Core Competence: What Does it Mean in Practice?

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The concept of core competency has received increasing attention by managers and decision makers. While much has been written on what it is, there is little information on how to apply the concept. This article first links core competency to the company's strategic planning process and then presents a detailed process through which senior management can identify and take strategic advantage of their companies' core competencies and capabilities. The process proposed here consists of eight steps, each of which are explained in detail.

PRAHALAD AND HAMEL'S INFLUENTIAL ARTICLE, "Core Competence of the Corporation"[19] has generated substantial interest in the notion of core competencies and capabilities and has helped popularize a new school of economic thought called The Resource-based View of the Firm.[2–7,9,17,19,22] The article has made two important contributions to the literature in strategic management; it proposed a new complementary approach to strategic planning and it provided a conceptual tool for a multi-business corporation to achieve better synergies among its various business units.

Better Planning

In a typical planning process, the corporation starts with an identification of external threats and opportunities. It analyses the macro environment, the stakeholders, the industry, competitors and customers to isolate potential trends and developments and to determine their implications. The company then develops strategies by identifying and assessing various options to address the threats and opportunities. The last stage in the process is a determination of implementation plans through which resources are allocated and steps are put in place to execute the plans.

Prahalad and Hamel proposed a different approach, not to replace the traditional planning process but to supplement it. While the traditional approach is an outside-in process where the planner starts with external analysis and then performs internal analysis, the process advocated by the authors is inside-out. It starts with internal analysis and then examines the external environment.

The authors suggested that companies need to understand fully their core competencies and capabilities in order to successfully exploit their resources. This suggestion is consistent with the arguments by the proponents of The Resource-Based View of the Firm. This theoretical approach assumes that firms own different types of resources which enable them to develop different strategies. A company has a sustained competitive advantage to the extent that it can effectively exploit its resources and to the extent that its competitors are unable to imitate its strategies.[9] Caterpillar, the leader in the heavy construction equipment industry, uses its after-sale support and service capability as the foundation of its competitive strategy. It can get spare parts and service personnel to any place in the world in twenty-four hours. Toyota's success in the global auto manufacturing industry is to a large extent due to its manufacturing capabilities, reflected such techniques as just-in-time inventory, self-managing teams and flexible manufacturing. Walt Disney's success since the early 1980's is mostly due to its ability to effectively exploit such resources as its enormous film library

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and its brand name and its film making and animation capabilities.

By the same token, strategies that are too far from the firm's competencies and capabilities are inherently risky. Exxon's diversification strategies in the 1970's resulted in major losses because the company strayed from its competencies in the energy business by entering the office equipment and computer business.

According to this theory, a detailed analysis of the firm's resources, capabilities and competencies will result in a better understanding of the sources of competitive advantage. Such in-depth understanding can lead to a better match between external opportunities and internal strengths because once the corporation knows its areas of strength, it can search the external environment to identify possible ways of better exploiting those strengths.[12] Walt Disney's core competence in entertaining families has directed it into a seemingly diverse set of businesses such as amusement parks, hotels, video channels and movie studios.

Prahalad and Hamel's[19] notion of core competence is a conceptual tool for a more rigorous examination and exploitation of the firm's internal strengths. They defined core competencies as "the collective learning in the organization, especially how to co-ordinate diverse production skills and integrate multiple streams of technologies" (p. 82). Core competencies are the corporation's fundamental strengths. They are things that the company does very well. Once core competencies are identified, the company can then examine possible opportunities where such competencies can lead to new products or new markets.[9] A core competence is meaningful if it provides possible access to new markets, if it satisfies specific customer needs and if it is difficult to imitate.[19]

Better Synergy

Another contribution of Prahalad and Hamel's article is their use of core competence as a tool for better integration among Strategic Business Unit (SBU) strategies. In many multi-business companies, individual business units may be successful in their markets but the corporation may be unable to effectively integrate its SBU's and realize potential synergies. Co-ordination among SBU's is difficult because it requires open lines of communication, an appropriate reward system, committed manager and a team-based organizational culture. In a typical multi-business corporation, few of these requirements exist and there is a natural tendency among SBU's to become parochial.

The authors offered core competence as a possible arena for SBU co-ordination and integration. They argued that identifying and exploiting core competences requires collective organizational learning. Therefore, the concept of core competence can act as a vehicle for SBU's to find common interests, problems, capabilities or opportunities. They suggested that close co-operation among SBU's in relation to their core competencies will facilitate organisational learning and enhance the company's ability to leverage its resources.

