

The Rise of Mexican Multinationals in the 1990s and their Evolution Two Decades Later. Three Case Studies

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INTRODUCTION

The reasons why emerging market multinationals (EM-MNEs) have managed to successfully position themselves within a few years in specific market niches in the international economy is something that is still under debate. It has become a research challenge for academic specialists interested in the world of business and economics.

Since the "first wave" of the emergence of EM-MNEs during the 1970s they became a phenomenon to be studied due to the differences presented with MNEs from developed countries. Among such differences are the modalities in which FDI was adopted in most cases (joint ventures) and the location of most of their investments in neighboring countries of equal or lesser economic development ("south-south").

The pioneering works of Wells (1977), Lecraw (1977), Lall (1983) and Kojima and Ozawa (1984) were primarily focused on cases of Asian companies, while Diaz Alejandro (1977), Katz and Kosacoff (1983) and Villela (1983) centered their studies on several Latin American cases.

A generalized agreement among these authors was that none of the classical theories allowed the new phenomenon to be fully understood and one of the most challenging points for their analysis was "south-north" investment. "South-south" investment had been the dominant modality, in which investors took advantage of ethnic ties with the recipient countries, protected markets, and lower labor costs. In contrast, "south-north" investments, clearly a minority trend, for the first time required the studies to include variables related to technological learning, which today have become indispensable for understanding the determining factors behind investment for many of the EM-MNEs. Lall (1983) discussed such cases in Asia and Basave (2000: 249) noted that case of Mexico differed from the rest of Latin America because nearly 50% of the FDI of the Mexican MNEs in the 1970s was located in a much more developed country, namely the United States.

While during the 1980s there was a continuity in the study of Asian EM-MNEs due to the impressive economic growth in East and Southeast Asia and its virtuous insertion into the global economy, the EM-MNEs in Latin America virtually disappeared from the world stage during the course of the so-called "external debt crisis" experienced by the developing countries.¹

In the Mexican case, the topic of this study, the country experienced a phenomenon of international divestment by the few companies (about 20) that had become MNEs during the previous decade (Basave, 1996: 172). They had to give up their production

¹ This occurred in the context of a worldwide fall in FDI flows. Their average annual growth was 4.9% between 1980 and 1985, representing a third of the figure from the previous seven years.

subsidiaries abroad in order to face the severity of the crisis. In the early 1990s came the "second wave" of EM-MNEs, which in Mexico meant practically starting over, but since then their growth has been sustained and, as in the case of the rest of the so-called "multilatinas", they have become the subject of empirical and theoretical analysis.

The "second wave" of Mexican MNEs was a phenomenon limited to the country's largest companies, but it was abrupt, generalized, and extremely rapid in the beginning and had its most intense stage in a short span of 10 years. Between 1988 and 1994 at least 17 such MNEs emerged and in 1997 their number increased to at least 26, active in 24 host countries involving a total of 93 production plants (Basave, 2000: 261-266). The speed acquired by the process and its determining factors need to be explained on the level of business strategies, but they cannot be fully understood if they are not linked to the economic conditions that induced them. That is, before discussing "how" they did so, I am interested in explaining "why" they made the decision to internationalize their operations.

An immediate antecedent to take into consideration, a process that was equally rapid and that includes an important number of large companies, would be the East and Southeast Asian EM-MNEs. However this reference point, essential and stimulating, is insufficient to explain the Mexican case because the latter occurred under conditions that were qualitatively different, mainly three: a) the Mexican EM-MNEs emerged in an economy with severe limitations on its growth, unlike South Korea, Taiwan, Hong Kong, or Thailand in the 1980s, b) their emergence occurred during a thoroughgoing economic transformation after decades of a closed import substitution "model", c) due to the protectionist character of the previous model, the Mexican industrial sector was hampered by technological backwardness that limited its competitiveness, even though this varies depending of each industry.²

This study, therefore, addresses the general topic of the formation and expansion of EM-MNEs but specifically deals with the case of Mexico as of the 'second wave' of OFDI. From the standpoint of business strategy and with regard to the determining factors for a company to undertake FDI, we are beginning with a broad, overall question: What leads a company to firm belief that it is necessary to directly enter an international market? (Narula, 2010: 42). However, given that no strategy is applied in a vacuum, but in the concrete economic conditions and specific situations of individual countries, we will refer to these as explanatory factors that conditioned such strategies.

This requires an analytical framework that is sufficiently flexible to utilize different theoretical approaches in response to the specific aims of this research as well as to accommodate new questions as part of the study. This framework is the dynamic version developed by Narula in 1966 on the "Investment Development Path" (IDP) originally proposed by Dunning in 1981 and 1988.

² A fourth major difference is that the Mexican MNEs did not have a comprehensive and developmental strategy to promote OFDI led by ad-hoc governmental institutions, as occurred in these Asian countries (except for Hong Kong), but this topic is beyond the scope of this study

Both authors have explicitly affirmed that most of the explanatory theories for the MNEs, including the eclectic paradigm, are "heavily dependent on specific contexts" and the latter is likely to be used "to find the theory and the most appropriate level of analysis" in "a variety of different empirical contexts" (Dunning, 2000: 174-179 and Cantwell and Narula, 2001: 57). Following this line of reasoning, I am incorporating two specific questions into this study: Why did Mexican MNEs internationalize their operations so rapidly and so successfully? and How did they deal with their technological backwardness?

