Sustaining international competitive advantage through capability renewal: the case of CEMEX

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SUSTAINING INTERNATIONAL COMPETITIVE ADVANTAGE THROUGH CAPABILITY RENEWAL: THE CASE OF CEMEX

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The emergence of multinational firms from developing economies poses a quandary to international business scholars (Ramamurti 2009; Wells 2009). Some of the classic theories that helped justify the international expansion of (developed country) firms are questioned by the mere existence of the so-called emerging market multinational enterprises (EMNEs) (Heenan and Keegan 1979; Lall 1983; Wright, Filatotchev et al. 2005; Mathews 2006; Ramamurti 2009) of which Latin American MNEs is an important subset. Much of the current knowledge on EMNEs stems from country-level studies. In these studies, aggregate levels of trade, foreign direct investment, and other macro magnitudes are analyzed (Kumar and McLeod 1981; Khanna and Palepu 2006; Fleury and Fleury 2009; Williamson and Zeng 2009) and the implications for EMNEs is subsequently hypothesized (OECD 2006). The present paper takes the opposite approach: from micro to macro. More concretely, we review the international expansion of one particular firm, CEMEX, which we deem representative of a subset of EMNEs, and then try to induce the general principles explaining the growth and sustainability of these firms.
The rapid and successful geographical expansion of CEMEX reveals a more complex story about the sources of EMNE competitiveness than usually told. We find that the structural characteristics of its domestic market, the most common explanation of EMNE success, certainly had a strong influence on the character of the company and its growth in foreign countries (Khanna and Palepu 2006). However, country of origin explanations alone fall very short of justifying CEMEX’s pattern of expansion, or why it is able to compete against first world firms whilst remaining, unequivocally, a Mexican company. Indeed, since the early 90s when it started its international expansion, this company’s strategy has consisted in systematically standardizing, exploiting and enhancing the capabilities that were initially developed to respond to the competitive challenges of its home market. It is the explicit attention paid to capturing knowledge from newly acquired firms, evaluating its potential impact, and rolling it out to the rest of the organization that helps explain CEMEX’s growth and position in its industry.

Brief Theoretical Review

Early theories of the multinational enterprise (MNE) in the 60s and 70s were developed in response to the reality those days: the overwhelming majority of firms venturing beyond their domestic country borders were headquartered either in the US, Western Europe or Japan. As a result, the explanations of observed patterns of international expansion emphasized existing differentials in the quality of the institutional environment
in home and host countries (Hymer 1960; Vernon 1966; Vernon 1971; Johanson and Vahlne 1977).

It would not be until the early 80s that some authors (Heenan and Keegan 1979; Lall 1983; Wells 1983) started to pick up on the increasing expansion of developing country firms into foreign markets. Frequently, other developing economies (Heenan and Keegan 1979; Yeung 1994). Beyond the description of the phenomenon, these authors attempted to provide explanations on how it was possible that firms born in environments riddled with such problems as weak regulatory and judicial systems, extremely limited access to credit, high levels of corruption, and limited autochthonous technological capabilities, were able to successfully compete in foreign markets where domestic or western MNEs would, in principle, enjoy considerable advantages.

Two broad kinds of theories were offered to explain the new phenomenon. The first one was based on domestic country-specific-advantages (CSAs) (Rugman 1980; Dunning 1989; Porter 1990; Buckley and Casson 1998). In this case, the existence of EMNEs was justified by their privileged access to, or control of, internationally scarce natural resources or cheap access to generic production inputs, most frequently labor. Privileged access to scarce natural resources gave these firms the upper hand in foreign markets given the limited availability of alternative suppliers. Cheap domestic labor would allow them to implement strategies of input substitution by which intensive use of this cheap factor of production would more than compensate for the competitive hurdles they encountered in foreign countries.
The second set of explanations focused on sources of advantage developed at the firm level, frequently referred to as firm-specific-advantages (FSAs) (Rugman 1980; Dunning 1989). Some of these FSAs, it was argued, were developed by firms as a response to specific local market conditions (Khanna and Palepu 2006). Frequently mentioned examples of these capabilities were the ability of some developing country firms to efficiently operate at very small scale levels of production (Wells 1983), or the innovations that these firms developed to make up for the unavailability of the “right” resources in their home markets (Lecraw 1993). Other FSAs were argued to derive from having to compete with developed-country MNEs operating in the EMNEs home country (Craig and Douglas 1997; Dawar and Frost 1999; Meyer 2004). The positive technological, institutional, managerial and competitive spillovers derived from the presence of first world competitors at home helped developing country firms to hone-in their capabilities to the extent of making them internationally valuable (see Ghauri and Yarning (2009), Meyer (2004) and Rugman and Doh (2008) for contrasting perspectives on this issue). Finally, other generic explanations were given to justify the existence of EMNEs. Among them, we could cite the opportunities that arose as domestic clients ventured abroad, or the provision of added services in a firm’s export markets.

