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**NEW APPROACHES TO ORGANIZING:
COMPETENCIES, CAPABILITIES AND THE
DECLINE OF THE BUREAUCRATIC MODEL**

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The academic literature and the business press regularly stress the challenges that contemporary organizations face. Increasingly, organizations find themselves in global business competitions that demand ever higher levels of performance. Scholars and managers are arguing for innovations in organization design as a potential way to achieve higher and higher levels of performance (for example, Lawler, 1996; Ulrich & Lake, 1990). The 1970s and 1980s saw considerable interest in total quality management and employee involvement. The 1990s have seen a fascination with reengineering, downsizing, and delayering.

As the focus on organization design has increased, the traditional bureaucratic approach to organizing has come under heavy criticism. According to its critics, it does not produce the high levels of speed, quality and productivity that are needed in highly competitive global businesses. Nor does it create organizations that can change rapidly and adapt easily to the increasingly turbulent business environment. The key principles of the bureaucratic model include a high degree of specialization, the division of labor down to the level of the job, the use of a hierarchical authority, and a reliance on formal rules and standard operating procedures. These design elements create and maintain top-down management control and organizational stability. In an era of constant change and demands for ever higher levels of performance, bureaucratic designs appear clumsy and lethargic.

It is one thing to say that organizations can be a source of competitive advantage, and that the bureaucratic approach is ineffective; it is another to identify and implement a superior organizational approach. At this point, it is not clear that any one approach has emerged as the clear successor to the bureaucratic model. Most organizations still embrace such key features of the traditional bureaucratic model as individual jobs, hierarchical relationships, and individual accountabilities.

One alternative approach to organizing that is gaining popularity calls for a focus on the competencies and capabilities of organizations and individuals. The idea of looking at the competencies and capabilities of individuals clearly is not new. Indeed, the bureaucratic model calls for selecting individuals who have the ability and skills to do carefully prescribed jobs (Lawler, 1994). Industrial psychology has focused on doing just this from its beginnings as a discipline. What is new is the elevation of competencies and capabilities to a central role in the organization's strategy, structure, and human resource practices.

There is an increasing body of research and theory in the areas of business strategy, organization design, and human resource management that focuses on how organizations can be designed using a competency approach. Although this thinking has not coalesced into a coherent, integrated body of work, a critical mass has developed. The discussion that follows gives a brief overview of the existing literature. We next discuss issues that have yet to be resolved. Finally, we discuss where this approach appears to be headed.

Competencies, Capabilities and Strategy

Competencies are a major focus of the human resources management literature and of the business strategy literature. In the former, Spencer and Spencer (1993) argue that the job performance of individuals is strongly influenced by a set of competencies upon which the skills and knowledge that are necessary for successful job performance rest. They go on to argue that organizations should focus on identifying individuals with the right competencies and on developing the competencies of individuals.

In the strategy literature, the “core competencies” approach is highly influential. C.K. Prahalad and Gary Hamel describe this approach in an article that, at one point, was the most requested reprint in the history of the *Harvard Business Review* (Prahalad & Hamel, 1990). They argue that corporations can identify a relatively small number of competencies that give them competitive advantage in the marketplace. For example, Sony’s core competencies in miniaturization and precision manufacturing provide competitive advantages across a large number of product lines and markets.

Stalk, Evans, and Schulman (1992) of the Boston Consulting Group have presented a variation on this approach that focuses on “strategic capabilities” that are organizational and operational rather than technical in nature. For example, Wal-Mart’s strategic capabilities in distribution, marketing, and information systems provide important competitive advantages. Later writings of Prahalad and Hamel have absorbed this approach into the core competencies stream (for example, Hamel & Prahalad, 1994). Two important collections of papers that are based on European conferences (Hamel & Heene, 1994; Sanchez, Heene, & Thomas, 1996) have added depth to the core competencies approach.

There are several key characteristics of core competencies (Hamel, 1994; Rumelt, 1994). First, competencies represent a complex “bundle” of skills and technologies that span multiple business and products (for example, precision manufacturing). Second, competencies are more stable and evolve more slowly than the products and markets that have been the traditional focus of strategy. Third, core competencies are difficult to imitate; witness the unsuccessful attempts of automakers around the world to match the productivity and quality of the Toyota production system during the past two decades. Finally, core competencies are the true battleground for interfirm competition.