A company pursuing this approach would define its corporate strategy as not just a portfolio of businesses and SBU's but also as a portfolio of competencies. It would have a long-term commitment to developing competencies and would provide a mechanism for cross-SBU communication, involvement, and co-ordination. It would regard its corporate strategy as an important tool for facilitating and exploiting horizontal integration among SBU's.[8]

Prahalad and Hamel have made a significant contribution to our understanding of this important topic and have helped generate significant interest in it, but two important questions need further work and elaboration:

1. How do we Define Core Competencies and Capabilities?

The authors' definition of core competence as "collective learning" needs further clarification and operationalization. They use the concepts of competence, core competence and capability as synonymous. Furthermore, they define these terms as a combination of production skills and technologies. There are two problems with their definition. First, it is too narrow. It only focuses on a limited aspect of the company's value chain, mostly in manufacturing, ignoring the many possibilities in other steps throughout the value system. Secondly, their definition has generated some confusion as to the relationship between competencies and capabilities. Without a clear operational definition, it is difficult for an organization to embark on a process of identifying and exploiting its competencies. In another influential *Harvard Business Review* article titled "Competing on Capabilities", Stalk *et al.*[22] attempted to differentiate between core competencies and capabilities, but they do not succeed in providing clearly defined descriptions. In this article, we will not provide a meaningful and useful operational definition for these important concepts and will show how they are related.

2. How Should a Corporation Identify its Core Competencies and Their Implications?

The literature on core competence does not provide an organizational process for identifying core competencies and capabilities, and for exploring opportunities to exploit them. While there is much talk about how important it is to understand a corporation's competencies, there is little information on how a company can go about doing this, who in the company should be involved, and what specific steps to take to successfully exploit the identified opportunities.

These two questions are very important practical concerns that face any management group attempting to implement Prahalad and Hamel's ideas in their organizations. The purpose of this article is to address the two questions by presenting a decision-making process which together with the company's strategic planning exercise, will help managers and executives identify and take full advantage of their companies' competencies and capabilities. The process presented here has evolved as a result of the author's work with several executive groups in different companies and industries.

Core Competencies, Capabilities and Resources

The first step in successfully identifying and exploiting a company's competencies is to create a universal understanding among all management levels as to the concepts of core competence, capability end organisational resources. Figure 1 is a good starting point.

At the bottom of the hierarchy are *resources*. They are the building blocks of competencies. Resources are the inputs into the organization's value chain. Barney[4] categorized resources into three groups: physical resources such as plant, equipment, location and assets; human resources such as manpower, management team, training and experience; and organizational resources such as culture and reputation. Some resources are tangible and physical such as plant and equipment and others are intangible like a brand name.

Each corporation has a bundle of resources, but not every firm can put its resources into best use. Companies vary in how they leverage their resources. *Capabilities* refer to the corporation's ability to exploit its resources. They are the second level in the hierarchy and consist of a series of business processes and routines that manage the interaction among its resources. A process is a set of activities that transform an input into an output. For example, a company's marketing capability can be based, among other things, on the interaction among its manpower (marketing specialists), technology (computer hardware and software) and financial resources.

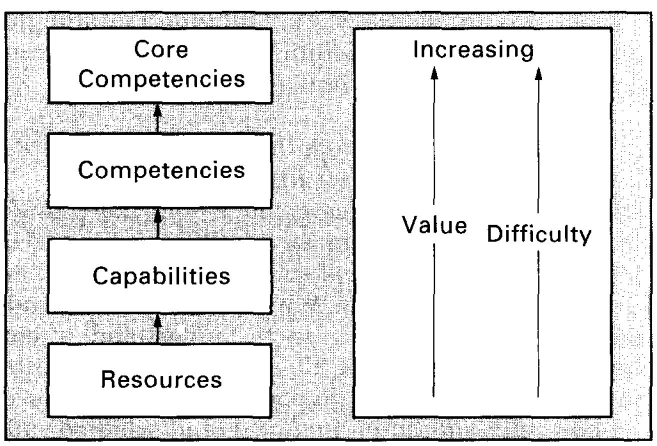

FIGURE 1. The competencies hierarchy.

The distinguishing feature of capabilities is that they are *functionally based*. A capability is resident in a particular function. For example, there are marketing capabilities, production capabilities, distribution and logistics capabilities and human resource management capabilities.

The fact that a capability is functionally based does not preclude it from exploiting resources that may exist across the organization. For example, Intel's marketing capability is very much linked to its overall corporate image, so its marketing strategies attempt to take advantage of the company's reputation. In contrast, in entering the PC market, Hewlett–Packard was initially unable to exploit its strong corporate reputation in its marketing strategies.

A *competency*, the third level in the hierarchy, is a cross-functional integration and co-ordination of capabilities. In a multi-business corporation, competencies are a set of skills and know-hows housed in an SBU. They result from interfaces and integration among the SBU's functional capabilities. For example, a particular SBU may possess the competency of developing successful new products. Such a competency may be the consequence of integrating MIS capabilities, marketing capabilities, R&D capabilities and production capabilities.

Core competencies, the highest level in the hierarchy, cross SBU boundaries. They result from the interaction between different SBUs' competencies. Core competencies are skills and areas of knowledge that are shared across business units and result from the integration and harmonization of SBU competencies.