While the literature on EMNEs in the 80s was quite extensive, interest in this phenomenon decreased considerably during the following decade and a half. In the early 2000s, however, a marked increase in the levels of FDI from developing countries, and a flurry of EMNE success stories rekindled the interest of practitioners and academics for
these firms (Hoskisson, Eden et al. 2000; Business Week 2006; The Economist 2007). Together with this renewed interest came the need for explanations of how it was possible that these EMNEs were now not only able to operate in other developing countries but also compete head to head with developed country MNEs in their own domestic markets. A widely accepted consensus to this question has not been reached yet. Some authors argue that the new situation can be comfortably explained with the arguments put forth above (Rugman 2009). Others, by contrast, question whether the difference between today EMNEs and those in the 80s is a matter of kind and not only of degree and whether, consequently, we should be developing a new body of EMNE theories.

In this paper we do not enter in the dispute of whether a new theory is needed to explain the factors that make it possible for EMNEs to give their initial steps beyond their home markets. Rather, we are interested in finding out how some of these firms have been able to sustain their international competitive edge for decades allowing them to become major players in their industry at the global level.

Why CEMEX?

CEMEX (Cementos Mexicanos) is the third largest firm in the world, by revenue, dedicated to the manufacturing of construction materials and the only major one in its industry born in a developing country. With revenues of over $21 billion, 60,000
employees and operations in 56 countries in 2008, it ranks 389 in the Global Fortune 500 ranking. Given the relevance that size has in explaining trends in international trade, FDI, and other international business phenomena, performing detailed analysis of how firms in these rankings have achieved their world-level status has been a methodology employed consistently in IB research.

In attempting to explain the sustainability of EMNE international competitive advantage, we find that the study of CEMEX’s international expansion is particularly enlightening for three reasons. First, the very nature of the cement industry, marked by a very low value-to-weight ratio, makes international trade in cement the exception rather than the rule. Indeed, the high cost of transportation of cement by land limits the competitiveness of a cement plant to a radius of about 300 miles (Lafarge 2008). While transportation by sea considerably increases the distance that a cement plant can reach competitively, it is estimated that over 90% of cement needs are covered by domestic firms. As a consequence, cross-national competition in this industry is fought by owning production facilities in the countries that the firm intends to serve and by developing strong operational and marketing capabilities in those countries. As a corollary, it should be noted that the low value of cement relative to its weight makes it virtually impossible to compete internationally on the basis of economies of scale in production. That is, while increasing the scale of a cement plant certainly lowers the average cost per unit produced, the high costs involved in transporting cement more than compensate for the gains achieved through large scale production.
A second characteristic that makes examining CEMEX's expansion interesting is that the production of cement is not based on scarce and geographically concentrated raw materials. The basic ingredients for cement production, limestone and energy, are widely available in most relevant markets, ruling out the possibility of a domestic country-based source of competitive advantage for any player in this industry.

One final consideration in examining CEMEX's story is that the cement industry is relatively capital intensive and building a significant presence in any major market quickly tests the financial muscle of any participant in this industry. The combination of these three industry-specific characteristics makes the international expansion of CEMEX and its current dominant position quite a puzzling phenomenon for IB. As we have seen in the previous section, international expansion of firms from developing countries was predicated, mostly, on the existence of one of two circumstances: (1) the exploitation of locally abundant and cheap natural or human resources that facilitate attaining substantial economies of scale in production, or (2) the control of internationally scarce raw materials. Neither of these conditions applies to CEMEX which, in addition, was born in an institutional environment where access to credit is, still today, limited at best. The question then is: how was it possible for CEMEX to develop the internationally relevant operational and marketing FSAs that have made of this company one of the poster children of Latin American MNEs? In the following section we review, in broad strokes, CEMEX's international expansion highlighting the gradual acquisition and reconfiguration of this company's capabilities as it faced new competitive challenges and
as its status changed from small local firm to one of the three main players in the construction materials industry in the world.

CEMEX’s expansion history

The early days

CEMEX was founded in 1906 in Monterrey as “Cementos Hidalgo” by Lorenzo Zambrano, the grandfather of the company’s current CEO. CEMEX’s early story is marked by two main factors: a policy of import substitution applied by Mexican governments throughout most of the XX century, and a steady growth in its domestic market based on acquiring rival firms and integrating them into the company’s existing operations. While operating in an environment protected from foreign competition undoubtedly facilitated the domestic growth of CEMEX, it probably impaired its international expansion as it could not benefit from the spillovers generally associated with the presence of developed country firms operating in developing countries.