Our first working hypothesis is on a general level: the speed of their internationalization was proportional to the speed of the opening of the Mexican economy, including both defensive and offensive motivations.

A second hypothesis is that their capacity to internationalize their operations was closely related to their oligopolistic character, given that their dominance in markets that were concentrated and protected for decades provided them with a number of ownership advantages that helped positioning themselves in foreign markets.

A third hypothesis is that, aware of their technological backwardness and given the need to compete as soon as possible in international markets, the two pillars of their expansion strategies were joint ventures and the acquisition of overseas companies with proven levels of competitiveness. These strategies accelerated their learning processes and allowed them to undertake their own R & D activities and develop original technologies in a short period of time.

This study is structured as follows: first, we will briefly consider the country's macroeconomic factors at the time of the emergence of the Mexican MNEs and what their strengths and weaknesses were in relation to the standards of international competitiveness. Then, we will analyze the factors that I consider to have been crucial for companies to invest abroad, and subsequently we will address the specific characteristics of the process in terms of timeframes, location, and investment modalities, on an aggregate level for all the Mexican MNEs. Finally, we will document the cases of three manufacturing groups in processed food (Grupo Bimbo), glass (Grupo VITRO), and petrochemicals (Grupo KUO) and offer some theoretical reflections derived from our research findings.

The methodological procedure used in this research combines the effort to provide an overall perspective with the presentation of case studies, although I am aware of the concurring risk of an inadequate treatment of the former. Nevertheless, the need to link the business strategies to their economic determinants is an inherent part of the theoretical approach that I put forward in this study.

1. THE OPENING OF THE MEXICAN ECONOMY AND THE IMPERATIVE NEED TO COMPETE ABROAD

The exhaustion of the protectionist Mexican growth model that had lasted nearly four decades resulted in a deep debt crisis that erupted in 1982.³ The external causes behind the outbreak of the crisis are very clear. At the beginning of 1982, international oil prices in which Mexico sustained its expectations of large monetary reserves and fiscal surpluses plummeted, capital flight soared, and nearly half of the country's foreign debt matured over the next 12 months (Moreno-Brid and Ros, 2009: 138-140).

In terms of the internal determining factors, it is sufficiently clear that due to excessive protectionism, industrial expansion slowed (Boltvinik and Hernández Laos, 1981) and that the real increase in public spending rose rapidly between 1979 and 1981, resulting in a deficit that reached 7.2 % of GDP (Moreno-Brid and Ros, 2009: 143).

In 1982, the government in office at the time, at the end of its six year mandate, nationalized the entire banking system, but the following presidential administration since entering into office began a series of measures to protect the country's largest companies that were technically bankrupt due to the volume of their foreign debt and a series of reforms designed to transform the Mexican economic model from one that was closed and protected to one that was open and export oriented.

The main reforms undertaken between 1985 and 1991 were the privatization of companies (over 340 industrial and service enterprises and 18 banks) and the elimination of import tariffs.⁴ Three years later, Mexico signed the North American Free Trade Agreement (NAFTA) with the United States and Canada. The major Mexican business groups took advantage of the privatization process to diversify and/or achieve a greater integration. In addition, in 1987 the Economic Solidarity Pact was signed between government, business associations, and unions to contain wage increases that would impede the competitiveness of the export program and to carry out the economic transformations.

Immediately, the foreign MNEs in Mexico (particularly the automotive companies) reoriented their production that previously had been focused on the domestic market (taking advantage of it being protected against imports) and they became export oriented.

This was a juncture in which sooner or later the closed economies of the developing countries and the economies of the Eastern European bloc nations would arrive in order to enter the globalization process and create new conditions that would allow

³ There is an extensive bibliography on the causes and consequences of the underlying structural crisis of the Mexican economy and its financial expression. Works include Tello (1979), Boltvinik and Hernández Laos (1981), Valenzuela (1986), Green (1988), Moreno Brid and Ros (2009). Detailed analyzes of external debt (public and private) can be found in Garrido (1988), Green (1988), Beristain and Katz (1989).

⁴ The value of all imports that in 1983 were subject to permits, by 1985 had fallen to 35.1% and by 1991 to 9.1%. The maximum tariff was reduced from 100% to rates between 5 and 20% (Aspe, 1993: 138, also see Bazdrech, 1992)

them to compete and grow. But it was an exceptional moment, limited in time, which resulted in unique and specific consequences for each country, which imposed specific pressures and tendencies on the way their companies responded and entered the international economy.⁵

For the purposes of this study it is very important to analyze what the level of competitiveness of Mexican industry was during the economic opening. It is clear that technological backwardness, characteristic of long-term protectionist models, constitutes a handicap to international competition, and it determines the strategies that companies implement in order to internationalize.

However, unlike what could be expected, up to the beginning of the 1980s, total factor productivity (TFP) was not on the downside across the board. Moreno-Brid and Ros (2009), based on data from Schlefer (2008), show that between 1973 and 1980, the average annual growth of TFP was considerable for some industrial sectors: 3.5% in capital goods and durable goods, 3.2 % for non-metallic minerals, 2.5% for chemical products, in all cases above the figures posted by the advanced countries (except Japan in capital goods) (Moreno-Brid and Ros, 2009: 141).

It was during the crisis that this situation changed. Faced with the collapse of the domestic market and the need to pay its foreign debt, the manufacturing sector suddenly ceased productive investment, especially in machinery and equipment, which resulted in a stagnation of its levels of competitiveness in relation to prevailing international standards. This situation would last until 1987.

