THE KEY FACTORS OF SUCCESS
FOR THE INTEGRATION OF NEWLY ACQUIRED SUBSIDIARIES:
THE CASE OF THE CEMENT INDUSTRY

by

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ABSTRACT

The globalization of the world economy encourages a lot of industries to internationalize. In 1998, mergers and acquisitions were worth approximately $2.4 trillion worldwide. Surveys conducted by consultants and organizations like the IMF are showing a high level of failure during consolidation.

There are several risks that should be considered before embarking into the choppy water of M&A.

One such risk is the emphasis only on the deal making.

Less than 20 percent of the companies had considered the steps necessary to integrate the acquired company into their own organizations.

The purpose of this thesis is, in its first part, to identify the common traps that can endanger every acquisition, especially during the integration process.

The second part contain a description of the cement industry, and the last one is a personal view of what should be the best organization for an international group, and the key factors of success for the integration of an acquisition.

Thesis Supervisor: Arnoldo C. Hax
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Finally, I would like to give a special gratitude and thanks to my wife, Sophie, and to my children, Dimitri, Thomas and Philippine for their patience. Their presence and support have been key elements to come through this program successfully.
SECTION ONE

The Importance of Integration
in the Acquisition Process
CHAPTER ONE
Introduction

In 1998 worldwide mergers and acquisitions were worth approximately $2.4 trillion. Half the CEOs polled by the consulting firm Christian Tibers believe they will play an active part in a corporate acquisition during the next 12 to 24 months. One-third believe that a high percentage of their company's next phase of revenue growth will come from acquisitions. In this race for globalization, every industry is represented.

According to the Conference Board, more than three-quarters of companies with merger and acquisition experience have been involved in multiple deals during the 1990s. Despite this huge volume of transactions, research unequivocally indicates that approximately 70 percent of these operations have resulted in financial failure when measured by their ability to outperform the stock market or deliver profit increases.

The increase in mergers and acquisition, curious in light of their high risk of failure, can be explained by an irresistible siren song: the potential for cutting costs and improving efficiency. Buyers optimistically anticipate the savings they believe can be extracted from the new entity through value creation or renewal, or strategic and operational advantages neither company could achieve on its own.

There are several risks that should be considered before embarking into the choppy waters of mergers and acquisitions. One such risk is the emphasis only on deal making. The process begins with the identification of a target and, if there is interest by both parties, then moves into negotiation. Once a tentative agreement is reached, the process goes forward with due diligence during which time the acquirer ensures that assumptions made and information attained earlier were, in fact, correct. Only then does the focus shift from the financial, strategic arena to planning for the integration of both companies' policies, systems, structures, people and culture. This dichotomy between deal making and integration is one source of the subsequent problems that can threaten a merger.

Another is the related tendency for companies to front-load attention to the deal, focusing on economic formulas, geographical risk, and cost-benefit analyses, and to shortchange the needed planning for acquisition and its implementation. Once a merger is
completed, dealmakers leave others to cut costs and boost revenues as they move on to the next deal.

The Boston Consulting Group found that, prior to acquisition, less than 20 percent of the companies had considered the steps necessary to integrate the acquired company into their own organizations. While integration pertains to all aspects of an integration -- its technologies, policies, systems, culture -- failures during consolidation are attributed primarily to the lack of plan for integration that focuses on people and HR issues. In the final analysis, it is the people within the organization who must implement the consolidation, merge the cultures, and achieve the intended goals.

Tom Davenport (1998) defines culture as, "…the DNA of an organization. Invisible to the naked eye, but critical in shaping the character of the workplace". Culture refers to the norms, values, and beliefs which the members of an organization maintain about the purpose of work and how they are expected to go about doing their work. Whereas most integration efforts focus on an organization's formal systems and processes, cultural integration refers to its informal systems and processes. The success or failure of the latter can have an insidious impact on the melding of the two organizations.

The purpose of this thesis is to identify the common traps that can endanger every acquisition and the solutions implemented by different companies in order to avoid or reduce the related risks. The document is organized in three sections, themselves divided in chapters.

Section One provides a detailed analysis of the stakes of the integration process during acquisitions. A description of the integration as a source of value creation follows together with metaphorical view of different approaches, and their advantages and drawbacks. The last part is an attempt to list the key factors of success in four dimensions: Human, Organizational, Leadership and Timeline.

Section Two draws a portrait of the cement industry. Starting with a global description of the characteristics of the industry, Chapter Five contains an overview of the worldwide situation and the top six players. Then, in Chapter Six an analysis of the strategic positioning is done with the help of Porter's Five Forces Model and the Delta Model. The conclusion of this section, Chapter Seven, looks at the question of whether globalization makes sense in the cement industry.
In Section Three, I connect together the integration questions in Section One with the current situation in the cement industry described in Section Two, taking into account today’s move to globalization. In these final three chapters, I focus on the kind of organization that, in my opinion, fit well with the cement industry. Then, I try to identify which integration approach is most adapted and why. Finally, I highlight the key stakes and conclude about the integration process.
CHAPTER TWO
Integration and the Acquisition Process

2.1 CONTEXT

In the international development of a company, new subsidiaries often play critical roles ranging from sales offices to fully functional businesses. Subsidiaries also play different roles in the creation of competitive advantage. Typically, at lower levels of international development, advantages are created in the parent company’s home country, then transferred to the foreign subsidiaries (Lorenz, 1995) which become implementers. Companies are more developed internationally when their subsidiaries take a leadership role in creating new competitive advantages. These advantages are then transferred to the global network and even back to the home country. These possibilities often lead to various integration models.

Another contextual challenge develops with the need to integrate the activities of new company by people who may be from different countries, who speak different languages, and/or work in different time zones. A company becomes more developed in a geographical area when it adds value locally by using its own assets and people in that location. This is different from using exporters and local distributors.

Understanding the context in which an acquisition takes place also helps identify which integration model is needed.

Clearly, it is impossible to analyze the models in every context; thus, I will focus on single-business companies that want to become more internationally developed through acquisition or creation of more assets, and in the process acquire employees located outside the parent company’s home country. This strategy enlarges the role that subsidiaries can play in contributing to and leading the creation of the firm’s advantages.

2.2 AN INTERNATIONAL STRATEGY

The single-business organization is a network of functions and geographical areas. The issue of whether the functions or the geographical area will become the axis depends on
the amount of cross-border coordination that is needed. Where there is little need for cross-border coordination, the geographical area becomes predominant.

The cement industry is traditionally organized on the basis of geographical areas. As described in greater depth in Chapter 5, cement is a product with low intrinsic value but high transportation costs, so each country or region strives for self-sufficiency when the market is in equilibrium. Customers are local, as are customary uses of the product. Ideas, technology, best practices, and money can move across borders, but little else is mobile. Geographical areas are their own profit centers.

2.3 PERFORMANCE EXPECTATIONS VS. REALITY

Post-acquisition reality is often different from what was pre-acquisition expectations, no matter how complete an analysis was done. These differences occur because additional information later becomes available or because of unexpected events such as changes in the industry, technology, or competitors' reactions, changes in other parts of the parent company, or resistance from competing organizational ideologies within the combined units. If forecasted performance levels are not reached, a counter-reaction, such as determinism, frequently occurs.

Determinism (Hespeslagh, 1991) is the tendency to cling to the original justification in the face of a different or changing reality confronting the acquisition. This rigid outlook is rooted in a false sense of security created by the original justification and conditioned by a cycle of confusion and frustration resulting from the fact that the justification is unworkable in the real world.

Offering the new subsidiary a grace period during which performance requirements are less stringent sometimes eases performance pressures. But promises of autonomy or a grace period are frequently forgotten as the acquisition becomes seen as a more integral part of the firm during the next planning cycle and top managers' attention shifts to other goals and interests of the organization that take on higher priority.

Staff planners also reinforce the pressure for performance. Corporate planning and control staffs who are responsible for consolidating the projections of each part of the firm are less likely to be sympathetic to managers of the acquired company who claim autonomy or ask for a grace period for "strategic" purposes. Everyone wants concessions from the
planners during the budgeting process, and the planners often have no incentive to treat an acquisition any differently than they do other divisions or departments.

The performance stake is so of tremendous importance for the credibility of the local management team and the integration team.

2.4 CULTURAL STAKES

In most mergers or acquisitions, the professionals handling the physical details are skilled in recognizing strategic opportunities, assessing finances, or negotiating agreements. They may not be experts in either recognizing and resolving human and corporate cultural issues.

The merging of two separate organizations involves far more than bringing together product lines, facilities, and distribution channels. It is also the merging of world views, belief systems, ways of doing business, and ways of creating and managing relationships.

In an article about blending corporate cultures (Love, 1999), the following statement is a good illustration of potential problems:

_Just as nations have rituals and unique ways of looking at the world, firms have distinct cultures and ways of doing business that may seem strange – even unfair or unproductive – to another firm. In a merger, these differences may surface only when a significant problem arises and the combined organization must react to a crisis. Lack of alignment and productive communication channels may result in inefficiencies, duplication of work and wasted resources. Simple communications are misinterpreted, standards misunderstood, time lost. But, more ominously, unexamined cultural differences can lead to seriously adversarial attitudes among staffs, affecting productivity, loyalty, loss of valuable senior professionals representing years of industry expertise, and even damaged public identity and lost customers._ (p.6)

The cultural stake has to be recognized, appreciated and understood even before human and leadership issues. The reason for this is straightforward: culture is the basic framework of every human society.

2.5 HUMAN STAKES

After culture, the human side of integration is critical. Every acquisition changes the established order and pattern of activities in the merging companies. These changes foster
uncertainty, fear, and a tendency toward self-preservation on the part of the employees. As a result, the people who are expected to create economic value for the shareholders often have value destroyed for them. Haspeslagh and Jemison (1991) have identified two kind of value destruction that may occur to people who are involved in a merger or acquisition: economic or psychic.

Economic value is destroyed if employees lose their jobs, job security, or benefits as a result of eliminating job redundancies or standardizing operating procedures after an acquisition.

Psychic or non-economic value, i.e., opportunities for career advancement and the status that comes from membership in a particular organization, can be destroyed as the result of insidious and subtle factors like rumors, presumptions, actions, and decisions (real or imagined), which directly affect the lives of the participants. This often causes additional fears related to job security and the loss of power or control over resources, and can become the motive for not working together. As Haspeslagh and Jemison (1991) states: “Integration is an interactive and gradual process in which individuals from two organizations learn to work together and cooperate in the transfer of strategic capabilities” (page 106), thus clearly illustrating that it is of prime importance to spend time on the human stake in mergers and acquisitions.

2.6 LEADERSHIP STAKES

Because of the cultural and human issues, leadership becomes even more important after the acquisition when employees of the two firms come together and are expected to implement an often incomplete or ill-defined new plan.

Haspeslagh and Jemison (1991) stress the importance of institutional leadership:

Institutional leadership is important after an acquisition to help people from both firms develop, understand and embrace the acquisition’s purpose and see their role in it. Senior executives need to provide institutional leadership and create a broad vision for the combined firms that will accommodate that acquisition’s purpose and the respective needs of the combined firms. This new vision should yield an identify for the combined firms and foster the ability to find creative ways to transfer capabilities to fulfill the acquisition’s purpose. (p.132)
CHAPTER THREE
Integration: The Source of Value Creation

3.1 INTRODUCTION

Integration is usually the aspect of the acquisition process with which managers are least comfortable. Often, even if planning is well-established and goals defined, it is hard to find a methodology that will help them transform a spectacular but theoretical project into a viable and successful reality. In fact, the attractive part of acquisition is its potential for value creation, more than just value capture, and to achieve it companies have to successfully manage the integration of two distinct entities into one.

Personal experience and the internal rules of groups lead to potential solutions that frequently contradict each other:

- “The key is to move as fast as possible”
  versus
- ”Move carefully”.

- “Put in your people”
  versus
- “Leave them alone; they are the ones who know their business”.

In this chapter, I will discuss integration fundamentals, how they contribute to value creation, and then look at the advantages and drawbacks of several integration models.

NOTE:
Keeping these stakes in mind – performance, culture, human, and leadership -- we can now go forward to determine if the integration process is a source of value creation, and then analyze the various integration approaches and their key factors for success.
3.2 THE FUNDAMENTALS OF INTEGRATION

3.2.1 Transfer of Capabilities

To minimize problems and successfully integrate two organizations, the acquiring firm must give careful and systematic attention to interactions between the firms that will create an atmosphere that promotes capability transfer.

- **Strategic capabilities.** The integration team must concentrate on the transfer and application of strategic capabilities. The most straightforward type of capability transfer is the sharing of operational resources. The challenges of sharing resources typically involve combining assets or coordinating their joint use, either of which can create major organizational trauma because of disruptions of programs in both companies. For resource sharing to create value, the benefits of sharing must outweigh the hidden costs of compromise.

- **Functional skills.** Special attention must be given to the transfer of functional skills. Such a transfer is neither immediate nor easy because it involves both teaching and learning before the skills can be transferred. Strategic capabilities, especially skilled-based ones, are difficult to imitate because they are embedded in the skills of a group of individuals and in the procedures and cultures of firms. Typically, the more difficult a capability is to imitate, the longer it will take to learn and apply. Exchange of executives is often a solution to realizing success in this process.

- **Management skills.** The transfer of management skills is different from transferring functional skills. If functional skill transfer occurs primarily through horizontal relations between executives of the two companies, transfers at the general management level will be more vertical or hierarchical. The general manager of the acquired firm can be influenced on issues of strategic direction, resource allocation, financial planning and control, and human resources management. This influence can be exerted through subtle coaching, direct involvement, or imposition of systems.

- **Size-related benefits.** Benefits such as market power and purchasing power require little coordination to put in practice, as does the transfer of financial resources.

Each type of capability transfer involves different challenges. The process of capability transfer is complex because, beyond simply giving or sharing resources or assets,
it necessitates complex learning by both firms. It is because of this complexity of learning that the context and atmosphere in which this strategic capability transfer takes place becomes so important.

3.2.2 Atmosphere

Atmosphere is the surrounding context in which the relations are set between people in the two companies. Regardless of the method used for capability transfer, the right atmosphere must be created. Haspeslagh and Jemison (1991) identify five key ingredients.

- *Reciprocal organizational understanding.* Any employee of a company that is part of an acquisition should know and appreciate the other firm’s values, history, organizational approaches, personnel composition, and culture. Obviously, the type of capabilities to be transferred and the relations among business domains determine the level of understanding required. The aim is to help the acquired company understand how and why the parent company’s capabilities worked in their original context. Even in the case of two companies in the same business, this does not guarantee that they both use a common business language or that they understand the other organization.