This relatively comfortable competitive environment that characterized the early days of CEMEX came gradually to an end in the mid to late 80s. In preparing to join the GATT and laying out the ground work for the signature of NAFTA, the Mexican government started to open the country to foreign trade and foreign direct investment. As a result, CEMEX’s domestic dominance quickly became threatened by the large players in the industry, all of which were headquartered in developed countries. It is important to note,
however, that the capabilities that the company gained during this period -spotting underperforming rivals, acquiring them, and quickly infusing them with a clearly defined set of operating and managerial principles- would soon prove to be extremely valuable in the international context.

First foreign ventures

As its position at home became increasingly threatened, CEMEX's leadership determined that fighting its rivals in Mexico alone would be a losing proposition in the long term: while foreign rivals could always finance their Mexican campaign with profits generated in their home regions, CEMEX had no such recourse. In what was a bold move for a company of its size -$3.8 billion in total assets at the time- and country of origin, CEMEX decided to acquire two large Spanish cement companies for $1.8 billion in 1992. Strategically, this move was important for two reasons. First, it made CEMEX less dependent on Mexico's fate and gave it a dominant position in one of its main rivals' important markets. Secondly, it gave CEMEX access to developed-world financial resources. Given the capital intensity of this industry, and the underdeveloped state of financial markets in Mexico it would not have been possible for CEMEX to continue an aggressive international expansion strategy had it not enjoyed the "developed country firm" status that came from being a sizeable player in Europe.
Upon acquisition of these two firms, CEMEX started to meticulously revise their every operational and managerial process in order to realize potential savings, and to quickly integrate them into CEMEX’s Mexican operations. To their surprise, CEMEX managers realized that there were considerably more economies to be realized from the Spanish acquisitions than originally thought. In addition, they quickly noticed the importance that the Post-Merger Integration process (PMI) might have in future international acquisitions. As a result, they started to codify and standardize the different steps involved in identifying potential savings in newly acquired firms, rolling out CEMEX’s standard practices and, very importantly, detecting sources of excellence that might represent new best practices for the company as a whole. The next major foreign acquisition for CEMEX was in Venezuela where, in 1994, it bought the market leader Vencemos. As in the previous case, Venezuela was an important market for CEMEX’s big international rivals. Also as with the acquisitions in Spain, the PMI process quickly improved the profitability of the newly acquired operations.

At the end of this phase, CEMEX still relied heavily on its domestic regional –NAFTA–market for about two-thirds of its sales, but had firmly expanded its operations into Europe and South America (see Table 1). Importantly, it had also enhanced its capability platform by gaining access to cheaper and more plentiful sources of capital, codifying and standardizing its PMI process, gaining strategic response capacity, and improving its operations with new best practices learned from the newly acquired firms.
Broadening the geographic scope

The initial international expansion of CEMEX was followed by a flurry of other foreign acquisitions between the mid nineties and the turn of the century. As a result, CEMEX expanded its presence to Colombia, Chile, Panama, Costa Rica, the Philippines, Indonesia, and Egypt. The logic behind these expansions was driven by several factors. On the one hand, CEMEX looked for markets with large growth potential. In general, this was associated with countries experiencing large population growth and a relatively low current consumption of cement. Where access to maritime terminals was good, potential for growth considerations were made at the regional rather than at the pure country level. On the other hand, CEMEX favored acquisitions where it could be a dominant, if not the sole, shareholder. Experience showed that speed and the capacity to implement deep structural changes in the acquired firms was crucial in capturing the efficiencies that CEMEX investors had become accustomed to. This perspective of what was a desirable expansion opportunity resulted in CEMEX investing exclusively in developing countries and eschewing big and mature markets that were seen at the time as too competitive or too expensive to enter.

Most of the acquisitions during this phase involved only one country at a time and took place in a sequential rather than simultaneous manner. This continuous string of acquisitions facilitated not only the re-allocation of resources when a PMI team had to be put together but also the gradual development of a peculiar culture within CEMEX that emphasized the system-wide dispersion of operational and managerial best practices.
Using its headquarters as the center of coordination and control, and supported by a very sophisticated IT infrastructure, CEMEX encouraged its managers to explore, analyze and report potential new sources of value that had the potential to be applied throughout the organization. This was particularly the case during the PMI processes where CEMEX managers had first hand exposure to the standard practices of the acquired firms. The importance attached to this learning and sharing culture was made evident with the launch of the CEMEX Way project in 2000. This $200 million initiative had as its main goal the codification of best practice knowledge in the company across eight key business processes.

