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CEMEX: Rewarding the Egyptian Retailers

CEMEX's claim to be focused on building brand equity has often been met with a fair degree of skepticism, particularly given the nature of its product. However, the presentation on CEMEX-Egypt as a case study in marketing on the cement industry should help to argue CEMEX's case.

—Gordon Lee, UBS[1]

José "Pepe" Llontop, CEO of Assiut Cement, the Egyptian subsidiary of Mexican multinational CEMEX, reviewed the 2003 commercial performance in preparation for his meeting with Lorenzo H. Zambrano, CEMEX's chairman and CEO. Llontop knew that Zambrano's scrutiny of CEMEX Egypt's performance would be thorough. Zambrano would ask probing questions about strategy, market share, plant quality measures, resistance index, retention, sales . . . .

As Llontop went over the sales to the different retailers for the 2003 fiscal year, he wondered whether he should change anything in the Reward Program for the upcoming year. The company had introduced the program in Egypt in May 2002, and with a year and a half of experience, Llontop thought his team should be able to improve it. Moreover, Ahmed El Sawy, from Commercial Intelligence, had just given him a disappointing report for January 2004. To Llontop's dismay, less than a third of the retailers involved had achieved the minimum sales required to stay in the program, reigniting the controversy about the fairness of the targets.

Egypt, Land of Pharaohs

Economic Landscape

According to the Economist Intelligence Unit, Egypt's economy was the second largest among Arab nations.[2] Its population stood at just under 70 million in 2003 (the largest in the Arab world and the second largest in Africa) and was projected to grow to 123 million by 2029.[3] Unemployment,

[1] "CEMEX," UBS Investment Research, July 7, 2003.

[2] "Country Data," Economist Intelligence Unit database.

[3] Ibid.

Professor F. Asís Martínez-Jerez and Research Associates Joshua Bellin and Carole Winkler prepared this case. HBS cases are developed solely as the basis for class discussion. Cases are not intended to serve as endorsements, sources of primary data, or illustrations of effective or ineffective management.

though officially reported as 9.9%, was estimated by some experts to be as high as 15%–25%[4] and presented a significant challenge for the Egyptian administration.

Egypt's economic history during the second half of the twentieth century included three periods corresponding to the mandates of its three post-monarchy presidents:

1. *Gamal Abdel Nasser, 1952–1970, Socialist Model.* In this period Egypt adopted a centralized socialist economic model featuring nationalization of the private sector and redistribution of land to the poor.

2. *Anwar El Sadat, 1970–1982, Open Door Policy.* In the 1970s, Nasser's successor, Anwar El Sadat, cut military ties with the former USSR and began to move the country toward a market economy, returning confiscated property to private-sector owners and encouraging investment.

3. *Hosni Mubarak, 1982–present, Economic Reform and Restructuring.* President Mubarak expanded the process of economic reform initiated by El Sadat. Key elements of the reform program were structural adjustment financing through the International Monetary Fund (IMF)-World Bank, strong action against fiscal deficit and inflation, the opening of the economy to private (including foreign) investment, and a large-scale privatization program.

Mona Boutros, CEMEX Egypt Communications and Image director, considered the privatization program to be one of the key elements of the economic reform: "Foreign equity participation in newly privatized companies and other joint-stock ventures has brought fresh dynamism to Egypt's economy, with positive impact in both public finances and overall efficiency." She remembered that the privatization program, which was strongly supported by the IMF, started slowly and only gained momentum after 1996, following intense criticism from the IMF and the international community. As part of the privatization program, seven cement firms were partially or fully sold to foreign cement companies, including Lafarge, Italcementi, and CEMEX.

The country's growth, however, was hampered by the small portion of its land (less than 5%) that could support crops and the heavy weight of the public sector, which constituted one-third of gross domestic product (GDP) and employed a similar proportion of Egypt's total workforce.[5] Nevertheless, agriculture accounted for over 16% of GDP (see **Exhibit 1**).

Although according to official statistics tourism accounted for only 5% of the Egyptian economy, its economic relevance was probably much higher. Tourism was not only the major source of foreign currency inflows, together with Suez Canal tolls and remittances from expatriates, but it also helped support a high proportion of the underemployed. The majesty of places such as Giza, Luxor, and Abu Simbel made Egypt one of the world's greatest destinations.

The Cement Market

At the turn of the twentieth century, the Egyptian cement industry followed a typical commodities cycle. Growth in demand and capacity shortages eventually resulted in strong investments in capacity that, in conjunction with the country's economic deceleration, led to overcapacity and downward pressure on prices (see **Exhibit 2**).

[4] Ibid.

[5] Ibid.

The 1990s were a period of economic bonanza in Egypt. Demand for cement grew by 10% annually. Moreover, the government's goal of establishing 44 new cities and communities to relieve urban congestion in Cairo and Alexandria spurred optimistic forecasts for cement demand.

Supply could not keep up with the growth in demand, and, as a result, in 1998 imports represented 4 million tons, or 20% of domestic consumption. The ensuing capacity gap triggered several new plant projects, which brought both traditional and new local players into the industry—in some cases, entrepreneurs with no prior cement experience. Furthermore, additional capacity was created from efficiencies introduced and achieved by foreign operators of recently privatized cement companies.

The economy cooled with the global recession. The failure of government urban projects, caused by the large-scale refusal of individuals to relocate out of the major cities, compounded the demand contraction. The new players, unfamiliar with industry dynamics, increased the downward pressure on prices by the end of 2002. In the first quarter of 2003 the price of cement fell to levels that barely covered its cash cost. Prices partially recovered thereafter, but the industry remained burdened with capacity surpluses. Projected economic growth was not expected to close the excess capacity gap in the near future. There appeared to be only two restraints holding prices at reasonable levels in a commodity market with idle capacity: the pressure to get an acceptable rate of return for foreign investors, and exports, facilitated by the favorable exchange rate situation.

CEMEX Globalization Strategy

CEMEX was founded in 1906 under the name Cementos Hidalgo. Over the years the company opened its own plants, purchased other Mexican cement producers, and expanded its activity into sectors as diverse as petrochemicals and tourism (it owned hotels in Cancún and Puerto Vallarta). As a result, by the mid-1980s, CEMEX was a domestic firm (over 90% of its revenues came from Mexico) that enjoyed a strong but vulnerable share of the local market (33%) and operated on a relatively small scale in global terms (less than one-third of the leader Holderbank and half of Lafarge). Given that industry trends pointed toward a global consolidation of the industry and that Latin America was an attractive market where few global players operated, Zambrano judged CEMEX's position to be vulnerable and refocused its strategic priorities on the core cement business, consolidating its position in the Mexican market and positioning CEMEX as an international player.

