FORCES AND WEAKNESSES OF THE MOBILE APP INDUSTRY IN MEXICO

Área de investigación: Entorno de las organizaciones

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Forces and weaknesses of the mobile app industry in Mexico

Abstract

Mexico is the second largest economy in Latin America and through the years has moved up as a driving economy for international mobile app supply. This paper focuses on the drivers and barriers of mobile app developers in Mexico.

On the theoretical side, our research aims to explore the applicability of two current frameworks of industry analysis: Grundy's and Porter´s. The purpose is to test if, by combining them, it is possible to overcome their individual limitations. On the practical side, this research aims to make specific recommendations to policy makers and industry leaders, in Mexico, on how to improve industry's competitiveness.

In this paper, our industry analysis uses Grundy's Strategy Onion (including SWOT), in combination with, Porter's Five Forces framework. Analysis includes economic, technological, political, and social factors, as well as, barriers of entrance and relevant information about customers, suppliers, competition and substitutes. A Systemic Competitiveness revision is present to reinforce argumentation.

Conclusions include the following: When doing an analysis for the Mobile App industry in Mexico, Porter's Five Forces is a useful tool. However, in combination with, Grundy's Strategy Onion, the analysis improves, providing a more detailed picture. In this industry, the barriers of entrance are determined by current governmental aid, and by economic investment. Both are concentrated mainly in the most important cities of Mexico. Developers can clearly benefit if government support increases and expands to other regions, with vocation and talent. Substitutes include other similar mobile apps, of foreign distributors, and available laptop and PC software. Suppliers are the two most popular distributors of mobile apps in Mexico: Apple and Google. Both require a registration fee from developments to enter their respective online stores. This causes a limited bargaining power from developers, when negotiating with their distributors. There is also a relevant loss of power from clients, when trying to communicate with developers. Due to limited communication between the user and developer. In sum, Mexico is a driving economy for mobile app developers, showing a tendency of growing usage. However, if Mexican developers want to compete internationally, they need more support and a better strategy.

Keywords: Industry analysis, Mexico, mobile app.

Introduction

The industry of Information Technology (IT) has shown a fast growth in the last decade, thanks to the development of software, known as, mobile applications (apps). Di Ionno and Mandel (2016) argue that mobile apps have become so relevant for this industry, that they are currently the front door to the Internet. This type of economy is an ecosystem of varied jobs, companies, and income connected electronically by apps (Di Ionno and Mandel, 2016). Nowadays, the Mexican Mobile App industry includes small and medium companies, but also, includes big international companies. As expected, big international companies are strong and difficult to beat. In all these businesses, managers decide to adapt a software program for two main reasons: for improving the efficiency of their internal operations or for supporting the development of products or processes (Raguseo, Neirotti and Paolucci, 2015).

With a rise in popularity of smartphones all over the world, the Mobile App industry has grown and changed the traditional model of software distribution. This effect is the result of more and better access to high-speed wireless networks, the changes in the users' needs of technology and the rapid and effective access of information. Mobile work involves the usage of mobile technologies in varying degrees with the purpose of doing tasks across locational, temporal and contextual boundaries (Raguseo, et.al. 2015). It also refers to the different ways of work that requires people to perform, outside the physical structure of the business, at any time or any place.

Mexico is the second largest economy in Latin America and through the years has moved up as a driving economy for international mobile app supply. This brings new opportunities for Mexican developers. Users in the country welcome these technologies and demand companies to satisfy their needs. Thus, Mexican SMEs in the Mobile App industry face the challenges of compliance with customer's needs while at same time find a way to capitalize opportunities competing or collaborating with big and influential players. All these with available resources and support. Thus, this paper focuses on the drivers and barriers of mobile app developers in Mexico.

On the theoretical side, our research aims to explore the applicability of two current frameworks of industry analysis: Grundy's and Porter´s. The purpose is to test if, by combining them, it is possible to overcome their individual limitations. On the practical side, this research aims to make specific recommendations to policy makers and industry leaders, in Mexico, on how to improve industry's competitiveness.

In this paper, our industry analysis uses Grundy's Strategy Onion (including SWOT), in combination with, Porter's Five Forces framework. Analysis includes economic, technological, political, and social factors, as well as, barriers of entrance and relevant information about customers, suppliers,

competition and substitutes. A brief Systemic Competitiveness revision is also present to reinforce argumentation.