In sum, this second phase was marked by a sequence of acquisitions in developing countries whose growth potential derived, mostly, from explosive population growth and poor existing infrastructure. In terms of sales, this international expansion more than doubled the size of the company between 1995 and 2000, and considerably spread the economic risk faced by CEMEX over a larger number of countries. However, it did not alter dramatically the regional make up of the company: CEMEX continued to draw most of its sales -62%- and even a larger proportion of its profits from North America, but enjoyed a solid operation in Europe -15% of total sales- and Latin America -20%-. 

The Big Jump

Towards the late 90s CEMEX seemed to be running out of potential targets that fit its selection criteria. Obvious opportunities seemed to be China, India and Brazil. However,
heavy government involvement and exceedingly high valuations of existing plants in those countries made CEMEX consider alternative expansion opportunities.

According to Hector Medina, VP of Finance and Legal, two important changes in the way the company looked at potential acquisitions occurred around this time. First, CEMEX redefined its strategic unit of analysis from country to regions-within-country. This finer segmentation made specific regions within large mature market such as the United States look more like developing country opportunities, in terms of their potential for growth. Secondly, CEMEX abandoned the use of profitability as “the” key leading indicator to evaluate potential growth opportunities in favor of return on investment. This second change, made investing in other segments of the construction materials industry such as ready-mix\footnote{Ready-mix is a type of concrete manufactured in batching plant and delivered to a worksite by truck. The main advantage of ready mix over on-site produced concrete is the precision of the mixture. Its main handicap is the degree of coordination required between the batching plant and the worksite.} relatively more attractive than investing in cement.

The new approach would soon materialize in the acquisition of Houston-based Southdown for $2.8 billion in 2000. Consistent with the new region-within-country approach, Southdown was seen as particularly strong in the states of Texas, Florida, and California; three of the fastest growing states in cement consumption in the country. As a result of this acquisition, CEMEX became the largest cement manufacturer in North America and started to increase its presence in the ready mix market. Small acquisitions in Thailand and Puerto Rico in 2001 and 2002 were followed in 2005 by the “monster”\footnote{The acquisition itself was valued at $4.1 billion but the inclusion of debt and other expenses raised the cost of the transaction to an estimated $5.8 billion} acquisition of RMC; a company almost the same size as CEMEX and with operations...
spanning various continents and several families of products. RMC’s acquisition marked a turning point for CEMEX in more than one way. First, CEMEX’s sales went from depending mainly on developing markets to, in just one stroke, being concentrated on mature markets from developed western countries. Secondly, from being a company predominantly oriented to the production and commercialization of cement, CEMEX also became one of the most prominent global actors in ready-mix and aggregates. Third, CEMEX took on an extremely large amount of debt that made shareholders and investors question the wisdom of the deal. This was reflected more directly in the company’s stock price that fell by 7.21% in the Mexican stock market upon announcement of the deal. Lastly, the acquisition of RMC presented a formidable post-merger integration challenge for CEMEX: not only had it to deliver on expected immediate savings of $200 million a year, but also integrate a confederation of independently run operations into the highly centrally coordinated system of CEMEX. To top it off, and as was usual in other PMIs, the integration team had to be selected from CEMEX existing operations; an effort that represented a very significant stretch of the company’s organizational resources. Despite these considerable obstacles, CEMEX delivered better than anticipated results once again: over $40 million in savings were secured within the first three months, and a further $360 million in recurring savings were expected to be achieved within three years from the date of the acquisition.

If RMC seemed the pinnacle of CEMEX’s acquisition and integration prowess, the purchase of Australian Rinker in July 2007, its biggest yet with a price tag of $16 billion, would test again the company’s capacity to amalgamate the operations, management
styles, and organizational cultures of two large firms. And, once more, CEMEX completed the core PMI process in record time and identified over $400 million in potential synergies that would be executed over a two-year period. As in occasions past, CEMEX strongly leveraged its balance sheet to finance this acquisition.

The geographic and product diversification achieved by CEMEX through the years allowed the company to post strong results in 2007 in spite of record oil prices, and the downfall of the construction industry in Spain and the US; two of its most important markets. The global financial and economic crisis that started in 2008 hit hard CEMEX as well as the other two main players in the industry. However, CEMEX’s heavy debt burden has required that a number of exceptional cash generating or cash preserving measures be taken. Among others, CEMEX slashed its capital investment budget by more than $1.6 billion in 2008, and divested from operations in the US and Spain in 2008 as well as from assets in Australia, Austria and Hungary in 2009. In August 2009, however, it gained some breathing room by reaching an agreement to restructure a substantial part of its $15 billion debt.