A core competency is a collection of competencies that are widespread in the corporation. As Prahalad and Hamel pointed out, core competencies require collective organizational learning, involvements and a commitment to cross-SBU integration. In the above example, new product development is a core competency if it goes beyond one SBU.

Several features are important about the hierarchy in Fig. 1. First, each level in the hierarchy is based on the level below. It results from the integration of the elements in the lower level. Secondly, each level encompasses a higher level of value added for the company. Resources on their own add little value. Functional capabilities generate value by deploying resources. Competencies add greater value because they expand the boundaries of capabilities. They result from synergies among capabilities. A bank may have good MIS capability in the sense that it generates high quality information about its customers. It may also possess the skills to develop new financial products to serve the customers better, but it will realize maximum value if it can get its MIS and marketing skill sets to work together to better leverage its assets. Core competencies add the greatest value since they exploit resources and capabilities at the broadest level, across the corporation as a whole. Take the case of a consulting firm with several offices located in different cities. Each geographic location may have developed, over time, a series of specific skills, such as consulting to health care organizations or to the upstream oil industry. To the extent that the firm can leverage this knowledge across its network of offices, it can realize greater value. So it can develop and possess a core competency in health care management consulting by ensuring that the particular office with this expertise is available to others, and that it helps other offices develop the same set of skills if they choose to.

Finally the fact that the higher levels the hierarchy have a broader organizational scope means that they are more difficult to accomplish. Developing a functional capability requires co-operation of the individuals in one function. Achieving competencies requires the integration and co-ordination of several functions in the same SBU. Exploiting core competencies depends on the corporation's ability to achieve integration, communication and co-operation between the different SBU's and other parts of the company. The larger the number of the individuals involved, and the greater the variety of skills and backgrounds, the harder it is to make it happen.

The increasing value and difficulty of the higher levels of the competency hierarchy has been the topic of an emerging field of inquiry which is generally referred to as organizational learning or knowledge-based view of the firm.[10,11,13,20,21,23] The subject of interest in this line of research is how organizations can facilitate transfer of knowledge across intra organisational boundaries. Of particular importance is the notion of "internal stickiness"[23] which connotes the organizational difficulty in transferring competencies and capabilities throughout the organizations. Various authors believe that internal stickiness is caused by one or more of the following reasons; causal ambiguity[14] or unprovenness of the knowledge,[15] lack of motivation on the part of the source[23] or the recipient of the knowledge,[16] and an organizational culture that does not encourage cross-learning.[13]

Core Competencies, Capabilities and Strategic Hierarchy

Figure 2 shows how the hierarchy of competencies relates to the hierarchy of strategies in a multi-business company. Corporate strategy addresses the issue

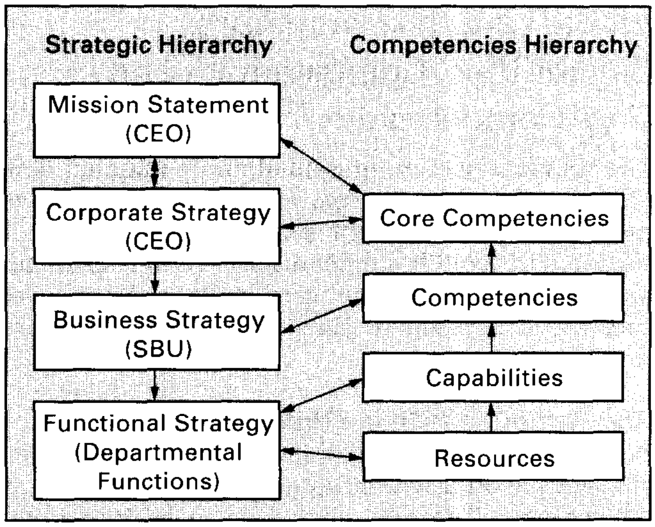

FIGURE 2. Competencies, capabilities and strategic hierarchy.

of long-term success. It identifies the portfolio of businesses that the company is in or wants to be in, and the type of core competencies that it currently possesses or would like to develop. Therefore, it is based on, and directly related to, the company's core competencies. Proponents of the concept of core competence argue that in formulating corporate strategy, senior management should go beyond simply identifying the portfolio of businesses that they are in or want to be in. They should also determine the portfolio of current and future competencies.[9] This will help senior management identify potential opportunities to leverage the corporation's assets more effectively; will help to identify relationships and synergies across present and future business units and will prevent the possibility of entering new businesses that may show potential value but represent a strategic misfit with the company's portfolio of competencies.

Business strategy relates to each SBU's competitive strategy in its industry. The essence of business strategy is to formulate a favourable and sustainable competitive position in relation to a business unit's competitors. To this end, the business unit needs to fully understand its competencies and capabilities and how they compare to its competitors so it can ensure that its strategies take full advantage of its competencies and capabilities.

Functional strategies are developed to ensure that business unit's competitive strategies are implemented. They are the specific steps to be taken by each functional group to help realize the business unit strategy. They should be designed based on each SBU's functional capabilities to ensure full utilization of the function's resources and capabilities.