- *Willingness to work together.* It is frequently difficult to create willingness among the people in both firms to work together after an acquisition. As already mentioned in a previous chapter, fears for job security and the loss of power or control over resources are among the principal reasons for lack of cooperation. In addition, differences in firm size, resistance to change, differences in reward systems, or prior experiences with acquisition are all potential reasons for non-cooperation.

- *Capacity to transfer and receive capabilities.* If it is obvious that capabilities exist, and the appropriate people in both firms must transfer and receive them, a common obstacle occurs. Often misinterpreted and considered an obstacle to participation is the time overload faced by managers of small acquired firms. Because they have fewer staff and perhaps less management depth, these managers are in danger of being smothered by staff and functional managers from the parent company who arrive to help implement the acquisition.

- *Discretionary resources.* The possibility of mobilizing additional resources at both the subsidiary and the parent company plays an important role in creating an atmosphere for
capability transfer. It provides a basis for dealing with operating and strategic contingencies at the corporate and business unit levels without influencing the plan for realization.

- **Cause-effect understanding of benefits.** The initial purpose of the acquisition must be clarified in operational terms for the middle and operating-level managers who must work out the details for bringing the two firms together -- before the beginning of transfer of capabilities.

3.2.3 **Interactions**

Ultimately, the atmosphere necessary for capability transfer results from the stream of interactions between members of the two firms. At the beginning, contact between representatives of the two organizations often comes through formal meetings among senior executives with staff members and some operating executives who form subgroups and task forces to tackle different aspects of bringing the firms together. As time passes, the number of informal, random, and unsolicited interactions usually increases. These interactions involve managers from multiple levels in both firms who differ in status, outlook, perspective, experience, and motivation. They usually come to the acquisition process with little knowledge of the other firm and the people in it. Moreover, rumors, accusation, or innuendo that arises during the negotiation process often influences what knowledge they may have.

Research from Haspeslagh & Jemison (1991) points out three types of interactions that managers must bear in mind during an acquisition.

- **Substantive interactions:** "Directed toward accomplishing the acquisition’s original or emerging purpose, substantive interactions involve actions deemed necessary for value creation" (p. 118). The first typical substantive interaction is between senior managers from both firms, as they develop agreement about areas in which the two firms should work together. The result is a set of plans that reflect the management’s group assumptions about synergies that are possible and what has to happen to bring them about.

Another kind of substantive interaction arises during the first months of integration when managers of the acquired company are trying to let the parent company know how things could be done better in the future. Frequently, this is a frustrating step because the message is not received by the right people or it is simply ignored. These late substantive
interactions need to be heard by the integration team, as they are good sources of information about the process.

- **Administrative interactions:**

  The desire to “get our arms around” the acquired firm is very strong among managers in most acquiring companies. Thus they act quickly to establish reporting relationships, information flows, and operating procedures that are necessary to monitor and control the new subsidiary. (p. 119)

  An assumption commonly accepted by financial managers of corporation is that their administrative systems and practices have to be imposed automatically on the acquired firm without considering whether these systems are right in the new setting. Such misapplication of management systems can severely limit the ability to create the atmosphere necessary for capability transfer.

- **Symbolic interactions:** “Nothing is ever the same after an acquisition. Typically, the rules of the gam change for everyone. People in both firms respond to these breaks with the past by engaging in a variety of activities with a high symbolic content.” (p. 120)

  Top management starts these symbolic interactions by demonstrating the pertinence of the acquisition decision and explaining to both entities the new organizational purpose and philosophy. Lower-level managers and employees in both firms also use symbolic interactions to signal their basics beliefs, skills, capabilities, or positions on key issues to people in the other firm.

3.3 SUMMARY OF CONDITIONS FOR VALUE CREATION.

Whatever approaches of integration are done by a company, the previous topics are essential conditions of success. Every manager in charge of an acquisition has to be cautious about these three fundamentals:

- Create the conditions for capability transfer.
- Take care of the surrounding context, or atmosphere.
- Look at all of the needed interactions.
3.4 THE INTEGRATION PROCESS: DIFFERENT APPROACHES

Figure 4.1

<table>
<thead>
<tr>
<th>Need for Strategic Interdependence</th>
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<tr>
<td>Low</td>
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<tr>
<td>High</td>
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<table>
<thead>
<tr>
<th>Need for Organizational Autonomy</th>
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<tr>
<td>High</td>
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<td>Preservation</td>
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<td>Symbiosis</td>
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<td>Low</td>
</tr>
<tr>
<td>[Holding]</td>
</tr>
<tr>
<td>Absorption</td>
</tr>
</tbody>
</table>

Source: Haspeslagh and Jemison, 1991

This chart gives useful metaphors for describing the various approaches encountered in strategic acquisitions. The intent of those authors is clearly not to give recipes but to help the executives in charge of an acquisition to refine their thinking and willingness. Obviously, the degree of strategic interdependence and organizational autonomy present in an acquisition integration depends on the choices top executives are making about how they perceive those respective needs.

A detailed analysis of the autonomy needs and interdependence needs of the main components of the acquisition helps the company determine how, within the chosen metaphor, they can differentiate the approach to each capability.

Finally, each of the three integration approaches and the settings to which they correspond are very different. Understanding the differences is a precondition to managing them successfully. For this reason, I will start the discussion of each approach by a description of the corresponding setting.

3.4.1 Absorption

Absorption is the most natural approach that comes to mind when thinking of the aftermath of an acquisition. Two firms are consolidating. Absorption is appropriate when the
expected benefits arise out of high interdependence between the firms and there is less concern about maintaining the autonomy of the acquired one. Companies that have a detailed pre-acquisition view of a business frequently adopt absorption. Adopting the best practices, scale effects, and strategic positioning of the parent company are sources for results improvements.

Full consolidation of the operations, organization, and culture of both organizations is the expected result of absorption. As the objective is ultimately to dissolve the boundaries between the firms, a key issue becomes the question of timing rather than how much integration should take place. The acquiring company needs the courage of its convictions to ensure that its vision is carried out. In this particular setting, extreme precautions over cultural issues are likely to limit the ability to obtain the expected value.

3.4.2 Preservation

Acquisitions founded on preservation are essentially an opportunity for learning. This happens when companies make an initial platform acquisition into a new domain. Transfer of strategic capabilities from the parent company focuses on general management topics that help the acquired firm improve its development capabilities and professionalism. The benefit to the acquirer is a better knowledge of the industry. From a timing perspective, this type of acquisition require continuity in the behavior of the parent company until the learning benefits have been realized. A reformulation of strategy can be done following the lessons learned.

One difficulty arises in the degree of autonomy. Too much autonomy can be an obstacle to the acquirer learning about the industry and can endanger the acquired firm’s performance. Instead, the acquired firm must endeavor to be concentrate on the transfer of capabilities in accordance with the expertise of the two firms.

Returning to Figure 4.1, in preservation acquisitions there is strong need for autonomy and low need for interdependence among the combining firms. So then, the primary task of management within the acquirer is to keep the source of benefits intact.
3.4.3 Symbiosis

A symbiotic acquisition is probably the most difficult to manage. The acquirer has to navigate carefully between the need to preserve the acquired company's culture and expertise and still encourage interdependencies that fulfill the purpose of the acquisition. This is the situation in most acquisitions of complementary businesses or vertical acquisitions.

Symbiotic acquisitions begin with preservation to enable the acquirer to learn and adapt its own organization to further improvement as a result of the new entity. The second step is affirmation of strategic control in the subsidiary and a gradual amalgamation of the organizations. In this approach, preservation of the acquired capabilities is usually achieved through an exchange of operating responsibilities.

3.5 ADVANTAGES AND DRAWBACKS

Here I will present a brief review of the advantages and drawbacks of these three approaches in the context of their ideal application. In other words, it is not an analysis of the fitness of each approach to a specific situation, but instead is based on the intrinsic characteristics of each approach.

Absorption: Very often an absorption approach that blends two corporate cultures may be very productive in one area, e.g., manufacturing, but destroy value in other area. Companies need to be able to drive hard on some dimensions and at the same time accept the fact that there will be continuing differences.

The elimination of resource redundancies and the sharing of best practices also characterize absorption. This leads to improvement of global performances as a first step. But equally important is what comes after the rationalization process. Companies have to attend to survival needs that go beyond rationalization and focus on evolution.

Preservation: Establishing the proper gatekeeping structure is the challenge in preservation. Even if successful, it remains a difficult approach to manage and requires subtle nurturing and careful learning on the part of the management team.
If the acquirer is able to handle the difficulties, this approach allows it to accumulate learning about the business and from the business and then decide, based on comprehensive knowledge of the issues, to move further into a specific business. It may be an important ingredient in a healthy renewal process in large organizations.

Symbiosis: The most difficult approach also allows the possibility of achieving a rich capability transfer from both firms. "The boundaries between the two sides must be transformed into a semi-permeable membrane" (p. 222). Ambiguity and conflict abound in this approach, and the need for subtle managers is strong in every department. The combination must lead to a true amalgamation into only one unique entity that has not lost the capabilities of the acquired company, and superfluous differences must be reconciled.
CHAPTER FOUR

The Key Factors of Success

4.1 PEOPLE AND CULTURES

As discussed in the previous chapter, each acquisition is a unique process which requires that a company decide the shape of the integration in accordance with the company’s strategy. However, uniqueness does not mean that the integration process should be improvised. The predictable issues need to be anticipated early. This means planning for the integration as soon as the acquisition project starts, rather than waiting until the deal is completed.

A successful merger requires an assessment of the fit between the two organizations and a judgment as to whether they can be readily joined. Gaining the desired synergies from the deal requires intense planning and data collection throughout the process, particularly as it relates to culture. The knowledge gained from cultural aspects of due diligence can contribute not only to decisions about whether to proceed but also to planning for the eventual integration, including anticipating potential problems if the project goes forward.

Among the important questions to be addressed during this audit, I selected some that are representative of these human and cultural issues:

- What are the acquired company’s values?
- How is leadership expressed?
- How does the company manage conflict?
- How do they manage decisionmaking?
- How do people communicate and what is the nature of interactions?
- What are the staff’s perceptions, attitudes, expectations, needs?
- How is work monitored and how are people held accountable?
- Who are the company’s heroes; what are its mottoes and slogans, what gets rewarded?
By identifying answers to these questions early in the process, the acquirer gains the advantage of clearly defined ideas from the outset as to how it will integrate the two organizations and the obstacles that are apt to be encountered.

A second focus of the acquirer should be the retention of knowledge and expertise. Today, the primary goal of many mergers is not only the acquisition of a market position, product, or process, but acquiring the intellectual capital behind them. The globalization of markets today allows valuable knowledge workers to move about easily. So, one task for the acquirer is to ensure that essential personnel are retained and any enticements that may be offered are equitable when compared with current employees.

On the other hand, not all employees of the acquired firm are necessary in the new entity. The crucial task of handling downsizing is critical, and it has to be done as quickly as possible to avoid insecurity and negative effects on motivation. These decisions should be made in ways that are both beneficial for the company and humane for the individuals. The manner in which terminated employees are treated during downsizing and the support they receive afterward have dramatic effects on the attitudes of survivors. Thus, the decision has to be seen as a proactive effort designed to strengthen the new organization's future position. In the meantime, it should be conducted in a manner consistent with the organization's corporate culture so as to reinforce the company's values.

Efforts should be made to look at the consistency of the systems and procedures to be implemented and determine if they are in alignment with in a way that will create strategic leverage and produce desired performance.

The complex mechanisms involved in the union of two different cultures is the source of many disruptions. In order to leverage the consolidated organization's strengths in the face of potential disruptions, one way to obtain buy-in by both set of employees, while at the same time maintaining productivity and preventing failures, is to set a new goal that can only be achieved as both organizations work together effectively.

Equally important as that goal is reporting and communication. At the beginning, high-impact business objectives that are easily accomplished and that have visible and tangible results are welcome. By showing positive results and communicating them quickly, motivation is fostered, which builds credibility and conveys an action orientation.
Clarity, speed, and rhythm are other success factors. Far from being motivated by or committed to the merger, many employees face psychological shock, become preoccupied with their own self-interest, and are distracted from their work. Clarity regarding their future role in the new structure and an assessment of individual goals is essential.

Finally, there is a tremendous need for communication in such a process — upward, downward, and outward throughout the organization -- all are important. Upward, senior executives have to be kept informed as the merger evolves, and they must monitor the need for change, attribution, or reduction of resources or assistance. Downward, messages have to reach all employees at every level of the organization. Every channel of communication must be used to convey the message consistently.

To summarize these human and cultural factors of integration, the following must be borne in mind. Companies are seeking to reduce their expenses when creating even more powerful operating and strategic synergies. Too often failure occurs as a result of inattention to the human factor. However, it is possible to anticipate and manage it efficiently. The acquirer needs to appreciate that it is people who create much of the value and they are ultimately behind achieving the desired synergies.

4.2 ORGANIZATION

After the human and cultural dimension, the pace with which the integration is conducted and the steps taken are key elements.

The first step is to ensure the ability to direct and control interactions between organizations, i.e., to establish interface management. This is generally entrusted to a team or a top executive sponsored by the managers of the acquirer. Often called the Integration Team, they are in charge of all administrative, physical, organizational, and cultural aspects of the consolidation. Management of the integration needs to be recognized as a distinct business function, just like manufacturing, marketing, or finance. It must be composed of people who are knowledgeable in the business, experienced, proven managers who can effectively translate strategic intent into action, as well as people with high credibility within the organization. Ideally, the team manager should be someone who has been actively engaged in the process from the earliest discussions throughout the due diligence phase so
that he is intimately familiar with the business case, the strategic intents and levers, and the critical success factors.

One major task of this team is a gatekeeping role. It has to filter unwanted interactions, channel acceptable ones, and foster desirables ones. Another task is to develop a detailed awareness of the weaknesses and shortcomings of the acquired company, and remedy them as quickly as possible.

A second key point is to support the current business. From the outset, it needs to be protected from both internal and external vulnerability. Managers and employees for whom uncertainty has been created often disengage mentally, if for not other reason than to focus on their personal issues in the merger. At the same time, competitors who sense a moment of potential weakness will step up their efforts to outmaneuver and outsell the acquired or the acquiring firms on the market. Suppliers may begin to question either firm. Customers wonder if the products or the level of service will change.

For all these reasons, it is essential to pay immediate attention to getting the new company operating efficiently. First, it is necessary to provide immediate performance targets, at least in line with prior results. These should be clearly set as temporary objectives, that may be adjusted quickly with the evolution of knowledge or as a result of some aspect of the integration.

A last point to be highlighted here is the necessity of reciprocal understanding. Managers in charge of integration are usually under pressure. The premium paid for the acquisition underlies the desire for immediate results. Differences in perception on substantive issues are frequently underestimated. Spending time to improve this reciprocal understanding is a profitable investment in that it improves the comfort level and effectiveness of managers in both organizations.

