CEMEX’s Strategic Mix

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MODERATED BY THOMAS A. STEWART
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AN S+B ROUNDTABLE
Moderated by Thomas A. Stewart
Consider the challenges of selling cement and concrete. These are the most widely used building materials in the world. They are ancient (dating back to at least 3,000 B.C., they form the literal foundation of civilization), energy-efficient, durable, versatile, and inexpensive. Three tons of concrete are poured each year for every person on earth. In most places, the business of providing these materials is capital-intensive and cyclical. Cement is bulky and is delivered to construction sites in giant bags. Concrete must be used soon after it is mixed, because of the way it hardens.

For all these reasons, concrete and cement are generally seen as commodities. The company that can provide them at the lowest price in any particular location would seem to have an unbeatable edge. Yet since the early 1990s, the Mexican company CEMEX, whose primary businesses are cement and concrete, has pursued a strategy of differentiation. It defines itself as a provider of solutions for builders and local governments, particularly in emerging economies and for those seeking environmental sustainability. As part of this evolution, CEMEX rebounded from a near bankruptcy during the 2008 economic crisis to regain its position as a leading company in the global construction materials industry.

This roundtable with CEMEX senior executives recounts how the company used its distinctive capa-
bilities — and developed some new ones — to bring an international business strategy to life. (See “CEMEX’s Coherence Profile,” page 6.) CEMEX’s global expansion represented a 180-degree turn for a company whose very name is an abbreviation of Cementos Mexicanos. Founded in 1906, the company did business nearly exclusively in its home country until the early 1980s; even then, it moved past the national boundaries very tentatively. But in the early 1990s, when the company’s leaders saw that the North American Free Trade Agreement (NAFTA) would be signed in some form (it became law in 1994), the vulnerabilities of the company’s position became evident. If CEMEX stood still, it would be up against competitors with greater scale and more access to capital markets. There was no choice but to build new capabilities — both to defend its home turf and to grow abroad.

Under Lorenzo Zambrano — who took the helm as CEO in 1985 and remained in office until his death in May 2014 at age 70 — CEMEX embraced information technology and inorganic growth. Zambrano’s successor as CEO, Fernando A. Gonzalez, was previously the firm’s executive vice president of finance and administration, and its CFO. Building on its long track record in lean operations (“ruthless operating efficiency” is a catchphrase within the company) and its pride in being one of the most successful companies from an emerging market, CEMEX developed a high level of customer

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responsiveness. It delivers cement within 20 minutes of receiving an order in many locales. Its international business strategy enabled CEMEX to grow rapidly during the 1990s and early 2000s, when it became one of the biggest cement companies in the world.

It did this while maintaining, as New York University and IESE professor Pankaj Ghemawat has noted, consistently high profitability levels. (In 2014, the company reported US$2.7 billion EBITDA on revenues of $15.7 billion.) CEMEX’s growing global presence allowed it to raise capital at low rates and to gain leverage through its overseas presence and relationships. As it moved more aggressively into mergers and acquisitions — first in Mexico, then Spain, then Latin America, and then more broadly — its leaders discovered the leverage of postmerger integration. Incoming companies were inducted into the CEMEX Way (the company’s name for its distinctive practices), and in parallel CEMEX took unusual pains to capture and make use of acquired companies’ knowledge. (See “The Very Model of an Emerging Market Multinational,” by Pankaj Ghemawat, page 11.)

In the 2000s, to take full advantage of its emerging global nature, CEMEX entered new businesses in ready-mix concrete and aggregates — materials whose supply chain and financial dynamics were very different from those of cement. CEMEX also developed a sophisticated trading arm that has protected it against much of the volatility that threatens cyclical commodity businesses. At the same time, to evolve into a more premium business, CEMEX began providing guidance in construction methods — not just to individuals and private-sector customers such as building companies, but also to municipalities and national governments. Over time, CEMEX’s leaders developed a capability for promoting environmental sustainability: decreasing the company’s own fuel use, removing or mitigating pollutants in materials, and looking for ways its products and services could lead to sustainable practices for all the industries CEMEX serves.