Between 1985 and 1989 CEMEX acquired Cementos Tolteca and Cementos Anahuac, becoming the dominant player in the Mexican cement market. In Mexico, CEMEX had developed its strategy from scratch because, unlike its larger competitors, it sold to thousands of family-owned hardware stores rather than to a few large businesses. Customers typically bought one sack at a time and carried it home themselves. CEMEX decided that its business was more consumer oriented than the rest of the cement industry and modeled its strategy after Procter & Gamble. P&G commanded a premium for its branded products, and CEMEX set about to do the same for cement. This strategy was very successful and eventually resulted in a price premium over the market price.

In 1992 the company began its international expansion with its acquisition of Valenciana and Sansón, both in Spain (see **Exhibit 3**). José Luis Sáenz de Miera, who eventually became a member of Zambrano's team, joined the firm at this time to lead the Spanish operations and would later head the region that included the Egyptian operations. Between 1992 and 2003, CEMEX took advantage of privatizations in developing countries to expand internationally where the cement market was similar to Mexico's, and by 2003 more than 65% of its sales came from outside its Mexican homeland (see **Exhibit 4** for a breakdown of international sales).

When CEMEX expanded by acquiring cement plants in Venezuela, Panama, Colombia, and other developing countries, it tried to preserve the existing local brand when possible, though it would always put the company logo on the bag as a seal of approval. If the local brand was weak, the company would make changes; otherwise it was left alone. Management decisions were likewise pushed down to the local level—after all, who knew the market better than those who lived and worked there? In every market where it began operations, CEMEX aimed its commercial strategy at decommoditizing its cement by delivering outstanding quality and superior service.

Following this strategy, at the end of 1999 CEMEX acquired a 77% majority stake in Assiut Cement Company with the privatization of Egypt's cement industry.

The Acquisition of Assiut Cement Company

In November 1999 CEMEX purchased Assiut Cement Company, a state-owned cement producer that had been founded in 1985 with assets from the Helwan Cement Company. Sáenz de Miera, at that time CEMEX president of the Europe, Middle East, and Asia region, appointed Ignacio Madridejos as CEO of the newly acquired firm, in accordance with CEMEX's policy of developing young talent by giving them responsibilities in situations where they could make an impact.

The firm that Madridejos inherited was the typical result of a poorly managed state company in a very centralized government. Lack of systematic maintenance, inefficiency, and low motivation were widespread throughout the company. Transforming Assiut Cement, now CEMEX Egypt, into a market leader was a challenge that Madridejos and a team of young CEMEX managers readily accepted. Over the next few years, CEMEX's operations in Egypt experienced a complete transformation, ranging from the factory to the way it managed interactions with the customers. When Sáenz de Miera, guarding the continuity of the Egyptian strategy, orchestrated the leadership transfer from Madridejos to former Commercial Vice President José "Pepe" Llontop in March 2003, the transformation was well under way. The cultural transformation initiatives grouped in the MORE (Managing Our Results Effectively) program, developed for CEMEX Egypt by Madridejos and Mario Medina, vice president of Operations, yielded extraordinary commitment from the workforce, which was rejuvenated through new hirings and was more skillful thanks to continuous training. Furthermore, young Egyptian managers started to be transferred to newly acquired operations in other countries in order to disseminate the "CEMEX way."

The Assiut Factory

The vision Madridejos had for Assiut Cement, now CEMEX Egypt, was to decommoditize the product. He knew that marketing would be the cornerstone of this strategy, but he also knew that marketing could not work without a good product. He therefore decided to focus first and foremost on production. When CEMEX took over, it found the Assiut factory, built in the 1980s with Soviet and Romanian technology, had been neglected. Years without proper maintenance had taken its toll; not only was the quality of the product low, but Assiut was also one of the higher-cost producers in Egypt.

Between 1999 and 2003, CEMEX invested over $125 million in improving the production facilities, increasing capacity, developing the logistics network, and building the infrastructure to distribute ready mix. The results of this investment program were clearly positive:

- Product quality improved noticeably in both smoothness and darkness.

- Plant capacity increased from 3.4 million to 5 million tons per year.
- Kiln efficiency rose from 73% to 90%.
- Headcount shrank from 3,774 to 1,161 through early-retirement plans.
- Dust emissions fell more than 75%.
- The number of workplace accidents decreased from 138 in 1999 to 14 in 2003.

During this period of heavy investment, Llontop started to develop the marketing strategy, believing he would soon have a product that was competitive in quality and cost.

Commercial Strategy

Facing the challenge of turning Assiut Cement around, Madridejos first envisioned a decommoditization strategy that would protect it against downward pressures on prices. There were two pillars of this strategy:

- Positioning as a producer of a premium product
- Distribution strategy based on a partnership with a network of relatively small retailers

Product Strategy

Llontop wanted Assiut cement to be perceived as a premium brand so it could command a premium price over those of its main competitors. Thus, upon arrival in Egypt, he conducted some market research to identify the different attributes that consumers valued in cement. At that time many within CEMEX were skeptical, believing that Llontop was simply applying his background in consumer goods to a commodities industry. Not easily discouraged, Llontop identified the three most desired product attributes: color (the darker the better), smoothness (small granules), and freshness. If CEMEX could differentiate its product along these lines, it might be able to tame competitive pressures.

Madridejos supported this view and oriented the factory process improvement efforts in this direction. Medina, in charge of operations, clearly understood the strategic priorities and thus not only helped their implementation but also made important contributions to their design. The result was the darkest clinker[6] in the country and one of the smoothest cements. Packaging was revamped to match product characteristics, including tighter sacks, modern and colorful logos, and printing the production date on the outside to display freshness.

Not satisfied with merely producing a better version of an industry-standard product, CEMEX introduced premium products for specialty needs. Now, cement could be resistant to salt water or customized for sulfate-rich soils, capabilities that commanded high price premiums in Egypt.

To protect itself against debilitating downward competitive pressures on price and in order to have an alternative to offer customers who defected to competitors for price reasons, CEMEX also

[6] Small, dark, gray nodules 3–4 centimeters in diameter that result from burning limestone in the kiln at high temperatures.

created a lower-priced product line called Fahd based on materials purchased from other producers. CEMEX pushed Fahd whenever one of its competitors became too aggressive in price.

Company communications stressed the cement's quality and CEMEX's commitment to its customers, as well as the product's Egyptian roots. The latter were reinforced by CEMEX's social responsibility initiatives in Egypt such as support of the National Council for Childhood and Motherhood and the Girls' Education Initiative under the auspices of Ms. Suzanne Mubarak, the president's wife. In addition, CEMEX clearly emphasized the cement brand name "Assiut" in its marketing, as well as its cultural association; in Egypt, the city of Assiut was commonly thought of as home to the country's most rugged, hardy people.

