>• Develop contracts with suppliers in order to return and reimburse defective products.</td>
<td>• Risk management is nonexistent</td>
</tr>
<tr>
<td></td>
<td>• Leverage the benefits of Information Technology</td>
</tr>
<tr>
<td></td>
<td>• Start using mechanisms that help the corporation to have business rules, performance management data, resource management, facilities management, risk management, etc.</td>
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</table>

- Return
- Make sure to have a good return on assets and hold inventory.
- Not clearly defined strategy in reversed logistics
- Develop contracts with suppliers in order to return and reimburse defective products.
- Enable
- Ability to make faster internal decisions and improvements.
- Decentralized organization makes execution of tasks smoother within the supply chain
- Not defined supply chain management business model or characteristics
- Risk management is nonexistent
- Leverage the benefits of Information Technology
- Start using mechanisms that help the corporation to have business rules, performance management data, resource management, facilities management, risk management, etc.
provides and operates in the commercial sector of the Mexican economy through the retail and wholesale of fruits, vegetables, and groceries (Supermarket). They currently have about 78 employees operating in one brick-and-mortar location, they have been in business for 12 years and is considered a traditionally-family owned company, meaning that is relatively a flat organization, and still has not formally developed an organizational structure.

Their main competitive advantage is providing to its customers the best quality product available in the market. Customers that tend to buy from this store had mentioned that “having fresh and quality products” is the main reason why they prefer them rather than their competitors. They also deliver to all their customers and clients around a 30-mile radius of their headquarters free of charge, but certain purchase amounts are required, their strong customers are hotels, restaurants, and other also customers that come to the physical location. Produce Inc. does not have an online store and does not utilize a lot from information technology and social media platforms for marketing purposes and promote the organization.

Produce Inc. has mentioned that they rely on just a few suppliers while procuring all their products. For the Fruits and Vegetables, they source the majority of produce directly from the biggest Supply Center in Mexico City. But also procure certain products from a few vendors locally. For the groceries section, they also the whole source from a few vendors, even though they have specific vendors for some of their divisions such as deli, beverages and canned prod

Recently they have had logistics and distribution issues from their vendors, due to the current environmental complexity and insecurity situations throughout the country, their cargo truck was stolen full of merchandise and thus delayed for a period of time their ability to deliver their products to its customers, this, in consequence, has impacted sales and their ability to provide its customers with the desired quality product on time and form. Since they lost their
cargo truck, they have decided to outsource their transportation and logistics to other companies in this industry. However, by doing so, they have lost the ability to transport their produce by themselves, and according to Produce Inc, they are currently having a hard time receiving their products on time.

Based on the previous information, *Produce Inc.* could develop a strategy based on the six characteristics of the SCOR model in order to gain more competitive advantages and thus avoid the potential threats and drawbacks they are currently facing.

For *Plan*, Produce Inc. could start by designing their organizational structure, clearly establishing hierarchy levels and integrated mechanism within their business and written defined roles, since it is a traditionally owned business is imperative that the business has a clear organizational design. Once this MSMEs has designed a clear organizational structure, it’s important to develop a Supply Chain Strategy plan that aligns with their core competencies and allows them to create value, therefore *Produce Inc.* would also have to evaluate their current strengths and weaknesses, by exploring and defining them in order to develop this strategy.

Furthermore, once the Plan has been defined, *Source* is the next core characteristic, it’s essential for Produce Inc. to develop and create new supplier relationships since relying on just a few suppliers increases the environmental risks and supply chain disruptions, that can negatively impact the company’s reputation and overall sales. Furthermore, having more suppliers would mean getting competitive prices in the marketplace, and thus Produce Inc. would gain another competitive advantage. *Produce Inc.* could leverage more of its economies of scope by using their current competitive advantages at their disposal, those activities they do best, and excel greatly, such as customer service within their Supply Chain. These competitive advantages are the main reasons why customers and clients decide to purchase the goods and
services from these organizations, as mentioned before the quality of their products makes the difference for them.

Also, *Produce Inc.* could gain a competitive advantage more from economies of scale from some of their merchandise that aren’t perishables (Fruits & Vegetables) and thus get rot in a short period of time, such as packaged groceries and related products. The organization could buy in bulk these products and hold them in a close warehouse. Then the organization would be strategically leveraging from both economies of scope and economies of scale.