4.3 INSTITUTIONAL LEADERSHIP

In order to stimulate managers and employees from both firms after the merger to the entity, a strong institutional leadership is needed, one that is capable of instilling a new sense of purpose. People want to know about the new entity's Vision and how that will translate into a clear mission. The message must make sense to managers of the acquired company,
who understand the strengths and weaknesses of their own organization and are just beginning to understand those of the acquirer. Even if many of the answers are not readily available, leadership communication is needed. In such situations, management needs to acknowledge that a process exists that will indeed develop a new mission to which all employees will be able to make significant contributions.

5.4 TIMING AND INDICATORS

As discussed earlier, the pace of integration is critical. For clarity and efficiency, indicators and reporting have to be set for the new acquisition. Introducing the parent company's basic systems of corporate control is a prerequisite for establishing de facto control. But managers in charge of integration have to instill and monitor the objective. This system meets corporate information purposes but not necessarily operational purposes for the units. So, in addition to corporate-level requirements, managers have to put in place or transplant from other subsidiaries an operational system that allow them to monitor the business. In the first period, they can verify the pre-acquisition view and control the feasibility of the objectives. This gives the entire management team of both firms a tool to follow the evolution and discuss any obstacles.
SECTION TWO

The Cement Industry
CHAPTER 5
Portrait of the Cement Industry

5.1 CHARACTERISTICS

5.1.1 Location
Cement is a commodity, and the location of its production is dictated by two elements. First, the cement industry is concentrated close to quarrying sites. Limestone is the main raw material required to produce cement, so geology is a key determinant of localization. The second is transportation costs. As a regional industry heavily influenced by location, the cost of transportation by trucks can quickly exceed the value of the product. This is why the zone of influence of a cement plant is usually considered to cover a circle with a radius of 250 kilometers.

5.1.2 Price, Volume
Demand for cement is directly correlated with the activities of the most significant segments of the construction market: public works, non-residential buildings, and housing. The sensitivity of these segments to interest rate fluctuations is significant and underpin most short-term variations in demand.

In addition, the growth of consumption per capita is also correlated with the growth of the Gross Domestic Product per capita. A graph showing this situation in most countries worldwide is shown in Appendix 1. The shape of the underlying curve reflects the growth, maturity, and decline. It is typical of long-term trends for a market, and it illustrates the need for cement producers to be geographically diversified.

5.1.3 Capital-intensive industry
This characteristic describes the industry as highly sensitive to price and volume variations. Capital requirements are high, representing $3 of capital investment for $1 of turnover. A good return on investment requires a high operational margin of around 25%.
The structure of cost does not give the producer much flexibility. Fixed cost represents the most important part of production cost.

5.2 GLOBAL OVERVIEW

Cement is the world’s most frequently used building material. Global cement consumption at the end of 1998 was approximately 1500 million tons (MT) worldwide (see Exhibit 5.1). China is the largest consumer, and a widespread industry. It is the only region where the technology and the quality of product differ from the rest of the world.

Exhibit 5.1
Global cement & clinker consumption 1998 (1,45bn tonnes)

The second-largest single market is North America. This area, comprising Canada, the U.S., and Mexico, consumed 130 MT in 1998. This market is regionalized and fragmented. In the U.S., foreign companies own over 60% of the cement industry and the remainder is spread over a number of family-owned firms that are integrated into the building materials sector. CEMEX, the market leader and also one of the “Big Six” world players, is Mexican.
North America is also a major trade zone (see Exhibit 5.2). Imports compensate for the lack of production capacity in this period of a booming U.S. market. Products are sourced from Europe, South America, and northern and southeast Asia. Export go mainly from Mexico to Asia, Central America, and the Caribbean. Within the region, significant flows also go from Mexico and Canada to the U.S.

Exhibit 5.2
U.S. Cement Trends

With a consumption of 225 MT in 1998, Europe is a huge market but it is not unique. In fact, five major markets dominate and all are in the same Western European region.

Eastern Europe comprises over 12 separates states, including former cement giants, Russia and Ukraine. Today, this region is only a shadow of its former days, with 1998 consumption of only 38 MT. Hopefully countries like Moldova, Kazakhstan, and Turkmenistan will show some promise.

Central Europe includes ten countries, including Bulgaria, Romania, Hungary, and former Yugoslavia. With a consumption of 22 MT in 1998, these countries are still far below
their potential given the development that is waiting for economic recovery following the fall of the Iron Curtain.

The remaining 165 MT are consumed by Western Europe countries, also the birthplace of five of the world’s seven largest groups. These companies will be described in Chapter Six, so here I will concentrate only on the size of the major markets.

Italy, Turkey, and Germany dominate the Western European market, with 34.5 MT, 33.5 MT, and 33 MT, respectively in 1998. After this comes Spain with 29.5 MT and France with 19 MT, followed by the UK with 14.7 MT and Poland with 13.2 MT (see Exhibit 5.3).

Western Europe is also a sizeable trading zone. Total exports reached 34 MT and imports 19 MT, including cross-border flows.

Exhibit 5.3
Western Europe Cement Markets

The fourth region of significance is southeast Asia which is currently in turmoil. Consumption plunged from 112 MT to 80 MT between 1997 and 1998, and an analysis of regional Southeast Asian trade highlights these current downturns. Exports out of the region rocketed to 14.5 MT in 1998 from 3.4 MT in 1996; conversely, imports show the opposite trend. The major regional exporters are Thailand and Indonesia and since 1999, Malaysia.
The region's financial collapse has produced a tidal wave of opportunities for acquisition in the cement industry, a place that has historically been quite discreet. With many local owners facing bankruptcy, foreign players have acquired capacity at very attractive prices. Between June 1998 and summer 1999, an average of one cement deal was announced every two to three weeks. The rush had run its course by the end of 1999, but overall the Asian market has excellent long-term potential, and within two years, this regional market should be generating sizable return for its new owners.

Exhibit 5.4
Southeast Asia – Markets in Turmoil

In the rest of the world, consumption is also significant, but it is more difficult to define production regions.

As the following graph illustrates, regional evolution in the last three years is sharply contrasted, and this is one determinant of the decision among big groups to acquire.
Exhibit 5.5
Global Cement Consumption (% growth)

<table>
<thead>
<tr>
<th></th>
<th>97</th>
<th>98</th>
<th>99E</th>
<th>00E</th>
<th>01E</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asia (excl. China)</td>
<td>1%</td>
<td>-10%</td>
<td>1%</td>
<td>7%</td>
<td>6%</td>
</tr>
<tr>
<td>Western Europe</td>
<td>2%</td>
<td>5%</td>
<td>4%</td>
<td>3%</td>
<td>3%</td>
</tr>
<tr>
<td>Eastern Europe</td>
<td>2.50%</td>
<td>4%</td>
<td>2.70%</td>
<td>2.70%</td>
<td>1.80%</td>
</tr>
<tr>
<td>North America</td>
<td>5.70%</td>
<td>6.40%</td>
<td>5.90%</td>
<td>3%</td>
<td>1.50%</td>
</tr>
<tr>
<td>Latin America</td>
<td>9.60%</td>
<td>1.90%</td>
<td>1%</td>
<td>4.10%</td>
<td>5.70%</td>
</tr>
<tr>
<td>Africa</td>
<td>4.40%</td>
<td>2.90%</td>
<td>2.10%</td>
<td>3.40%</td>
<td>3.50%</td>
</tr>
</tbody>
</table>

### 5.3 THE PLAYERS

In mid-1999, the top seven producers controlled 35% of installed capacity for worldwide cement production outside of China. Some analysts believe that this control could easily reach 50% within the next three to five years. This is a much higher percentage of assets under collective control than is seen in most other industries. At the same time, players in the cement industry are leading similar consolidation trends in the heavy building materials sector. Aggregates and ready-mix concrete have become part of the vertical integration in the industry.

In the following graph, we can see the respective size of the top six: Holderbank, Lafarge, Cemex, Italcementi, Blue Circle and Heidelberger, each of which will be discussed in the remainder of this chapter.
Exhibit 5.5

The Cement Industry's Top Six
5.3.1 Holderbank: World's Number One Cement Producer

Exhibit 5.6. Holderbank Sales by division

Holderbank sales by region

<table>
<thead>
<tr>
<th>Region</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Europe</td>
<td>40%</td>
</tr>
<tr>
<td>North America</td>
<td>22%</td>
</tr>
<tr>
<td>Latin America</td>
<td>24%</td>
</tr>
<tr>
<td>Africa, Middle East</td>
<td>4%</td>
</tr>
<tr>
<td>Asia, Oceania</td>
<td>2%</td>
</tr>
</tbody>
</table>
With groups and affiliated companies in more than 60 countries across five continents, Holderbank is the world's leading supplier of cement. Its activities also include aggregates (gravel and sands), ready-mixed concrete, concrete admixtures, and construction-related services. Holderbank is the only cement producer operating on a global scale. Its owns cement and clinker production capacities totaling some 85 MT. The group's production sites are fairly evenly distributed across the world, with 33% in Europe, 18% in North America, 30% in Latin America, 11% in Africa and Middle East, 9% in Asia and Oceania. Cement and clinker sales amounted to 68.4 MT in 1998, which translated into a utilization rate of capacity of 82%.

*Holderbank Strategies*

In their long-term strategy of global presence, Holderbank has already reached its goal quite well. However, the European markets are disproportionately more important, whereas its activities in Asia are underdeveloped compared to total Asian consumption. Not surprisingly, the group took advantage of attractive prices during the Asian financial crisis to increase its regional participation by entering new markets such as Thailand and Malaysia and expanding existing positions in the Philippines, Sri Lanka and China.

Holderbank focuses primarily on cement and clinker and will continue to concentrate on strategically important construction materials. Diversification is not being considered at this time; indeed, the opposite has been the case. In the field of ready-mixed concrete, Holderbank follows an independent policy. This product is a distribution channel for cement. In some markets, such as Germany, it has adopted a more defensive approach to securing cement distribution channels. In others, such as Latin America, it proactively facilitates bulk cement sales. In North America, activities remain primarily in the hands of local contractors or building companies.

The company targets cost and market leadership and tries to develop a network with its facilities. This formation of clusters (networking of markets and production plants) accommodates regional fluctuations in demand and enables price smoothing and production capacity optimization. The company cites the example of its Caribbean cluster, which includes production and trading facilities with Mexico, Venezuela, and the U.S.

Finally, the presence of a major shareholder ensures that the company will continue to move toward its long-term goals rather than short-term profit optimization.
**Holderbank Strengths**

This unique global market presence is an effective way to diversify the risks involved in operating in countries of varying economic stability. This global presence generates a steady stream of cash flow which allows the company to finance the necessary maintenance, modernization of existing production capacities, and further expansion.

In addition to existing modern plants, the high density of Holderbank's production network is another important advantage. Without it, the company would not be able to reduce its production capacity in the mature European markets without losing market share.

As for development, the company's strategy is to be a presence in all potential markets to create a network of relationships with existing producers. The company often proposes joint ventures or participations to learn about the market. This approach enables them to more efficiently expand or develop their position when opportunities come. The latest example is the way Holderbank took advantage of the Asian "investment window" opened by the recent financial crisis.

**Holderbank Weaknesses**

In contrast to other international competitors, Holderbank does not have a strong domestic market. In terms of total volume, Switzerland is a relatively minor cement consumer compared to other countries. The country's total cement consumption is 3.7MT, only 1.8% of total Western European consumption. However, their long-term presence in other major European markets compensates for this.
5.3.2 Lafarge: Diversified in Building Materials

Exhibit 5.7: Lafarge sales by activity

Lafarge sales by region
Lafarge restructured its business portfolio during the 1990s, disposing of its bathroom fixtures business and its environmental activities, and expanding into a new business (roofing tiles) through the acquisition of the UK group, Redland. At the same time, Lafarge extended its gypsum division and strengthened the international position of its core businesses, cement, ready-mixed concrete, and aggregates.

In 1998, Lafarge production capacity was about 100MT. Thanks to substantial cash flow generated by its cement business and several calls on the financial market, management has accelerated international expansion over the past ten years into Eastern Europe, Latin America, Asia and Africa.

The group has a more diversified business profile than its principal rival, Holderbank, and holds a leading global position. It ranks number two in cement, concrete, and aggregates; number one in roofing tiles and aluminates, and number six in gypsum. No single shareholder holds a significant position in the group’s capital.

*Lafarge Strategy*

Lafarge expanded internationally in cement first, followed by other activities. Over the last decade, the group invested heavily in newly industrialized countries that offered considerable medium to long-term growth potential, such as Turkey, Morocco, Eastern Europe, Brazil, Venezuela and China. The group’s strategy for entering a new market is to acquire one or more cement producers to take a significant market share. Regrouping the market among several large players produces a sustainable rise in cement prices. In the second phase, depending on the country’s economic development, Lafarge uses its acquisitions as a bridgehead to introduce the rest of the group’s products such as aggregates, gypsum, and roofing tiles, with the aim of creating a major building materials division in each country.

In mature markets, Lafarge attempts to reinforce and diversify its market share in other businesses. The acquisition of Redland is an illustration of this strategy. This move added new products (concrete and baked clay tiles) to those already being offered to the building sector and thus enhanced the group’s market share in concrete and aggregates.
**Lafarge Strengths**

Lafarge controls 33% of the French cement market, in which high prices enable it to generate an operating margin of 30%. Two-thirds of the cement market outlets in France are far from the coast, so maritime imports have never really penetrated the market, unlike Spain where importers snapped up 12% of the market during the early 1990s and where 80% of the market is close to the sea.

The cash flow generated for Lafarge by the cement business in France represents 50% of total group cash flow from all businesses and geographical regions.

Lafarge’s strategy of acquisition in emerging countries is a source of shareholder value. Usually, the company buys cement manufacturers at moderate prices of less than US$100 per tonne of capacity, on average. After modernizing, it then boosts the operating margin of the acquired firm by 10 to 20% within four years. On average, the return on capital is about 11% or nearly 4% more than the cost of capital.

Finally, diversification has enhanced Lafarge’s earnings growth.

**Lafarge Weaknesses**

Lafarge’s diversification strategy does not meet with the unanimous approval of the financial market, who tends to prefer Holderbank as a better “pure play” in the cement sector in the upward phase of the cycle. This view is reflected in Holderbank’s premium over Lafarge.

Lafarge’s international presence is not as widespread as Holderbank’s. In view of timing differences in the economic cycles from one country to another, Holderbank finds it easier than Lafarge to reduce the cyclical aspects of its earnings. This difference between the two companies results from the very different strategic choices made by each group in the 1980s when Lafarge embarked on business diversification whereas Holderbank concentrated on geographic expansion.
5.3.3 Heidelberger -CBR

The world's third largest company evolved in two giant steps in the 1990s. First, in 1993 the acquisition of CBR, a Belgian-based group that was the market leader in Belgium and The Netherlands and a major player in the U.S., Turkey, and Poland, was a dramatic evolution for this south Germany group, mainly oriented to their inland market, except for a significant U.S. subsidiary.