CEMEX was hit hard during the financial crisis. It lost major revenues overnight when the global construction industry imploded, and it suffered from having paid $14 billion to acquire the Australia-headquartered materials company Rinker Group just before the crisis struck. During 2008 and 2009, the company staved off bankruptcy through a series of major cuts and refinancing efforts. CEMEX recovered only when the economy in its markets began to rebound. By 2012, the distinctive capabilities it had been developing — in sustainability and in providing services to governments and business customers — were inherent to the company’s identity.

In this roundtable discussion, six CEMEX leaders, all interviewed at company headquarters in Monterrey, Mexico, talk about the company’s capabilities system, how it developed, and the value that it has provided.

**M&A and Operational Efficiency: 1992–2000**

**JAIME ELIZONDO:** I joined CEMEX in 1985, shortly before Lorenzo Zambrano became our chief executive officer. Mexico was basically our sole market in those days, and we were the biggest cement company in the country. I remember that trucks used to line up outside our plants to get cement, and it wasn’t unusual for them to wait for several days to pick up an order.

When Mr. Zambrano took office, we initiated a lot of changes to reduce cost and improve our processes and our quality. Then we started buying up cement companies throughout Mexico.

This all happened right before NAFTA, which opened up Mexico [to global competition]. Mr. Zambrano recognized NAFTA for the huge strategic threat it was. There was a real chance a larger global company would come into the market and underprice us.

**JUAN PABLO SAN AGUSTIN:** In 1992, two years before NAFTA went into effect, we made our first international acquisitions, buying two cement companies in Spain. At the time, the biggest cement companies were concentrated in Europe. We reasoned that we could achieve some balance by being on their home turf.
In the early 1990s, Mexico had very high inflation. The peso crisis had hit, and Mexican companies had a hard time accessing the financial markets. Because we had such a high cost of capital, the only way to keep on growing through M&A was to extract a lot of value quickly.

**ELIZONDO:** We became quite adept at that. We would do an acquisition, optimize it, take value out of it, and then go do another one. Having that speed and efficiency allowed us to be an acquirer as opposed to being one of the companies that got acquired.

**SAN AGUSTIN:** To get good at postmerger integration [PMI], we did a lot of postmortems. After each transaction, we would ask ourselves, “What was successful? Where did we fail?” That helped us figure out what to replicate and what not to replicate. Early on, for instance, we realized we should use the same team of people, from planning, accounting, IT, and operations, for each acquisition. PMI became second nature to them.

An acquisition is inherently very motivating. There’s this feeling of “let’s prove it to ourselves, our competitors, and the whole world that we can really extract more value out of those assets than the former owners.” But you typically need the people of the acquired company to behave differently, and they don’t do that automatically the day an acquisition goes through. You have to train them. With most acquisitions, we found that for at least the first two years, we needed to have 20 or 25 CEMEX people working in different parts of the acquired company, making sure the new people understood our systems.

This intensive collaboration is one of the key ingredients of a successful integration. The first three months are key. That’s when you have your best chance — and I mean this in the most positive sense — of getting into people’s heads. That’s your window to make them realize they should change how they think.
The CEMEX Way Emerges: 2000–2005

SAN AGUSTIN: By 1999, having done acquisitions in Asia, Latin America, Europe, and the U.S., we had become very decentralized. That was making us less efficient. Mr. Zambrano said, basically, that going forward, CEMEX would have company-wide common processes for basic activities. These included the closing of the books, accounts payable, and most technology-related activities. We could then transfer people without their having to learn entirely new systems. And our common technology platform would make us more productive.

LUIS HERNANDEZ: The CEMEX Way, which we developed to address all this, was a collaborative effort. It was all about finding what worked best and then enforcing those standards.

SAN AGUSTIN: Enforcing is really the right word. A good example is the emphasis we put on closing the books on the first or second day of every month. A lot of managers initially wondered why it was so important to do this. They thought nothing would be lost if they did their closings on the seventh or eighth day. But we believed that having that information readily available would increase the likelihood that managers would make the right decisions. And the practice had a very high-level overseer: Mr. Zambrano himself, into whose email inbox all of these reports flowed. This was not subject to negotiation.