In terms of *Make*, the organization could develop a make to stock; this is a traditional production strategy that is used to match levels of inventory with anticipated consumer demand (Segal, 2019) This will give flexibility to the organization while sourcing and procuring their products, and while holding inventory, therefore the would buy in bulk only the product are demanded the most. Since the term makes also refers to managing networks, facilities, and equipment, *Produce Inc.* would benefit from improving its facilities to make them more welcoming and thus more attractive for potential clients and customers. Proper allocation of space and merchandise shelves within the physical store

For *Delivery* purposes, *Produce Inc.* has a current competitive advantage of delivering their products to their customers doors, free of charge, this type of customer service has attracted many new customers, as mentioned before they do it under a 30-mile radius area, it would be interesting to see the *Produce Inc* expand their current services to close cities and gain more potential clients. But before doing this, the company needs to decide whether or not is viable to buy or lease a new fleet of trucks that will allow them to reach out to new locations and it could also be used as a source of marketing because the organization can print a logo and slogan on its trucks and thus publicize the organization. Based on their current logistics and
transportation obstacles, they would do well on looking at other logistic companies that are more formal and trustworthy; this will ensure that the company is more liable and thus comply with the accorded delivery time, in turn, the store would get its merchandise on time and put it on its store shelves for its customers.

Likewise, in terms of receiving their products from its suppliers, the organization should make sure they are getting the best competitive transportation costs while outsourcing this part of their operations and that they are using a proper logistics management strategy considering other forms of transportation such as intermodal or multimodal as well.

For return, this an important aspect for Produce Inc. since its core products sold are perishables; they have to sell this division in a short period of time. Otherwise, it would become a waste. The organization needs to established business rules in terms of returns from either a customer or a supplier. They can pursue this by setting contracts and agreements with suppliers: that if products don’t arrive with the desired quality, they will return, and thus, the associated costs of doing so will be incurred to the supplier. From the consumer level, a gatekeeping and avoidance policy would create less waste and efficient return management. The Organization would define which products enter the return policy. However, the main objective for Produce Inc. is to minimize any return by making sure all customers are getting the best quality products and thus have a proper source strategy.

The last characteristic Enable, Once Produce Inc. has established an overall strategy and defined business model, it is essential that they keep implementing such procedures and thus communicate such business rules with the entire organization. Therefore employees will have a clear idea of the overall objectives of the organization and thus focus their energies and support to make the company grow, thus creating a win-win situation. Aside from this, the
Enable characteristic would evaluate and validate performance across the organization; if the company reduces its weaknesses and uncertainty, it means they have improved. However, if things did not change, it means they have to re-evaluate potential changes and a new course of action for the corporation to thrive.

**Implementation phases and steps.**

To carry out the suggest recommendation Produce Inc could start by developing a stage process. They are indicating the timeline of the changes that they will be implementing. These can be categorized into short, medium- and long-term phases.

**In the short term**

Within a timeline of 1-2 years, Produce Inc could start by identifying the current issues in their decision-making process and potential threats they have identified based on the SCOR framework model. Such as establishing a well-defined hierarchical structure and organizational design culture, where roles and responsibilities are delegated. Once this has been properly defined, it is essential to communicate it with all the employees and stakeholders. It will ensure that decisions are made fast and more efficiently. Therefore, formalization of these rules will allow the company to gain a competitive advantage in terms of structure and professionalism.

Also, it is important that Produce Inc starts developing new relationships with suppliers and vendors. This means creating a new procurement and sourcing strategy by searching and locating new potential vendors that provide what the business needs in order to create value. Once these vendors have been identified Produce Inc would benefit from starting
new business relationships with them and thus reduce supply chain disruptions associated risks and uncertainty for their business.

To stay competitive *Produce Inc* has to start using information technology such as data analytics; this will allow them to have better inventory systems in place, reducing product shortages and a surplus of inventory. The organization would also need to create their website and thus extend their online presence in the region, once establishing an online store they could gain more clients and potentially become pioneers and set standards in the area.

**In the medium term**

Within 2-3 years, *Produce Inc.* Could start distinguishing their brand and image from their competitors in the marketplace. Investing in their infrastructure and brick and mortar store would be essential. They could create more open spaces and proper in-store shelves that would allow them to have to exhibit more merchandise and produce. The supermarket store design would need to be renewed and improved; this would also attract new potential clients.