The recent takeover of Scancem, a deal which worth some 2.35 billion Euro, enabled the company to expand its international market presence by adding activities in Scandinavia, the UK, and West Africa, as well as bolstering its position in the U.S., Eastern Europe (Poland and Estonia), Russia, and certain Asian countries.

Besides cement activities, the company's product range has been extended to concrete elements, aggregates, and prefabricated units in Scandinavia, and to bricks, special mortars, and light aggregates in Western Europe.

Exhibit 5.8
1999E sales by division
**Heidelberger Strategy**

Following its acquisitions, the company is well-positioned in the mature markets of Europe and North America (particularly on the east coast of the U.S.). The company has clarified its objective of achieving growth in emerging markets (Asia and Eastern Europe) and in markets where cement consumption per capita is below the global average, such as in Africa.

A further strategic objective is the optimization of the firm’s existing business area in Central and Western Europe and in North America. It aims to push ahead with the expansion of ready-mixed concrete activities in Poland, the Czech Republic, Hungary, and Turkey. It will also focus on increasing cooperation between locations in Romania and Bulgaria. Further expansions in Asia are in process.
Heidelberger Strengths

The acquisition of the Scandinavian building materials group is undoubtedly a positive strategic step. The deal entails virtually no overlap. The company’s broader presence will enable it to spread its business activities across more regions with varied economic cycles, which will ultimately reduce earning volatility. Furthermore, a potential improvement exists in the linking of production plants locally and through the action of the group’s international trading activities. The new entity has a very strong market position in this field worldwide, with a total trading volume of about 10 MT.

This enables the firm to enter into new markets and to react flexibly to shortfalls or surpluses in markets where it is already active. This will reduce the threat of attacks from competitors.

Heidelberger Weaknesses

Unlike its two main rivals, Heidelberger still generates only a modest portion of its sales in emerging markets. Following the takeover of Scancem, mature markets currently account for about 80% of sales and 85% of EBITDA.

In addition, the recent acquisition deteriorated the company’s balance sheets ratios.

5.3.4 CEMEX: The Maverick?

CEMEX is a holding company which, through its operating subsidiaries, engages primarily in the production, distribution, marketing, and sale of cement, ready-mix concrete, and clinker. It is a global manufacturer with operations in North, Central and South America, Europe, the Caribbean, and Asia. The company is one of the most efficient cement producers in the world, and among its global peers, one of the most profitable. This competitive advantage has been achieved largely through the transfer of technology throughout its entire organization, its superior operating practices, an expertise in turning around newly acquired operations, and economies of scale as one of the world’s largest cement companies.

Cemex was founded in 1906 in northern Mexico, near Monterrey. During the late 1980s, the company emerged as Mexico’s leading cement company. From the early 1990s, Cemex successfully met the challenges posed by an open market and began looking for
opportunities beyond Mexico’s border. The operational knowledge gained by integrating its acquired assets gave it a competitive advantage.

Today, the company is the world’s third largest cement producer. Its Website highlights what the company calls “a consistent growth strategy”. Cemex’s business portfolio is concentrated primarily in high-growth, highly profitable developing markets. They capitalize on the strong need of these markets for infrastructure development.

**CEMEX Strategy**

The fundamentals that drive the business are summarized in the following list:

- Management expertise.
- Focus on core activities: cement, ready-mix concrete and aggregates.
- Low operating costs.
- Use of state-of-the-art management information systems and production technology.
- Versatile financial management and capital structure.
- Developing-market experience and focus.

**Exhibit 5.9**

CEMEX Sales by region
CEMEX sales by region

CEMEX Strengths

The result of the development strategy of CEMEX gives them a strong positioning in the developing markets. Exhibit 5.10 shows a comparison of CEMEX with the five other companies analyzed in this chapter.
CEMEX Weaknesses

Cemex has the most debt among the Big Six. As of December 31, 1999, their total debt was $4,794 billion (primarily U.S. dollars). The growth strategy in emerging markets or developing countries combined with the level of debt has put the company in a more risky position than its competitors.
5.3.5 Blue Circle: Back and forth out of the cement business

From mid-1999, Blue Circle has focused almost exclusively on the production of heavy building materials (cement, aggregates, and ready-mixed concrete). The path to this portfolio has been far from straight, however. Blue Circle succeeded British Associated Portland Cement Manufacturers (ACPM) in 1978. At that time it controlled cement operations in Chile, Malaysia, Mexico, South Africa, and the US. In 1980, it began diversifying by acquiring Armitages Shanks (bathroom fixtures). In 1989, Blue Circle sold its Mexican cement business and acquired Myson, a UK manufacturer of plumbing and heating equipment. In 1999, after unexpectedly low results in these activities, it reversed its diversification strategy, selling its bathroom division to American Standard. The disposal of its heating division to Baxi was completed at year-end 1999.

After these dispositions, Blue Circle’s geographical diversification looks better. However, in Europe (UK, Denmark, Greece), South America (Chile) and Asia (Malaysia, Singapore, Philippines) it is still concentrated on single regions.

Exhibit 5.11 : Blue Circle Sales by division
Blue Circle sales by region, Cement

<table>
<thead>
<tr>
<th>Region</th>
<th>Sales (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Europe</td>
<td>31%</td>
</tr>
<tr>
<td>North America</td>
<td>37%</td>
</tr>
<tr>
<td>South America</td>
<td>7%</td>
</tr>
<tr>
<td>Africa</td>
<td>2%</td>
</tr>
<tr>
<td>Asia</td>
<td>17%</td>
</tr>
</tbody>
</table>

**Blue Circle Strategy**

Blue Circle would like to play an active role in the industry’s fast consolidation process. Being something of a multi-regional company, it is now endeavoring to become truly global. An expansion of the current asset base and acquisitions are both on the horizon. It currently has a priority list of 30 acquisition targets spread over five continents, and they are bidding for an Egyptian state-owned cement company.

Based on global benchmarking against “best-in-class” performance internally and externally, the company has considerable scope for performance improvements. Having identified this drawback, the company aims to cut all non-essential costs and reinvest them into performance, growth and reputation.

Delivering shareholder value is strategically vital. Without giving any specific targets, Blue Circle feels that a total shareholder return of 15% per year is “the very minimum we must deliver”.

-49-
**Blue Circle Strengths**

Blue Circle is a major player already, although clearly behind Holderbank, Lafarge, Heidelberger, and Cemex in terms of installed cement production capacity. However, it has doubled its capacity over the last 30 months and now has a good platform on which to grow its business, both internally and externally.

The focus on heavy building materials is a strength due to the fact that they can now concentrate all their resources (management, financial) on this single business.

The company is in sound financial health. Thanks to significant cash-ins stemming from the sales of the bathroom and heating divisions, the group was able to finance all of its 1999 acquisitions in the heavy building materials division without incurring higher financial leverage.

**Blue Circle Weaknesses**

The company’s geographical diversification is not as good as it appears. Some of its operations are still isolated and not linked to each other. In Latin America, for example, Blue Circle is present only in Chile but not in the three largest markets (Mexico, Brazil and Argentina). The same problems exists in Europe and Asia.

Blue Circle is relatively late in its efforts to become a real global player and has spent too much time and money on other activities.

**Last Minute Note**

In January 31, 2000, Lafarge announced an unsolicited bid to take over Blue Circle. Lafarge’s bid values Blue Circle at $5.5 billion. This surprising offer has not yet been accepted by Blue Circle shareholders, but looks very attractive given the company’s current performance. From Lafarge’s point of view, it is also attractive: first, because of the absence of geographical overlap. Second, the potential for improvement with the Blue Circle operation is even higher when combined with Lafarge’s expertise. Finally, it enables Lafarge to take a significant advantage over its competitors in one operation.
5.3.6 Italcementi Group: On the move again

Italcementi was founded in Bergamo, Italy in 1864. This Italian market leader acquired the group Ciment Français in 1992. Italcementi Group evolved from an amalgamation of the two.

Italcementi Group is the number one European cement producer, with activities in Italy, France, Belgium, Spain, and Greece. Its presence in the Mediterranean is completed by subsidiaries in Turkey, Morocco, and Cyprus. The North American branch also represents a significant element of the group, with activities in the U.S., Canada and Puerto Rico. Recently, the group acquired companies in Bulgaria, Kazakhstan and Thailand.

The group manufactures and distributes three main product lines: cement, aggregates and ready-mixed concrete.

From 1992 to 1998 the company improved the performance of its operations and decreased its debt level resulting from the acquisition of Ciment Français. From 1998, the international development of the group came back at the foreground of the priority.

Exhibit 5.12
Italcementi Sales by region
**Italcementi Strategy**

Strategic Integration of Activities is the name given to the program of optimization of production across all markets, providing a complete solution for customer needs at the lowest possible cost.

The creation of value at Italcementi Group is articulated through four strategies:

- Cost control to increase profitability and generate resources for development.
- Organization and Information System development.
- New acquisitions in countries with interesting potential of development.
- Integration and enhancing of new acquisition.

In order to apply these strategies, the group is looking at acquisition opportunities in India and Asia, as well as in the Mediterranean. Italcementi also wants to consolidate its North American presence by increasing its U.S. cement capacity, as many of its competitors have announced extension projects totaling 12 MT.
**Italcementi Strengths**

Management has proved its ability to reduce costs. Using 1993 as a baseline 100, production costs were 81 in 1998 and over the same period, fixed costs dropped from 54% to 49% of total costs. This place Italcementi Group at the top of the EBIT margins rating among European cement producers.

The company has significantly strengthened its international presence in the past twelve months as well as in Thailand where it has benefited from low asset prices as a result of economic instability in the region. Acquisition costs are below US$100/tonne of cement capacity which corresponds to the group stipulation that acquisitions should create value within a relatively short period of time.

**Italcementi Weaknesses**

Following active growth through acquisition over the past few months, net debts represent 80% of shareholder equity, which should encourage the group to be very selective in its capital spending. Such constraint is not necessarily a weakness in the context of making acquisitions in little-known areas, such as India, for example.
CHAPTER SIX
Strategic Positioning of the Industry

Following the portrait of the cement industry and a description of its main competitors given in Chapter Five, I can now analyze in greater detail, using academic tools, the strategic positioning of the cement industry. Then I will formulate conclusions to help explain the massive globalization trends that are mobilizing the energies of everyone in the Top Six companies.

In Section 3, I will connect together the integration issues with this evolution in the cement industry, drawing the attention of managers in charge of acquisitions to the stakes of integration. These recommendations will be made based on the specific characteristics of the industry.

6.1 PORTER’S FIVE FORCES MODEL

The Five Forces model outlined by Michael E. Porter postulates that there are five forces that typically shape the structure of an industry:

- intensity of rivalry among competitors,
- threat of new entrants,
- threat of substitutes,
- bargaining power of buyers, and
- bargaining power of suppliers.

These five forces delimit prices, costs, and investment requirements, which are the basic factors that explain long-term profitability prospects, and hence, industry attractiveness. The following graph highlights the interrelationship among the players (competitors, buyers, suppliers, substitutes, and new entrants), and the factors behind those forces that help to account for industry attractiveness.
FIGURE 5-1. Elements of Industry Structure: Porter’s Five-Forces

BARRIERS TO ENTRY
- Economies of scale
- Product differentiation
- Brand identification
- Switching cost
- Access to distribution channels
- Capital requirements
- Access to latest technology
- Experience and learning effects

GOVERNMENT ACTION
- Industry protection
- Industry regulation
- Consistency of policies
- Capital movements among countries
- Custom duties
- Foreign exchange
- Foreign ownership
- Assistance provided to competitors

RIVALRY AMONG COMPETITORS
- Concentration and balance among competitors
- Industry growth
- Fixed (or storage) cost
- Product differentiation
- Intermittent capacity increasing
- Switching costs
- Corporate strategic stakes

BARRIERS TO EXIT
- Asset specialization
- One-time cost of exit
- Strategic interrelationships with other businesses
- Emotional barriers
- Government and social restrictions

POWER OF SUPPLIERS
- Number of important suppliers
- Availability of substitutes for the suppliers' products
- Differentiation or switching cost of suppliers' products
- Suppliers' threat of forward integration
- Industry threat of backward integration
- Suppliers' contribution to quality or service of the industry products
- Total industry cost contributed by suppliers
- Importance of the industry to suppliers' profit

POWER OF BUYERS
- Number of important buyers
- Availability of substitutes for the industry products
- Buyers' switching costs
- Buyers' threat of backward integration
- Industry threat of forward integration
- Contribution to quality or service of buyers' products
- Total buyers' cost contributed by the industry
- Buyers' profitability

AVAILABILITY OF SUBSTITUTES
- Availability of close substitutes
- User's switching costs
- Substitute producer's profitability and aggressiveness
- Substitute price-value

6.1.1 Rivalry Among Industry Competitors

Concentration and balance among competitors

On the basis of installed capacity of production, controlled directly or partially through minority shareholding, 40% of the worldwide capacity (2,100MT) is owned by the 30 bigger groups. This percentage shifts to 52% when excluding the 500MT capacity of obsolete Chinese vertical kilns. A significant gap exist among the Top Six, which owned capacity between 50 and 130MT, and the masses of players, medium or small size, spread throughout the world. Given these situations, it is not possible to define more accurately the cement industry as a whole. However, in developed countries the concentration is largely done. In Europe, birthplace of 5 of the 6 big players, markets must be defined as oligopoly, with a homogeneous philosophy of competition in the development.

Industry Growth

Globally, worldwide consumption is forecasted with a 2 to 3% growth in coming years, after a break in 1998 due to the Asian crisis. In this part of the world, which is the biggest consuming area, the decrease was estimated at 12% during the crisis. There is little room for large local expansion, but more for geographical development because of the small size of players on a global scale.

Fixed Costs

Fixed costs represent the most important part of production cost. Capital-intensive, the industry has to support high energy and maintenance costs in addition to a high level of investment. Usually, $3 of investment is needed in order to generate $1 of revenue. For these reasons, operational margins have to reach 20 to 25% to allow the industry to be profitable, and such a level is only possible through a combination of sufficient production levels, close to saturation, and a good local price. (As markets are essentially local, there is no worldwide price.)

Product Differentiation

Typically, cement is not a product that can be differentiated; it is a commodity. That means no one can legitimately claim that what it is offering is superior to an offering from
another competitor. Price issues largely influence the customer, but also services provided by the cement producer. For example, the average consumer does not care about capacity of stock. He typically orders for delivery just a few hours in advance of need. Another example is quality of the final product. Frequently, the cement producer provides its customer with expertise in using cement in combination with raw materials to reach specifications for concrete. These are two examples of the efforts made by producers to increase customer loyalty.