HERNANDEZ: At the same time, the CEMEX Way has always been retrofitted to include the best practices of companies we acquired. We would identify people in their field operations who had exceptionally smart approaches to doing things. The role of an acquisitions leader included incorporating those practices back into the CEMEX Way. That was the beginning of recognition on CEMEX’s part of the importance of global collaboration and knowledge sharing.

Solutions and Service: 2001–present

ELIZONDO: Until the 1990s, we offered a single product: cement. Thanks to our operational efficiency and to the discipline we were starting to drive with the CEMEX Way, we still had some headroom. But [any] product has a disadvantage in that a customer can find a substitute for it. A solution, by contrast, cannot be that easily replaced. So we started to develop offerings that more closely resembled solutions.

IGNACIO MADRIDEJOS: Patrimonio Hoy, which we started in Mexico in 1998, was one of our first moves in this direction. It was a program we set up to help low-income families overcome the obstacles that made it difficult for them to build their homes. We provided them with access to building materials such as cement, concrete blocks, and steel; we also provided access to credit through microfinance; and we offered technical and architectural guidance. This was a way for us to grow the pie and create more value for CEMEX at the same time that we were doing something beneficial for society.

ELIZONDO: Construrama, our retail distribution brand, was another solution-oriented approach. When we introduced it in 2001, about 70 percent of CEMEX’s bagged cement sales in Mexico went through individual distributors. With other competitors coming into the country, we had to do something to strengthen our distribution channel. In addition to bagged cement, we sold them rebar [steel reinforcing bars used to frame concrete structures] and other products. We set up Construrama as a franchise, and then helped the distributors with their business practices. Although the initial goal of Construrama was to hold on to the loyalty of our distributors, in the end it became a vehicle for providing them with solutions to their problems.

HERNANDEZ: In developed markets [such as France and the U.S.], our opportunities to differentiate CEMEX relied more on product innovation. For example, we introduced Insularis in 2012: It is a ready-mix brand that improves the energy efficiency of buildings. Another example is Fortium ICF, a concrete product that is especially useful in putting up vertical walls.
In developing markets [such as Mexico, South America, and the Caribbean], we have a bigger opportunity. Our capabilities can help us orchestrate infrastructural offerings in a way that others cannot. For example, you might have a municipality with good tax revenue, but [leaders] don’t know how to structure a project, get the permits, or make a good decision about where to put in a road, a bridge, or a public housing project. If we can help orchestrate all this, we can also provide value beyond supplying any of the main products.

**Elizondo:** We redefined our vision for CEMEX Mexico. We would create innovative solutions for the construction industry that improve the well-being of the people. We began to say we want a country with the kind of infrastructure that makes it competitive: highways, ports, airports, anything that reduces the costs of transport and production. We had a lot of experience transporting materials over long distances in trucks, railroads, and ships, so we knew the problems of having poor infrastructure, and we had years of experience helping to build ready-mix concrete roads. We knew that, compared with building asphalt roads, the initial investment was almost the same and the cost of maintenance was much lower.

For CEMEX to play that kind of role, the company needed new capabilities. We needed a new kind of executive, connected with the environment, who understood the real needs of any given locality. We changed old habits; for instance, in the past our people were not prepared to interact with our communities or with the media. We had become an efficient company with an inward-looking culture. But our operational guys realized that they needed to be able to talk to the media, and to local communities and their leaders. The operational guys had to recognize that it wasn’t enough to lower costs; they also had to connect with local people and address their concerns — for example, about the dust generated by trucks picking up materials. The sales guys had to learn not to wait for people to come in with orders; if markets were soft, they had to go out and propose solutions to problems that had not yet been brought to public attention. “We don’t just mend holes in your street — we can prevent those holes from recurring for the next 30 years.”

Partly it’s a matter of how we talk about these things with customers. We’re not just selling cement or ready-mix; we’re helping you build a street. We’re helping you build a home. We aren’t selling a product to you; we’re working with you on a solution.