According to the results of a study based on a sample of business groups, Mexican and foreign, listed on the Mexico Stock Exchange (BMV) (52 for 1977-1983 and 65 for 1984-1987) the percentage of resources available annually that were earmarked for productive investments (mainly machinery and equipment), which between 1977 and 1979 had averaged 30.72% and between 1982 and 1983⁶ 41.69%, fell sharply to 11.80% in 1984, 13.65% in 1985, 8.76 % in 1986, and 8.13% in 1987 (Basave, 1996: 118).⁷

It was not until 1987, immediately after the stock market crash spurred by the high level of speculation, when the largest private industrial corporations resumed productive investment. In those years, reforms had been set in motion for a change to an economic model based on exports and attracting foreign capital. The immediacy of the opening encouraged the business sector to overcome everything that placed it at a disadvantage to compete in both the international as well as the domestic market.

⁵ In some ways, this is what A. Goldstein refers to when he offers a critique of the limitations of the eclectic theoretical framework to study the case of the "multilatinas" because it does not take into consideration "contingency situations" that influence companies' strategic decisions (Goldstein, 2007: 79 - 81).

⁶ The years 1980 and 1981 are omitted due to lack of homogeneity of the data.

⁷ The companies placed most of their resources in financial investments (a strategy known as *zaiteku* by the Japanese conglomerates that applied it in the 1980s). In an inflationary environment, they obtained high yields and prepaid their external debt in local currency, since the government, in order to subsidize them, had assumed its dollar value.

During the second half of the 1980s and until 1991 the most common way to modernize was through importing machinery and equipment and quality inputs. However, industrial modernization was expressed very unevenly in the different sectors (Schwedel, 1994; Mattar, 1994 and Moreno-Brid, 1994) but with significant gains in five of them. Clavijo and Casar applying a Revealed Comparative Advantage Index⁸ found that, compared with 1980, in 1990 the processed food, glass, and automotive manufacturing industries had increased their level of competitiveness. These industries, plus the chemicals, basic petrochemicals, and plastic products sectors were above the manufacturing industry average (Clavijo and Casar, 1994: 348-349).⁹

This modernization effort resulted in the average TFP between 1984 and 1990 for the manufacturing sector being 2.4% and the difference in labor productivity between Mexico and United States being disadvantageous for Mexico by just 0.2%.

But once again large differences appeared between economic branches. While we find significant advances in the automotive, chemical and petrochemical, steel and metal products industries, an important competitive lag remained in electrical appliances, several sub-sectors of machinery and equipment, apparel, chemicals and nonferrous metals, which, among others, had labor productivity levels lower than in the United States. (Clavijo and Casar, 1994: 367-368).

As a result, by the late 1980s, the large companies, due to their financial investment strategy, had considerable resources at their disposal, and as members of the Economic Solidarity Pact were participants in the design of the new economic policy and the NAFTA negotiations. Their weak point in relation to the impending competition in commodities and capital goods that the economic opening represented was basically one, their level of competitiveness.

2. ACCELERATED INTERNATIONALIZATION, CAUSES AND CONSEQUENCES

In this section we will discuss the key factors that explain the modalities adopted by the emergence of EM-MNEs in Mexico during the beginning of the "second wave" and that allowed for their virtuous insertion in new foreign markets:

- a) The economic juncture (national and international) played an important role in the decisions of companies to become MNEs;
- b) The internationalization process was greatly accelerated due to the pressure exerted by the risk of imminent competition in the domestic market and the opportunity cost represented by not being positioned abroad as rapidly as possible;¹⁰

⁸ This indicator, developed by Balassa in 1965, compares the observed participation of a specific industry in the global market in relation to the entire economy in the world market as a whole.

⁹ The three case studies selected for this paper correspond to the food processing, glass, and petrochemical industries.

¹⁰ This does not contradict the fact that several of them had made previous advances in their internationalization efforts, but most of the cases of Mexican companies that became MNEs do not fit the model of a "gradualist" interpretation (Johanson and Vahine, 1977.) This model is an appropriate

- c) The dominant (oligopolistic) status of companies in their respective markets and the ownership advantages derived from this were decisive in their internationalization;
- d) Partnerships with foreign capital and the purchase of competitor companies abroad were part of a strategy to compensate for the relative technological backwardness and to rapidly get out into the market and compete;
- e) This became a learning platform for the EM-MNEs to further develop their own technological capabilities.

As soon as the opening of the Mexican economy became clear, the most dynamic variables were capital flows, and within them FDI. Capital flows to Mexico (IFDI) increased noticeably from 1991 onward. That year, Mexico was in first place as a recipient of FDI among all developing countries, with flows amounting to more than USD 4.74 billion. By 1993 the figure had risen to USD 15.60 billion. Between 1989 and 1993, 62.4% of this investment was IFDI and most involved co-investments with Mexican business groups and in second place, investment in foreign MNEs, primarily automotive and chemical companies. About 50.1% of the 7,708 companies of all sizes that had foreign investment in October 1993 were only established in the five years between 1989 and 1993 (Pozas, 2010: 222).

Meanwhile half of the 122 joint ventures identified for a sample of close to 80 large Mexican business groups were concretized between January 1992 and March 1994 (Basave, 1996: 211 and 2006: 117-119). This phenomenon is part of the dynamic that several authors alluded to as the stage of alliance of associative capitalism (Freeman and Hagedoorn, 1992) to differentiate it from "hierarchical" capitalism (Dunning, 1995). The alliance allowed access to new complementary technologies and accelerated the learning processes (Hagedoorn, 1993).