Llontop wanted the whole organization to speak the same market-oriented language. Sales, prices, and market share, which were the focus of most of CEMEX's management discussions around the world, were the last numbers to be scrutinized in Egypt. Instead, Llontop began Assiut's management meetings by analyzing *brand awareness* and *resistance ratio (*see **Exhibit 5** for a summary of the metrics). The company's balanced scorecard shaped the structure of the discussions. By the time they started to analyze sales or market share, Llontop had a good idea of what had happened.

Distribution Strategy

Before being acquired by CEMEX, Assiut Cement used 20 wholesalers to commercialize its products. Price negotiations were brutal. Smaller retailers could choose to buy directly from Assiut, but they had to prepay for the cement at the factory to obtain merchandise coupons; with the coupons they would then go to hire a hauler, who would transport the product to their facilities. To avoid this cumbersome process, the retailer normally chose to buy through a wholesaler.

Madridejos and Llontop believed that if CEMEX could win the loyalty of a network of smaller retailers, it could enhance its margins by diffusing each retailer's bargaining power and reducing the ability of its competitors to win market share by simply reducing their price. Retailer selection, education, and motivation would be the key components of the new distribution strategy—but first, logistics had to be redesigned.

To eliminate the need for small retailers to physically trek to the plant, CEMEX reached an agreement with Banque Misr, one of Egypt's largest banks, allowing a retailer to deposit the currency of the transaction in the bank branch closest to his headquarters. Once the deposit was made, the retailer could call a service center that would take the order and ship it to the retailer's premises. To assure fast and reliable service, Madridejos built a new logistical structure that combined owned and contracted trucks. With a typical three-day reorder period, the average cycle time of Assiut-branded products fell to five days.[7]

However, the target retailer could not be too small because logistics costs could erode the firm's competitive advantage. In addition, the less sophisticated the retailer, the less suitable it was as a partner in a premium-product strategy. Jesús Caviedes, the new Marketing manager,[8] defined the ideal retailer: "It had to be legally established as a retailer,[9] sell around 500 tons of cement a month, sell to end consumers, have a storage and a sales area, and be willing to forge a partnership with

[7] Reorder period equals time elapsed between two consecutive orders requested by the same customer. Cycle time is the time from when the cement exits the production line to the time it leaves the retailer shelves.

[8] Caviedes was assistant commercial manager before Llontop's CEO appointment.

[9] In Egypt it is common to find retailers without legal status, that is, who do not pay taxes.

CEMEX Egypt." By the end of 2003 more than 900 retailers with these characteristics had joined efforts with CEMEX.

In order to partner with retailers, CEMEX had to do more than just provide and shelve the product. The retailers needed to be able to teach end users how to use the cement to maximize performance. CEMEX therefore designed graphic displays that instructed retailers how to sell Assiut products (see **Exhibit 6** for an example). The company also began to administer training programs and invited retailers to three-day on-site courses. Contractors with good reputations who had influence over the end consumers were also invited. Retailers and contractors alike displayed with pride the Assiut Certified User certificate they received at the end of the program (**Exhibit 7**).

Llontop summarized his approach to retailer incentives: "I did not get tired of repeating to our retailers that if they were willing to defend the Assiut brand and to be loyal to us, we would make them rich; they would share our success." Avoiding competition centered on prices was the basic mechanism that CEMEX used to guarantee a fair return to retailers' efforts. If CEMEX could isolate its Assiut-brand products from price-based competition, margins would be fatter for the retailers. Caviedes estimated that pre-CEMEX, a retailer would have earned a gross margin of LE 1[10] per ton, whereas with the new strategy, retailers tripled their profits per ton. In addition, CEMEX implemented two incentive programs for its retailers: the Loyalty Program and the Reward Program.

The Loyalty Program

The Loyalty Program was established in January 2001 to reward retailers who were loyal to Assiut-branded products with additional cash back. "Loyal" meant maintaining a constant order flow. The program awarded cash backs based on the amount of cement that retailers purchased, starting at LE 4 for the first 400 tons and dropping to LE 1 for quantities over 1,200 tons for Ordinary Portland Cement (OPC) and remaining at LE 4 per ton for the premium brand (PRM) and the Sulfate Resistant Cement (SRC). To guarantee loyalty, only a third of the bonus was given to the retailer every month, with the remaining two-thirds being deposited in a fund, vesting one-third every semester. If the retailer violated the loyalty condition, he lost all of the money accumulated in the bonus bank. Retailers quickly accumulated sizable amounts in their loyalty funds, which created a strong incentive to comply with the terms of the agreement. (See **Exhibit 8** for a memo to retailers describing the program.) Adel Dagash, a retailer from the Giza area, said, "I really like Assiut [brand] because of the Loyalty Program. They reward the people like me who support Assiut in the area. Some criticize me because they say I am too close to Assiut, but they don't realize I make much more money now than before."

The Reward Program

Early in 2002, believing that the retailers' margins and loyalty discounts were not strong enough incentives to achieve the target growth rates, Llontop thought that a good way to invigorate sales would be to launch a sales competition among the company's retailers. It had to be a contest that stimulated loyalty, so it would have to be a long one, probably a year. While that might have meant starting in 2003, Llontop was a man of action, and he decided to target the contest's launch for May 2002—even if that meant that the first round would last for only eight months.

Llontop had only three months to design the contest, train the salespeople in it, communicate it to retailers, and implement it. The task seemed daunting to his collaborators, but Llontop believed that

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[10] LE = Egyptian pound. On July 30, 2004, the official exchange rate was $1 = LE 6.22, and on December 1, 2002, the exchange rate was $1 = LE 4.663.

implementing it would be the only way to learn whether or not it worked as a motivational mechanism.

Madridejos told Llontop that he not only wanted to motivate retailers to increase overall sales but that he also wanted to increase the proportion of premium products sold and to reduce variability in sales volume (which would simplify scheduling for the manufacturing department). If the Reward Program increased volatility of demand, everybody would be worse off; retailers would be angry in times of shortage because the stockouts would make them lose sales, and the risk of downward pressures on price would increase in times of production surplus. Llontop therefore decided to set fixed monthly targets and a minimum monthly production. Performance was evaluated by a scoring system that awarded points for each ton that a retailer purchased above an individualized target. The points per ton varied by product line: sales of OPC, PRM, and SRC earned one, five, and nine points per ton, respectively. Although the tournament period was the calendar year, in order to qualify for the contest a retailer was required to buy at least 150 tons of Assiut cement from CEMEX each month and order at least 70% of the target quantity for the month. If a retailer failed to purchase 150 tons or meet the 70%-of-target requirement, it was eliminated from the tournament.