Lado and Wilson (1994) provide a view of the link between strategy and competencies, derived from a resource-based view of the firm. They distinguish among four types of competencies. Managerial competencies include articulating a strategic vision and enacting the environment. Input-based competencies include exploiting imperfections in the labor market, creating an internal labor market, and investing in firm-specific human capital. Transformational competencies include harnessing innovation and entrepreneurship, fostering organizational learning, and promoting organizational culture. Finally, output-based competencies include building a corporate reputation, product or service quality, and customer loyalty.

Ulrich and Lake (1990), as well as Lawler (1992; 1996) argue for the importance of organizational capabilities. According to them, organizational capabilities allow organizations to perform in particular ways that are critical to business performance. Quality, speed, low cost operation, learning, innovation and customer focus are examples of the kinds of capabilities that are mentioned in these writings. According to Lawler, these capabilities do not rest with any one individual or for that matter in an area of technological excellence. Instead, they rest in the systems, structures, cumulative knowledge and mind set of the organization. As a result, they are hard to develop and hard to duplicate, but potentially a significant source of competitive advantage. In essence, they are the key to allowing organizations to turn their important technological and operational core competencies into products and services that are superior to those offered by organizations. In the case of Wal-Mart, for example, the organizational capabilities argument is that its competitive advantage is not just in its distribution, marketing, and information system capabilities. It is in its ability to operate a customer focused organization, a capability that rests in its communication, involvement, and training practices.

The strategy based view of core competencies and organizational capabilities is different from the competency approaches which are rooted in the human resource tradition. For example, competency

based pay systems commonly reward individuals for such competencies as communication, team orientation, and flexibility (Zingheim, Ledford, & Schuster, 1996). Strategists might see individual competencies as necessary for business success, but would not recognize these as “core organizational competencies.” They identify core competencies through intensive analysis and conceptualization of a business. The common practice of human resource consultants, which involves shopping a prepackaged list of competencies to potential clients and letting clients pick those that they like, is anathema to the strategic approach because it negates the entire idea of an organization developing competencies and capabilities that provide a unique competitive advantage.

Organizational Design and Effectiveness

The literature on competencies and capabilities leads to some rather straightforward predictions about when an organization will be effective. Essentially, it argues that an organization will be effective when it has the competencies and capabilities to implement a well-developed business strategy. That is, when the organization can execute the kind of behaviors that are necessary for it to deal effectively with its business environment. It is also worth noting here that the resources available to an organization may come into play as well in determining the effectiveness of the organization.

Figure 1 presents a model which captures the relationship between organizational effectiveness and strategy. It shows that organizational effectiveness is the result of an organization having a good fit among its strategy, competencies, capabilities and environment. It shows the environment as an important part of the relationship for two reasons. First, an organization may do a wonderful job of executing its strategy but the strategy may not fit the business environment. Second, as the environment changes, the organization may need to change its strategies, capabilities and competencies. In this respect the environment, like the existing competencies, capabilities, and resources of the organization, should be an important input to the strategy development process.

The business strategy literature on core competencies is relatively silent with respect to how organizations can be designed in order to create the right mix of core competencies. The literature on organizational capabilities is much more concerned with how organizations should be designed. In many respects, this is hardly surprising since organizational capabilities tend to rest more in an organization’s design and in its systems than do core competencies. In order for either of these approaches to be useful and testable, they must ultimately be tied to how organizations can be designed to produce particular competencies and capabilities. This topic has the potential for stimulating research that focuses not only on how competencies and capabilities are developed but how they are related to organizational success in the marketplace. As will be discussed next, organizational behavior research does provide some useful theory and valuable ideas about how organizations can be designed to produce particular competencies and capabilities.

Designing Organizations for Competencies and Capabilities

A key determinant of the usefulness of the competencies and capabilities approach lies in determining whether it leads to different thinking about the design of an organization. The classic star model which is presented in Figure 2 argues for a fit among an organization’s strategy, structure, processes, people and rewards (Galbraith, 1973). The star model (and similar models, such as the Leavitt

diamond and the McKinsey Seven S model) can be a helpful way of thinking about how competencies and capabilities can be developed in an organization. Once the strategy has been defined and the competencies and capabilities needed to implement the strategy identified, it becomes a matter of identifying and developing the structures, processes, reward systems and human resources management practices that will produce the needed competencies and capabilities. It is worth looking at the points of the star and examining the implication of the competencies and capabilities approach for how they might be conceptualized and operationalized.

Structure

The structural component of the star model addresses structure at the micro or job design level as well as at the macro or organizational architecture level. Perhaps the most interesting and potentially radical implication of the competencies and capabilities approach concerns its implications for job design. The job is the organizational atom in bureaucratic designs. It is the lowest level of organizational structure, the point at which the division of labor stops. The entire organization is built on the basis of job descriptions and individual accountability for job performance. Job descriptions are also the basis for the design of all major human resource systems, including selection, training, pay, career development, and performance management (Ash, Levine, and Sistrunk, 1983).