Previous rounds of international expansion transformed CEMEX from a domestic firm to an EMNE focused on developing countries with a solid competitive position in the USA and Spain. The large acquisitions carried out since 2000, however, led CEMEX to compete head to head with developed country MNEs in their own markets. As argued at the beginning of the paper, this is a phenomenon that questions extant explanations of the existence and sources of competitiveness of EMNEs.
Discussion and Conclusion

Current theorizing about EMNEs’ sources of international competitiveness is still an unresolved issue. Some authors argue that the presence of emerging country companies beyond their borders is explainable mostly through privileged access to globally scarce natural resources or cheap domestic labor (Debrah, McGovern et al. 2000; Aharoni 2009; Fleury and Fleury 2009; McCarthy, Puffer et al. 2009). Others, contend that the capabilities that developing country firms need to compete internationally only come from previous interaction with developed country MNEs operating in their country (Nelson and Pack 1999; Brouthers, O’Donnell et al. 2005; Rugman and Doh 2008; Meyer and Sinani 2009; Rugman 2009). Finally, others assert that emerging market firms are able to compete abroad as a result of the capabilities developed in response to the technological, legal, or marketing challenges they face at home (Uhlenbruck, Meyer et al. 2003; Khanna and Palepu 2006; Casanova 2009). In either case, focus is generally placed on the reasons that allow EMNEs to take their first international steps rather than on how this global competitive advantage is sustained.

Reviewing the international expansion of CEMEX provides us with a potential explanation of how an emerging market firm may not only be a “temporary multinational” (Wells 2009) but also grow to compete and be a dominant player at the global level. Indeed, CEMEX’s early experience in acquiring and swiftly integrating domestic firms in its existing structure, a keen emphasis on standardization and control, expertise in navigating complex institutional environments, and a strong orientation
toward shareholder value not only became extremely useful in the company’s first internationalization efforts but also remained a distinctive trait of CEMEX. Yet, even such a remarkable initial capability platform could hardly explain how CEMEX was able to compete in markets that considerably differed from Mexico’s. CEMEX’s international expansion conveys a more nuanced story. A story of sustained growth based on the exploitation of domestically-grown capabilities that are continuously enhanced from the periphery of the firm. New capabilities may arise from specific responses given to problems faced in foreign countries, from new technology or management practices obtained with the acquisition of a new firm, or simply by gaining access to resources that are more plentiful in a foreign location—as with access to developed capital markets when CEMEX acquired its Spanish subsidiaries. The last piece of this capability exploitation-enhancement-exploitation story is the strong learning culture in place at CEMEX and the development of a set of organizational mechanisms fine tuned to analyze, adapt, and roll out to the rest of the organization what is considered to be best operational and managerial practices in the industry.

CEMEX’s international expansion is certainly different from that of some of the best known “Global Latinas” (Casanova 2009) in at least two respects. First, its growth was not based on significant CSAs, or western MNE-learned FSAs. Second, its pattern of international expansion reveals CEMEX’s FSAs were relevant in various geographic regions from the beginning. On both accounts CEMEX runs counter to some of the theories put forth to explain the very existence of EMNEs. Whether this company is just an outlier or a precursor of a new wave of Latin American MNEs is still to be seen.
Understanding how it was able to transcend its domestic borders and become a global leader in its industry, however, is certainly useful for practitioners, and for IB academics interested in explaining the growing presence of firms from emerging markets among the MNE elite.
Table 1 - Geographic break up of CEMEX's sales since the beginning of its international expansion

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<td>ROW (&amp; adjustments)</td>
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<td>2%</td>
<td>2%</td>
<td>2%</td>
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<td>2%</td>
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<td>1%</td>
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</tr>
<tr>
<td>Total</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
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<tr>
<td>Total sales</td>
<td>21695</td>
<td>18249</td>
<td>8149</td>
<td>7164</td>
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<td>3788</td>
<td>3365</td>
<td>2554</td>
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<tr>
<td>% increase</td>
<td>0%</td>
<td>19%</td>
<td>14%</td>
<td>9%</td>
<td>-5%</td>
<td>23%</td>
<td>15%</td>
<td>12%</td>
<td>14%</td>
<td>13%</td>
<td>31%</td>
<td>22%</td>
</tr>
</tbody>
</table>

Sources:
+ CEMEX Annual Reports
* Estimated from Press releases

Note: The percentages might not add up to 100 due to rounding.
References