Identifying the Company's Capabilities, Competencies and Core Competencies

The previous section presented an operational definition of the key concepts and how they relate to the corporation's strategic planning hierarchy. This section will provide a process for multi-business corporations to identify their capabilities, competencies and core competencies and to examine their implications.

The Participants in the Process

Before discussing the steps that need to be taken, managers should determine who will participate in this process. The easy answer is to limit the participation to senior management. While it is crucial that this group be involved, there are risks associated with relying solely on their views. They do not necessarily have sufficient in-depth knowledge to go beyond very broad statements. They may also fall into the trap of turning this into a "feel good" self-congratulation exercise void of any strategic value.

On the other hand, there are limits to how many people and what parts of the company can be involved in such an exercise. Sheer numbers can make it an unruly process. The optimal solution lies in a situation where managers representing the key functions, all business units, important cross functional or cross-SBU teams and important projects are invited into the process, as part of the company's regular strategic planning exercise. In our work with various large companies, we have had participation from up to forty-five managers and executives. They were assigned to groups of five or six participants. Most managers and executives felt that besides its value in collecting input on the company's competencies, this process can be of great educational and informational value to the participants because they get to learn about the different parts of their company.

To ensure high quality discussion and common language, the participants need to attend a workshop that would explain the concepts and their applications. Upon completion of the workshops, managers can begin the process by discussing the following eight questions. The questions are designed to help identify the company's core competencies and capabilities in a systematic and methodical way. The following is the description and explanation for each question.

1. At... (name of your company)... we know how to... very well

As pointed out earlier, competencies are skills and know-how. They are any aspect of the value chain where the company does a particularly good job. In completing this statement, managers identify whatever it is that their company performs very well. In order to ensure clarity on the meaning of each competency, and to be able to meaningfully discuss their actionable implications, managers should disaggregate the competencies as much as possible. They need to identify as many subcategories as possible for each skill set.

Table 1 shows a typical way of summarizing the broad categories of competencies in relation to a North American natural gas pipeline company. In 1995, when the workshops were conducted, the company had over $11 billion in assets and consisted of a pipeline division, a gas marketing division, a very small brand new international group and the suite of corporate services.

The first column lists the broad skill sets, the second column shows the number of management groups that identified the specific know-how, and the last three columns show where it is located. The reason for these last columns will be explained in question number two below.

As pointed out earlier, decision makers need to break down each category of know-how into more specific descriptors. For example, "Operate safe, environmentally sound, cost-effective facilities" needs to be clearly defined in terms of what exactly it means. What are the specific things that are done well to result in this skill set?

It is also important to identify not only those items with a consensus, but those items which are reported by a few managers. While the former facilitates strategic decision making, the latter is also important because it could lead to the identification of potentially under utilized capabilities. Further discussion can generate opportunities for greater leverage and exploitation of such capabilities.

In this particular case, as can be seen from Table 1, four sets of know-how were identified by the various groups participating in the workshops. There was a long discussion of the details of each of the broad categories, but the resulting lists are not provided here because of concerns for confidentiality. There was unanimous agreement that this particular company knew how to operate environmentally sound and cost effective facilities. A majority of groups also felt that the company was good at managing the regulatory process, but a few groups disagreed and felt that the company may have been too accommodating in its regulatory negotiations. Another majority of the groups also felt that the company had skills in developing and managing pipeline projects in North America. The only other skill set was related to avoiding risk. Most groups agreed that throughout its history, the company had effectively used the regulatory process to avoid any possible risk. They simply invested in projects for which they had guaranteed markets and suppliers. Of course, the price they were paying for avoiding risk was the need to accept a regulated rate of return on their investment.

Table 1. Identifying core competencies of a North American natural gas pipelines company

We know how to:	No. of groups	The know-how is a: Capability	Competency	Core competency
1. Operate safe, environmentally sound, cost-effective facilities				
2. Manage regulatory processes				
3. Develop and manage projects				
4. Avoid risk				

2. *Is this know-how present in one function, one SBU, or across the corporation?*

The purpose of this question is to decide whether what the company does well is a capability (functionally based), a competency (SBU based), or a core competency (cross-SBIU). This question helps managers understand the existing level of value added by the know-how. It will also facilitate a discussion of how to increase the value to the organization. As pointed out earlier, the higher the level of knowledge in the hierarchy of competencies, the greater the value added to the company. The responses to this question can be recorded in the last three columns in Table 1.

In the particular case discussed here, all the groups agreed that operating "pipeline facilities" was a competency because it belonged to their pipeline division. "Managing the regulatory process" was regarded as a core competency because even though it was led by the corporate legal group, it was successful due to close co-operation between the legal group, the pipeline division and the gas marketing group. The participants felt, however, that they have not had sufficient time yet to transfer this skill to the emerging international division because the laws, regulations, and the regulatory processes are different in different countries.

The groups felt that "developing and managing projects' is a true core competence in this corporation because all the various groups either have this skill in-house or have access to it in other parts of the company.