Currently, the rate of organizational change is so great that the well defined stable job appears to be an historical anachronism (Bridges, 1994; Lawler, 1996; Lawler and Ledford, 1992). The focus on speed to market, quality, and lateral processes, and the use of downsizing, reengineering, work redesign, team based designs, and other changes have made the conventional job obsolete in many companies. Increasingly, employees do not have a discrete, stable job; instead, they have a constantly changing mix of tasks to perform. These changes are especially common and significant in the case of managers and professionals, whose work has always been the most difficult to capture in a job description. Even where the job continues to be a relevant concept, the downsized human resource function may be unable to administer job-based systems that include extensive job descriptions. Thus, firms are increasingly abandoning job descriptions and careful job analysis because they lack the personnel to create and maintain them.

A number of authors have argued that the focus should be on the skills and knowledge of individuals rather than on the nature of their jobs (for example, Lawler, 1994). This leads directly to the idea of replacing a job description with a skills and knowledge description. To be useful, this skills and knowledge description needs to identify what technical and organizational skills and knowledge an individual needs. It also needs to identify how to determine whether an individual actually possesses them. As we will discuss later, this is a critical element for any reward system that is focused on rewarding individuals for developing skills and knowledge.

It has been argued in the literature on teams that it may not make sense for organizations to focus on and measure individual performance in team based environments (Mohrman, Cohen and Mohrman, 1995). Instead, the argument is that performance is best measured at the team or business unit level because this is where performance can be most objectively measured, and where performance is best measured to create key lateral processes. In this approach, it is often argued that tasks should be assigned to groups, teams or parts of an organizations. For this assignment process to be an informed one, the organization must be able to identify the skills and knowledge of each individual. And, of course, for the organization to be adequately staffed, it must insure that individuals develop the right sets of skills and knowledge for the organization to be able to perform its key business tasks.

The competency and capability argument also has some interesting implications for macro organization design. Indeed, it is at this level of structure that it may already be having its greatest impact. Some current trends in organization design, for example the trend away from unrelated, multi-business corporations, may be the result of this trend. Unrelated multi-business corporations typically find it difficult to develop any particular distinguishing competencies and capabilities. As a result, their effectiveness and reason for being (as contrasted to a single business corporation) is hard to defend. Thus, it may be a less preferred approach to organizing in the future (Galbraith, Lawler, et al. 1993). On the other hand, approaches such as front-back and process organizing seem to be growing in popularity partly because they allow the organization to develop capabilities in quality, speed to market, and customer focus (Galbraith, 1994).

A good guess is that focusing on the kind of competencies and capabilities a particular organization structure generates will, over time, lead to some innovative approaches to organization design. The bureaucratic approach to thinking about macro organization focuses on functional expertise, achieving organizational growth, and control. Focusing on developing competencies and capabilities provides a significantly different starting point for organization design. In essence, it provides a new set of lenses through which to view the world of organization design. Thus it seems inevitable that it will lead not just to a movement away from the functional bureaucratic organization, but to the invention of a number of macro organization structures which provide competitive advantage through the creation of new and different capabilities.

Processes

Perhaps the most direct implications of the competencies and capabilities approach for organizational effectiveness concern measurement. In the bureaucratic model, measurement processes are focused on measuring operational and financial results in ways that fit an individually oriented bureaucratic approach to control. The alternative is to focus on measuring the level of organizational performance around such capabilities and competencies as speed to market, technical expertise, quality and whatever other competencies and capabilities are critical to the organization's effectiveness.

The competencies and capabilities approach also suggests that, as was discussed in the structure section, the organization needs to be very aware of the skills and knowledge of each individual employee. It needs to be able to develop an information system that includes data on both what individuals need to know and their current knowledge. This approach fits well with a human resources information system that is keyed to the performance capabilities of each individual. There already are a few organizations with information systems in which managers throughout the organization can enter a data base and determine the skills and knowledge of individuals in the organization. This enables them not only to make staffing decisions, it allows them to obtain an overall sense of how capable an organization is to staff particular projects and to perform in particular ways.

Organizations that have adopted total quality management thinking provide an interesting example of how the focus on developing a particular capability leads to changes in information processes. Almost without exception, these organizations have changed their measurement systems to focus more on product quality and customer satisfaction. The reengineering approach is different with its emphasis on cycle time and, of course, on staffing levels. Still, it too often has changed the nature of the information and communication processes in organizations because it asks different questions about organizational performance (e.g. process cycle time).