**Madridejos:** By the end of 2004, we were an $8 billion company. To keep growing, we needed some larger transactions. Thus, in 2005, we bought the RMC Group [a British company; RMC originally stood for “ready-mix concrete”]. In 2007, we bought the Rinker Group, an Australian building-materials company.

**San Agustín:** RMC was one of our first acquisitions of a company with businesses in multiple countries. It required far greater PMI resources — 200 to 300 CEMEX managers were involved, about 10 times the number needed for our single-country acquisitions. Naturally, we had to come up with new ways of managing the process and new coordinating mechanisms, including designating individuals as country leaders. That led to weekly updates on issues and problems, and
a steady effort to learn from them. This was especially important because RMC was in 18 countries, and its people didn’t talk to each other. The French managers didn’t talk to the German managers, who didn’t talk to the British managers, and so on, down the line.

MADRID DEJOS: These acquisitions also brought us into new territory in our product portfolio. Ready-mix and aggregates might seem like they are natural extensions of cement, but there are some significant differences.

KARL WATSON JR.: Cement is a powder made from limestone and other ingredients, used in the production of concrete and masonry. It is produced in enormous, capital-intensive plants involving sophisticated technology. Ready-mix concrete is a downstream product. You don’t need capital-intensive plants or sophisticated facilities; the plant is like a blending station, and the main production work is done away from it, in a truck with a rotating cylinder that mixes the product as it carries it to work sites. The magic is thus in the market, not in the production. How do you interact with customers? If volumes decrease, how do you maintain your price? If volumes level off, how do you gain share? If volumes pick up, how do you extract value?

MADRID DEJOS: Cement is a global business — there are standards you can apply everywhere. It lends itself to
recipes like the CEMEX Way, which can be disseminated by a corporate center. By contrast, ready-mix and aggregates are hyperlocal businesses, and a best practice in one place might not be a best practice in another. We needed to figure out what the best practices were in different regions, see how broadly they applied, document them, and implement them where appropriate.

**Watson:** We’re shifting now from global standards to global principles. We’re moving out of the realm of a recipe into the realm of a playbook or guide. In other words, we are building the capability of sharing knowledge. I’ll give you an example involving the ready-mix business. Like everyone else in ready-mix, RMC included transportation as part of the unit price. A truck with a capacity of 10 units, priced at $60 a unit, if full, would generate $600. But if we sent out the same truck to fill an order of six units, we’d only generate $360. Obviously, that doesn’t make a lot of business sense. Ready-mix is probably the only transport sector in the world that charges the same per-unit price whether a truck is full or half full.

Then we learned that France wasn’t doing this. They decoupled charging freight from charging for the product. To use the same example, they would sell the product for $60 but charge freight of $250 per load (this would increase based on distance from the originating plant) no matter how full the truck was.
The Very Model of an Emerging Market Multinational

When a company moves from a national to a global role, success is not guaranteed. Many companies expand into areas where they are unlikely to thrive, because they lack the capabilities needed in their new locales and because the parameters of their home country constrain them. The CEMEX story offers lessons about how to grow in a coherent, effective way.

I first came to know CEMEX in 2000, when I wrote a Harvard Business School case study on it. I have continued to track the company and its progress ever since. CEMEX, unlike its top competitors, was an early example of a multinational from an emerging market. Mexico, like many other developing economies, still hadn’t generated much outbound foreign direct investment. And the bulk of its investment was concentrated in the United States — the destination for more than 80 percent of Mexican exports. But CEMEX bucked this pattern: By the 2000s, it derived more of its sales from its foreign operations than (the few) other Mexican multinationals, and it had also expanded into other Latin American countries and into Europe.

CEMEX accomplished all of this while maintaining consistently high profitability levels and fending off hostile takeover attempts from its leading global competitors, Holcim and Lafarge. [Those two companies announced their intentions to merge in 2014 and are, as of this writing, still proceeding with that deal.] CEMEX also survived through the immense pressures of the Great Recession.