3. *Are we any better than our competitors?*

This question enables managers to discuss the corporation's capabilities and competencies in the context of their industry. The purpose here is twofold: First, to initiate the process of linking competencies to competitive advantage. The fact that a company knows how to do something very well does not necessarily result in a competitive advantage. If many competitors are as good in doing the same thing, then there is no source of competitive advantage. The second objective is to prevent too much introspection by forcing decision makers to consider the external environment.

The first step in finding the answer to this question is to collect managers' perceptions. Table 2 is a possible way of recording their views. It asks the participants to decide whether they are better than, equal to or worse than their competitors.

While it is important to collect managers' perceptions of how they compare to their main competition, this information is totally subjective and needs to be externally and objectively verified. The company needs to validate its internal views by information collected from outside sources. At a minimum, the firm can collect the relevant information from its key stakeholder groups and those groups that are in frequent contact with it and are able to provide useful feedback. Such groups could include retailers, wholesalers, end-customers, suppliers and partners in strategic alliances.

The company can collect this information in a variety of ways, ranging from informal discussions with representatives of other organizations, to a well-developed comprehensive survey of the various stakeholders. Still another option is strategic benchmarking against the company's key competitors and companies from other industries that have a reputation for excellence in the competencies and capabilities identified here. The American Productivity and Quality Center defines benchmarking as:

> "A systematic and continuous measurement process; a process of continuously measuring and comparing an organization's business processes against business process leaders anywhere in the world to gain information which will help the organization take action to improve its performance."[1]

While a full-fledged strategic benchmarking exercise can be time consuming and expensive, it can provide detailed and useful external data to validate the company's self-image.

Regardless of the method used, management needs to collect external information to ensure validity of this process. Lack of objective confirmatory information can endanger the whole process by reinforcing

TABLE 2. Competencies and competitive advantage in a North American natural gas pipelines company

	Compared to competition, we are:			Does it matter?		Durable?	
Know-how	**Better**	**Equal**	**Worse**	**Yes**	**No**	**Yes**	**No**
1. Operate safe, sound, cost-effective facilities							
2. Manage regulatory processes							
3. Develop and manage projects							
4. Avoid risk							

organizational myths that are untrue and creating an artificial and illusory level of comfort that would desensitize managers to their environment and their industry.

4. Does it matter?

At this stage, it is important to distinguish and link two critical concepts: Competitive advantage and core competency. The two are not necessarily the same, but can be (and should be) closely related because *a successful competitive strategy is built on the firm's core competencies and competitive advantages*.

A competitive advantage is any aspect of the company's resources, capabilities and competencies that provides it with an attractive relative competitive position.[18] While the attractive relative position could be caused by something that the company does better than its competitors (competencies or capabilities), it is not always necessarily so. In Canada, there have historically been two national airlines: Air Canada and Canadian Airlines. Several decades ago, in dividing the world between these two carriers, the Canadian government turned the high-growth European and Transatlantic routes mostly to Air Canada because it wanted to nurture and grow the Crown corporation. Canadian Airlines (called CP Air at the time) received monopoly control of the Asia Pacific routes which were slow growth and small in size. The market situation is drastically different in the 1990's. The growth rate in the Asia Pacific markets is now more than twice that of Transatlantic routes, providing a major competitive advantage to Canadian Airlines. But this competitive advantage has nothing to do with the company's capabilities or competencies. It has everything to do with a resource that has significantly appreciated in value.

This example shows that not every competitive advantage is related to a competency. At the same time, it is also true that not every competency or capability results in a competitive advantage. A competency leads to a competitive advantage if the company is better at it than its competitors and if that superiority is somehow valued by the marketplace. The fact that a company may be the most efficient manufacturer of a product is not pertinent if there is no demand for it.

The question posed at this stage encourages the participants to examine the market value of the competencies and capabilities they identified earlier. Whether the participants decide that they are better than competitors or not, they have to find out if it makes any difference to be better. If they feel that they are not particularly better at a skill than the competition, then the answer to this question will help them decide if they need to be. If they believe that they are better than their competitors in terms of a particular skill, then they have to determine if being better makes any difference.

A competitive advantage is meaningful if it is related to an attribute valued by the market. Customers need to perceive a consistent difference in important attributes between the producer's products or services and those of its competitors. These differences must relate to some *product/delivery attributes* which are among the *key buying criteria* for the market.[7] *Product/delivery attributes* are those variables that impact the customers' perceptions of the product or service, its usefulness and its availability. Some examples of such attributes are product quality, price and after-sale service.

Key buying criteria are those variables and criteria that customers use in making their purchase decisions. They are different for different industries and different market segments. For example, in the tubular steel industry, there are two main buying criteria: quality as measured by third party tests and on-time local availability.[7]

In answering the question posed here and deciding whether "it matters", the participants need to link the company's competencies and capabilities to those product/delivery attributes that are key buying criteria by the different markets. Such an exercise will ensure that the participants "don't fall in love" with their company and instead will analyse its abilities in terms of how they are valued by the market.