Theoretical Framework

In order to analyze and further make recommendations for the Mexican Mobile App industry, it is necessary first to assess its current competitive strategy. Two influencing theoretical frameworks of competitive strategy include Five Forces analysis (Porter, 1980) and Strategy Onion analysis (Grundy, 2006). Both explained as follows.

Porter´s Five Forces

The industry analysis, known as, the Five Forces, was developed by Michael Porter, in 1980. This framework helps managers to assess the way a firm is able to compete more effectively within its industry (Dobbs, 2014). According to Porter (1980), this analysis determines the potential industry's profit. The Five Forces include the following: the barriers of entrance into the industry, the power of customers, the threat from substitutes, the power of suppliers and the intensity of the competition.

Barriers of entrance refers to how difficult is for others to enter the industry and do what one does. The power of customers refers to the capacity of customers to bargain and easily get more, paying less. The threat from substitutes will depend on the ability of customers to find a different ways to satisfy their needs. The power of suppliers refers to the capacity of suppliers to negotiate prices. Finally, the intensity of competition is determine by competitors in the same market.

The value of Porter's framework can be found in the simplification of economic theory, as a result, of other forces; in the application of systems thinking; in the explanation of competitive rivalry, in its capacity to predict long-run rate of returns; in the determination of industry attractiveness, and in the focus on external analysis (Grundy, 2006). However, Grundy argues that Porter oversimplifies industry value chains and underestimates managers actions, as well as, the fluency of industry boundaries (2006).

Grundy´s Strategy Onion

According to Grundy (2006), Porter's tool gives managers a general scope of how an industry develops at the aggregated level. However, if managers want to assess this model, at the micro level, it is necessary to break down the five forces to analyze them individually. Grundy also argues that Porter's model doesn´t elaborate on the way in which an industry is affected by external factors. As a solution, he offers an alternative model, known as, The Strategy Onion. This model contains layers of different forces influencing an industry. The political, economic, social and technological factors (PEST) are outside

the onion. The analysis of these factors is followed by, the analysis of growth drivers, and competitive pressure. Finally, in the core of the onion, he places the analysis of customers, company and competitors (see Figure 1)

Figure 1
Grundy's Strategy Onion
(adapted by the authors)
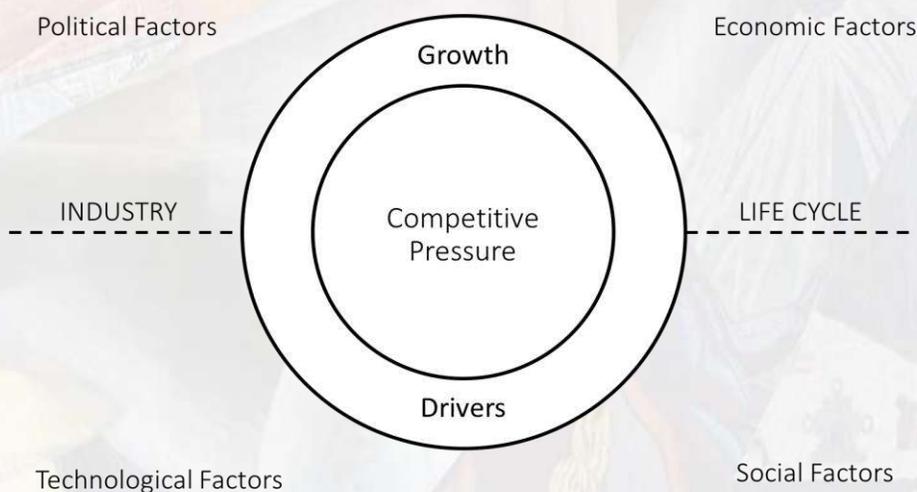
SWOT stands for strengths, weaknesses, opportunities and threats. Strengths are those things that provide advantage over others, while weaknesses would reduce that advantage. Opportunities are those elements that the industry can capitalize, while threats refer to those that potentially put it at risk.