Focusing on the formation of EM-MNEs, A. Mathews (2006) refers to this type of business strategy to explain the accelerated internationalization of the newcomer and latecomer EM-MNEs. According to this interpretation, at the critical moment of its conversion into an MNE the newcomer cannot sustain this modality only on its internal benefits, but rather in the advantages that can be obtained externally so that its global orientation becomes an advantage in itself. This capacity to ensure *linkage* with complementary assets in foreign markets and to *leverage* its own resources with external resources to accelerate the *learning* processes of the MNE, analyzed by Mathews for the "newcomers" in the Asia Pacific region in the 21st century, can also be applied to the case of Mexican MNEs in the 1990s.

In less than ten years, that is, by 1997, at least 26 companies had become MNEs, placing their FDI in 24 host countries. There were 75 investment destinations (number of investments in specified regions): Latin America 26, United States 23, Central

guide to study the FDI process that some Mexican companies initiated during the 1970s in the framework of a closed economy and a globalization marked by still limited progress, but in my opinion this does not appear to correspond to the extensive process that took place in the 1990s. Some analysts identify some cases of gradualism in these years (Cuervo Cazorra, 2007: 267) but in my opinion, in the Mexican case, they are few and far between.

America 14, Western Europe 8, Caribbean 4, and Canada 1. This shows an expansion that was mainly regional in its first phase (Basave, 2000: 263).

The number of production plants and service companies totaled 93, located in different regions. We found that the majority were installed in the United States, 38 from 23 different groups (38/23), followed by South America (26/12), Central America (15/6), Europe (10/5), Caribbean (3/3) and Canada (1/1).

Mexican OFDI flows that had remained (with few exceptions) at average annual double-digit levels, rose to average USD 291 million between 1989 and 1992. In 1994 they increased significantly to almost USD 1.09 billion but the 1995 financial crisis and the severe devaluation of the peso led to a contraction in Mexican OFDI in the following two years, to resume its growth to an average of more than USD 1.18 billion between 1997 and 2000. During these years and until 2005, Mexican OFDI flows were higher in annual average figures than the rest of Latin America (Banco de México and WIR, UNCTAD, various years).

With the speed of the change and the economic opening, the largest companies, those that were able to do so, reacted with a rapid "march forward" (in this case "to outside the country"). This was a defensive response that simultaneously acquired the character of an offensive strategy. In this latter sense, we feel that, on the one hand, several companies given the opportunity cost that would be represented by ceasing to invest in the economies south of their borders that also opened up their economies (except Cuba), channeled their FDI toward these countries. On the other hand, the cases of FDI in North America in an international context of globalization allowed the MNEs to accelerate their learning processes.

This type of response that leads to the formation of EM-MNEs based on strategic considerations of both offensive and defensive types was studied by Klein and Woke (2007) for the South African case given the threat of penetration by foreign FDI during the 1990s. There are several similarities of the case studies presented by these authors with the Mexican case. On the one hand, in terms of the benefits represented by the monopoly power of these companies in their process of conversion into MNEs. Secondly, in that both countries experienced a period of intense centralization of capital immediately prior to their internationalization.¹¹

However, groups that internationalized their operations during the period in question were, in the vast majority of cases, dominant in their respective sectors in the Mexican domestic market, a dominance that had been consolidated two or three decades previously, and this gave them a series of advantages that turned out to be decisive for their success.

¹¹ In South Africa due to the withdrawal of foreign capital in the country as a result of anti-apartheid sanctions imposed by the international community between the 1980 and 1991 that led to concentration of industry by a group of diversified conglomerates (Klein and Wöcke, 2007 : 332) and in Mexico promoted by the privatization of public sector enterprises as part of the reforms during the late 1980s.

Most of the business groups that internationalized their operations and which today are among the largest in the country (Basave and Gutierrez-Haces, 2009, 2010 and 2011) as oligopolies or monopolies dominated the most dynamic branches and sectors of the Mexican economy, such as cement (CEMEX), glass (Grupo VITRO), beer (FEMSA), telecommunications (América Movil), baked goods and tortillas (Grupo Bimbo and Gruma), television (Televisa), mining (Grupo México), among others.

The pattern of "accelerated internationalization" for EM-MNEs is an interpretive model also applicable to cases of companies that did not have their own technology or financial capital and experienced management and yet have had great success in their internationalization. Moreover, it is through their internationalization that they have built up greater competitive capacities and this was possible because, as discussed in a recent study, having started their activities as original equipment manufacturers (OEM) subcontractors, they took advantage of globalization as an opportunity to grow and started to develop their own designs, lines and brand names. This is demonstrated in the study by Bonaglia, Goldstein, and Mathews (2007) which analyzes three cases of "late comers" of developing countries in the white goods sector, with one case corresponding to a Mexican company, Grupo Mabe.

Among the main ownership advantages of the EM-MNEs considered in this study, derived from their dominant position in their respective markets for many years, were their management skill and productive know how, which allowed them to easily enter Latin America due to similarity of markets and business habits. They also had the expertise to supply competitive markets such as the US' through exports

The food and beverage and cement MNEs (Grupo Bimbo, Gruma, FEMSA, CEMEX, Cementos de Chihuahua) have taken advantage of the superiority of their distribution systems in markets such as Mexico's, where the highest sales are to retailers. This was made clear by their successful entry into Latin American markets and more recently in the Asian markets (Grupo Bimbo and Gruma).