Another concern for Madridejos and Llontop was that the contest had to be seen as fair by the company's retailers. This was important because despite its focus on small retailers, there was, in fact, a significant diversity in size among the retailers in its portfolio. In order to put all retailers on equal footing, they not only used the individualized targets but also percentage scoring. Thus, larger retailers were given higher targets, and performance was measured as a percentage of excess over the target. Rankings were then calculated within each region based on the cumulative percentage of weighted sales over target (**Exhibit 9**). Francisco "Paco" Ibáñez, CEMEX Egypt's Strategy vice president, compared this system to golf handicaps: ". . . it allows you to have fun even if you're playing with somebody who is worse than you."

Another design question that necessitated consideration of both incentives and fairness was whether to run a single contest across Egypt or multiple contests. If they were to run more than one, how would retailers be grouped? By size, by type of business (cement products only, cement and steel, or full line of construction products), or by regions?[11] Regions seemed to make the most sense, because each region was very different in terms of economic development, drivers of growth (tourism, public works, industry, etc.), and the Assiut brand competitive position. Regions also differed in the number of retailers, and it followed that there would be a very different number of potential competitors per region. If the number of competitors was fixed, then some regions would have to be broken, and clients with the same salesperson would have to be distributed across different contests. To avoid this pitfall and to maximize the effectiveness of the retailer campaign, the company divided the tournament into eight different contests, with each contest corresponding to one of the eight regional markets in which the company sold its products.

Llontop also had to decide on the prizes. How many of them would be awarded? What would be the right amount for the prize? The more retailers he made happy the better, so ideally he wanted more than just one winner per region. By the same token, he decided against giving higher prizes to those higher in the ranking, as he wanted to make all of the high achievers feel like winners. Llontop knew he would have to work with the funds remaining in his budget to organize the contests; aside from funds committed for TV and other communication campaigns, he had LE 500,000 available. A LE 10,000 prize seemed reasonable to him because it would represent a sizable amount of the average retailer's annual profit; that meant he could potentially have up to 50 winners. He decided to

[11] The "regional" boundaries loosely followed the political subdivisions of the country but also considered the firm's competitive position and the geographical span that the firm's sales force and logistics organization could be expected to cover.

distribute the number of prizes among the regions proportionally to the number of retailers Assiut had in each region (**Exhibit 10**).

Finally, he had to consider how best to manage the incentives of the retailers. Llontop knew that if they waited until the end of the year to announce the results, the incentive effect would be very low; they had to somehow update the retailers during the year and not wait until the year's end. Therefore, they decided to provide information about retailers' performances on a monthly basis.

Given the hasty organization of the contest, it was decided that in the first year it would be voluntary for the retailers to participate. Almost 70% of CEMEX's retailers signed up for the contest, for a total of 500 participants. Caviedes explained that "of those who did not sign up, most did not want to put their signature on paper. It was some sort of distrust towards signing a document."

Throughout the duration of the 2002 Reward Program, there was a lot of buzz about the contest. A retailer from the Qena region declared, "At first I was skeptical, as I thought prizes were already given to Mohamed's [CEMEX's salesperson] friends. When months passed, and I realized that with my performance I could win, I started to believe in the program and work hard to sell more. I was very proud when at the end of December I was one of the winners." Although some of the retailers who were eliminated from the program complained about the fairness of the targets, the majority were excited with the program and even pressed sales representatives to ask CEMEX to repeat it the following year. Caviedes recalled his satisfaction with the program: "Egyptians love competition, so the Reward Program was the right incentive for this market." Given the success of the first year, Llontop decided to repeat it in 2003. This time all the retailers enrolled in the contest for the second season of the Reward Program.

Now that Llontop had the sales results for 2003, he noticed that a common pattern in the performance of both contests was the attrition of players: less than 25% of the retailers remained in the tournament by December of both years (**Exhibit 11**). In fact, most of the attrition seemed to occur in the first couple of months of the contest. In order to reward the few who remained in the program until the end but did not win, Llontop decided to give them TV sets, which were well received by most but not enough to satisfy everyone. "My friends mock me," one retailer complained. "They tell me, 'You have always been saying that Assiut is the best and convincing your customers not to buy other brands of cement—and they reward you with a toy TV!'" Nevertheless, Llontop considered the tournament a success: "We increased our sales in all of the regions without price deterioration. Best of all, we increased the proportion of premium products sold."

The Decision

Llontop looked at the results for 2002 and 2003, trying to understand the actual benefits and costs of the program (**Exhibit 12**). That fewer than one-third of all retailers in the Reward Program had actually achieved the minimum sales required to stay in the tournament was discouraging, and he wondered whether this represented a failure to set a fair sales target or just the normal fatigue of an incentive system that had been in place for two years and was in need of an update. As the former Commercial vice president, Llontop knew that commercial strategy would be critical, and since being promoted to CEO of CEMEX Egypt in March 2003, he had felt the pressure to excel after his successful years of work next to Madridejos.

He was attached to the Reward Program because it was his creation, but he wondered whether it should be continued with only minor adjustments, or whether its entire design should be changed and its premise reconsidered.

Exhibit 1 Egypt Gross Domestic Product by Sector (LE millions; factor cost; current prices)