Developing countries, such as Mexico, often face troubles of structural competitiveness because they lack effective business environments. Systemic Competitiveness is a methodology that aims to evaluate competitiveness of industries in developing countries, considering the political and the economic determinants of a successful industrial development (Altenburg, Hillebrand, Meyer-Stamer, 1998). Altenburg et al. explain that Systemic Competitiveness has four levels of analysis: meta, macro, meso, and micro (1998). Examination, at the meta level, revises how social factors influence the ability of a given economy to integrate internationally, and assesses the ability to create strategic actions. Then, at the macro level, analysis includes a review of the general stability of the macroeconomic environment. An efficient macroeconomic environment should stimulate the local economy by having a realistic exchange-rate policy, as well as a general foreign-trade policy. Then, formation of policy structures takes place at the meso level. Finally, the micro level evaluates how enterprises are facing a number of requirements in order to achieve efficiency, quality, knowledge, logistics, speed of action and flexibility simultaneously (Esser, Hillebrand, Messner, Meyer-Stamer, 1996).

Methodology

For this exploratory revision, we gathered information from secondary sources. In particular, journal articles, annual industry reports, as well as, recent and related news feeds. Information analysis included each of the elements of Grundy's Strategy Onion and Porter's Five Forces. When doing Grundy's analysis, we included a SWOT analysis. Also, in order to reinforce argumentation, we included a brief Systemic Competitiveness revision.

Results and Discussion

Results of Grundy's Strategy Onion Analysis

According to The World Bank (2016), Mexico is currently the second largest economy in Latin America, with an increasing number of Internet users (see Figure 2). Di Ionno and Mandel (2016) highlight that the number of jobs in the Mobile App industry, in Mexico, has recently grown, with 225,000 jobs registered by March 2016. In this scenario, where both demand and production improve, one can infer that Mexican developers should capitalize on opportunities.

Figure 2
Internet Users in Mexico 2016
(from AMIPCI, 2016 & adapted by the authors)

	Internet Penetration Rate	Growth From Previous Year
2010	34%	9.7%
2011	40%	17.6%
2012	43%	7.5%
2013	49%	14.0%
2014	51%	4.1%
2015	59%	15.7%

The industry of mobile apps has been increasing during the past years, and given the actual technological growth, the future of this industry will continue growing. By 2020, GSMA Intelligence (2016b) forecasts that Latin America will have an increase of 50% in its reach of internet with mobile devices.

In México, 97% of the business activities are SMEs. One advantage for mobile app developers is that SMEs may use these tools to reach efficiency and increase productivity. BMI (2015) states that apps and software are mostly used for basic Enterprise Resource Planning (ERP), such as, inventory control, supply chain, point-of-sales applications, etc. It is important to outline that companies that adopt these tools will have to face changes. Companies located in Mexico often evaluate the impact and possible results of adopting mobile app services.

In the IT sector, Mexico has several advantages over other countries in the region. Main ones include its geographic location, its free-trade agreements and the increasing number of professionals in the IT industry (400,000 specialized in software, out of 625,000 working in the IT industry as a whole) (ProMexico, 2017). In addition, Mexico is a country that has shown rapid growth of usage of smartphones and therefore mobile apps. However, how easy is it for SMEs to develop mobile apps in the country? To answer this, it is necessary to outline different external factors, such as the political, economic, social and technological ones, of the given industry.

We analyze the influence of the governmental policies and aids for this industry and its startups. Today, the Mexican government has recognized that companies reach productivity in a more efficient way when using IT tools. Thus, it provides a fund, called Prosoft 3.0, to promote software development. The idea is to trigger a better performance, in strategic sectors of the economy (Secretaría de Economía, 2017). Furthermore, the *Instituto Nacional del Emprendedor* (INADEM) provides entrepreneurs with detailed information on how to manage or open a business, and informs the advantages of including IT, such as, mobile apps. There are other governmental programs, like those offered by ProMexico, that help Mexican entrepreneurs to gain the necessary knowledge and experience to make their business grow. Tequila Soft, an agency that offers services and digital strategies is a successful case of this program.