Switching Cost

Given the previous point, switching costs are low. Programs to retain customers, together with the impact of transportation costs, are arguments for limiting risk.

Corporate Stakes

The equilibrium among growing, mature, and declining markets in a portfolio is crucial, enabling producers to generate stable or improved results. Usually, growing markets are price-unstable and looking for investment. Mature markets are cash cows, and the need for investment is low. It is only necessary to maintain the production tools in good shape. Declining markets are difficult in terms of price, and costly for companies that spend a lot of money to stop capacity and restructure the production network.


### Exhibit 6.2
**Rivalry Among Competitors**

<table>
<thead>
<tr>
<th>Current</th>
<th>Future</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Rivalry among Competitors</strong></td>
<td><strong>Highly unattractive</strong></td>
</tr>
<tr>
<td>Number of equally balanced competitors</td>
<td>Large</td>
</tr>
<tr>
<td>Relative industry growth</td>
<td>Slow</td>
</tr>
<tr>
<td>Fixed or storage cost</td>
<td>High</td>
</tr>
<tr>
<td>Product features</td>
<td>Commodity</td>
</tr>
<tr>
<td>Capacity increases</td>
<td>Large increments</td>
</tr>
<tr>
<td>Diversity of competitors</td>
<td>High</td>
</tr>
<tr>
<td></td>
<td>High</td>
</tr>
</tbody>
</table>

---

#### 6.1.2 Barriers to Exit

**Asset Specialization**

As described earlier, the cement industry has to build expensive production tools that are located close to limestone deposits. The cost to begin quarrying is also significant. So assets are highly specialized. It is generally admitted that the potential value of a tool that has to be moved from one plant to another represents only 10% of the investment.

**One-time Cost of Exit**

The closing of a plant is significant for a producer. As it affects the human side, such a decision implies layoffs, often occurring in regions with few other employment opportunities. Second, demolishing tools and infrastructures is very expansive. Finally, the rehabilitation of quarries in accordance with ever more demanding environmental rules is a real problem.
Strategic Interrelationships with Other Businesses

Two kinds of exit are possible. The most common is a reorganization of the production network within a region. In such a situation, supply to customers is not affected and no negative impacts on strategic interrelationships occur. Leaving the region is another solution, albeit a scarce one. In this situation, the exiting player tries to sell its position in the market to other players, with or without the production tools.

Emotional Barriers

Once again, the fact that this kind of industry is mainly located in rural areas, and that operate during long periods of time, creates high emotional barriers.

Government and Social Restrictions

Social restriction is the most sensitive issue. High social protection in many mature markets, like Europe, combined with good profitability makes layoffs difficult. It is common to see lengthy lawsuits between unions and producers over plant closing issues.

Exhibit 6.3 Barriers to Exit

<table>
<thead>
<tr>
<th>Barriers to Exit</th>
<th>Highly unattractive</th>
<th>Mildly unattractive</th>
<th>Neutral</th>
<th>Mildly attractive</th>
<th>Highly attractive</th>
<th>Future</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asset specialization</td>
<td>High</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Low</td>
</tr>
<tr>
<td>One-time cost of exit</td>
<td>High</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Low</td>
</tr>
<tr>
<td>Strategic interrelationship</td>
<td>High</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Low</td>
</tr>
<tr>
<td>Emotional barriers</td>
<td>High</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Low</td>
</tr>
<tr>
<td>Government and social restrictions</td>
<td>High</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Low</td>
</tr>
</tbody>
</table>

6.1.3 Barriers to Entry

Economies of Scale
The size of production units has to be directly connected with the density of customers in the area. A plant generally supplies in a radius of 250 kilometers. So economies of scale, apart from regions with high population density, does not rest on the size of the plant. It is at the corporate level that economies should be carried out through less duplication of functional or technical teams at every subsidiary. Frequently, a common information system can be used to facilitate the development of synergy.

**Product Differentiation**

In expanding markets, differentiation is limited. In mature markets, different products exist for various applications. Standards limit the possibility of differentiation, and producers compete more on the basis of services provided with the product.

**Brand Identification**

Two kinds of identification exist today. One is traditional and local brand names with which small and medium contractors are used to working. The second, and more recent, identification is connected to the name of the major players. These brand names had been launched with advertising campaigns and marketing tools. This is new behavior for cement producers, which traditionally manage a shortage rather than an excess of capacity.

**Switching Costs**

Apart from the question of transportation costs, switching costs are low.

**Access to Distribution Channels**

Again, two scenarios exist. In growing markets, where cement is essentially sold in bags, producers use dealers to reach customers. Through good margins and substitution of administrative work like inventory management, billing and reporting, managers build customer loyalty. In mature markets, where cement is sold in bulk, producers are directly connected to users.

**Capital Requirements**

As very few greenfield projects appear because of the existing capacity worldwide, the traditional measure is price paid per tonne of capacity of existing plants. Using this
approach, producers are not buying just physical assets. They are buying market access. A scan of recent acquisitions worldwide shows a wide range of prices, from $50/t in Macedonia (former Yugoslavia) to $250/t in the US.

Access to the Latest Technology

This point is not especially relevant because the process is well-known by all players. The latest technology in this business focuses mainly on process optimization with the help of sophisticated software and measurement tools.

Access to Raw Materials

In many countries, this is the most critical point. Environmental sensitivity is increasing worldwide. A phenomenon known as the NIMBY Syndrome (Not In My Back Yard) is also spreading. This increases competition among players to concentrate on acquiring existing plants that have enough reserves of raw material.

Government Protection

Two cases are interesting examples. First, the fight between CEMEX and the U.S., which has, over a long period of time, been in discussion at the GATT level. Second is a previous disposition taken by the Turkish government concerning the influx of cement. Exports were subsidized while a fee was charged on imports. These behaviors are decreasing with the time.

Experience Effect

Not relevant.
6.1.4 Government Action

Industry Protection

Generally speaking, the cement industry is not protected by governments because of its relatively low need of workforce and its negatively perceived impact on the environment.

Industry Regulation

Major industry traits consist of the evolution of environmental rules, specifically dealing with emissions. While this subject is outside the scope of this thesis, it is probably a decisive issue for the future of the industry. A second point about regulation is the side effect of the necessary proximity to raw materials and the impossibility of moving plants. Governments are aware of these industry characteristics, but continue to impose new regulations without leaving room for producers to react.

Consistency of Policies

I see this as neutral.
Capital Movements Among Countries

Frequent in developing countries, limitations on the movement of capital are an obstacle. It obliges companies to invest in the country with no possibility of using the results for further development. It directly impacts the transaction price.

Custom Duties

Hopefully this is becoming less and less relevant with the development of various free trade agreements around the world and because of the limited mobility of products due to transportation costs.

Foreign Exchange

The main influence of foreign exchange, as part of the question of consolidation for companies, relates to energy. The price of coal and petcoke are usually quoted in US dollars.

Foreign Ownership

The cement industry is considered essentially local, and some governments are opposed to releasing ownership to foreign companies.

Assistance Provided to Competitors

This is marginal and happens in countries that use compensation markets. This is rare today.
6.1.5 Power of Buyers

Number of Important Buyers

The phenomenon of a concentration of cement users is a reality in developed countries. Big contractors, producers of major blocks, and ready-mixed concrete companies are developing into important buyers. In certain countries, such as France, it is not unusual to find customers buying around 5% of the total market sales.

Availability of Substitutes for Industry Products

There is no global substitute for cement, but the product competes with other products in different segments. For example, steel and cement are competitors in the building industry; asphalt and cement are competitors in road construction; plastic, steel, and cement compete in pipe construction. Considerations like duration of building, price, and durability influence the choice.
Buyer Switching Costs

Switching cost among different cements is low. But when a user wants to shift from one product, say cement, to steel, other costs are involved, and the technology is also completely different.

Buyers’ Threat of Backward Integration

Apart from a few significant consumers described as important buyers, none of the usual consumers are able to invest the amount required to build a cement plant. The risk of backward integration is thus very limited. A company called Ready-Mix is the best example of such integration. This UK-based, ready-mixed concrete group started to acquire cement plants only a few years ago.

Industry Threat of Forward Integration

As already described in the preceding chapter, several of the bigger players have strategies for forward integration.

Contribution to Quality or Service of Buyers’ Product

This is part of the industry’s credo and a way to build consumer loyalty. Most companies have received certifications for quality. (ISO 9002 or TQM).

Total Buyers’ Cost Contributed by the Industry: Low.

Buyers’ Profitability: Highly variable, depending on the segment of market.
6.1.6 Power of Suppliers

Number of Important Suppliers

Energy suppliers are critical to the cement industry. As mineral fuels are part of a worldwide market, there is little relation of power among suppliers and users, even if some suppliers, for example South African coal, supply a large part of the cement industry. The second source of energy, electricity, is more critical. In some countries, the production and distribution of electricity is governed by a national monopoly. In such situations, the power of the supplier is significant.

Availability of Substitutes for the Suppliers’ Products

The cement industry has been working since the 1980s to find substitutes for fossil fuels (coal, oil and derivatives). The use of waste fuels is now well-developed. The industry had devised solutions for the incineration of used tires, detergents, lubricants, paper, plastics, etc. This orientation enables the industry to reduce its dependence on fossil fuels. As for
electricity, the technology of co-production is not yet profitable. Hopefully, most large countries will deregulate the production and distribution of electricity.

**Switching Cost of Suppliers' Product**

For fuels, switching cost is materialized by the need of investment. It is quite different using coal or tires as fuels, so specific installation is needed. For electricity, there is no switching cost.

**Suppliers' Threat of Forward Integration:** Not relevant.

**Industry Threat of Backward Integration:**

This appears to be relevant only for waste fuels. Some of the producers are already involved in such a business.

**Suppliers' Contribution to Quality or Service:** Not relevant.

**Total Industry Costs Contributed by Suppliers:** Not relevant.

**Importance of the Industry to Suppliers' Profit**

For the waste fuels industry, the cement industry is its biggest consumer, and producers influence prices. For electricity, the cement industry is a big and interesting customer. Typically, cement production is highest during the spring, summer and fall, and drops dramatically during the winter as building activities decline. This characteristic fits well with the needs of the electricity producers, which are able to supply more to their housing customers during wintertime.
### Exhibit 6.7  Power of Suppliers

<table>
<thead>
<tr>
<th></th>
<th>Highly unattractive</th>
<th>Mildly unattractive</th>
<th>Neutral</th>
<th>Mildly attractive</th>
<th>Highly attractive</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of important suppliers</td>
<td>Few</td>
<td></td>
<td></td>
<td></td>
<td>Many</td>
</tr>
<tr>
<td>Availability of substitutes for the suppliers’ products</td>
<td>Low</td>
<td></td>
<td></td>
<td></td>
<td>High</td>
</tr>
<tr>
<td>Differentiation or switching cost of suppliers’ products</td>
<td>High</td>
<td></td>
<td></td>
<td></td>
<td>Low</td>
</tr>
<tr>
<td>Suppliers’ threat of forward integration</td>
<td>High</td>
<td></td>
<td></td>
<td></td>
<td>Low</td>
</tr>
<tr>
<td>Industry threat of backward integration</td>
<td>Low</td>
<td></td>
<td></td>
<td></td>
<td>High</td>
</tr>
<tr>
<td>Suppliers’ contribution to quality or service</td>
<td>Large</td>
<td></td>
<td></td>
<td></td>
<td>Small</td>
</tr>
<tr>
<td>Total industry cost contributed by suppliers</td>
<td>Large fraction</td>
<td></td>
<td></td>
<td></td>
<td>Small fraction</td>
</tr>
<tr>
<td>Importance of the industry to suppliers’ profit</td>
<td>Small</td>
<td></td>
<td></td>
<td></td>
<td>Large</td>
</tr>
</tbody>
</table>

### 6.1.7 Availability of Substitutes

**Availability of Close Substitutes**

The price of cement, which is only 7.5 cents per kilo, is difficult to compete with. Any substitute is much more expensive.

**Users’ Switching Cost**

As already discussed, the question is not about a difference in product prices, but about the use of other technologies to implement other product.

**Substitute Producer’s Profitability and Aggressiveness**

Using steel for construction is not profitable, but the steel industry is doing long-term lobbying in order to promote greater of use of its product. The oil industry, with its side product bitumen, is promoting just enough to sell what they want. They are less aggressive, but their power is high because of their strategic position in most oil-producing countries.
Substitute Price/Value

Given the preceding points, I put them in neutral zone.

**Exhibit 6.8 Availability of Substitutes**

<table>
<thead>
<tr>
<th>Availability of close substitutes</th>
<th>Highly unattractive</th>
<th>Mildly unattractive</th>
<th>Neutral</th>
<th>Mildly attractive</th>
<th>Highly attractive</th>
</tr>
</thead>
<tbody>
<tr>
<td>Availability of close substitutes</td>
<td>Large</td>
<td>Small</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>User’s switching costs</td>
<td>Low</td>
<td>High</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Substitute producer’s profitability and aggressiveness</td>
<td>High</td>
<td>Low</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Substitute price/value</td>
<td>High</td>
<td>Low</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

6.1.8 Overall Assessment

- **Barriers to entry**: Barriers were already very high due to the level of investment required. Today, with the environmental issues, it is highly unattractive.
- **Barriers to exit**: For the same reasons, exit also makes the business highly unattractive.

**Exhibit 6.9 Impact of Entry and Exit Barriers over Industry Profitability**

<table>
<thead>
<tr>
<th>ENTRY BARRIERS</th>
<th>Low</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>High and stable profits</td>
<td>High, but possibly unstable profits</td>
</tr>
<tr>
<td>Low</td>
<td>Low and stable profits</td>
<td>Low and unstable profits</td>
</tr>
</tbody>
</table>

Source: Hax & Majuf 1996

The preceding table shows the profitability of the cement industry in a market. In order to limit this risk, the industry uses high profitability to develop its international presence. This argument supports the globalization of the cement industry.
• **Fixed cost**: The huge importance of fixed costs in the production of cement makes it unattractive.

• **Product features**: The product is clearly a commodity, and the industry is working to improve its technical characteristics. Probably the most significant evolution will be with the services provided with the product.

• **Capacity increases**: Rather than building new capacities, it is better to think in terms of growth of the major players through acquisition. From this point of view, capacity increase must be huge in the future.

• **Diversity of competitors**: Looking at the market as a whole, diversity is still important. The trend is to less diversity through concentration.

• **Strategic stakes**: Strategic stakes are high, even higher because of the race to globalization. The development of an accurately diversified portfolio is a major stake. Companies have to convince the financial market of their successful performance, which it is not easy in such a heavy and cyclical industry. Size and geographic diversification are key factors.