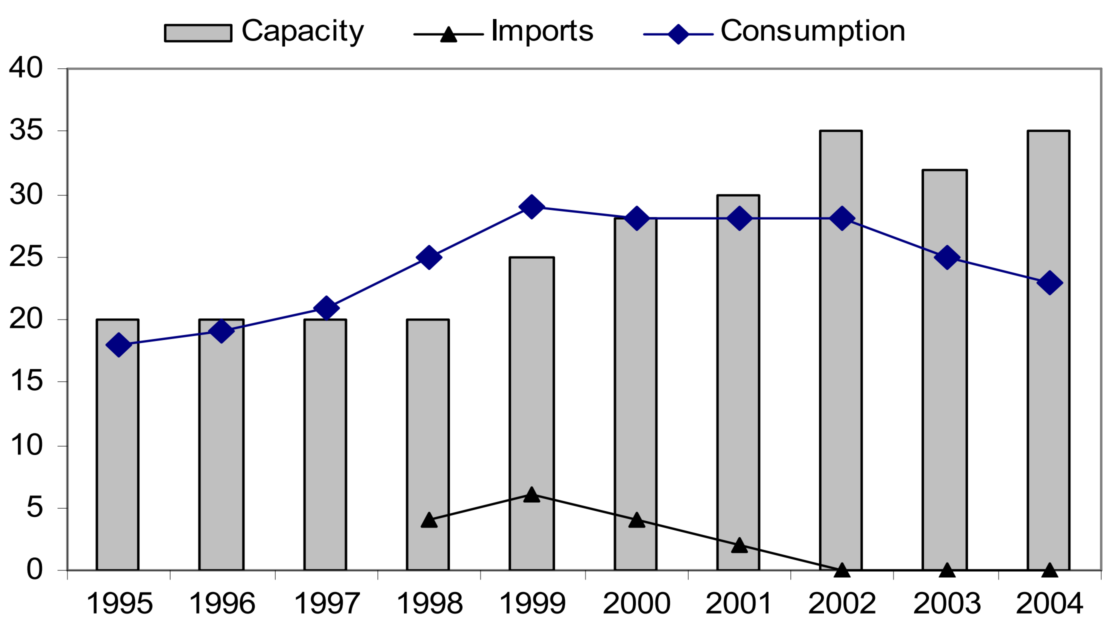
	1997–1998	1998–1999	1999–2000	2000–2001	2001–2002[a]
Agriculture	45,182	48,935	52,845	56,861	60,955
Industry and mining	48,798	55,225	61,211	65,129	69,770
Petroleum and products	1,534	12,995	23,300	25,747	27,835
Electricity	4,264	4,586	4,936	5,300	5,825
Construction	1,730	14,555	15,140	15,760	16,470
Transportation[b]	24,507	26,300	27,949	30,380	32,958
Trade, finance, and insurance	58,079	65,876	70,624	73,373	76,962
Hotels and restaurants	3,332	3,682	4,925	5,357	4,413
Housing and real estate	4,860	5,412	6,003	6,880	7,782
Utilities	1,038	1,179	1,305	1,444	1,601
Social insurance	185	214	236	269	285
Government services	20,662	22,481	24,190	26,779	29,279
Social and personal services	19,552	20,914	23,740	25,330	29,010
Total GDP	**259,723**	**282,355**	**316,404**	**338,600**	**363,144**

Source: The Economist Intelligence Unit.

[a]Forecast.

[b]Includes revenue from Suez Canal.

Exhibit 2 Capacity and Consumption in the Egyptian Cement Industry per Year (millions of metric tons—MMT)



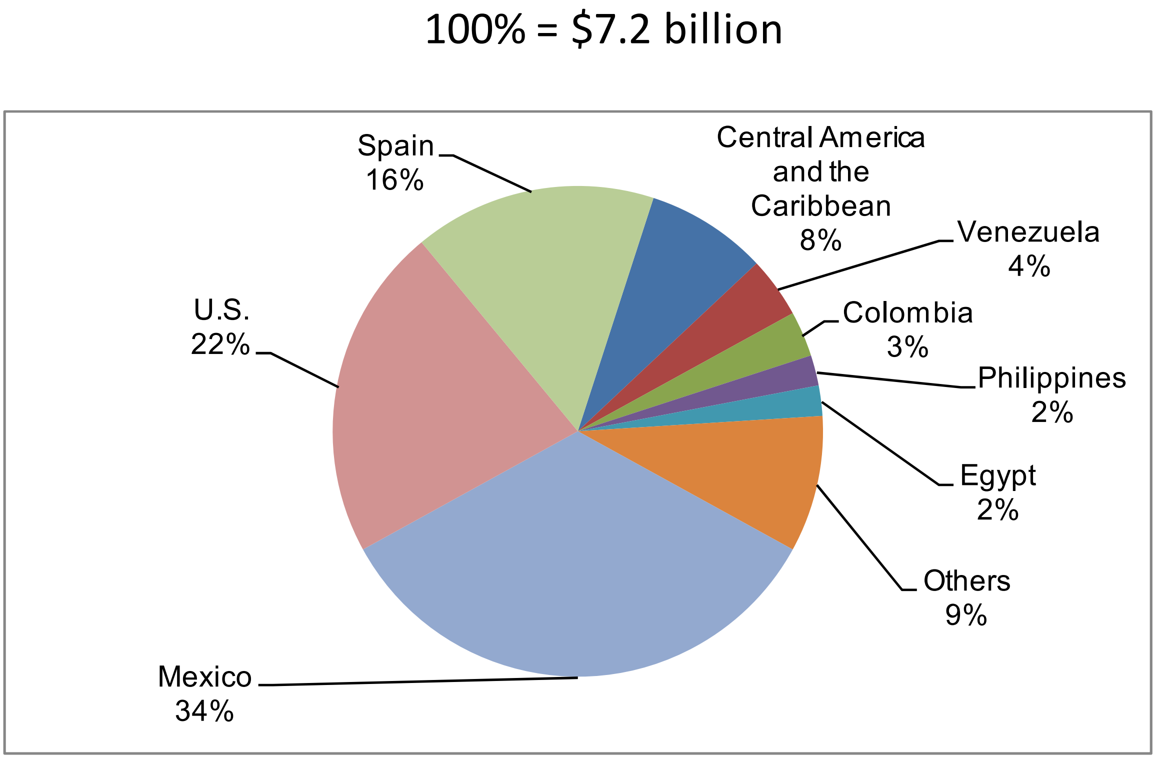
Source: CEMEX.

Exhibit 3 CEMEX Acquisitions, 1987–2003

Year	Company Acquired
1987	Cementos Anahuac, Mexico
1989	Cementos Tolteca, third-largest cement producer in Mexico; CEMEX becomes one of the 10 largest cement companies worldwide.
1992	Valenciana, Spain
1992	Sanson, Spain
1994	Vencemos, Venezuela
1994	LaFarge Corporation's three subsidiary plants in Texas plus 52% interest in Parker LaFarge in Houston and New Braunfels, Texas
1994	Cemento Bayano, Panama
1995	Cementos Nacionales, Dominican Republic
1996	Majority stake in Cementos Diamante and Samper, Colombia. CEMEX is now the third-largest cement company in the world.
1997	30% interest in Rizal Cement, the Philippines
1998–1999	99.9% economic interest in APO Cement, the Philippines
1998–1999	40% economic interest in Rizal Cement, the Philippines
1998–1999	25% interest in Semen Gresik, largest cement producer in Indonesia
1999	95% stake in Cementos del Pacifico, largest cement producer in Costa Rica
1999	Majority stake in Assiut Cement Company, Egypt
2000	Southdown, Inc., United States; CEMEX becomes North America's largest cement producer.
2001	99% economic interest in Saraburi Cement Company, Thailand
2002	Puerto Rican Cement Company, Inc., Puerto Rico

Source: Company website, press reports.