Reward Systems

The approaches to structure and processes that are suggested by competencies and capabilities thinking have significant implications for the design of reward systems. They argue strongly for the use of skill or competency based pay and for pay for performance systems that focus on collective performance rather than individual performance. Both of these follow directly from the types of structures and the kind of information and measurement processes that fit the competencies and capabilities approach.

The argument for paying individuals for their skills and competencies rather than for the job they are doing follows directly from the argument that individuals no longer have fixed jobs. Further, the key to organizational effectiveness is developing the right mix of skills and knowledge to support the organization's needed competencies and capabilities. The use of skill-based pay is one way to accomplish this (Ledford, 1991, 1995).

There already is a significant increase in the use of skill-and competency-based pay (Lawler, Mohrman and Ledford, 1995). In most cases, it is being used in manufacturing and non-exempt white collar work because it is there that teams are being introduced and where the competencies needed to do specific tasks are most easily identified and measured. There is, however, increasing interest in using competency-based pay for knowledge workers and managers (Ledford, 1995; O'Neal, 1993/94; Tucker, 1994). This trend follows from the movement away from jobs. It is the logical way to support the development of particular competencies and capabilities in an organization. It encourages employees to develop the skills and knowledge that create the organization's competencies and capabilities.

Competency-based pay also may be the best way to determine the actual market value of individuals. As organizations increasingly look but for individuals with particular performance capabilities, it follows that the market value of individuals is likely to be determined by what they can do, not by what job they are doing (Lawler, 1990). Thus a logical alternative to job-based pay is to pay individuals for what they can do by assessing and by determining the market value of their skills, knowledge and competencies.

Individual performance based pay or merit pay is a staple of the traditional bureaucratic approach to organizing. It fits the logic of the bureaucratic approach because it targets individual performance effectiveness as the key behavior. The fit with most of the capabilities and competencies that organizations wish to develop, however, is poor. Competencies and capabilities often involve complex behavior on the part of multiple individuals and the effectiveness of these is often only visible at the collective level. Thus it is not surprising that over the last decade there has been an increased use of profit sharing, gainsharing and other reward systems which pay for collective behaviors (Lawler, Mohrman and Ledford, 1995). Often these collective reward systems focus on performance measures that reflect capabilities such as speed to market, customer satisfaction, and innovation.

People

The competencies and capabilities approach to organizing suggests a very different approach to thinking about the human resources management systems of an organization. The absence of jobs makes most traditional human resources management systems unusable because they rest on the foundation of a good job description. They pay individuals based on job size and job performance, select individuals for particular jobs, and train and develop individuals to do jobs or a series of jobs during their careers. Earlier it was suggested that a person description needs to be substituted for a job description in the competencies

and capabilities approach. This person description needs to form the basis for the human resources management systems of the organization. It needs to be used as a basis for the selection process as well as for training and development and pay purposes.

Looking first at the organization's hiring decision, the competence and capability approach suggests a different starting point from the one that is traditionally used. Instead of hiring somebody to fill a job, the organization needs to view itself as hiring a new organizational employee (Bowen, Ledford, & Nathan, 1991). One way to state this is that individuals are hired for organizational membership, not to fill a job. It needs to look at the kinds of skills and capabilities it needs as an organization and determine whether a job applicant's skills and knowledge contribute to the organization's capabilities and competencies. This suggests using approaches such as realistic job (work and organization) previews, team-based selection processes, extensive hiring and entry processes and, perhaps most importantly, a focus on an individual's ability to develop new skills and competencies.

The selection process needs to be supported by the kind of human resources information system that carefully catalogues and enables the skill and knowledge development of individuals, and that links it to kinds of competencies and capabilities called for by the organization's strategy. It also suggests a career management system in which individuals make career moves in order to develop the skills and knowledge they need in order to contribute to the organization's key capabilities. For example, if operating lateral processes is a key capability, then cross-functional career moves need to be an important part of the human resources management system (Galbraith, 1994). These moves need to be built into the career management, reward, and information systems. This suggests making available to individuals extensive information about the career opportunities as well as directly rewarding them for cross-functional moves.

Finally, the competencies and capabilities approach has some interesting implications for employment stability and security. Many of the competencies and capabilities that provide competitive advantage (e.g., quality, speed to market) require effective relationships among many individuals. This suggests that relatively permanent employees are needed because employment stability is a necessary precondition to the development of effective working relationships. It does not, however, necessarily argue that everyone should be "guaranteed" a job for life. Quite the contrary. The needed organizational competencies and capabilities may change as the environment changes and the business strategy changes. Under these conditions, it is important that organizations either be able to develop existing employees so that they have the needed new skills and knowledge or hire replacement employees with the kinds of skills and capabilities that are needed to support the new competencies and capabilities.