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**Exhibit 6.10 Overall Assessment**

<table>
<thead>
<tr>
<th>Current</th>
<th>Future</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Overall Assessment</strong></td>
<td>Highly unattractive</td>
</tr>
<tr>
<td>Barriers to entry</td>
<td></td>
</tr>
<tr>
<td>Barriers to exit</td>
<td></td>
</tr>
<tr>
<td>Rivalry among competitors</td>
<td></td>
</tr>
<tr>
<td>Power of buyers</td>
<td></td>
</tr>
<tr>
<td>Availability of substitutes</td>
<td></td>
</tr>
<tr>
<td>Government actions</td>
<td></td>
</tr>
</tbody>
</table>

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-70-
6.2 THE DELTA MODEL - AN INTEGRATIVE STRATEGIC FRAMEWORK

Given the scope of this paper, I will apply the three first step of this framework. First, I will explain the positioning of the cement industry on the triangle. Then, I will describe the Mission of the Business. The third step is a brief analysis of industry structure and their competitive positioning. In order to avoid redundancies with the previous chapter, this part will be short. My conclusion of the chapter follows the idea of the Strategic Agenda, but is limited to the strategy of internationalization. The complete framework is shown hereafter.

Figure 11.5
The Delta Model – An Integrative Strategic Framework
6.2.1: The Triangle

Three Distinct Strategic Positions

Competition based upon System Economics:
Customer bonding, complement lock-in, competitor lock-out,
Achieving complementor share

System Lock-in

Total Customer Solutions

Competition based upon Customers Economics:
Reducing customers costs or increasing their profits;
Achieving customer share

Best Product

Competition based upon Product Economics:
Low cost or a differentiated position;
Achieving market share

Definitions:

"The Best Product positioning builds upon the classic forms of competition through low cost and differentiation. Its relevant economic drivers are centered on the value chain of the product or service. Products tend to be standardized and unbundled. A primary objective is efficiency of the supply chain, which is the machine that delivers the product. Customers are likely to be considered faceless and generic and to be served through mass distribution channels."

"The Total Customer Solution option is a complete reversal of the Best Product approach. A prominent concept in defining this option is bonding. Given the goal of creating superior and sustainable financial performance, a critical means to achieve it is by attracting, satisfying, and retaining the customer. In the case of Best Product the bonding is feeble. The Total Customer Solutions option is based upon creating a strong bond with the customer. Rather than supplying mass, faceless customers, customer solutions players learn as much as they can about each customer so as to provide customer solutions. Rather than focusing on the product economics, they thrive by engineering the customer's economics. Instead of offering independent products, they put together a bundle of services aimed at solving a wide array of customer needs.

A Total Customer Solutions strategy is often extends beyond products to include the associated services to support and interact with the customer over time. It calls for an individual value proposition tailor-made for each customer aimed at enhancing the
customer's cost, revenue, or profit position. In that respect and in contrast to the typical attention paid to product market share, the more relevant performance measurement of this option is customer market share."

"The System Lock-in strategic option has the widest possible scope. Instead of focusing on the product or the customer we are now concerned about all the meaningful players in the system that contribute to the creation of economic value in the industry in which the business resides. In this strategic option, bonding plays its most influential role. Besides the normal industry participants — buyers, suppliers, channels, and potential new entrants— we are particularly concerned with nurturing, attracting, and retaining the so-called "complementors". The complementor is not a competitor; it is a provider of products and services that enhance our own offering. (Hax & Wilde)

Taken as a whole, I am tempted to position the cement industry somewhere on the horizontal line between Best Product and Total Customer Solutions.

![Diagram](image)

Significant differences exist among the competitors, but if I take the characteristics they have in common, I think that this positioning is pretty accurate.

Almost all the players are working hard to reduce fixed and variable costs. A kind of competition exists to be the "low-cost producer". At the same time, during the 1990s, most competitors embarked on the implementation of quality systems like ISO, TQM, etc. The basic aim was differentiation through quality.

These two arguments are among the reasons why I see the origin of movement of the cement industry in the triangle in the Best product corner.

Justification for the evolution to Total Customer Solution is supported by the learning effect of the business cycle on mature markets. For example, in Europe (the birthplace of 5 of the 6 top companies) during the 1960s and 1970s, the cement industry was chronically undercapacity. Companies struggled to increase production at a sufficient pace. Then the two worldwide oil shocks suddenly changed demand. From that moment on, the relationship
with customers evolved. The notion of customer satisfaction was the first step, followed by a willingness to build customer loyalty. In order to reach this last objective, the industry has been more and more involved in activities with their customers.

Storage Capacity

Inventory management was a big concern for many small users. During the 1980s, producers began to finance or build silos in their customer facilities. Through this strategy, they were directly involved in the user’s process, and also able to convince them to try new products that were more adapted to their technical needs.

In addition to silos, producers were working with users on their processes. With the help of cement plant laboratories, it was easy for the producer to test different compositions of products and encourage users to adapt a recipe for its concrete. A strong partnership resulted from these interactions. From my point of view, this is the first movement toward Total Customer Solution.

Advertising

A common practice during this period was called “standard bearer”. The idea was to spread the brand name of the cement companies through a network of small and medium-size users. The system worked as follow. As a basic condition, all business papers, like letters, invoices, and price lists, bore the name of the user and the logo of the cement producer. In fact, the cement producer supplied the user with these materials free. In addition, all advertising by users was 40 to 80% underwritten by the cement producer, as long as their logo appeared in accordance with specifications.

These two points illustrate early industry attempts to move toward Total Customer Solution. It was an efficient way to attract, satisfy, and retain customers.

During the 1990’s, the industry developed this approach in order to cope with the evolution that occurred in customer technology and in the landscape of the building industry. The services that producers provided are more and more technical and costly. Users are also better equipped to adapt product themselves, and they are more and more reluctant to share advertising that bears the logo of the cement producer.
From my point of view, the focus needs to be adopted in order to reinforce the bond. I am not entering debate on the subject, which is about competitive differentiation for the future, and is outside the scope of this thesis.

6.2.2 The Mission: Definition of Business Scope and Competencies

Business Scope

As we saw in the portrait of the cement industry, one prerequisite in competitive positioning is to own limestone deposits that are close to the market. Small private companies that historically supplied local markets did this worldwide. Very few greenfield projects exist today in mature countries, and are virtually impossible now for environmental reasons. Only in fast-growing countries, with long-term perspectives, can international players decide to build new capacities, and then acquire deposits not yet exploited. But globally the world was in over-capacity until the beginning of the Asian crisis.

In order to explain the competitive domain of the business, the graph in Appendix 2 is helpful (Mature and growing markets in Western Europe and Mediterranean Rim).

Typically, competition is fierce in growing markets where the companies are establishing their positions in the market (e.g., Turkey). The usual process is to start with the acquisition of independent players that already have production facilities, a distribution network, and a strong relationship with customers. In the case of a totally new market, companies start with imports in order to create their distribution channels and promote the use of their product (e.g., Egypt). The decision to invest in a plant depends first on the density of consumption in a potential area. As the production process allows little or no variation, it is essential to reach a sufficient level.

In mature markets the short-term evolution in the state of the economy plays a significant role. In the higher part of the cycle, the production capacity is fully used and producers import to compensate for excess demand. It is the current situation in the U.S. and Spain where the prices are high.

Another important element that plays a role in this context is vertical integration. As cement is a commodity and not differentiable, integration enables maintaining margins at the level of the cement. (see Appendix 3: Revenue by business). In mature countries where the
cement industry is not vertically integrated, the ready-mix industry has caught the margin. This was the case in the UK.

When looking at the Top Ten producers in the world, it is obvious that the best recipe for success today is to be important players in mature markets and vertically integrated in these markets in order to create high value. But they are well aware that, in the long run, the market trend is bad. The development in growing markets is a response to this problem. It allows them to replace the sources of value creation in the future.

A good illustration of similar appreciation in different regions of the world by the majors is given in a study of an acquisition made during the period 1/98 to 6/99. It compares the selling price of cement, which represent the level of maturity of the market, with the price paid for the acquisition (see Appendix 4: A relation between cement selling price and enterprise value?). We can see that companies are willing to pay a high price for immediate profitability, even if the perspectives are not good for the long term. This is the case for the U.S. acquisitions (Medusa and Lonestar). The Far East (at the bottom) is not profitable for the moment but companies are making massive move into this area to prepare for the future.

Finally, in the middle, we have the Mediterranean area where the situation is more complex. Many of these acquisitions are more defensive. In fact, all these plants or companies are newly privatized by governments and have become potential threats for other mature markets.

6.2.3 Competencies

Vertical integration in the cement industry is market-driven and not process-driven. For this reason, the need is to use, at the operational level, various competencies that have been adapted to specific products. To summarize the different profiles, I would say that cement requires specific people for production and sales; ready-mix requires experts in logistics and their own salesforce, and aggregates require specific profile for production.

To go into the details of these characteristics and every groups specifics is beyond the scope of the thesis as well, but it is enough to bear in mind the differences that exist between a heavy industry, a service industry, and an industry of simple transformation. This will enable us to understand why different profiles are needed. Fortunately, many functions can be potentially shared.
6.2.4. Changes

Here I will discuss two changes that the business is considering but are not appearing clearly in the strategies of the companies under discussion here.

The first change is connected to the lifecycle of the product. My discussion starts with the fact that the future is difficult to predict for mature as well as for growing countries. The cycle of cement consumption in a region is not necessarily closely related to the evolution of the local economy as a whole. For example, France is losing 1% per year of cement consumption despite a 3% growth of global consumption last year. The explanation is simple. The indicators for building activity are Public Works, Non-Residential Buildings, and Housing. In these three segments, France is already well developed. The main infrastructures are built. The highway network is efficient, there are enough port facilities, and it is possible to develop the existing airports. The surface for offices looks sufficient and individual housing well-developed.

So, the question for the future is more about maintenance than about new construction. Therefore, in maintenance, while the concrete structure is rarely replaced, more frequently other parts of the building, such as the roof, coating, and soil covering are replaced. In Publics Works, the need is for specialty products like fast replacement road surfaces or special cements for the water treatment and waste industries.

Given that, it is possible to adapt a vertical integration or imagine joint ventures with specialists in these domains in order to progress in the direction of providing Total Customer solution. My preference is to use a distribution network to enlarge the offer by the addition of specialty products bought from small specialized producers with whom joint venture is possible. The only group embarked on such an evolution is Lafarge, with its roofing and coating activities.

My concern about such a strategy is the allocation of financial means. Priorities toward globalization or diversification are difficult considerations, and the recent example of the takeover of Blue Circle is probably explained by a mistake or lapse in their diversification strategy.

The second change relates to the impact of globalization and communication tools on local markets. Until recently, local markets were influenced by the scarcity of the product. In
fact, due to its low price (7.5 cent/kg) relative to the cost of ground transportation\(^1\), cement did not travel easily. In addition, the profile of consumers evolves. In mature markets the size of the contractor increases and the concentration phenomenon rises. Once more, in France the ten most important customers represent 47% of total sales. The consequence of this is an increase in the power of buyers.

Another element that increases the threat is the availability of information about the excess quantity of product traded in the international market at marginal prices. Before, this information was known only by a specialist in the trading business, among which were the trading companies of the big cement producers. Today, specialized Websites offer data about availability, quantity, quality, and price, with just a click.

Even if the initial investment in port facilities for importing is a significant barrier to entry for the business, it increases the bargaining power of customers in the price negotiation. In my view, the short-term answer to this problem is to develop the marketing and provide Total Customer Solution and to continue the globalization of the big players.

### 6.2.5 The Industry Structure

My view of the cement industry can be summarized in a matrix (see Exhibit 6.12) with the international development in X axis and vertical integration in the Y axis (see Appendix 5: Vertical Integration and Appendix 6: Cement sales volume/area).

<table>
<thead>
<tr>
<th>Y</th>
<th>X</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lafarge</td>
<td>Holderbank</td>
</tr>
<tr>
<td></td>
<td>Cemex</td>
</tr>
<tr>
<td></td>
<td>Italcementi</td>
</tr>
</tbody>
</table>

\(^1\) The price of the product doubles every 250 kilometers due to the cost of transportation by truck. By boat, the price is influenced by the cost of loading and unloading. For big boats (> 30,000 tons) the distance become less significant. Barges, which are cheaper than trucks, offer an intermediate solution to transportation in some countries.
The competition is mainly taking place in the acquisition process on growing markets. It is the result of the apprenticeship on long-term trends in mature markets, and since the globalization accelerates, it is of a crucial importance to catch the available places on growing markets.

6.2.5 Competitive Positioning

To introduce the component of this competitive positioning, I analyzed the financial results of Italcementi Group in comparison with the two largest (see Appendix 7: DuPont Analysis). Holderbank and Lafarge are at least twice as big as Italcementi. By this, they have better geographical risk distribution. It should be noted that in 1998 Italcementi had the same pre-tax return on sales as Lafarge, which is good performance in this business.

Italcementi use its ability to be a low-cost producer to optimize its margin. This was an opportunity to generate results as the result of development. Comparing Asset Turnover highlighted the weakness of using Asset. Both Holderbank and Lafarge are prompt in adapting their production to demand and both have a larger presence in growth countries. The pre-tax return on Assets clearly reflects the difference in use of Assets between the groups.

Leverages appear to be similar. The effective tax rate is a big issue in European countries due to differences in local rules.

6.3 The Strategic Agenda: About Development

The results of these two analyses, based on Porter’s Five Forces Model and the Delta Model, result in the same conclusion: If a cement producer wishes to survive in the long run, there are only two solutions. The first, and the one most applied by the big players, is international development with the ultimate goal of becoming a global player.
The second, which is difficult to combine with the first for financial reasons, is diversification of the business in order to compensate for the long-term effect of the product's lifecycle.

I am convinced of the necessity for the Big Six to continue their rapid move toward globalization, with vertical integration when needed.

The next chapter looks deeper into a discussion of the arguments that support the idea of globalization.
CHAPTER SEVEN
Does Globalization Make Sense in this Industry?

Globalization is now an established fact in the cement industry. In this chapter, I will demonstrate that in addition to the strategic arguments that support the move toward globalization, other arguments are equally convincing for the financial market.

During the last General Assembly of the European Cement Association, Simon Goodfellow (ING Barings) conveyed this idea:

I believe that the most important force behind the globalization of the cement at present is the behavior of capital markets. They provide most of the funding for this industry one way or another. Because it will always be a capital intensive industry, the way in which it is funded is bound to have a significant, sometimes decisive, influence on the ownership of its assets. (Goodfellow, 1999)

7.1 A Network of Geographic Franchises

The difficulty of transporting cement long distances over land creates a series of barriers to entry that cannot be removed, no matter what amount of technological change or economic development occurs. Cement also has a relatively short shelflife when compared to other building materials such as steel, brick, or glass. This means it is rare that cement becomes the sort of inventory that destroys prices, as often happens with other similar products.