5. *How durable is our advantage?*

Important capabilities or competencies can create competitive advantages for the company. The more such advantages result in attractive relative position in the industry and improve firm performance, the higher the pressure on competitors to respond. At this stage of the process it is important to remind managers that very few advantages last for a long time. Most companies see their relative advantage erode over time. The challenge is to understand competitive dynamics and to prepare for such an eventuality. Companies that believe in permanency of their advantage, generally become complacent, only to get a rude wake up call when their competitors introduce innovative new strategies.

The following variables help determine the durability of a company's competitive advantage:

(A) The firm's ability and willingness to continuously invest in the related competencies and capabilities: Maintaining and/or expanding a competitive advantage usually requires continuous improvement to ensure that the firm stays at the forefront of the relevant competencies and capabilities. For example, many professional service firms designate a senior partner to take charge of such critical capabilities as client-relationship management.[5]

(B) The competitors' ability to imitate the firm's competitive advantage: A typical response by the firm's competitors is to try to copy its competencies and capabilities but some sources of competitive advantage are harder to imitate than others. For example, Minnetonka Inc.'s stock price more than doubled when it introduced "Soft soap". But its stock price dropped by 75% in a short while because more than 50 different brands of liquid soap appeared in the market.[7]

Economists have generally identified the following aspects as potential deterrents of competitive imitation:[5]

- *Unique resources:* Patents, location, mineral rights or exclusive airline routes are examples of resources that are hard or impossible to copy.
- *Path dependency:* Many competencies, capabilities and competitive advantages develop, evolve, and accumulate over time. The fact that the firm currently has a competitive advantage is the result of many steps that it has taken previously. Therefore, it is not easy for competitors to quickly imitate its advantage. In the breakfast cereal business, Kellogg's strong relative position is partly due to the image that it has built over almost 80 years of marketing its products.
- *Causal ambiguity:* The success of the competitors' attempts to copy a firm's competitive advantage will also depend on their ability to disentangle the process through which the particular competency or capability is created and sustained. Their ability to reverse-engineer a capability and determine its components will facilitate and speed the process of imitation.
- *Economic deterrence:* While it may not be hard to discover the sources of a competitive advantage, the competitor may still choose not to imitate it because of economic deterrence which could be caused by first mover advantage resulting from a pre-emptive strategy by the firm that makes the initial investment and thus signals its commitment. The competitor may realize that the market is not big enough to warrant any further investment. It may also be deterred by the sheer size of the required investment.

(C) The competitors' ability to develop substitute advantages. While the firm's competitors may be unable to imitate its advantages, they may attempt to develop other resources, capabilities, competencies or competitive advantages that could diminish the firm's attractive relative position. While the company's superior product quality may be protected by patents, competitors may be able to offer other product/delivery attributes to entice customers away. In the video cassette recorder market, JVC Victor's VHS format was of lower technical quality than Sony's Beta format, but its strategy of allowing widespread licensing to many manufacturers created much wider distribution and variety for the customer. VHS's increasingly large market share resulted in greater availability of videotaped movies than the Beta format, further reinforcing its dominance of the market. Eventually, in spite of a superior product, Sony had to discontinue its product line and produce the VHS format.

(D) The extent to which the product/delivery attributes continue to remain key buying criteria. The company's ability to maintain its attractive relative position depends on the durability of buying criteria. As long as customers continue to use the same criteria, they end up favouring the firm's offerings, but as every marketer knows very well, market expectations and decision making criteria change over time. The pace of change is different across industries. In some industries, such as breakfast cereals the change is rather slow, but in other industries like consumer electronics, the pace may be faster. To keep in touch with market requirements and expectations, the company needs to monitor the trends and changes in the marketplace and customer preference, closely.

6. *What are the key changes taking place in the industry?*

Most of the questions up to now have used a static approach. They were designed to identify the firm's current and historical competencies and capabilities. Questions 6–8 provide a dynamic view. They attempt to integrate this process with the company's strategic planning effort by linking the results of external and internal analyses. The purpose of this question is to ensure that the participants do not become too introspective, ignoring the external realities.

While it is important to collect managers' responses to this question, it is usually not sufficient. The quality of discussion will improve by a methodical and comprehensive analysis of the external environment, usually prepared by the experts in the planning or marketing groups within the company. Such an analysis would cover the expected changes in the macro environment, i.e. political, technological, demographic, economic and social trends; changes in the industry structure and competitive dynamics and changes in the marketplace.

7. Given the key changes taking place in the industry

(A) Which competencies or capabilities will be obsolete or irrelevant?

(B) Which competencies or capabilities should be sustained and improved upon?

(C) How can we better leverage our existing resources, capabilities and competencies?

(D) What new competencies or capabilities should be developed?

The set of four questions at this stage is designed to encourage a strategic and dynamic discussion of competencies and capabilities. They help managers focus on the implications of environmental changes for the company's present and future competencies and also on how to better exploit their current assets.