Another important aspect in industry analysis is consumer's behaviors. How capable and willing are Internet users to change their physical transactions to digital activities? BMI (2015) highlights that the acquisition of tablets declined in 2015, due to a depreciation of the national currency, later showing, a slow growth in the period from 2016-2020 due to a stability of the market (BMI, 2016). Also, in 2015, 52% of Mexico's users of Internet (that conform 59% of the total population) accessed it through mobile devices (AMIPCI, 2016). According to Tiongson (2015) a regular smartphone owner has 36 apps installed, but just the 26% of them are used daily. Consumers spend 30 hours per month using mobile apps as average, of which, the usage daily is divided in: 68% are apps of social and communication, 33% of media or entertainment, 46% of games and 19% of retail stores. Distinctively mobile app usage has been increasing internationally, and in Mexico, the same trend has happened.

In Mexico, in 2014, there were 55.3 millions of people living in poverty (INEGI, 2015). Poverty index is key to determine the capacity of the population to buy smartphones and apps. AMIPCI (2016) showed that there are 65 million Internet users. 77% of them use smartphones to access the Internet, 69% use the laptop and 45% use electronic tablets. The technological trends show that Internet users have increased this thanks to many factors: one of them is the availability of different services that offer original mobile apps,

webpages and platforms to facilitate transactions, orders, communication, reservations, etc. One clear example is Bankaool a bank that does not have any physical branch office and only offers its services through their webpage and their mobile app. Many banks in Mexico also have mobile apps that allow their users to make transactions, check their balance, etc. AMIPCI's study also shows that, about 57% of financial activities are online.

According to GSMA Intelligence (2016a), 55% of the Mexican population prefer mobile banking and shopping services. This customer's behavior give companies the opportunity to adopt e-commerce into their operations in order to increase sales online. Currently, many companies in the country offer apps to make purchases online.

Another important technological factor, in Mexico, is the trend of increasingly social media usage on mobile devices. Facebook, WhatsApp, YouTube, Twitter, Google Plus, and Instagram are the most popular sites in the country (see Figure 3). All these sites offer companies the opportunity to advertise with low costs and SMEs in Mexico have massively used them to promote their businesses.

Figure 3
Social media preferences in Mexico 2016
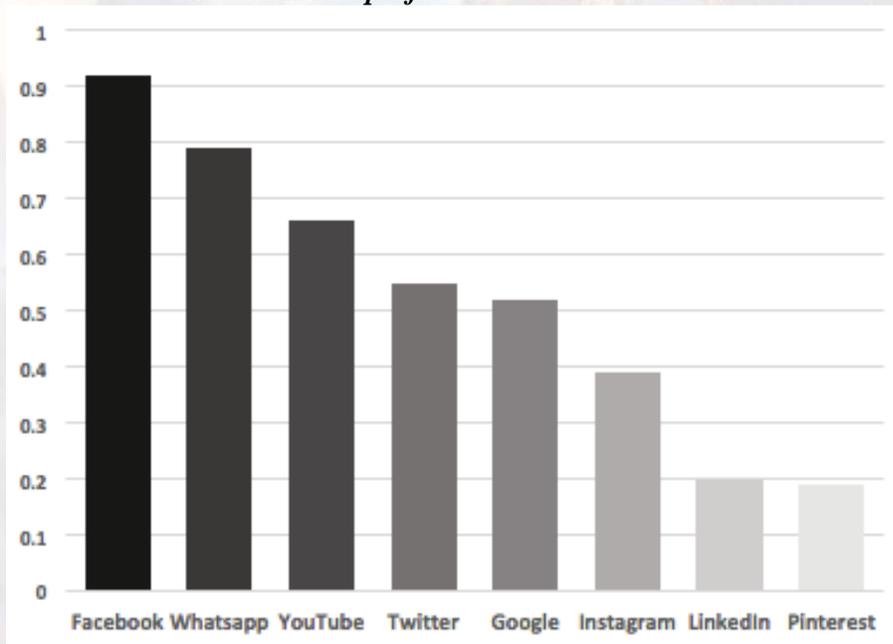
With the Telecommunications and Broadcasting Law, the Mexican government seeks to increase industry competition and decrease market share of the biggest company in the country. Because of these changes, now Mexican mobile operators face new fierce competitors. Thus, in an effort to attract more customers, companies now facilitate the acquisition of smartphones to customers that have no credit history (GSMA Intelligence,

2016a). This can considerably increase the usage of mobile phones in the country, giving more Mexicans the opportunity to enjoy mobile apps.