Once the supermarket store has been re-designed, it is time for the Medium-sized businesses to start thinking in their Transportation and truck fleets, in order to reach out to more customers, they need to identify leasing or buying options with truck manufacturers, our recommendation is adding 2-3 more trucks for their delivery services to its customers. This will allow them to reach to more potential customers and thus improve in their current competitive advantage of delivering their product within the 30-mile radius to potentially a 50 or 60-mile radius. Reaching to more customers would mean higher sales and revenue for the company, so they would be able to grow and expand.

In terms of supplier relationships and sourcing, as recommended previously, if they have already established new connections with vendors, it is important that they strengthen such
relationships. This will ensure that Supply Chain Consolidation and thus allow the company and supplier to better know each other in order to assess needs and diminish the risk of Supply Chain disruptions. For instance, if produce Inc develops a new business relationship with Mexico Avocados Inc. They could make detailed agreements that benefit both parties in the long run (since Produce Inc would be buying from such vendor on a regular basis), which translates into delivery, cost, service, payment, and discount terms, this strategy would allow to the organization to leverage and use economies of scale to reduce their sourcing costs for certain products. Therefore, creating strong ties with their suppliers and vendors would be really important.

**In the Long Term**

Within a timeline of 3-5 years, *Produce Inc* needs to start thinking in expansion and new related opportunities. Such as growing their brick and mortar locations, opening new stores in strategic locations within their city & town. *Produce Inc.* Could locate new potential areas of growth, where are highly transited by potential customers and clients. Since they have already designed an organizational structure, management at headquarters could hire new employees and managers for such stores, and thus supervise them directly. It is crucial to Produce Inc to have formal written rules and operations practices, so the new hired employees and workers are adequately trained and know the primary job and task-related activities.

Furthermore, *Produce Inc* should start a long-term assessment to figure out if they had officially gained competitive advantages based on the implemented strategies. If they have gained such competitive advantages, they have become successful; however, if objectives and goals were not fulfilled, the organization would have to re-evaluate their current weaknesses and use the SCOR model again in order to turn such drawbacks into potential strategies. But If
they made progress in certain areas of their operations, it would be essential to strengthen such strategies and made them as formal rules to follow and enable the corporation for further expansion.

**Limitations & Constraints**

In terms of limitations, the lack of knowledge created in English for this specific topic was a constraint, there are not too many sources and literature review specifically for MSMEs companies in Mexico in the preferred language of English but rather more in the official language of the country, Spanish. Also, the information was limited in terms of analyzing specific types of businesses and the industries they are currently operating. So there is the need for further research and knowledge creation in this regard, explicitly studying more in-depth particular sectors of the MSMEs in Mexico, such as in the service industry and the commerce sector.

Also is important to mention that in some parts of the collected literature review there are generalizations of SMEs in developing countries and their threats they face while operating in such environment, this information applies to Mexican MSMEs since they are also operating in third-world country, of course, these generalizations do not imply all developing countries are alike but rather describe the common threats and issues they have under such circumstances.

It is worth to mention that the author of this thesis, was born and raised in Mexico. Therefore cultural biases personal biases may be another limitation even though the author was aware and conscientious of it all time while developing this thesis by conforming and relying on the collected literature review.
On the other hand, time was also a constraint. There were only about two months and a week in order to develop and finish this thesis; there is still a lot of characteristics and strategies to learn about MSMEs in Mexico, so extensive research would be appropriate in order to fully comprehend more aspects about them.

Conclusion

This research project had the objective of examining the Micro, Small, and Medium-Sized Businesses in Mexico based on their current structure, weaknesses, strengths, and potential competitive advantages they have developed unknowingly. Using the SCOR model as a framework and point of reference in order to identify the possible strategies, such types of businesses could use in order to thrive.

As studied in this thesis, many Micro, Medium and Small-sized businesses in Mexico fail and shut down within a few years of opening, the reasons vary, but according to the research, the reasons for failure point out to the lack of a proper businesses model and well-defined long term strategies by the owners or managers of such companies.

So this thesis recommended insights into how managers and business owners could mitigate the risks, issues, and drawback’s that they may encounter in certain areas of their businesses, such as in Supply Chain Management and Management and Leadership. For this purpose, the SCOR model attempted to assess the current weaknesses and strengths that such businesses currently have. Therefore it's easier for these types of companies to determine their current needs and thus develop a proper strategy. An example of this framework is provided for a small business in Mexico, based on the information provided by managers and owners, a potential strategy was developed and thus bringing potential benefits to the organization for future growth.
References