Meanwhile, companies in auto parts, glass and steel, which for a long time have been working as suppliers to U.S. MNEs in the automotive sector in the country (Grupo ALFA, Grupo Vitro, Grupo KUO, San Luis Corp., Industrias CH) had proven skills for managing production times and international quality controls

3. THREE CASE STUDIES: GRUPO BIMBO (PROCESSED FOODS), GRUPO VITRO (GLASS) AND GRUPO KUO (PETROCHEMICALS)

The rapid internationalization of the Mexican MNEs can be illustrated with three case studies: Grupo Bimbo (processed foods), Grupo VITRO (nonmetallic minerals), and Grupo Kuo (petrochemical division). The three groups are dominant in highly concentrated industries in the Mexican market. Their internationalization strategy involved partnerships and joint ventures with foreign capital and the purchase of companies with advanced production technologies. In a few short years they moved from regional to global expansion and are now successfully developing their own technologies.

The information on the cases comes from various sources, such as company websites, direct interview with officials of two of the companies (Bimbo and VITRO) in 2005, reports and results of previous research (Basave, 2001, 2006, Basave and Gutiérrez Haces, 2009, 2010 and 2011), and complementary published material (Moreno, 2010) as well as direct interviews and the application of questionnaires to executives of subsidiaries of two of the companies in Spain (VITRO and KUO) in 2011.

GRUPO BIMBO

Grupo Bimbo is a Mexican multinational ranked in fifth place based on its foreign assets at December 2010 (more than USD 5.08 billion). Its total assets top USD 8.00 billion, its foreign sales (excluding exports from Mexico) are close to USD 4.79 billion, and its total sales exceed USD 9.46 billion. The company has 108,064 employees, of which 43,000 are overseas. It has a Transnational Index (TNI): 51 and has 25 production subsidiaries in 22 foreign countries.

It is currently the market leader in the global baking industry. The company has more than 100 industrial plants that produce over 7,000 products under more than 150 trademarks. Panificadora Bimbo, S.A. was founded in 1944 with the original goal of providing sliced white bread to the Pastelería El Molino bakery, property of the same owners. Over a period of two decades the company established several production plants, created a fleet of vehicles for distribution of its products to various Mexican states, and diversified into other items such as cookies and muffins. In 1963, it changed its name to Grupo Industrial Bimbo and began to establish production plants in various Mexican states and became vertically integrated, producing its own ovens and packaging.

During the 1980s, Bimbo founded 10 new companies, among them bakeries, agribusiness, and factories for manufacturing machinery, and purchased eight companies from its competitors, in the process becoming the largest baked goods company in the country.

In the words of one of the company's top executives, "at the end of the 1980s, the times required us to go abroad (internationalize); otherwise we would have run the risk of being in a weak position vis a vis the large transnationals." These were the years of the impending opening of the Mexican economy. In 1984 the company began to export to Texas and in 1989 founded Bimbo Centroamérica as an advance guard for marketing and sales and in 1990 it established its first foreign plant in Guatemala. In those years the company embarked on two major joint ventures, with Mrs. Baird's Bakeries and Sara Lee, both U.S. based (the latter with plants in Spain and Portugal). It would absorb Mrs. Baird's Bakeries in 1998 and would acquire Sara Lee's bakery division in Spain and Portugal in 2011.

During the 1990s, Grupo Bimbo bought out several competing plants in Latin America (including the Chilean ALESA, the Venezuelan Holsum, and others in Argentina, Peru, Colombia, El Salvador, and Costa Rica) as well as in the United States. Through

acquisitions it entered the business of producing crackers, pastas, and a Mexican caramel spread known as cajeta. Foreign sales as a percentage of total sales were 0.24% in 1990, rising to 1.85% in 1995 and 26.80% in 1999. In its expansion, Bimbo took advantage of the dietary similarities with the Latin American market and in addition, due to Latino immigration, the growing market in the southwest United States.

In 1998 it made its largest acquisition thus far, Mrs. Baird's in Texas, and ventured into Europe, acquiring the Park Lane confectionery company, with plants in the Czech Republic and Austria. By 2005, Grupo Bimbo had 18 production subsidiaries in 10 countries in Latin America. In 2008, it acquired the largest bakery consortium in the United States, Weston Foods, for USD 2.50 billion and in doing so became the largest Mexican employer in that country.

In 2006, Grupo Bimbo entered the Asian market by acquiring Beijing Panrico Food Processing. During 2010 it acquired two more companies in the United States, North American Fresh Bakery and BM Foods, in addition to the Chinese company Hong Jin Wei. Bimbo is now in its fourth year producing its products in China and has successfully implemented a distribution system based on fleets of trucks and bicycles that allow it to deliver its fresh products on time and three times a week to stores located in the narrow alleys of the old districts of Beijing, Shanghai, Tianjin, and other Chinese cities.

In 2011, Grupo Bimbo acquired Alimentos Fargo in Argentina and the bakery division of Sara Lee in Spain and Portugal.

Grupo VITRO

Group VITRO is currently the Mexican multinational ranked 16th based on its foreign assets at December 2010 (USD 318 million). The company's total assets reach USD 2.49 billion, its total sales are slightly under USD 1.89 billion, and its foreign sales (excluding exports from Mexico) clock in at USD 372 million. It has 2,976 employees overseas, bringing the company total to 17,628. Its TNI: 16 and the company has eight overseas production subsidiaries in eight countries.