According to Banco de México (2017), inflation, in Mexico, has shown an upward trend since July 2016. In the first trimester of 2017, inflation almost reached 5%. Although, near the end of the third trimester of 2017, the Mexican peso, when compared to the American dollar, has shown better results than in January, it has not decreased under $18 MXN per dollar. As a result, prices of smartphone components (mostly imported) have increased, making it more difficult for Mexicans to by mobile phones.

In Guadalajara, there is already a digital hub. Companies such as, Kueski, offer micro loans in the short term. This resulted in venture capital of more than $35 million in 2016 (GSMA Intelligence, 2016a). Kueski offers its services online and it has its own mobile app. These are just a few examples that show the potential that the Mexican market has. Therefore, developers have great opportunities to make alliances and seek financial aid to develop their projects.

See Figure 4 for SWOT analysis and Figure 5 for Systemic Competitiveness.

Figure 4
SWOT analysis

Strengths	Weaknesses
Driving economy & strategic location.	Fragile infrastructure.
Governmental programs & new laws.	Bureaucracy & corruption.
A growing buying capacity of population.	Volatile parity of the currency.
Favorable customer preferences.	Poor capacity to predict changes in the industry or to respond rapidly, to customer needs.
Increasing number of IT professionals.	Low bargaining power with distributors.
Opportunities	**Threats**
An increasing market & access to Internet	Strong competition.
New capital venture funding to grow.	Poverty, inflation, unfavorable exchange rate.
New jobs for Mexican people.	Easy app erase and many substitutes
Technological hubs	Limited options provided by official distributors.

Figure 5
Mobile App Industry Systemic Competitiveness

Level	Description
Meta	Mexico enjoys a demographic bonus. Workforce is large. Education has improved in last decades. Middle class has grown. Social problems exist and need attention.
Macro	Mexico has enjoyed a relative macroeconomic stability in last years. But, commercial dependency with US, exchange rates, uncertainty in the political environment, increasing inflation and economic deficits, should be observed.
Meso	Prosoft 3.0, Promexico, INADEM, and free trade agreements support opportunities. But, better infrastructure, less bureaucracy, stronger combat of corruption still needed.
Micro	Low bargaining power with distributors, poor productivity and technological skills need to be improved.

Results of Porter's Five Forces Analysis

As stated before, Porter's Five Forces (1980) model offers a general picture of an industry and its level of competition. In this section, we combine resulting insights of the previous analysis using Grundy's framework with those from Porter's.

Barriers of entrance

In the Mobile App industry, barriers of entrance take place through the economic investment needed for the creation of apps. The striving industry has shown better political reforms, and practices. These encourage Mexican developers to enter the market. In addition, the Mexican government has given financial aid to software developers to contribute to better performance in strategic sectors of the country, like with the Prosoft 3.0 and ProMexico aid, previously explained. According to Di Ionno and Mandel (2016), in July 2014, the Mexican government introduced a regulatory policy, limiting market dominance. This motivates small and medium app companies to search for opportunities and compete.

Barriers of entry are also, determined by the costs users need to pay in order to enjoy the use of smartphones and access to Internet. According to Di Ionno and Mandel (2016), taxes, on mobile devices, and service comprise almost 19 % of the total cost of mobile ownership.

On the other hand, In Mexico, nowadays, entrepreneurs who begin doing this kind of business, can do so easily. This because, since October 2016, the government introduced a new procedure for company registration. The *Sociedad por Acciones Simplificadas* (SAS) allows entrepreneurs to register at no charge, MSEMs online in a fast and easy way. The only requirement is an

electronic signature. This is an opportunity for all those developers who are looking forward to entering the market in a quick way.

Throughout this research, we have enlisted different forces that encourage Mexican developers to enter the market of Mobile apps. A vivid example of these efforts is the Digital Creative City, in Guadalajara. According to Di Ionno and Mandel (2016), the city is undergoing an important transformation of the historic city into a global digital hub.