The purpose of question [A] is to encourage a discussion of the impact of environmental changes on the firm's competencies and capabilities. It helps avoid the trap that many successful companies fall into by becoming complacent and too introspective. Managers need to identify those competencies that will be irrelevant. They should decide if new opportunities can be found to exploit their soon-to-be obsolete competencies. Otherwise, they need to find an effective way of dismantling or liquidating them. For example, as a result of going through the process described here, the natural gas pipeline company discussed earlier concluded that their core competency in dealing with government regulatory agencies was becoming increasingly irrelevant due to the trend towards deregulation of this industry in North America. In their analysis of external changes, they concluded that over a two year period there would be major changes in their industry, leading to significant deregulation of some of its key aspects. They felt that the expected industry changes will make their rather substantial legal staff mostly redundant. The participating executives agreed to formulate a strategy to help develop and retrain the Legal Affairs staff, mostly lawyers, to facilitate their redeployment in other parts of the corporation.

In cases where the soon-to-be obsolete capabilities or competencies are based on a set of assets or technologies, there is obvious value in identifying them because the firm may be able to sell the technologies and assets at a reasonable market value. The greater the industry awareness or agreement on the obsolescence of the assets or technologies, the less the value that the company can expect from their disposal. These technologies can essentially be regarded as a depreciating asset. Their salvage value is determined by the speed of depreciation and the timing of their sale.

While the discussion here may sound rather simple and straightforward, it is important to keep in mind that in many cases the disposal of competencies and capabilities tends to end up as a painful political process which many managers would prefer to avoid. There are two intertwined issues involved: The analytical issue of whether or not and at what speed, a set of competencies is becoming obsolete and the political/emotional issue of protecting jobs, self interest and balance of power in the organization. The higher the level in the hierarchy of competencies, the more complicated it is to dispose of it because there are more people and organizational levels involved.

Question [B] helps managers determine the competencies that need further improvement and support. They need to discuss the nature and timing of such improvement. Given the lack of permanency in most competencies, managers need to decide how they can further develop and nurture their existing capabilities. The question will help generate a better understanding of such requirements as staff training and upgrading and investment in plant, equipment and technology, to ensure that the firm's competencies will be sustained in the face of changes taking place in the industry. An important point here is that valuable core competencies should be treated as corporate assets and should receive corporate rather than SBU support. Competencies and capabilities, on the other hand, should be supported by SBU's and functional groups.

Question [C] helps managers examine potential ways to get greater value out of their existing competencies and capabilities. The following sub-questions are designed to help the discussion:

(C-1) *How can we increase the value added from the following:*

> **Our existing resources:** Are there better ways to leverage the use of our key resources? Can we find new uses, products, procedures or routines that can better exploit our resources? A simple example is how an oil company can get more production out of its land holdings by developing a new technology such as horizontal drilling.

Or a bank might look at possible ways to use its extensive customer data base to understand their various customer segments better and to develop new products for them.

Our existing capabilities and competencies: As pointed out earlier, the higher we go in the competency hierarchy, the greater the value added to the company. So the challenge is to find ways of moving any particular capability and competency to a higher level. How can a capability be combined with others to generate new competencies within the SBU or new core competencies throughout the corporation? How can a particular competency resident in one SBU be turned into a corporate-wide core competency? As mentioned earlier, to achieve this, there needs to be widespread awareness of the company's capabilities, competencies and core competencies. The various SBU's and their functions can then examine ways that they can help and learn from each other.

(C-2) *How can we find new business opportunities to further exploit our competencies?* Another possible way to increase the added value of the existing competencies and capabilities is to explore new product/market arenas where the company can exploit its skills. This is one of the key points made by the proponents of the Resource-Based View of the firm. It argues that companies like Honda are very clear about their competencies and are able to identify new markets where their competencies can add more value. AMR Corporation, the parent of American Airlines, has turned its computerized information and reservation system into a major and highly profitable stand-alone business.

While the above discussion is very important in exploring strategic opportunities, companies have to be careful not to fall into typical growth and diversification traps. Collis and Montgomery[5] have identified three strategic mistakes: First, managers tend to overestimate transferability of their specific capabilities and competencies. Second, they tend to overestimate their ability to compete in unfamiliar markets and third, they do not have a strong understanding of the competitive dynamics in unfamiliar territories and do not conduct a thorough analysis of the applicability of their competencies to product/delivery attributes and key buying criteria in the new markets.

To avoid these mistakes, the decision to enter new markets or businesses should not be solely based on the company's competencies. Managers need an in-depth analysis of the industry they wish to enter in terms of its competitive dynamics, major trends, customer needs and key success factors. They need a full understanding of product/delivery attributes and key buying criteria in the new marketplace as well as the competitors' existing or potential sources of competitive advantage.