There already exists some research on the relationship between competencies and employment stability. For example, Capelli and Crocker-Hefter (1996) compared several pairs of competitors. One member of each pair pursued flexible, entrepreneurial, "prospector" strategies (for example, Pepsi), while the other pursued "defender" strategies aimed at protecting established market niches (for example, Coca-Cola). The former consistently emphasize hiring employees who bring advanced skills to the organization, while the latter devote far more resources to employee development and emphasize employment stability to a greater degree.

The competencies and capabilities approach is compatible with a ring of defense or core employee approach to employment stability (Handy, 1990; Handy, 1994). This strategy involves establishing a core group of employees who are relatively permanent members of the organization. Individuals outside the core have less job security and at the extreme may be temporary employees or consultants. If an

organization is going to compete on its technical competencies or organizational capabilities, it needs to protect the individuals who are most important to them. A clear implication is that individuals ought to be laid off or terminated based on how important they are to the organization's competencies and capabilities, not based on seniority or hierarchical position

The challenge in implementing a ring of defense approach is to identify individuals who are critical to the competencies and capabilities that the organization has identified as its competitive advantage. It also requires decisions about which knowledge is best provided by members of the organization and which is best purchased from consulting firms or individuals. As a general rule, the more important a competency or capability is to an organization's competitive advantage, the less sense it makes to purchase it from a vendor. It is risky to depend on a vendor since in most cases they are free to sell the same services and resources to business competitors.

Unresolved Issues in Human Resources Management

The rise of competency based systems raises many researchable questions that are important for practice as well as theory. As will be discussed next, many of these questions concern the impact of competency management systems on the human resources management practices of organizations

1. *What types of competency based management systems are there, and to what extent do different systems have different effects?* It is important to answer these questions to develop theory that is grounded in organization reality. At this point, there are few data with which to construct a meaningful typology, nor even to address the issue whether there are differences. The only study of any scope is a survey of 217 companies using 148 different competency models (American Compensation Association, 1996). It did not attempt to categorize the different models empirically or theoretically. Thus, it provided no information on the dimensions among which competency based management systems differ.

Ledford (1995) has argued that most competency based pay system designs make a set of conservative design choices. They are based on a logic and set of practices that are analogous to job based systems and are not based on business strategy. The methodology of the McBer consulting firm is the most widely used in the U.S. It involves studying high performers and attempting to identify characteristics that distinguish them from average and low performers. This procedure focuses on existing individual competencies, uses a bottom-up analysis procedure analogous to job analysis, tends to be very complex and precise, and focuses on the competencies of successful individuals rather than focusing on the pattern of individual competencies that are needed to make an organization successful.

While this methodology is applicable in many situations, it could be disastrous in others. In environments that are rapidly changing, a much more nimble, anticipatory, temporary, structure may be more appropriate. For example, some firms use a "learning contracts" approach, in which employees redefine learning objectives each year in performance appraisal sessions with supervisors. These learning contracts marry individual needs and interests with organizational needs and strategic directions.

Another possible dimension concerns the extent to which firms use internally generated, "home grown" approaches to competency management as opposed to relying on external consultants. Many consulting firms have extensive product offerings in the competency arena. These products have been important in popularizing competencies and providing the area with increased legitimacy. But do home grown systems have different effects than "store bought" systems? How different are the approaches

fostered by different consultants? Organizational change theory suggests that these approaches might have quite different in their effects, due to the level of customization to the firm's needs and to the level of employee commitment that might be associated with an internally generated system.

2. *How and why have competency based management systems originated and evolved in organizations?* What are the goals of these systems? Why were they adopted? How integrated are competency plans with business strategies? Some systems are very elaborate and are developed through painstaking analysis of extensive data, while others are relatively simple and are based on limited data analysis. Do different design and implementation processes produce significantly different competencies, and do the resulting competency management systems have different effects?

Employee responses to competency management also are important. Do employees understand and endorse the approach? Do they see it as significantly different from job-based human resources management? How do different design characteristics influence employee attitudes, such as the simplicity of the system or whether competencies in the model are abstract or observable? How do different design processes, affect employee attitudes?