Exhibit 4 CEMEX Breakdown of Sales by Country, 2003



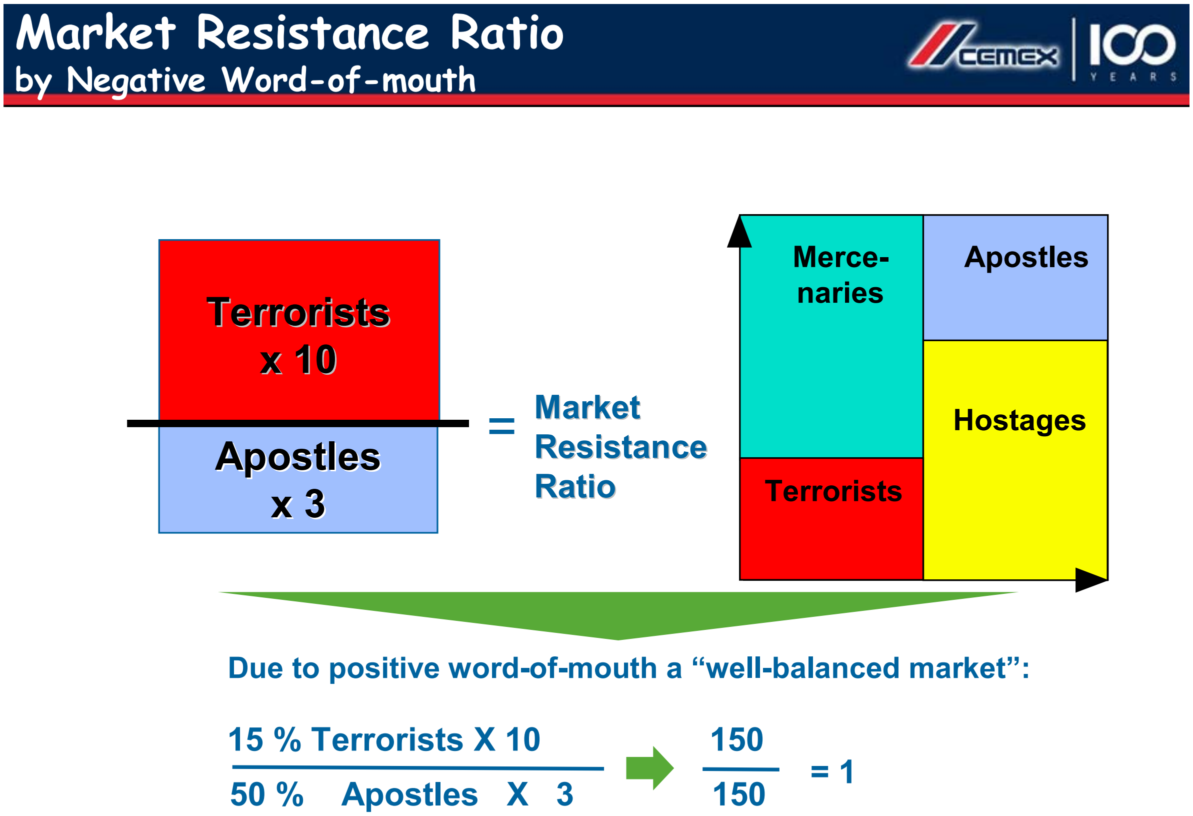
Source: Hoover's Online, CEMEX Annual Report 2003.

Exhibit 5a Customer Scorecard

PARAMETERS	COMMENTS
Cement customer satisfaction index (annual)	This index is based on four questions depicting customer satisfaction and customer loyalty (namely, **Overall Performance, Recommend, Continue to Purchase,** and **Competitive Advantage**).
Cement customer satisfaction index—Mini Survey	This is just the monthly and more dynamic form of the same index as above.
Cement customers turnover (long-term customers)	Actual retention behavior or rather the loss side of it
Cement customers turnover (new customers) (%)	Same as above
Total number of complaints (service)	
% resolved complaints	
Customer loyalty	% of customers who buy from us every month for the past six months
Cement price premium end users (%)	
Cement price premium retailers	
Value for money	Association with "good value for money"
Share of mind (%)	
Top of mind	Awareness (first brand mentioned in the category)
Loading time	
Average hours to solve complaints	
Resistance ratio	**Exhibit 5b**

Source: TNS, company records.

Exhibit 5b Customer Scorecard: The Resistance Ratio



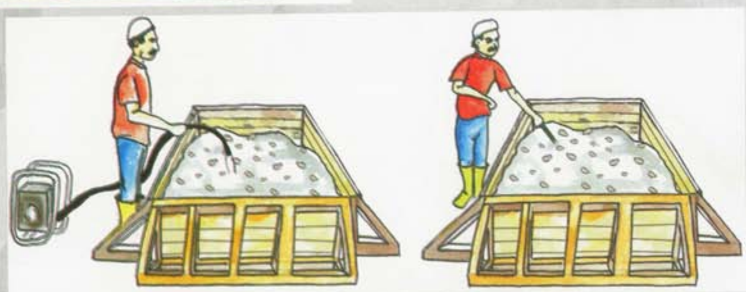
Source: TNS, company records.

Exhibit 6a Page from CEMEX Training Manual (Arabic)

يلاحظ صب الخرسانة من أوطى نقطة من خلال توطية القراوانة من الأرضية .

1. يتم صب الخرسانة العادية فوق الأماكن المخصصة لها داخل الشدات أو فى الابار أو أماكن القواعد فى حالة الصب بدون شدات (لبشة فرشة خرسانة عادية) ويراعى أثناء الصب عدم رمى الخرسانة من ارتفاع عالى (وجود السكة التى تتحرك عليها البراويطه على ارتفاع عالى من الشدة أو رمى الخرسانة من فوق الكتف بالقراوانه) بل يجب قدر الإمكان رمى الخرسانة من ارتفاع منخفض حتى لا يحدث انفصالٌ حبيبى للزلط الثقيل عن باقى مكونات الخرسانة اللدنه.

2. كما ينصح بتجنب رمى الخرسانة من ارتفاعات عالية ولمسافات كبيرة باستعمال المزراب لتجنب حدوث الانفصال الحبيبى للزلط عن الخرسانة .



هز ودمك الخرسانة يدوياً

هز ودمك الخرسانة ميكانيكاً

يراعى اثناء الصب الاهتمام بدمك الخرسانة :

1. الدمك اليدوى : يتم باستخدام قطعة من عرق خشبى أو سيخ غليظ من حديد التسليح يتم غزغزة الخرسانة الطرية به داخل الشدات حتى تظهر آثار اللبانى من بين ألواح خشب الشدة .