Question [D] helps managers identify new competencies and capabilities that will enable the corporation to exploit the expected opportunities or respond to emerging threats in the industry. The purpose of this question is to encourage managers to focus on future key success factors in the industry. It is particularly pertinent to those companies that are operating in mature businesses with limited growth potential or those facing major changes in their industries. The former may decide that any future growth has to come from new businesses or new industries, while the latter will realize that the fundamental changes in the industry, caused by such forces as technological developments, new competitors or deregulation, mean that future success will depend on the creation of new sets of skills. The North American natural gas company, discussed earlier, decided that future growth opportunities lie outside North America, but competing in the international markets requires a new set of capabilities or competencies, such as international prospecting and understanding the regulatory regimes in different countries. The whole dynamics of competition is different from the North American market

Companies can take a variety of approaches in acquiring the new competencies; they can develop them in-house by making the necessary investments in technology and manpower, or they can acquire them through partnerships, alliances, mergers or acquisitions. The choice of the appropriate alternative on the required speed and timing of acquiring the competency, the appropriate level of control and the required financial resources.

8. Where do we go from here?

At this stage, managers need to fully connect the competency exercise with the strategic planning process. The ideas generated during the discussion on the four preceding questions require an implementation plan. Specific plans along with time frames need to be developed for the decisions relating to the following:

1. Dismantling or adjusting those competencies or capabilities that are expected to lose value in the future.
2. Sustaining and improving the identified resources, competencies and capabilities.
3. Increasing the leverage from the identified resources, competencies and capabilities.
4. Developing or acquiring the identified new capabilities and competencies.

Any implementation plan should start with a set of objectives regarding each one of the above four items, along with a time frame, specific action steps and the managers or units accountable for results.

Collaboration: the Fundamental Requirement For Success

The process outlined here is designed to help companies optimally develop and exploit their competencies and capabilities, but the effective implementation of such a process requires an organizational culture that fosters and values collaboration. A culture that facilitates and encourages joint thinking, learning, and decision making across intra organizational boundaries. A culture that breaks the internal barriers among the silos which exist in any firm's structure.

In most organizations, there are natural reasons for various units' reluctance to collaborate. Control, ownership and accountability are not as clear cut as the traditional silo approach. Managers are also not usually trained or developed as collaborators. They usually progress across hierarchical levels by performing duties for which they are directly accountable.

As pointed out earlier, evolution from capabilities to competencies and core competencies requires increasing levels of collaboration among different groups, but collaboration is not something to be mandated by the top. It needs skills and commitment.

In a study of firms with a long history of successful collaboration, Liedtka[13] found three critical factors:

- A partnering mind-set
- A partnering skill-set
- A supportive organizational context

Successful collaborating firms demonstrate a particular type of mind-set. Their managers and employees view partnering not as a threat or risk, but as an opportunity. They see clear benefits in joining other groups' actions and decisions. They also show interest in the outcomes of decisions by other individuals and groups. Furthermore, employees in such organizations trust and respect other groups' abilities and intentions and are prepared to learn from them.

The second requirement for successful collaboration is partnership skill-sets, represented by shared goals and expectations, effective management of conflict and the ability to redesign organisational systems to allow for increased collaboration.

The third factor is an organizational context that encourages and fosters partnerships. Such a context values open and honest communication, a leadership that symbolizes collaboration, joint organizational processes such as planning and budgeting, congruent reward systems and appropriate availability of resources.

In summary, an organization wishing to implement the hierarchy of competencies is well advised to ensure that the appropriate collaborative mind-set, skill-set and organizational context are in place.

Conclusion

The fundamental premise of this article is that any corporation would benefit from a systematic and methodical analysis of its resources, capabilities and competencies. To help managers and strategic decision makers, we first provide a clear operational definition of the important concepts of resources, capabilities, competencies and core competencies. We also provide a framework to incorporate these concepts into the process of strategic planning. The article also presents a detailed process for identifying a firm's competencies and their current and potential implications.

In their attempt to carry out the ideas presented here, companies are advised to consider several points. First, there should be a general understanding of, and agreement on, the definition of these concepts. Otherwise, significant time and resources will be wasted due to misunderstanding, semantics and confusion. Secondly, the process should be an integral part of the company's strategic planning process. In this way, it will provide valuable input in the company's attempts at matching external opportunities and internal resources.

Another important point relates to participation in the proposed process. Managers from various parts and levels of the corporation should take part in the competency exercise. Their involvement will enhance the quality of information and discussion, will improve intra organizational communication and learning, and will facilitate execution of strategic plans.

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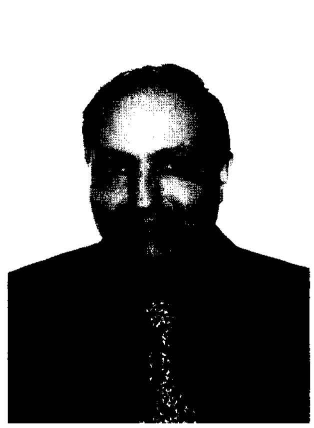

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