Of special theoretical interest are sensemaking (for example, Weick, 1995) and institutional (for example, Scott, 1995) processes during implementation. The competency approach represents a challenge to the highly institutionalized concept of the job, as well as a response to the decline in the utility of the job as the basis for organizing work and human resource practices. To what extent are these considerations explicit in the deliberations of managers who implement systems? What strategies do they use to help employees confront the shift from job to competency? How do managers make use of such institutional agents as consulting firms to establish the legitimacy of the effort?

3. *What human resource subsystems typically are used to manage competencies?* Do organizations favor using one human resource subsystem or several? Are there any patterns in how different human resource systems tend to become involved?

Of particular theoretical interest is the extent to which different firms make use of emotionally "cool" versus "hot" human resource systems in managing competencies. Selection systems are relatively "cool" in that they most affect people who are not currently members of the organization. Pay tends to be a "hot" system in that it affects all employees throughout their employment and it tends to generate strong emotions. Training and development, personnel planning, performance appraisal, and other human resource systems fall at various points in between.

Why do some firms first emphasize competency management using emotionally "cool" human resource systems such as selection (which primarily affect people not currently part of the organization), while others move first into emotionally "hot" areas such as pay? Do employees respond differently when "hot" systems like pay are involved in competency management? Does the use of either type of system increase the odds of sustaining a competency based system? This represents an extension of past work on emotion in organizations, which has focused primarily on the norms governing the expression of emotions by individuals (e.g., Sutton, 1991) and on effect evoked by the organization as a whole (e.g., Sutton & Callahan, 1987).

4. *How effective is the competency management approach?* Practitioners rightly are especially interested in effectiveness. How do different constituencies (senior managers, the HR function, employees on the system, etc.) assess the effectiveness of competency management? What criteria do

they use, and what is their conclusion? To what extent do they believe that they have adequate information to reach a conclusion? To what extent is there any hard evidence of the effectiveness of competency management systems?

Again, there are virtually no data with which to answer these questions. The American Compensation Association study (1996) of 217 plans found that a majority of competency based plans for staffing, training and development, performance management, and compensation had been in place for less than a year or were in development. Of the few firms using competency-based programs for more than a year, most organizations reported positive effects in such areas as communicating valued behaviors, raising the competency level of employees, emphasizing person-based characteristics, and reinforcing new values. Clearly, these data are preliminary. Much research is needed to discover how effective competency and capability management

Most of the research on competency effectiveness to date has taken the form of validity studies in the industrial psychology tradition (for example, Boyatzis, 1982; Spencer & Spencer, 1993; Ulrich, Brockbank, Yeung, & Lake, 1995). The effectiveness criteria in these studies typically are individual-level effectiveness measures, attempting to distinguish high and low performers on particular jobs. For example, Boyatzis (1982) identified 21 competencies (such as conceptualization, memory, objectivity, and self-confidence) that distinguished high from low performing managers. Similarly, Ulrich et al. (1995) found that the colleagues, supervisors, and clients of human resource managers rate the performance of the human resources managers more favorably to the extent that they displayed competencies in business knowledge, delivery of human resources services, and management of change. Such studies typically assume but do not demonstrate that organizational effectiveness is enhanced by fostering the individual competencies identified in this way.

5. *Role of environmental agents.* Government policy makers and industry associations may be interested in promoting competency and capability based approaches for a variety of reasons. To the extent that these approaches are associated with better performance, they may offer advantages for nations that do a better job of developing the competencies of their work forces. Governments and industry associations can play a unique role in legitimizing the competency concept and in helping to create competency certification efforts that have generality beyond the bounds of a particular firm. This may help create more efficient labor markets, because firms know that certified candidates possess certain general competencies.

These considerations have led to extensive collaboration between government ministries in Great Britain and certain industry associations, aimed at developing national competency certifications that are relevant throughout an industry. This work began at the level of factory employees, but is migrating to the level of managerial and professional employees in many industries. At present, little is known about the value of government and industry association involvement in the certification process. For example, it is not clear whether it truly leads to portable certifications, as proponents hope.

6. *From individual competencies to organizational competencies and capabilities.* One of the most difficult linkages between strategy and human resource management involves the translation of general organization strategy to the kinds of people that are needed in an organization. Capabilities and competencies thinking can be of help here since there are some obvious links between the development of core competencies and the kind of skills and knowledge individuals need. This is perhaps most clear in the case of such technical core competencies as understanding adhesive processes or the refining of crude oil. These translate very directly to having some individuals with technical knowledge in these areas.

The same easy translation is not always possible with respect to more complex core competencies such as miniaturization or with respect to organizational capabilities such as innovation and quality. The challenge here is to define the mix of skills that individuals need to have to produce these organizational capabilities. In many cases, it likely is a matter of developing a pattern of skills throughout the workforce that in total gives the organization the competencies and capabilities it needs. There is little research to guide the design process in part because it is a new research area and in part because the questions are so extraordinarily complex.