2. الدمك الميكانيكى : ويتم باستخدام زمبه الهزاز الميكانيكى داخل الخرسانة اللدنه لمدة مناسبة إلى أن تبدأ فقاقيع الهواء بالظهور على سطح الخرسانات ويتم رفع الزمبه ونقلها إلى موضع أخر بالخرسانة عندما تتوقف فقاعات الهواء عن الظهور على سطح الخرسانة (حتى لا يحدث انفصال لحبيبات الزلط عن الخراسنة نتيجة زيادة الهز التى تؤدى إلى صعود اللبانى إلى أعلى وهبوط حبيبات الزلط إلى أسفل فيحدث التعيشيش) .

CEMEX

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Source: Company records.

Exhibit 6b Page from CEMEX Training Manual (Translation)

Make sure to pour fresh concrete from as close to the ground as possible.

You need to pour the concrete into the wooden mold of the Portland Cement footing[a] or in the excavated spot for the supports. If you are pouring into spots with no confining structures you need to remember to pour the mix from a height which is low enough so as not to cause "segregation," that is, the separation of the concrete's heavy components from the lighter ones. This will cause a lack of homogeneity in the mix and alter its proportion and behavior towards different types of stress.

You need to take very good care of damping[b] concrete by following the recommended procedures:

Manual Damping:

Pound the poured mix inside the mold using a steel (or wooden) bar, and gently hammer the mold from the outside until traces of cement gel flow out from underneath the wooden sides of the mold. This is an indicator that the damping process is being effective.

Mechanical Damping:

The vibrating machine needs to be used evenly, and needs to be consistently moved from one spot to another in order to pound different parts of the exposed surface of the fresh mix.

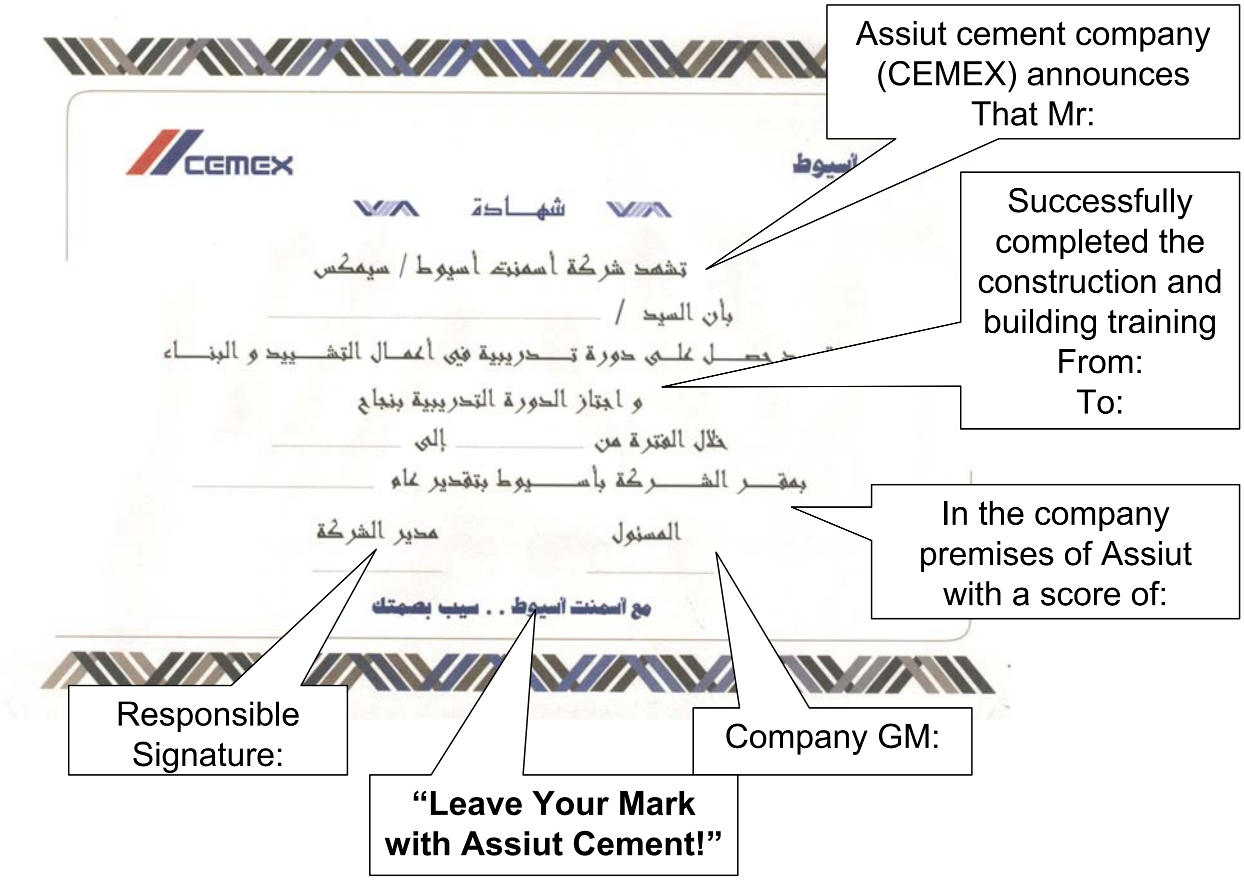
Remember that you need to vibrate each spot until air bubbles are noticeable on the surface, and you will then need to move the vibrating hose to another spot. Do not over-vibrate the same spot, especially after air bubbles can be seen on the surface; this will cause segregation since the cement gel will ascend to the surface, while the heavy gravel will sink to the bottom, causing so-called "honeycomb voids."

Source: Company records.

[a]"Footing" refers to the supporting base of a wall or structure.

[b]"Damping" refers to the process of compacting the concrete with high-frequency mechanical vibrations.

Exhibit 7 Assiut Certified User Certificate



Source: Company records.

Exhibit 8 Letter to Retailers Describing the Loyalty Program

Dear loyal retailer of Assiut Cement,

Thank you for your interest in the CEMEX-Upper Egypt Loyalty Program. The Loyalty Program has been designed to gratefully reward the loyalty of our valued distributors in Upper Egypt, such as yours. A CEMEX-Egypt sales representative will contact you shortly in order to arrange a meeting to explain the program in detail, but for now, here are the key facts:

Your participation in the program is based on minimum sales of 120 tons of all Assiut Cement products (not including white cement), and constant availability and sales of CEMEX products.

CEMEX will reward your loyalty at a rate based on your sales.

The amount you will be rewarded is calculated as follows:

Quantity Range and Product	
First 0-400 tons OPC	LE 4/TN
From 401-800 tons OPC	LE 3/TN
From 801-1200 tons OPC	LE 2/TN
Over 1201 tons OPC	LE 1/TN
PB	LE 4/TN
SRC	LE 4/TN

All sales of White Cement are converted directly to rewards at a rate of LE 4/TN.