Power of customers

The Power of negotiation of customers at the industry is very low, given that the relationship with the customer is indirect. Tiongson (2015) explained that even though there are search engines to find new apps, only one of four people use them. In addition, those search engines are more effective when people look for apps of technology and travel. From those people who use this kind of search, there are 43% of them that discover technology apps, 35% of travel, 34% localization, 28% entertainment, 24% retail, 19% social, 16% finance and 15% gaming. In addition, the same study proves that the discovery of the apps are 52% by friends, family and colleagues, 40% browse the app store, 27% search engines, 24% company website and finally 22% in the TV. The previous facts demonstrate how app developers can make engines for easier findings and communication with the customers, but the real reach of them is insignificant.

Consumer expectations is a key point that app developers have to meet in order to accomplish their objectives. Some of the findings of Tiongson (2015) state that the attributes that are associated with most popular apps are: 63% the consumer states that makes their life easier, 63% to clear instructions for using app, 57% appealing design and aesthetic, 57% consistent experience on multiple devices, 45% always has new content and 43% a brand the interact with offline. In which the most popular expectation of the consumer is to get an app that makes easier and faster their activities.

From the 8,000 non-users of smartphones and apps in Latin America, 51% decide not to use a smartphone because it does not have any locally relevant content; 33% showed lack of digital skills and knowledge; while 43% consider affordability a barrier (see Figure 6). This limits developers because they not only have to create high quality and attractive apps that meet the needs of non-users, but also, they have to encourage and teach non-users how technology, works (GSMA Intelligence, 2016a).

Figure 6
Reasons not to use smartphones (adapted from GSMA, 2016)

Lack of locally relevant content	Lack of digital literacy and skills	Affordability barrier	Lack of network coverage	Security and trust barrier	Other
51%	33%	43%	9%	7%	6%

The threat from substitutes

The possible substitutes are mainly new technologies and new software. The Mobile App industry is growing and has a fast rate of change with the means of innovation. Nevertheless, this change is limited by, the purpose of the app. Which means that there are multiple apps for the same purpose, what stands for multiple substitutes of a specific App. With the previous information, it is possible to realize that there is a strong competition in the market and industry.

Nowadays, there are mobile apps for any activity in business, which facilitates the processes and methods of working. In Mexico, the usage of the mobile devices is in the growing stage. An article in Milenio (2015), a Mexican Newspaper, stated that nine of each ten users, who go through Internet, always made it through a smartphone or tablet. In addition, it published the best five business apps in Mexico, suggested by another company: Vivanuncios, Infomovil, Expensify, Roambi and Tripit.

Tiongson (2015) says that there is a huge improvement opportunity, in regards to the maintenance of user´s engagement with apps. Since one of four apps installed, are never used, companies need to pay attention on how to keep users engaged. There are 38% of users, who delete the app immediately after a download. The main reason is loss of interest (34% lost interest, 29% no longer need it, 24% found the app not as useful and 18% found a better or more useful app). The previous facts show us the fast and powerful forces of possible substitutes. When apps do not meet consumer's needs, users rapidly delete them. For the given reasons, and to prevent such effect of substitution, companies provide incentives to continue app usage. For example, a discount or coupon on the next purchase (30%), exclusive bonus (24%), discounts when friends, family and colleagues start using the app (21%) and notifications of new features (16%).

Power of suppliers

Given that the only official providers in the Industry are Google Play and App Store, the bargaining power of developers against suppliers' power is extremely poor. Today, Google play asks for a single payment of $25 USD for registration, but also has regulations in which developers have to give Google the rights to commercialize without receiving royalties from this distributor, internationally. Furthermore, in order to monetize their apps, developers need to create a merchant account, which are not available in 74 countries, "with half of sub-Saharan Africa and much of Latin America excluded" (Pon, 2016). This gives a great disadvantage to Mexican developers that are trying to export their apps to other countries in Latin America. Exports to other Latin American countries represent a good opportunity for Mexican developers since countries within the region share similar cultures and the same language (except Brazil). Research by Pon (2016) stated that the preference of users depends on the language of the app. Consumers will prefer those that offer their native language, instead of those that do not. However, preferences for local apps makes no difference in term of competitive advantage if Mexico does not have good merchant policies that benefit its national developers. On the other hand, App Store uses a complicated and unique code, in which their enrollment costs $99 USD per year.