For example, in the case of quality, does everyone need to know statistical process control or does only a percentage of the workforce need to know it so that when needed, there is someone available who can perform it? This is just one small example of the overall staffing challenge that an organization faces when it wishes to develop relatively complex organizational capabilities. It is no longer a matter of finding an individual who fits a particular job; rather it is a matter of determining how many individuals in each part of the organization need to be able to do certain things for the organization to be able to operate in a particular way. Some of the organizational change efforts such as reengineering and total quality management do offer answers that specify the kind of training and skills individuals need. Most of these answers, however, are not based on any research evidence to show the kind and number of skills that individuals need in order for the organization to have a particular capability.

Conclusion

The many questions that are raised by the movement to a competency-based human resource management system leads to an obvious conclusion: it represents nothing short of a reinvention of the practice of human resource management. As such, it requires the development of new human resources systems as well as new research to support their development and determine their effectiveness.

With respect to an overall move to competency-based organizations and competency-based organizing, human resource management is just one of the elements of an organization that needs to be developed and studied. Similar questions can be raised and research needs identified with respect to organization design, information and measurement processes, and reward systems. Their design rests on concepts and research that is tied to the traditional bureaucratic approach to organizing. The competency-based approach to organizing raises different questions. New research is needed to provide answers to questions concerning how organizational competencies and capabilities can be built, what the best mix of competencies and capabilities is for success in different industries, how quickly competencies and capabilities deteriorate in an organization, what organizational structure leads to the development of capabilities such as quality, speed to market, operating globally and organizational learning.

The Future of Competencies and Capabilities

We expect to see much more emphasis on the management of competencies and capabilities in the future. The forces that have led to the current interest will not abate for the foreseeable future. Global competition, downsizing, delayering, a less hierarchical division of labor, the decline of the bureaucratic form, the shrinking of the human resource function, and other forces will continue to increase interest in the management of competencies and capabilities. Further, as examples of competency management become more prominent in the corporate world, the approach is likely to become more

legitimate, encouraging further diffusion.. The available evidence suggests that employees tend to prefer organizational practices such as skill-based pay that embody the competency management perspective (for example, Jenkins et al., 1992). This argues that employees may be a positive force for adoption of such approaches.

New information technology is likely to play an especially important role in the development of new approaches to competency management. Especially in the case of large scale implementation, as in adoption at the division or corporate level, a great deal of information is needed to manage these systems. There must be some method of tracking skills, competencies, and capabilities at the individual level and matching them with the strategic needs of the organization. New information technology makes this much more practical. For example, one firm we have worked with has used competencies in their performance management process. The design of their system uses “360 degree” appraisals (that is, appraisals by peers and customers as well as supervisors) to assess competencies. This firm found two dozen vendors that sell automated systems for conducting 360 appraisals. The firm can have all employees complete the appraisals on a given day using networked personal computers, and receive compiled results almost instantly.

In summary, we see the increased use of competency-based systems as an important development, and in general we see it as a positive. However, we have some concerns.

First, many organizations may be setting themselves up for legal challenges by the use of competency management systems that have not been validated. This is especially a problem where competency systems lead to the introduction of personality testing. Many proponents of competency-based approaches argue that personality characteristics are a type of person-based competency that should be the basis for selection, career development, compensation, and so on. Personality testing in organizations almost vanished about two decades ago because personality tests often have an adverse impact on women and minorities, and organizations could not prove that differences in test scores were related to job performance. Personality tests are especially likely to be challenged in court because the tests often do not have face validity for employees. There appears to be very little recognition in the current literature of the problems with testing.

A second concern is the relationship between competency management and employment stability. Many organizations that look closely at the mix of competencies currently in the organization versus those needed in the future may conclude that their current employees do not have the right skills. Those that do face difficult choices concerning keeping current employees and retooling their skills, hiring new permanent employees, or hiring outside contractors with specialized skills that the organization may not need permanently. Organizations facing rapid change in the profile of needed skills will be tempted to buy rather than develop new skills. This raises larger social issues about the nature of the employment contract between employees and organizations. It also raises interesting questions concerning the extent to which the organization has a responsibility for employee development and whether employees should be primarily responsible for their own development.