These two factors — high transportation costs and low inventories — together mean there is no such thing as a worldwide, market-clearing price, as distinct from a global average price. In this sense, cement is not a commodity like grain or oil. It is not possible to build sustainable, worldwide competitive advantage by locating production in any one country. Supply and demand are met on a local basis. Due to cyclical movements, a market may become regional, but never global.

These factors also give birth to a series of distinct geographic franchises that can only be exploited by companies that have assets physically located in that market. In most cases,
the best way for a company to gain access to a new market is not to open a new plant, but to buy one of the existing operators.

7.2 Market Access

When one cement company buys another, it is not just buying the physical assets but also its access to markets. For companies that are based in mature economies, the difference between good and bad is not really how they operate their plant; rather, it is their ability to acquire market access cheaply.

The value of market access depends on many things. There are the usual industrial factors, such as growth prospects, current selling prices, an excess or deficit of capacity, the number of local manufacturers, and the cost of production. Then there are the ones related to capital markets -- the availability of finance, and the cost of capital, both debt and equity.

Another key factor is the attractiveness of the new subsidiary as a diversification from the company’s existing markets -- the extent to which the deal provides an edge against existing business risks.

7.3 Riding the Wave

Over the last fifteen years the leading cement companies have all tended to make acquisitions in the same region, at the same time, at more or less the same valuations. “This reflects neither herd instinct nor uncanny telepathy, but hard economy reality. It reflects their assessment of occasions when the value of market access is out of line with the value assigned to the business by capital markets.” (Goodfellow, 1999)

There have been several distinct waves. The first crossed through the U.S. between 1985 and 1988, when the percentage of capacity owned by overseas companies, (mainly European) rose from 25% to 65%. This was the period when companies such as Holderbank, Lafarge, Blue Circle, Ciments Français (today part of Italcementi) and Heidelberger, acquired many of the assets they still operate today.

In the mid- and late 1980s, Holderbank took advantage of the Latin American crisis to pick up assets in Venezuela, Colombia, and Brazil. Cemex consolidated its hold in the Mexican market.

From 1991 to 1994 there was a wave of activity in Eastern Europe. Lafarge acquired the biggest plant in the former East bloc, Karsdorf. Holderbank and Heidelberger acquired
assets in the Czech Republic and Hungary. CBR (today part of Heidelberger) acquired two of the largest Polish plants. Between 1995 and 1997 the focus of activity shifted back to Latin America, with an acquisition by Cemex in Venezuela. Holderbank, Lafarge and Cimpor made acquisitions in Brazil, and the level of activity in that country was so high that approximately one-third of all capacity in Brazil changed hands over the course of an eighteen-month period. Early in 1997, Cemex made two acquisitions in Colombia.

In 1997 and 1998 there was a second wave of activity in Eastern Europe. Countries such as Romania and Bulgaria, which had not been economically and politically stable enough to embark on a privatization program in the early part of the decade, decided to take the plunge, under pressure from the IMF. The natural evolution of the privatization program in Poland accelerated another wave of deals.

But the largest and most concentrated of all these waves has come in Southeast Asia since June 1998. Once the financial crisis broke in September 1997, it was inevitable that multinationals would take advantage of this unprecedented opportunity. For many years they had wanted to expand in Southeast Asia, but had not been able to justify the entry premium. Prior to the crash it was not unusual for companies in Southeast Asia to be valued at the equivalent of over $300/t of capacity, or about twice the replacement cost.

7.4 Turbulence in the Capital Markets

Underlying each of these waves has been a major shift in capital market conditions, which was the catalyst for a surge in activity in that particular region.

Between 1985 and 1988 the dollar collapsed against all major European currencies and the Japanese yen. In the late 1980s Latin America began to recover from the crisis in which it became stuck earlier in the decade. The defining moment in the recovery was the introduction of Brady Bonds in 1989, which restarted the flow of credit to these countries and stabilized their currencies.

In Eastern Europe, after the first wave caused by the fall of the Berlin Wall and demise of the Iron Curtain, the second (1996 to 1998) was caused by the IMF threaten not to remit funds to Bulgaria and Romania unless they made more progress on this front.

In between the two waves in Eastern Europe, there was another one in Latin America caused by the tequila crisis in Mexico, and the successful adoption of the monetary plan in
Brazil. Finally, the linkage between the wave of deals in Southeast Asia and the collapse of fixed exchange rate in 1997 is well understood.

7.5 **Big is Beautiful**

A short digression on capital market is needed before continuing the reasoning about the advantages of the Big Six.

A common characteristic of all capital markets around the world is that they love liquidity. All other things being equal, the more liquid an investment, the more attractive it is to investors. It is not that they want to sell their assets immediately, but they like to know that they could if they wanted to.

The creation of huge economic free trade zones, like NAFTA, or a common currency, like the Euro, are facilitators for the globalization of the financial market. In this new arena, investors who wish to diversify their portfolios naturally gravitate to the companies with the highest market capitalization, where the free float is largest, and the daily volume is greatest. This is true of the market as a whole, which accounts for the popularity of sectors such as telecommunications, pharmaceuticals, and banking.

It is also true within sectors. This means that given the choice between two similar companies with similar growth prospects, one big and one small, investors will prefer the big one over the small one, and value it more highly.

A study made by ING Barings shows that the cost of equity in the period 1995 to 1999 for three different size cement producers is significantly different. If at the beginning of the period, the yield of the small, medium, and large producers was between 9% and 10%, this is quite different today. The yield gap is now 4% between large and small producers. In other words, a large cement producer can afford to pay more than a small company. The study also showed that a large producer can afford to pay more, even if there are no immediate synergies.

7.6 **The Logic of Synergy**

Anybody who wishes to explain the consolidation of the sector will naturally stress the potential synergies that could be achieved as a result of the deal. That person would also argue that there are more synergies to be derived from putting together two companies in the same or adjacent markets than there are in a deal where the target is geographically separated
from the acquirer. So far, nothing new. But the probability of more synergies with a big group, combined with the allowance to pay more due to the cost of capital give a significant advantage to our big players.

7.7 Conclusion About Globalization

Wherever I look, I see arguments in favor of continuing the trend toward globalization of the big players. The last comment, about the financial advantage for large versus small companies, is a stimulus to remain on the race.

Looking at the rhythm at which the movement is running, I would also stress the importance of the human size of such a concentration.

In the next section, I will link together the questions of integration discussed in Section I, with the particular situation of the cement industry analyzed in this section.
SECTION THREE

Recommendation for Integration in the Cement Industry
CHAPTER EIGHT
An Transnational Organization for the Cement Industry

8.1 THE ORGANIZATION

Success in any industry in today’s climate of globalization demands an organization composed of highly specialized and closely linked groups of global managers, country managers, and worldwide functional managers.

As defined by Bartlett and Ghoshal:

...this kind of organization characterizes a transnational rather than an old-line multinational company. Through a flexible management process, in which business, country, and functional managers form a team of different perspectives that balance one another, transnational companies can build three strategic capabilities:
- Global-scale efficiency and competitiveness.
- National-level responsiveness and flexibility.
- Cross-market capacity to leverage learning on a worldwide basis.
(HBR, Sept/Oct. 1992)

In order to create this transnational organization, companies have to transform the classic hierarchical structure of headquarters subsidary relationships into an integrated network of specialized yet interdependent units. For that, three kinds of specialists are needed: business managers, country managers, and functional managers. In addition, there must be the top executives at the corporate level, leaders who manage the complex interactions between the three and develop the talented executives that such an organization requires.

As seen in Chapters Five and Six, the cement industry is built strongly around its local market. Few flows go far, and products are influenced by the traditions that use them; in other words, globalization has far less meaning if your business is dependent on one big local market. However, the expertise developed by the big players in terms of vertical integration, economic cycle, and their technical and financial management
enables those players to improve their global profitability through international development.

The organization defined earlier fits the industry like a glove. From my point of view, it is the most efficient way to combine business, local, and functional expertise to the advantage of the company in which it is implemented.

Now, let's look closer at the integral management parts of this transnational organization.

8.2 THE BUSINESS MANAGER: Strategist + Architect + Coordinator

To be effective, the three roles at the core of a business manager's job are to serve as the strategist for his organization, the architect of its worldwide assets and resource configuration, and the coordinator of transactions across national borders.

In the cement industry, there are very few firms that need several business managers. Most are concentrated in cement, ready-mixed concrete, and aggregates. These three activities, part of vertical integration, are closely connected and must be managed together consistently. Having said that, there are some groups, like Lafarge or Blue Circle, that are involved in multiple businesses and need business managers for each of their main products.

8.3 THE COUNTRY MANAGER: Sensor + Builder + Contributor

The building blocks for most worldwide companies are their national subsidiaries. The national subsidiary or country manager's job is to be sensitive and responsive to the national market. These country managers play a pivotal role not only in meeting local customer needs but also in satisfying the host government's requirements and defending the company's market positions against local and external competitors. The need for local flexibility is paramount and sometimes the subsidiary manager finds himself in conflict with the global business manager. Autonomy is tremendously important in order to work with local rule effectively. At the same time, headquarters cannot afford a subsidiary manager who defends his parochial interests as "king of the country." Nor should top management allow national subsidiaries to become the battleground for corporate "holy
war" fought in the name of globalization. These ambiguities emphasize the critical responsibility held by the corporate manager of a group.

Effective country managers play three vital roles: the sensor and interpreter of local opportunities and threats, a builder of local resources and capabilities, and a contributor to and active participant in global strategy.

As sensor, the country manager must be good at gathering and selecting information, interpreting the implications, and predicting a range of feasible outcomes. Then this manager has the difficult task of conveying the importance of such intelligence to people higher up, especially those for whom the perceptions may be dimmed by distance or cultural barrier. Consumer trends in one country often spread to another--technologies developed in a leading-edge environment can have global significance; a competitor's local market testing may signal a wider strategy; national legislative initiatives on issues like deregulation and environmental protection tend to propagate across borders.

From his knowledgeable perspective of the local business, each evolution in the local context could be a major determinant of the firm's profitability. It is not possible to play such a role efficiently from a centralized position. It requires the skill, wisdom, and experience of a subsidiary manager who manages from inside the country.

8.4 THE FUNCTIONAL MANAGER: Scanner + Propagator + Champion

Usually relegated to support staff roles, excluded from important meetings, and even dismissed as unnecessary overhead, functional managers are often given little chance to participate in, let alone contribute to, the corporate mainstream's activity. Yet at a time when information, knowledge, and expertise have become even more specialized, an organization can reap huge benefits by linking its technical, manufacturing, marketing, human resources, and financial experts worldwide.

Today's transnational companies face the strategic challenge of resolving the conflicts that would impede the achievement of global competitiveness, which means that national responsiveness and worldwide learning, business and country managers must take primary responsibility for the first two capabilities - scanner and propagator. But responsibility for the third is the functional manager's province.
Building an organization that uses learning to create and spread innovations requires the skill to transfer specialized knowledge while also connecting scarce resources and capabilities across national borders. To achieve this important objective, functional managers scan for specialized information worldwide, propagate leading-edge knowledge and best practices, and champion innovations that offer transnational opportunities and applications.

Most innovations start when managers perceive a particular market threat, such as an emerging consumer trend, a revolutionary technological development, a bold competitive move, or a pending government regulation. When any of these flags pop up around the world, it may seem unimportant to corporate headquarters if viewed in isolation. But with a functional manager acting as scanner, and his expertise and perspective to detect trends and move knowledge across boundaries, he/she can transform piecemeal information into strategic intelligence.

The Big Six, each in its own way, has developed functional manager roles. The most common fields of expertise are technical, financial, and purchasing.

8.5 THE CORPORATE MANAGER: Leader + Talent Finder + Developer

Neither the traditional international specialist nor the more recent global generalist can cope with all the complexities of cross-border strategies. The dynamism of today's marketplace calls for managers with diverse skills, and responsibility for worldwide operations belongs to business, country, and functional executives who focus on the intense interchanges and subtle negotiations required. In contrast, those in middle management and front-line jobs need well-defined responsibilities, a clear understanding of their organization's transnational mission, and a sense of accountability.

Corporate managers have to integrate these varied levels of responsibility, so these managers playing the most vital role in transnational management. The corporate manager not only leads in the broadest sense; he also identifies and develops talented business, country, and functional managers – and balances negotiations among the three. It is their responsibility to hire and promote managerial specialists who can translate company strategy into effective operations around the world.
Once corporate managers identify excellent talent, they have to develop it. They must provide opportunities for achievement that enable business, country, and functional managers to handle negotiations in a worldwide context. A company’s ability to identify individuals with potential, legitimize their diversity, and integrate them into the organization’s corporate decisions is the single clearest indicator that the corporate leader is a true global manager – and that the company itself is a true transnational.

8.6 FRONT-END AND BACK-END ORGANIZATION

After defining the roles of various managers, we need to look at the structure of the organization that best fits to the industry (once more, from my point of view).

Galbraith and Lawler (1993) provide the following definition:

The front-end/back-end model is a hybrid form, which combines features of the single business form and the divisional profit-center model. There is a decentralized system around profit-measurable units, yet there is also a great deal of strategic and operational control exercised from the corporation. The distinguishing feature of the model is the division of activities between the front end, organized by geography/customer, and a back end organized by product and technology. (pg. 23 )

By definition, this kind of organization needs decentralization because it manages product and market diversity. It is necessary to adopt a “profit center” model for the front end because of local characteristics. The back end must be organized with stronger functional relationships with the rest of the group so it can facilitate shared expertise among plants.

In concrete terms, this matrix organization emphasizes the hierarchical relationship between the country manager and his local context, and the functional relationship between the group and technical matters.
Figure 8.1 Example of a front/back organization

Corporate managers

<table>
<thead>
<tr>
<th>Production</th>
<th>Technical</th>
<th>Supply</th>
<th>Europe</th>
<th>Mediterr.</th>
<th>America</th>
<th>Asia</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales</td>
<td>Services</td>
<td>Marketing</td>
<td>Customer education</td>
<td>Delivery</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

BACK END

FRONT END
CHAPTER NINE
Choosing an Integration Process

9.1 CHOICE OF METAPHOR

In Chapter Four, metaphors were used to characterize different integration approaches. The strongest is called *absorption*. The two firms consolidate in order to quickly reach improvement of their profitability as a result of the expected benefits of greater interdependence. With absorption, there are few concerns about maintaining the autonomy of the acquired firm.

The least strong is called *preservation*. This kind of integration is used by companies that make an initial platform acquisition into a new domain. The acquirer puts itself in a position of learning, and the transfer of strategic capabilities from the parent company focuses on general management topics that help the acquired firm improve its development capabilities and professionalism.