The group's first company was Vidriera Monterrey. It was founded in 1909 in the city of Monterrey, Nuevo Leon, a year before the start of the Mexican Revolution, an armed conflict that lasted until 1921. The glass company was responsible for manufacturing bottles for the Cervecería Cuauhtémoc brewery, with both companies owned by the same family, and other glass products for the domestic market. Once the armed conflict, during which, with few exceptions, manufacturing investments in the country were cancelled, subsided, the business group embarked on a vertical integration strategy. In 1929 it established a subsidiary in Mexico City, Vidriera México, and founded Malta SA, producing malt for brewing beer. In 1936 the company established Fábricas Monterrey, which, among other products, supplied bottle caps to the brewery, and Empaques de Cartón Titán, which produced packaging materials.

In 1938 a spin off occurred, with the group dividing in two with their respective equity holdings. Fomento de Industria y Comercio S.A. (FICSA) brought together four major glass companies. By 1970 the group was comprised of 32 companies, all dedicated to the glass industry, producing containers, flat glass, and decorative glassware. During this decade of sustained economic growth in Mexico, the largest Mexican business groups experienced an intense process of capital concentration. In several cases the objective was integration and in others diversification into other labor intensive industries, seeking to increase their profit rate. The abundance of international financial resources led to acquisitions at the cost of excessive indebtedness, as noted in an earlier chapter.

Grupo VITRO (as it has been called since 1978) acquired practically all of its competitors to become the monopoly in the sector and concluded its vertical integration. The group bought 17 companies, of which two, belonging to foreign consortia, stand out due to their size: Cristales Inastillables de México, purchased from Britain's Pilkington Brothers PLC, and Envases de Borosilicato, acquired from the U.S.-based Owens-Illinois.

The group also founded eight new companies, in some cases associating with foreign capital, such as with Vitro Flex, established jointly with the Ford Motor Co. to supply windshields to plants in the United States and northern Mexico. In 1977 the company established its own technology research center Vitro Tec. This was its first foray into R&D at the same time that it became an exporter to markets north and south of the Mexican border.

Between 1985 and 1990 VITRO acquired some Mexican government owned enterprises that were part of the privatization process during the period of adjustment and reform of the Mexican economy.

It ventured into the banking business, creating the group Banpaís, which in 1982 would be nationalized. Between 1992 and 1993, the years of the re-privatization of banks in Mexico, in partnership with the Operadora de Bolsa SA brokerage firm, Grupo VITRO acquired Banca Serfin, the third largest banking group in the country, which due to financial problems it was forced to sell at the end of that decade. In this period it became a diversified group with a base in finances and industry.

The group's internationalization¹² began in the last two and a half years of the 1980s, and strategic partnerships with foreign capital became a focus of its strategy to compete in international markets, first through exports and immediately afterwards via FDI.

Technological improvements in the production of flat glass for cars were achieved on the basis of global agreements with Pilkington Brothers and in the group's packaging division with Owens-Illinois. Other foreign companies with which VITRO signed technological collaboration and business agreements were the U.S. based Amsilcot

¹² We are referring to the second wave, since in 1979 VITRO already had three subsidiaries abroad, two in Brazil and one in Guatemala.

WTI, Samsonite, Whirlpool, American Silver, Backus & Johnson, World Tableware and Pechinery International.

VITRO shifted its production abroad in the course of the 1990s. Foreign sales as a percentage of total sales rose from 9.58% in 1990 to 18.55% in 1995 to 27.49% in 1999.

Overseas investments by CEMEX and VITRO marked the beginning of the "second wave" of Mexican OFDI.¹³ In 1990 VITRO acquired the Anchor Glass Corporation (AGC), which was the second largest producer of glass containers in the United States.

The case of VITRO is of particular interest because it concerns a company with a long history and also represents an example of negative consequences due to the speed (haste we could call it) with which it undertook its first FDI. The acquisition of AGC ended in failure due to the lack of foresight concerning the drastic change in consumption trends in packaging materials, which in the period in question moved from glass to plastic. Seven years later, it had to shed its investment, incurring major losses.

By 1997 Vitro had production subsidiaries in the United States, Guatemala, Peru, and Bolivia. The determining factors behind their geographic location, since this is an industry whose main divisions do not produce goods for final consumption, were the integration to production chains of multinational companies that are the core industries in the chain, in this case automotive plants for manufacturing windshields and soft drink bottling plants for the production of bottles.

In 2001 VITRO ventured into Europe by acquiring 60% of Cristalglass in Spain and in 2009 it established two subsidiary plants in Portugal.

The investment in Spain reflects a strategy characteristic of penetrating new markets and the search for locational advantages due to the quality of the workforce and inputs as well as the possibility of developing new technologies in which learning is internalized within the group.

Prior to the purchase of Cristalglass, Vitro exported from Mexico glass panes, which is the essential input for manufacturing double insulated glass for passenger vehicles and buildings and homes. Cristalglass currently exports 36% of its production, mainly to Europe and a small part to Mexico. About half of its inputs are Spanish and the rest are imported from Europe, Mexico and Asia (Indonesia, China and Korea).

The two main determining factors behind investment in Spain were the size of the market and technological advantages. The group reports that its current favorable positioning in the Spanish market is due to its productive know-how, technological content, and the quality of its products. The company has collaboration agreements

¹³ Grupo Maseca (GRUMA), which produces wheat and corn flour tortillas, represents an exceptional case, since it made several investments in the United States and Latin America since 1982.

for technology innovation with the University of Barcelona (UB) and two technology centers and has registered 15 new patents since VITRO's control.