Given the fact that these two distributors are the most popular internationally, their online-store rankings consider reviews of users from all around the globe. Low rankings, on customer's reviews at an international scale, can cause deletion of Apps from the online-store. This makes it more difficult for Mexican apps to become popular worldwide. International recognition is necessary to increase sales. Thus, it is a continuous war for gaining market power and attract investors. This competition is at an international scale.

Intensity of the competition

For each given app, there can be many others with the same purpose, which make it more difficult to the get recognition in the Mobile App market. In addition, although applications and web pages are not the same, apps face competition from them too. Some people prefer to use webpages and others mobile apps. However, apps have greater advantages in regards to the provision of solutions, the quick access and use, and availability when there is no Internet. In regards to the hardware of the mobile device, with an app, people can access all mobile functionalities. For example, personalized notifications, the use of the GPS and the camera. Therefore, apps have a strong competitive advantage over webpages. But the problem is that they face strong completion since on-line rankings are at an international scale. Notimex (2015) reports that although the Mexican government promotes the industry of mobile apps, just half of the initiatives have been successful. The main cause relates to challenges of technology management. Notimex explains that current failure is the result of the lack of experience and that only

18% of those creating apps search for specialized advice with technology organizations (2015).

Another important aspect to analyze is the position of the Mexican market, and more specifically its power and position vis-à-vis other driving countries. According to Pon (2016). most of the app developers are established on high-income countries, which is concentrated mostly in the United States, East Asia and Western Europe (see Figure 7). The United States dominates the Mexican market (almost 40% of the market share) while preferences for local apps hold only 2% of the market share. In addition, the possibility of Mexican developers to export is low due to a fierce competition of well-known developers of high-income countries.

Figure 7
Concentration of app developers
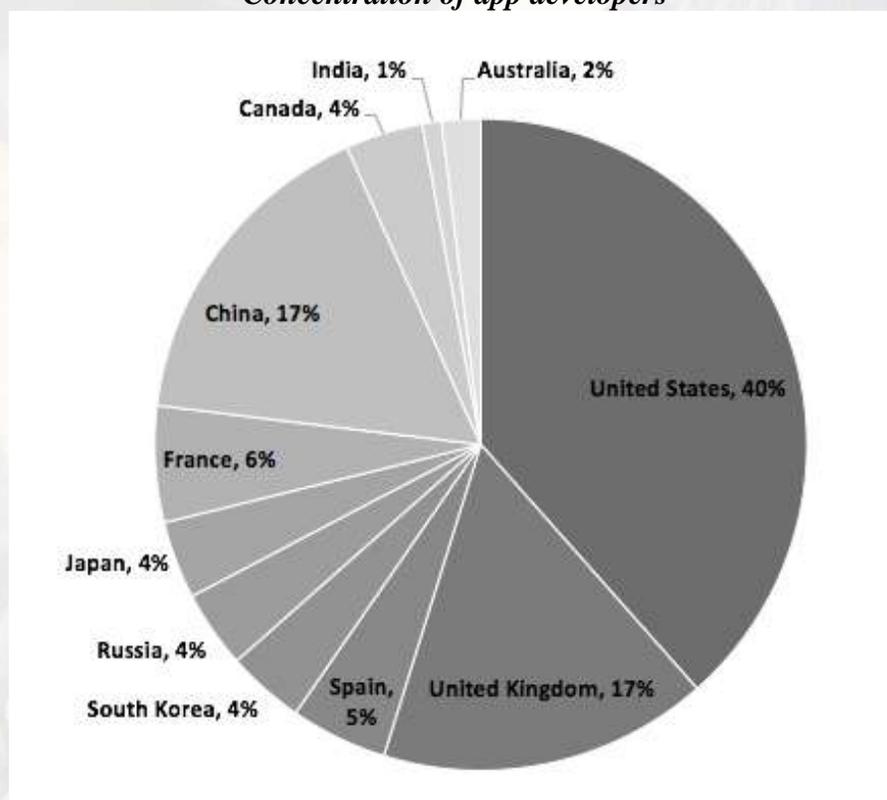
Conclusions & Recommendations

The fast development of the Mobile App industry in Mexico, the potential advantages to SMEs in the country, and the status of literature on the matter justify the analysis. In this research, we observed that, the development of the industry is not only, nurtured, by governmental aid, but also, it is encouraged, by Internet users' behaviors, preferences, and market trends.