Each month, your rewards will be calculated and divided three ways:

- One-third to be paid to you that month
- One-third to be deposited into your loyalty account and given in a spring payment
- One-third to be deposited into your loyalty account and given in a fall payment

If, for any reason, CEMEX discovers a retailer's disloyalty, that retailer's participation in the program ends, and the retailer forfeits the program reserved funds.

For example, a retailer selling, in one month, 1200 tons of OPC, 140 tons of SRC and PB, and 10 tons of White Cement will earn **LE 4200**. One-third—**LE 1400—**will be given to the retailer that month, another third will be reserved until paid in the spring, and another third will be reserved until paid in the fall. Imagine how quickly the rewards will accumulate!

We look forward to speaking with you in greater depth about the program, and hope you will grasp the benefits of your loyalty!

Warm regards,

The CEMEX Team

Source: Compiled from CEMEX memos.

Exhibit 9 Computation of Retailer Scores

Scores are calculated as the weighted sum of each retailer's consumption. The weights or points depend on the type of product. Both the target and actual consumption of each retailer are translated into points and the percentage excess performance is calculated. Rankings are calculated within each region monthly using the cumulative consumption. To remain in the tournament, each retailer must achieve at least 70% of its monthly point-target and consume at least 150 tons of product per month.

Example of a score calculation:

Customer 1

	First month			Second month			Third month		
Sales	**Target**	Real	**Excess**	**Target**	Real	**Excess**	**Target**	Real	**Excess**
Basic	**250**	280		**280**	300		**280**	310	
Premium	**50**	60		**50**	60		**50**	60	
Points									
Basic	**250**	280		**280**	300		**280**	310	
Premium	**250**	300		**250**	300		**250**	300	
	500	580	**80**	**530**	600	**70**	**530**	610	**80**

Requirements

	First month	Second month	Third month
More than	150 ok	150 ok	150 ok
More than 70 %	350 ok	371 ok	371 ok

Final calculation

Cumulative Performance

	First month	Second month	Third month
Cumulative Excess	80	150	230
Target	500	1030	1560
Excess/Target	**16.00%**	**14.60%**	**14.70%**

Source: Company records.

Exhibit 10 Extent and Performance of Rewards Program per Region

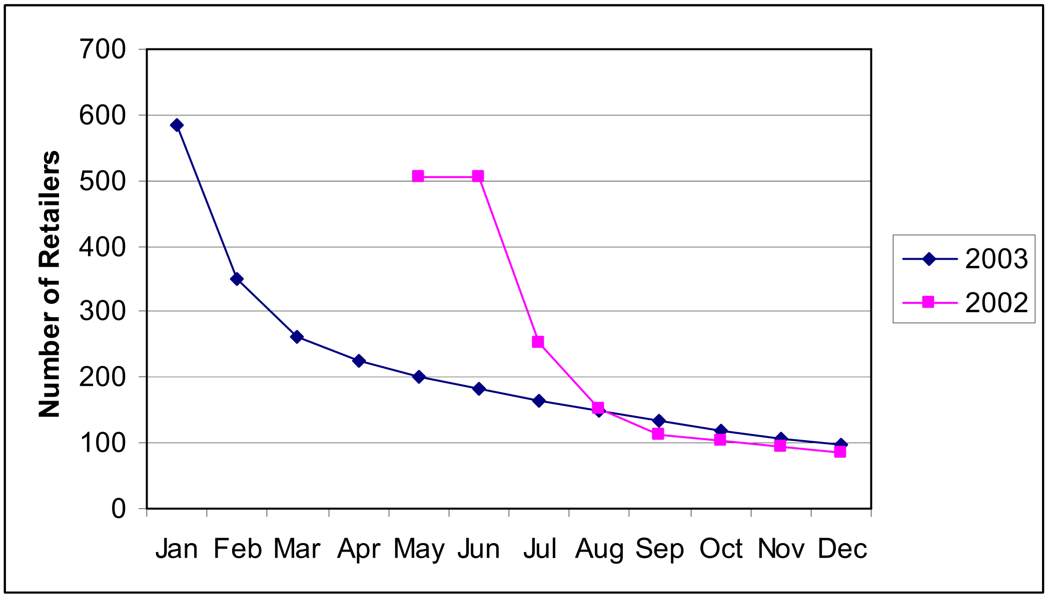
Region	Rewards Program 2002			Rewards Program 2003		
	Number of Retailers	Number of Prizes	Average Excess Performance[a]	Number of Retailers	Number of Prizes	Average Excess Performance
West Delta	25	3	28%	29	3	35%
East Delta	63	8	48	71	8	57
Sohag	44	5	59	51	5	71
Qena	86	5	30	101	5	37
New Valley	35	2	49	43	2	64
Minia	56	8	41	66	8	47
Aswan	150	15	25	170	15	30
Assiut	46	4	39	54	4	50
TOTAL	**505**	**50**	**40%**	**585**	**50**	**49%**

Source: Company records.

Note: Data has been disguised.

[a]For contestants in final round.

Exhibit 11 Remaining Retailers in Rewards Program, by Month



Source: Company records.

Note: Data has been disguised.

Exhibit 12 Breakdown of CEMEX Sales by Participation in the Rewards Program (Tournament). Number of Retailers and Sales in Reward Points, 2002-2003.

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
	2002												
NOT PARTICIPANTS	Number	80	80	80	80	80	80	80	80	80	80	80	80
	Total Sales	18,356	14,668	19,999	22,046	21,540	22,207	17,057	17,206	18,313	21,886	18,930	17,988
STILL IN TOURNAMENT	Number	505	505	505	505	505	505	253	152	114	103	93	84
	Total Sales	114,292	91,701	130,936	142,271	166,941	177,051	67,225	42,742	33,154	37,656	26,314	22,702
DROPPED	Number	0	0	0	0	0	0	252	353	391	402	412	421
	Total Sales	0	0	0	0	0	0	47,251	67,740	78,022	100,158	84,728	80,436
	2003												
STILL IN TOURNAMENT	Number	585	351	263	224	202	182	164	148	133	120	108	97
	Total Sales	175,665	78,898	60,227	44,905	43,776	42,246	41,259	34,683	29,610	24,337	19,067	23,399
DROPPED	Number	0	234	322	361	383	403	421	437	452	465	477	488
	Total Sales	0	35,715	49,877	49,617	54,179	60,246	70,142	71,030	66,566	64,230	58,955	79,403

Source: Company records.

Note: Data has been disguised.