Four technological advances have been developed, three in industrial processes (one of them, for efficiency in cutting glass, developed in partnership with the UB) and the other in packaging and storage capacity for transporting glass panes.

For four years, between 2004 and 2008, the management and technical staff of VITRO worked in Spain until the first Spanish CEO was named. Currently 29% of the group's executives are Mexican.

Grupo KUO

Group KUO currently is in 14th place in the ranking of the largest Mexican multinationals based on its foreign assets at December 2010 (USD 462 million). Its total assets are USD 1.54 billion, total sales top USD 1.85 billion, and foreign sales (excluding exports from Mexico) reach USD 837 million. The company has a total of 14,000 employees (data is not available on the number of employees abroad). It has a TNI: 38 (not including the employee variable) and has four foreign production subsidiaries in the same number of countries.

It has four divisions that are comprised of about 85 companies, which, over many years, have built up the group through mergers, acquisitions, and alliances of various types involving chemicals, auto parts and food, with chemicals representing about 40 % of the group's sales.

Prior to being incorporated as Grupo KUO, in 1973 the company known as Desarrollo Económico SC (DESC) was established as an industrial development firm, bringing together seven companies in the auto parts (Spicer de México, Auto Magneto, and Industrial de Baleros Intercontinental), metal products (DM Nacional), and chemicals and petrochemicals (Negromex, Petrocel, and Resistol) sectors. The group's oldest company, DM Nacional, was founded in 1929.

During the 1970s, the companies involved in DESC acquired new enterprises for the purpose of vertical integration and DM Nacional established a subsidiary in Guatemala.¹⁴ During that period, KUO became a group with a highly diversified industrial base, adding processed foods to the sectors in which it operated. In 1979 the group controlled 45 industrial companies. At the beginning of the 1980s it acquired the foreign equity, 39%, that existed at the time in Negromex.

To strengthen its internationalization, several of the group's companies entered into joint ventures with U.S. MNEs, especially in the chemical and petrochemicals and auto parts sectors; GIRSA with Monsanto, Velcon with GKN, Filtram with Allied Signal, and Spicer with Dana Corporation.

¹⁴ Another auto company, Tremec, which several years later would be acquired by DESC, in those years had a subsidiary in Tennessee in the United States.

The shifting of the DESC Group's production abroad, viewed as a whole, was carried out remarkably during the 1990s when foreign sales as a percentage of total sales increased from 17.59% in 1990 to 33.79% in 1995 and to 39.99% in 1999.

The company, now known as Grupo KUO, in 1997 had subsidiaries in the United States and two years later, formed an alliance with the Spanish oil company Repsol and founded Dynasol in Europa, which produces synthetic rubber (used in adhesives, asphalt, waterproofing, and footwear). Dynasol is currently the fourth largest such company in the world.

In order to achieve technological synergies, technological learning, and the penetration of new markets, the strategy followed in recent years by KUO based on joint ventures was of particular importance. In addition to the agreement signed with Repsol for a 50%-50% share in petrochemicals, the group signed another agreement, also with a 50%-50% share, with Herdez-Del Fuerte in 2007 through which it entered the U.S. processed food market with two production subsidiaries in California and Texas. Another one of its petrochemical companies, N-Humo, has a 40% equity stake in the U.S. based Cabot International.

The origin of Grupo KUO's most important FDI in Spain is as follows: The group's rubber plant in Tamaulipas, Mexico and Repsol's in Santander were competitors in the Mexican and Spanish markets, while at the same time KUO was a client of Repsol. Following the joint venture, each plant attended to its respective geographic market. According to Mexican executives in Dynasol, the partnership has proved successful in synergies, customer service, and injecting technological resources in the group in Mexico.

Both partners now have R&D centers in Toluca, Mexico and Mostones, Spain. Based on the joint venture, they have registered 10 new international patents and currently one of their subsidiaries, KUO-SOL, works with PEMEX (the Mexican oil monopoly) in developing new technologies in biodiesel in Yucatan. During the six months following the establishment of the joint venture they exchanged technicians in both plants, with the Mexicans having returned to their plant back home. The CEO of Dynasol is Spanish and both directors of finance and technology are Mexican.

Technological advantages and market size are the two main reasons that KUO gives for its entry into the Spanish market and the technological content of its products is the main source of its success in Spain.

Dynasol exports 70% of its production to the United States, Europe, Mexico, Asia, and Australia, importing some raw materials from Canada and Europe.

The group is currently building two production plants for its companies in China, one for Negromex (plastics) in Nanjing and a Dynasol factory in Liaoning.

Table summarizing the three cases:

	G. Bimbo	G. VITRO	G. KUO
Founding of the group's first company	1944	1909	1929
Oligopolic consolidation	1980s	1970s	1970s
Joint ventures In the 1990s (# and origin of partner)	(2) USA	(10) USA	(4) USA
First FDI (2nd wave)	1990 Guatemala	1990 USA	1997 USA
Type of entry	purchase	purchase	purchase
1st FDI in Europe	1998 Czech Rep.	2001 Spain	1999 Spain
Type of entry	purchase	joint venture (60%)	joint venture (50%)
# of foreign industrial Subsidiaries and # countries	25-22	8-8	4-4
TNI (2011)	51	16	38

4. COMBINED ANALYSIS OF CASE STUDIES

The three case studies show the basic characteristics of the conditions in which the Mexican MNEs were established during the "second wave", with differences that are derived from the branch of economic activity to which they belong:

These are companies with decades of experience in their respective and highly concentrated markets, and in which they had become leaders one or two decades prior to their establishment as MNEs.