We also discussed the external factors that influence this specific industry in Mexico. We found that public policies have been increasing in the last few years, through programs like Prosoft 3.0 and those provided by ProMexico. Also, governmental institutions have helped by emphasizing the importance of mobile apps and IT services in the development and efficiency of administrative activities, providing, free of cost, information through an open webpage.

In this research, we analyzed the different external factors of the mobile app industry, in order to outline what are the possibilities for new developers, or even existing ones, to enter the market and grow their market share. It is relevant to outline that we compared Mexican developers' performance vis-à-vis big international suppliers like those form the United States to compare and indicate the possibilities and barriers of the domestic market. In order to conduct a better analysis of the given industry, we decided to use Grundy's Strategy Onion and Porter's Five Forces Model.

Firstly we concluded that the barriers of entrance are determined by the economic investment, the political regulations and reforms. Support and investment is concentrated in the most important cities in Mexico. In Guadalajara, the Digital Creative City is on its way. New political regulations and reforms will bring more benefits to developers when entering the market. Mobile app users in the country will have more and cheaper options of telecom services companies. Also, the government has introduced a new registration system for MSMEs, *Sociedades por Acciones Simplificadas* (SAS in Spanish), that accelerates the process or registration of start-ups, giving developers more opportunities to invest their money and time in different companies that are most likely going to use their services.

Mobile apps are beneficial to SMEs, specially to startups, since mobile apps allow startups to optimize operations and administration from the very beginning of their activities. There are many apps that can be used like databases, of the customers. Apps are also a communication bridge between the user and the company and help entrepreneurs identify problems, needs and trends, based on the behaviors of their users.

In regards to the analysis of possible substitutes, the decision of purchase can be easily changed on the bases of innovation, or new customer's needs. Availability of many apps, complying with same purposes, make it harder to prevent the forces of substitution within the industry. Finally, at this point the new technologies and software are the strongest means of substitutes.

Suppliers in the given context are the distributors of mobile apps available in Mexico. These two official distributors ask for high fees of registration and in the specific case of Google, it does not count with merchant policies in 74 countries, including most of Latin America. To Mexican developers, this is a great disadvantage because it decreases their possibilities of exporting their

works to other countries that share similar countries, and thus give them more advantage to meet their needs.

The industry's competency englobes its achievements and possibility of its expansion levels. For Mexico, mobile apps are becoming more and more popular, especially social media. Although nowadays, there is still limited investment and governmental support throughout the whole country. Consumers' trends and behaviors reflect that the use of apps has a tendency to grow. SMEs have the opportunity of advertising at a lower cost through social media than in traditional mediums. Although consumers show a strong preference for domestic apps, big suppliers like those in the United States have the biggest market share in Mexico (almost 40%) which decreases the possibility of local developers to attract the attention of potential investors both internationally and domestically. Therefore, Mexican developers have less chances to lead the industry, at a global scale. Since the system is currently led by big suppliers in developed countries. Since there is not enough investment in Mexico, developers find it hard to create and even less, export to other countries. Their popularity both domestically and internationally has low possibility of increasing and the know-how in the country is hardly increasing organically. Only those big developers have the advantage of knowing the international market and have access to the latest technology and international preferences.

After working with Porter´s framework in combination with Grundy's, we conclude that together, they provide a better picture of the situation in a given industry. In our case, the Mexican Mobile App industry. Being able to use both, instead of just one, we found that Porter's (1980) is still useful. However, it has important limitations that Grundy's (2006) helps to overcome. Grundy's framework incorporates external factors in a form of PEST analysis that can help policy makers to provide a better support to the industry.

Limitations and Future Research

This research was exploratory in nature. Therefore, we acknowledge it has several limitations. First, literature review is not exhaustive and field research is at an early stage. Future research should search for detailed and robust quantitative data. Future research would also benefit by including interviews to developers and owners of SMEs in the Mexican Mobile industry. In spite of its limitations, we consider that this paper's main contributions reside, on the theoretical side, in combining two theoretical frameworks – Grundy's and Porter's- and experimenting with their applicability in a real case. On the practical side, main contributions reside in the identification of forces and weaknesses of the Mobile Industry in Mexico. An industry, not fully documented, but still, very relevant for Mexico.

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