Between these two metaphors, is *symbiosis*, which I believe fits well with the intrinsic characteristics of the industry and also with the managerial and structural organization defined in the previous chapters. In symbiosis, the acquirer must navigate carefully between the need to preserve the acquired company’s culture and expertise and yet encourage interdependencies that fulfill the purpose of the acquisition.

Referring to the front-end/back-end organization structure described in Chapter Eight, the expertise that needs to be preserved is the knowledge and management of the local market, local needs of customers, and local relationships with public authorities – the front-end of the organization. On the other hand, interdependencies must be encouraged in the back-end, where the greater combined expertise of the group usually helps to sharply improve performance.
9.2 CREATING VALUE IN SYMBIOTIC ACQUISITIONS

Haspeslagh and Jemison (1991) suggest steps that should be followed when undertaking a symbiotic acquisition.

- Start with preservation
- Reach out rather than reaching in
- Swap operational responsibility for strategic control
- Amalgamate the two organizations.

Texture of the Relationship

Texture refers to the relationship between the acquired and acquiring company; the atmosphere created; the respect both for differences and for the acquisition’s purpose; the continuous evolution toward a future vision; and the ongoing desire to bring people along — this defines, more than any specific actions, what a symbiotic integration is all about.

Below, I discuss each stage and identify specific industry requirements at each step.

9.3 PRESERVATION

Acquisitions in the cement industry are usually characterized by a premium paid in excess of the assets’ value. The acquirer pays for the position in a specific market and for current customer relationships. Given the premium, it is difficult to begin a symbiotic integration with a clear preservation orientation but it is a tremendously important step.

At first, all contacts need to be channeled through a formal gatekeeping structure that emphasizes the capabilities for which the company was acquired in the first place and keeps managers focused on achieving their original operating objectives. Mainly it concerns maintaining the position in the market and the quality of relationship with the authorities.

Equally important is the interface managers. In the beginning of the process, they frequently need to increase resource commitments despite a lack of financial results,
which puts strong demand on the corporate level. There needs to be a clear understanding between corporate and the interface managers about strategic objectives, the time horizon that will be needed, and the organizational path that should be followed.

The acquiring managers must be willing to agree not only to a delay, but even to go one step farther—prepare their own organization for the fact that if it is on the receiving end of a new capability, it may have to change its own methods in order to become a good receptor.

9.4 REACH OUT VERSUS REACHING IN

After an initial emphasis on setting the stage properly on both sides and controlling any urge for headquarters staff or operating unit involvement, the second step consists of pursuing the real purpose of the acquisition: achieving a rich transfer between both sides. “The boundary between the two firms must be transformed into a semipermeable membrane” (Haseslagh and Jemison, 1991).

In concrete terms, the process could be applied to the cement industry as follows: the acquirer has to create a team of experienced people in all productive and functional domains. This team is put at the disposal of the acquired units to point to resources in its organization that could help solve some of their problems. In this way, the acquired company perceive benefits accruing to it from early interactions.

9.5 SWAPPING OPERATIONAL RESPONSIBILITY FOR STRATEGIC CONTROL

As some of the early contacts and interactions begin to bring results, symbiotic acquisitions require a gradual stepping-up of influence over the acquired company. “This involve[s] the managers steering a middle road, between the expectations of the Mother Company and the reluctance of the acquired organization.” (Haseslagh and Jemison 1991).

The ability to exert increasing influence over the acquired company and to avoid getting hung up on symbiotic issues, such as names and logos, demonstrates the degree to
which managers in the acquired firm feel that capability transfer is operating in both directions. Issues of identity and names are touchy. Many times, mergers or acquisitions involve companies with a long history.

The most effective way to start pulling strategies and priorities together is often achieved by swaps of responsibilities between acquirer and acquired. More operating responsibilities is entrusted to the managers in the acquired firm, while the acquiring firm begins to take firmer control of strategy. At the operating levels, both organizations remain distinct. The managers in the acquired firm still identify largely with their own company, yet a few people and resources have moved to the other side.

9.6 AMALGAMATING THE TWO ORGANIZATIONS

Ultimately the whole process must lead to a true amalgamation in which the two organizations combine to become a new, unique entity. This combination must be accomplished without losing the character that underpins the capabilities of the acquired company, and it often means that superfluous differences must be reconciled. It is during this last stage that the final step of implementing the Front/Back organization is done.

A successful transformation depends greatly on the long-term perspective of the acquiring company, which must be willing to add resources and adopt a time horizon that will be most productive. Above all, the quality of the integration in symbiotic acquisitions depends on the quality and fineness of the interface management.

9.7 MANAGING THE INTERFACE

Regardless of the choice of metaphors, integration is a highly complex process. The difficulties in bringing two organizations together are legion. As a result of the acquisition, people in one company often claim ownership rights, while people in the other company frequently feel alienated and defensive. The ensuing problems affect capability transfer, both directly and indirectly, through their impacts on the atmosphere. The balance between pushing for capability transfer and protecting the acquired
organization's identity is a delicate tradeoff between the demands to move the integration forward, the desired evolution, and the specific dynamics at that moment.

Because of the complexity and the dynamic nature of this process, the essence of value creation is really assured by the group of managers who manage the interface and perform the gatekeeping role. Three types of individuals are an integral part of the gatekeeping unit: The head of the host unit, the head of the acquired unit, and a small number of resource people. The success of these individuals at managing the acquisition process upward, downward, and laterally is crucial to their credibility within both organizations.

One key player is the head of the acquired unit. That person may be an existing manager who was retained to smooth the integration. In other situations, a manager was brought in from the parent firm. The decision whether to confirm the existing manager or to recruit a new one is crucial. It depends on the relative importance of preserving the continuity of management from the acquirer, providing industry know-how to the acquired and acquirer alike, and being trusted and experienced in one's own organization. In all cases, the managerial burden imposed by the acquisition requires an individual of character and caliber well above that required to run a similar business independently or within one's own company.

To conclude this chapter, I would emphasize once more the critical role of the managers in the transition by a quote from Haspeslagh and Jemison (1991):

Regardless of the type of acquisition, the overriding image deriving from the successful integration efforts we observed is one of corporate-level managers, interface managers, and acquired company managers engaging in a continuous process of adaptation and learning. They have substantial responsibilities, and while immersed in a constant stream of action, they must keep their eyes fixed on the strategic mission of the acquisition and the firm itself. (p. 235)
CHAPTER TEN
Key Stakes and Conclusions

Having produced a portrait of the cement industry, including its strategic positioning, recommended management team, and organization, I will conclude with comments and advice about the dimensions I identified in Chapter Four as the key factors of success: People and Culture, Organization, Institutional leadership, and Timing.

The focus on these indicators does not mean that I consider these issues as the only ones of importance in the integration process. Rather, I want to emphasize them because too frequently they are forgotten in the course of the process, or their importance is minimized because of the day-to-day pressures of carrying out the integration process and the focus of the management team, at corporate level, on new projects.

10.1 PEOPLE AND CULTURES

Each acquisition is a unique process. Having already read the picture I have offered of the industry, I will focus here on the most common process, which is the acquisition of an independent company in a country where the acquirer is not yet doing business.

When considering a new country with a different culture, it is highly important not to improvise the integration. It is possible to anticipate some predictable issues. For that, the way the due diligence is conducted is critical. During this traditional preliminary step, human and cultural issues need to be analyzed. It is a unique opportunity to ask for the company’s value, the mode of organization, and the way leadership is expressed in the company. Questions about decision process and conflict management are also good indicators of culture.

The communication rules and nature of interactions give also a picture of the organization’s transparency. Are the employee held accountable and their perimeter of responsibility well delimited?
As defined in Chapter Four, answers to these question early in the process enable the acquirer to gain a clearly sense of how they will be able to integrate the two organizations and the obstacles that are apt to be encountered. One classic obstacle in the cement industry is the intensity of centralization in the medium and small companies acquired.

A second important point is the retention of knowledge and expertise in order to maintain or improve the position of the newly acquired subsidiary in its market. The focus here must be on key people for the front-end local organization. As for the back-end, it is also necessary to keep local technicians who have knowledge of the production tools and solid ability to lead a local team of workers. Selection of these technical managers should take into account their ability to work closely, in a functional relationship, with people of the back-end at the group level.

At the same time, the usual effect of acquiring another company is a decreased need for some of the employees in the acquired company. Managing this downsizing is crucial, and must be managed quickly to avoid insecurity and negative effects on motivation among the remaining employees. The manner in which this painful step is conducted by the acquirer has dramatic effects on the attitude of survivors.

Frequent surveys of motivation and morale will give an idea of the success or failure of the way the integration is conducted. In addition, one way to obtain buy-in by both sets of employees is to set new goals that can be achieved only as both organizations work together effectively. For example, realizing economies in the supply chain by working together for purchase is a classic positive synergy effect implemented in the cement industry, but it requires that the subsidiaries and headquarters work together.

Another critical human issue is clarity. Employees in the acquired company are facing a psychological shock. Most react negatively to change because they are influenced by fear and are preoccupied with their own needs and self-interest, and hence are distracted from their work. Rapid clarification of their future role and an assessment of individual goals is essential. Even if the process of implementation connected with symbiosis takes time, clear messages regarding the targeted organization and the position of the personnel when the process is completed go a long way toward dispelling fear.
To conclude the Cultural and Human stakes, I would say that because the cement industry is first a local business, the acquiring group has to adapt its own culture in order to integrate the new one. Second, it should be remembered that it is people who create much of the value, and they will ultimately bring about the desired synergies.

10.2 ORGANIZING THE INTEGRATION

To avoid misunderstandings between the acquirer and the acquired, it is necessary to establish an interface management team which enables the management to direct and control interactions between organizations. This team, often called the Integration Team, should be led by a top executive who can bring recognition and credibility. The team itself, composed of experts in technical, administrative and human aspects, has to effectively translate the strategic intent into action; play a gatekeeping role; monitor the interactions so as to promote the positive and stop the negative; develop a detailed awareness of weaknesses and shortcomings and offer solutions to remedy them; and pay careful attention to the progress made by the subsidiary. Ideally, the team manager should be someone who has been actively engaged in the process from the earliest discussions, so that he is intimately familiar with the business case, the strategic intents and levers, and the critical success factors.

A last advantage to be pointed out in the long list of justifications for the creation of an integration team is that such a team helps reciprocal understanding. Differences in how substantive issues are perceived are frequently underestimated. Spending time to improve this reciprocal understanding is definitely a worthwhile and generally well-spent investment.

10.3 INSTITUTIONAL LEADERSHIP

The most dangerous enemy of integration is a murky, unclear situation. People and firms that have embarked on a merger or integration need to know what’s going on and what the future looks like. Institutional leadership, combined with efficient communication, is tremendously important all the time but especially so during evolutions.
The content of this communication must be a statement of the vision for the group and its culture. It is necessary to explain carefully to existing employees the effect of the acquisition on the group’s vision; even more important, to share the group vision and culture with employees from the acquired company. The management and the integration team have to convey this message again and again to be sure it is understood.

After this first communication, a second interaction is needed to let the employees of the acquired company know that the corporate level is scrutinizing their performance and evolution. This can be done by providing immediate performance targets, at least in line with prior results. These should be clearly set as temporary objectives that may be adjusted after some evolution of knowledge or as a result of some aspect of the integration.

Connected with a definition of each person’s role in the structure is the necessity to set the perimeter of responsibility and let know each employee the limits of their responsibilities and what they are accountable for. It enables them to understand their personal contribution to the end result of the integration.

This institutional leadership has to be initiated at the top, and every management layer has to act as a relay in order to transform the vision into strategy and finally into missions. This necessity is true for all kinds of business. In the cement industry, the local characteristic of the business makes the issue even more critical. In fact, many employees are only aware of the existence of a parent company through this communication.

10.4 TIMING AND INDICATORS

Finally, I want to highlight speed and rhythm, and monitoring the integration.

The need for speed and rhythm are not in opposition with the steps of symbiotic integration. If one considers preservation, speed and rhythm are necessary for conducting preservation efficiently during this learning period. The acquirer has to put in place the reporting needed to supply answers to the corporate level. At the same time, they have to transplant from another subsidiary or develop an operational system that allows them to monitor the business.

When a transfer of capabilities takes place it needs to be monitored in terms of schedule. The first step is to ask for patience, but soon the integration needs to be
managed at a steady pace. For example, if one to two years are reasonable for preservation, then managing the integration should take one year at most. During the entire process it is tremendously important that the integration team monitor the integration process and provide feedbacks to corporate, remedy the problems identified, and communicate upward, downward, and laterally to other subsidiaries about the progress of the integration process.

If there was only one thought to be remembered from this thesis, I would like the reader to engrave on his/her mind the following:

_In order to make an acquisition successful, all aspects of the integration have to be supervised by a leader of the acquirer's management team who is aware of the human and cultural dimensions and translates his understanding of their implications into an organization that fits well with the context, and who sets a plan in order to manage the integration like a project, straight until its implementation._
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Mature and growing markets
1 - 2. Revenues and operating profit by business

- Holderbank, Cemex and Italcementi centred on cement business
- Lafarge business balanced
- Cement business contribution on operating result is still higher than other business

<table>
<thead>
<tr>
<th>Company</th>
<th>% Revenue / Total Revenue</th>
<th>% Operating Profit / Total Operating Profit</th>
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<tr>
<td></td>
<td>Cement</td>
<td>Aggregates &amp; Concrete</td>
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<tr>
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<td>32%</td>
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<td>Holderbank</td>
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| Blue Circle      | <------- 63% ------- > | 37%     | <------- 75% ------- > | 25% (Heavy building materials) (Heavy building materials)

(1): Operating profit replaced by EBITDA
(2): Total revenue before corporate eliminations
A relation between cement selling price and Enterprise Value?
## 1 - 5. Vertical integration

Cement deliveries within the Groups' ready mix concrete activity

- Vertical integration of Italcementi at the average

<table>
<thead>
<tr>
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<th>Cement sales (Mt)</th>
<th>RMC sales (Mm³)</th>
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(1): Potential ratio delivered to own RMC plants - Basis: 250 kg of cement / M³ of RMC
Source: Int. Cement review, annual reports
### 1998 Cement sales volume by area

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<tr>
<th></th>
<th>North America</th>
<th>Latin America</th>
<th>North Europe</th>
<th>East Europe</th>
<th>Medit. Rim</th>
<th>Africa</th>
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DuPont Analysis: groups comparison

<table>
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<td>Leverage ( L )</td>
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<td>7.48</td>
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Comments: These three groups are coted in different stock exchange. Lafarge in France, Holderbank in Switzerland and Italcementi in Italy. There are some differences in accounting rules between these countries. In order to avoid mistakes I use information coming from a European analyst. I join an extract of the main sheets I use for this analysis.