The company’s ability to sustain its business around the world is closely tied to the capabilities that it has built over time. How did CEMEX develop and manage that prowess? When Lorenzo Zambrano took over CEMEX as CEO in 1985, it was a relatively diversified group of companies. Zambrano deliberately sought to have the entire enterprise create value. He narrowed the horizontal scope of business (the lines of products and services) to focus on broadening geographic scope. Over the years, CEMEX’s management has demonstrated continuous commitment to its identity as a high-value, knowledge-intensive solutions provider, even as it shifted to meet changing market demands and conditions.

A critical factor is the “CEMEX Way.” The senior leaders of the company dedicate themselves to fostering and maintaining the CEMEX culture. Lorenzo Zambrano, for example, checked kiln statistics and sales data on a daily basis. This type of direct engagement translated into an intensive, highly motivated, extremely competitive work ethic for the entire company. Another example is CEMEX’s postmerger integration (PMI) practice. Many companies make acquisitions and quite a few are serial acquirers. But very few have the laserlike focus on making acquisitions work — and work quickly — that CEMEX has. A PMI manual covering only human resources is as thick as a dictionary, reflecting a level of detailed attention one might expect from an investment banking firm, but not from a cement manufacturer.

CEMEX continues to generate a large portion of its profits from its operations in Mexico. But given the company’s high market share there, the expansion possibilities within Mexico are clearly limited. As a result, CEMEX continues to add value by investing heavily in — and then revamping — operations in foreign markets.

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That is a global best practice. Admittedly, to introduce it in a market unaccustomed to it is difficult because we stand out. So we have said each business must recapture transport dollars. We won’t dictate how you do it, but we require that you recapture all your freight somehow.

HERNANDEZ: Knowledge sharing wasn’t new at CEMEX; it had been in place for years. But when the financial crisis struck, and our expenses proved too high, it forced us to become much more focused on knowledge sharing to remain effective. This response to the crisis enabled us to continue to evolve.
Watson: In 2009, we launched an internal social network called Shift, like a walled-off version of Facebook. It allows people in different communities of interest at CEMEX to see detailed information about operations around the world.

For example, within ready-mix, Shift has a track for value-added products. You can see how much we sell in value-added products every month, and how much more revenue they generate versus standard products. Each month, we do an hour-long presentation on the countries that have advanced this sort of product: what they did, why they did it, how much money they made, and why others might follow the example. We call it “Concrete Talks.”

For most of our products, Shift shows the specifications and a video of what the product does. There’s a tutorial in Spanish, German, French, Polish, English, and Chinese about how it’s sold, how it’s positioned, what its value proposition is, where it should be used, and maybe one or two customer testimonials. You could do all that stuff manually, with an email to a colleague. But that would require generating a separate internal campaign for each new product.

Mr. Zambrano talked about going from being an elephant to being a greyhound. Left to their own devices, big companies will continue to act big. They’ll put in more rules, procedures, and standardization. When you’re running a hyperlocal business like ready-mix concrete and aggregates, you can’t allow that to happen. You have to fight all the time to be small. Shift allows us to make the company feel small.

Sustainability and Alternative Fuels: 2005–present
Luis Farias: We had been thinking about the potential of alternative energy sources since 1990 or so. At the time, we were burning fuel oil and natural gas — two of the most volatile commodities in terms of price. Since about 40 percent of the direct cost of cement is wrapped up in [energy use], you need to watch the expense of fuel and electricity carefully.

We acquired a Spanish cement company that had begun to use petroleum coke (or pet coke), a by-product of refining petroleum that ordinarily emits a lot of carbon dioxide. There were not many companies that could use pet coke. But we could, since cement kilns burn at such a high temperature — 1,600 degrees Celsius [3,000 degrees Fahrenheit] — that they mitigate most of the negative atmospheric effects. That gave us some big advantages. We have become experts in using pet coke. Today, it accounts for about 45 percent of the fuel we use around the world.

San Agustin: Knowledge sharing also helped us with another alternative-fuel innovation that came to us through the RMC acquisition: the use of fuel derived from household waste as a substitute for fossil fuels in our cement manufacturing facilities. Today, CEMEX is one of the leaders in this technology.