The three were associated with U.S. capital and with companies with international experience in anticipation of the opening of the Mexican economy and two of them (Bimbo and VITRO) began their FDI as the process of economic liberalization in Mexico was in full swing, in 1990, four years before NAFTA entered into effect. In the case of KUO, some of the companies that comprise the group expanded to the United States in the middle of that decade and in 1999 entered the Spanish market. It is obvious that the expansion of Grupo Bimbo was faster and with a greater number of production plants, given that the necessary resources for acquisitions for establishing new companies is substantially less for the bakery industry than for non-metallic minerals and petrochemicals.

In all three cases, the groups began their FDI through purchases of competitor companies as a strategy to accelerate their internationalization. The acquisition of third party technology is a constant factor in all three cases, although it takes different forms. Bimbo acquired such technology after eight years from its strategic partner and 13 years later from the European plants of its other strategic partner. VITRO formed a joint venture with its European client and KUO partnered up with its European supplier.

In the case of the two capital-intensive industries (VITRO and KUO), they have developed their own technologies for which their international expansion has been instrumental and they now have their own R & D centers. Bimbo has exploited its relative ownership advantage in terms of distribution systems and in addition to using its own trademarks, it has acquired prestigious brands in the places in which it has expanded.

The expansion that was initially regional in scope, within a decade became global and now two of the cases presented have a presence in China.

Finally I would like to refer to the significance of these three groups' investments being located in more developed countries, reflections that can be extended to the rest of the Mexican MNEs and which we referred to in the second section of this paper. As we have seen, the United States became a target for natural investment for the acquisition of companies already positioned in the market and with greater technological content, from which the groups would proceed to internalize knowledge. The same applies to the FDI that is earmarked for European markets.

This has two important consequences that I would like to comment on. The first is on the theoretical aspect of the four stages of the investment development path. This is based on the original affirmation of Dunning, at the end of the 1980s, that there is a systematic relationship between the structure and level of development of an economy, the nature and expansion of the FDI undertaken by domestic companies abroad, and well as the investment by foreign firms in their country. This relationship is dynamic and interactive and becomes structurally modified to the extent that the economy grows.

During these stages, the determining factors behind investment by MNEs reflect the structure of the country of origin. Subsequently, Narula (1996: 29-34) incorporated a fifth stage during which, to the extent that a company becomes globalized, the structure of the country where it is installed becomes more important than that of the country of origin and the changes that the MNE experience thereafter will be independent of those occurring in its country of origin. The investments in the United States that we analyzed in this study immediately placed several Mexican MNEs in an advantageous position of being in the fifth stage without having passed through the previous stages and to advance methodologically would require suggesting stages specific to the Mexican case that would have the same analytical function that the schema which Dunning-Narula designed for the developed countries and the most

advanced economies among the developing countries of East and Southeast Asia (Narula and Dunning, 2000).

The second consequence is in relation to the economy (in this case, Mexico's). The decoupling of MNEs from the home country's economy tends to be increasing and, given the characteristics of the rest of the economy, this hinders the possibility of productive linkages with smaller local companies (the "pull" factor). The economic and social indicators of the home country's economy cease to be useful for relating them to the future of the country's OFDI. The gap that Narula referred to is a breach between a developed country such as the United States, Japan, Germany or South Korea and their MNEs, but the same gap for the Mexican case is immense, immediate, and growing.

CONCLUSIONS

From the analysis undertaken in this paper on the emergence and growth of Mexican MNEs and the illustration of this process through three case studies, we can draw the following conclusions which I feel would be useful as a framework for the study of other cases in Mexico, Latin America, and other developing economies:

A prolonged position of market dominance (monopolistic or oligopolistic) becomes an asset for a company that decides to become a MNE. Other conditions must occur for this to take place, but its dominance translates into the development of management skills and in organizing production, distribution, and the marketing of its products that are used internationally, especially when the FDI is undertaken in other developing economies.

Exceptional junctures and contingency situations can operate as powerful incentives for the internationalization of the EM-MNEs. The current international conditions of globalization allow the business response to the contingency to rapidly find new ways to link up to international markets. In many cases, the speed with which EM-MNEs internationalize their operations responds to the relationship between these two factors.

A company, even though it might maintain a leadership position in the market of its country of origin, when it is threatened by competition from other MNEs, adopts defensive strategies, among which its conversion into an MNE is highly effective.

The EM-MNEs, the larger and financially stronger they are, in the context of access to external credit resources, the more possibilities they have to compensate for their weaknesses to compete internationally and accelerate their learning processes through partnerships and acquisitions of established companies.

To understand the logic of the EM-MNEs' strategies and the FDI modalities that they follow, it is essential to take into account the economic conditions of the country of origin and the position of the MNE in it.

The FDI of an EM-MNE in a more developed country pegs its learning and innovative capabilities to the host country. Therefore, its development is much faster than classical cases of MNEs and the economic indicators and models to appraise it become different from those that are used to evaluate its home economy. In these cases the methodology of stages that is generally used to analyze the evolution of MNEs ceases to be functional and it is necessary to adapt it to the new circumstances.

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