Madridejos: We didn’t buy RMC because of its understanding of alternative fuels and waste-to-energy systems. But we quickly saw RMC’s energy strategy as a capability we could adopt. The part of RMC that was in Germany was particularly advanced; approximately 50 percent of its fuel use came from alternative sources. Despite the experience with pet coke, CEMEX was far behind.

As a first step, we extended what RMC was doing in Germany to the rest of Europe. That took some doing. The German part of RMC was using refuse-derived fuel — a fraction of municipal waste — which is not widely understood. There is often a “not in my backyard” mentality on the part of government officials. It takes time for people to become comfortable with the idea. In addition, using refuse-derived fuel is pretty complicated technically because of variations in calorific power and other factors. Finally, we wanted to move quickly to structure long-term contracts for the energy sources. We knew from our experience with pet coke that it was only a matter of time before waste-recycling companies would start to peg the price of this energy source to the price of oil, eroding our advantage. Today, we’re at over 28 percent alternative energy use, the highest among our competitors.
When we treat sustainability as a capability, it changes what we do about it. It is not just a license to operate in countries where regulations are becoming stricter, or just a way to reduce cost. We can make a difference for our customers in terms of green buildings, greener roads, and environmentally friendly housing. We are developing new products that will help in the reduction of emissions in buildings.

**FARIAS**: Fifty years from now, the world will be low-carbon. This will require a lot of cement. Windmills are a good example. You don’t see them, but offshore windmills have huge cement pilings underneath. High-speed railway systems also require a lot of cement. We also know that concrete pavements, compared with asphalt roads, are far more energy efficient; they reduce vehicle fuel consumption and carbon dioxide emissions.

**WATSON**: For now, the environmental regulations are far more advanced in the U.S. and Europe than they are in, say, South America. But in the long run, we’re headed for the same global standards. That will not just create a requirement for CEMEX; it will also create opportunities.

**How to Build Capabilities**

**HERNANDEZ**: Capabilities don’t exist in a vacuum. They’re the result of things that you do either con-
sciously or unconsciously. In human resources, for example, the first thing we design is the organizational structure. How is work organized? Who has decision rights over what, and how is the work done? The second thing has to do with people — individual skills, individual balance, and individual knowledge. And the third one is incentives: what you measure, what you pay, and so forth. Over time, together, those things build a culture that produces the behaviors that reinforce the capabilities that will make you successful.

You can change organizational structures relatively easily. You just send out an email that says, “Joe, you now report to Regina, and here are the new guidelines on decision rights.” Likewise, incentives are relatively easy to deal with. “Tomorrow we’re going to start using cash value added as a measure of performance, and if you achieve this level of cash value added, you get this bonus, and that will set you up to be promoted.”

The middle one, which is people, is the most difficult. Especially when you’re shifting to a distributed organization, and asking people to make decisions — material ones — that they haven’t been asked to make before, it can take a while to get that right.

SAN AGUSTIN: When we acquire a company, we listen. We say, “We want to learn from you.” But we also teach. We invest in training new people, talking them through our practices, and helping them assimilate. In the old days, it was: “This is it. New name, let’s move on.”

Today, one of the major differences is all the time and effort we dedicate to change management. It’s critical that we retain the talent and the way they think. Because in the end, that’s what will make CEMEX, CEMEX. This company is much better because of how we have integrated people and companies from Colombia, Germany, the U.S., and France, among other geographies, into the way we think.

FARIAS: In a lot of ways, capabilities development follows a natural evolution. It’s just what happens when you have the right people in the right positions. Our pursuit of efficiency is a good example. It has followed a different arc at different times, but we’ve never sat still or been complacent about it. And we never will. We’re constantly moving, constantly looking to be better.+

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Resources

Donald R. Lessard and Cate Reavis, CEMEX: Globalization “The Cemex Way,” Case Study 09-039, Mar. 5, 2009, MIT Sloan Learning Edge: Describes the capabilities improvement encompassed by the CEMEX Way.


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