Finally, there is the ultimate question of whether the competency-based approach is a useful paradigm; that is an adequate replacement for the bureaucratic model. Undoubtedly, the answer will partly depend on the ability of organizations to develop structures and systems that support the development of key capabilities and on research which measures the effectiveness of organizations that adopt them. However, the perception of its usefulness is likely to be only partly influenced by the research evidence. It is also likely to be influenced by whether it helps managers understand their increasingly

difficult roles in complex organizations, and whether it helps them understand and direct organizational change; in short, whether it helps them make sense of their business environment.

Our guess is that competency and capability based management thinking will grow in popularity because it is a useful way to think about organizational effectiveness. It is a potentially powerful way to help with an age-old problem in organizations: translating strategy into organization design, information processes, reward systems, and human resource management systems. It has the potential to develop a more integrated and complete sense of what constitutes fit among the key elements of an organization.

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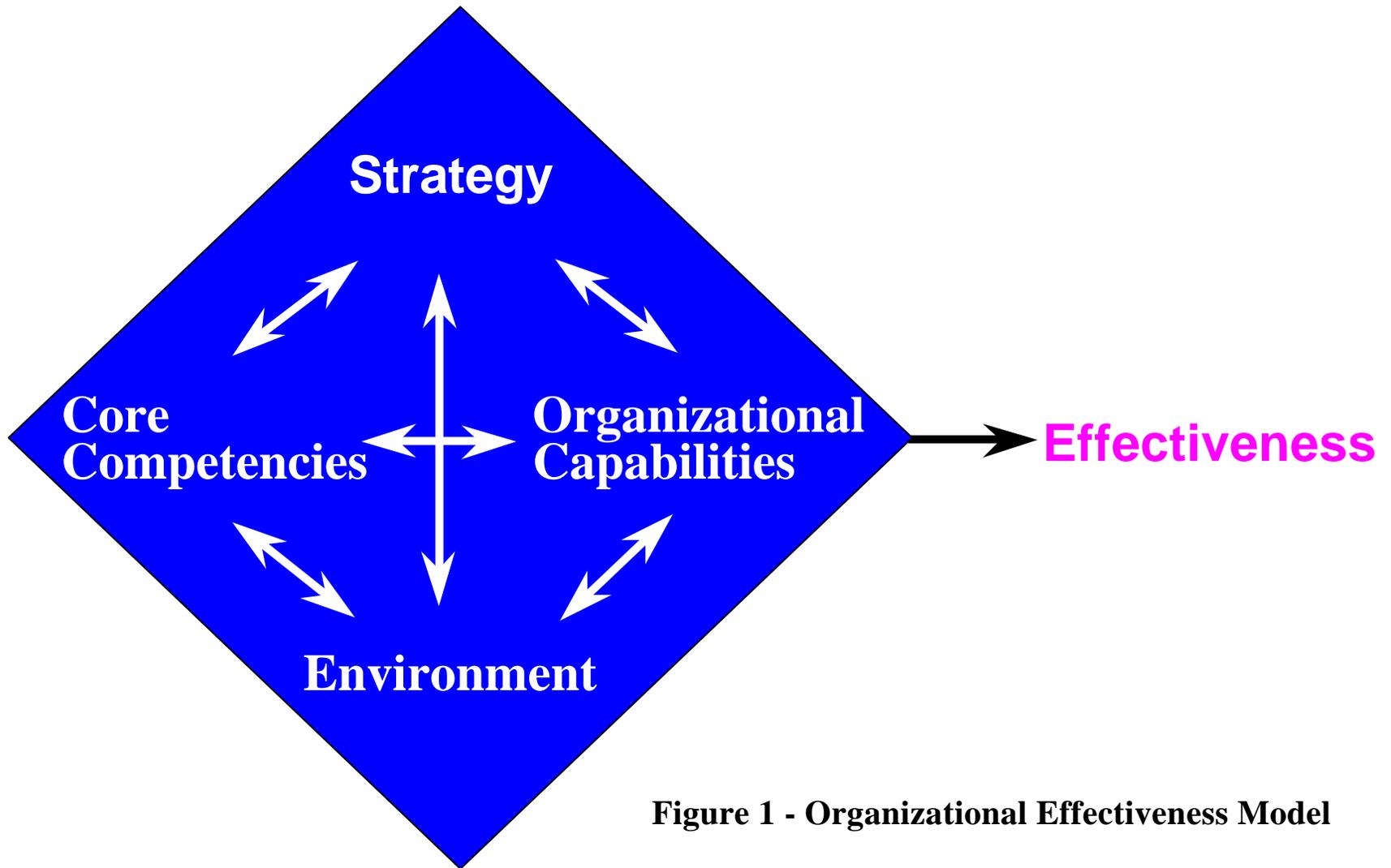


Figure 1 - Organizational Effectiveness Model

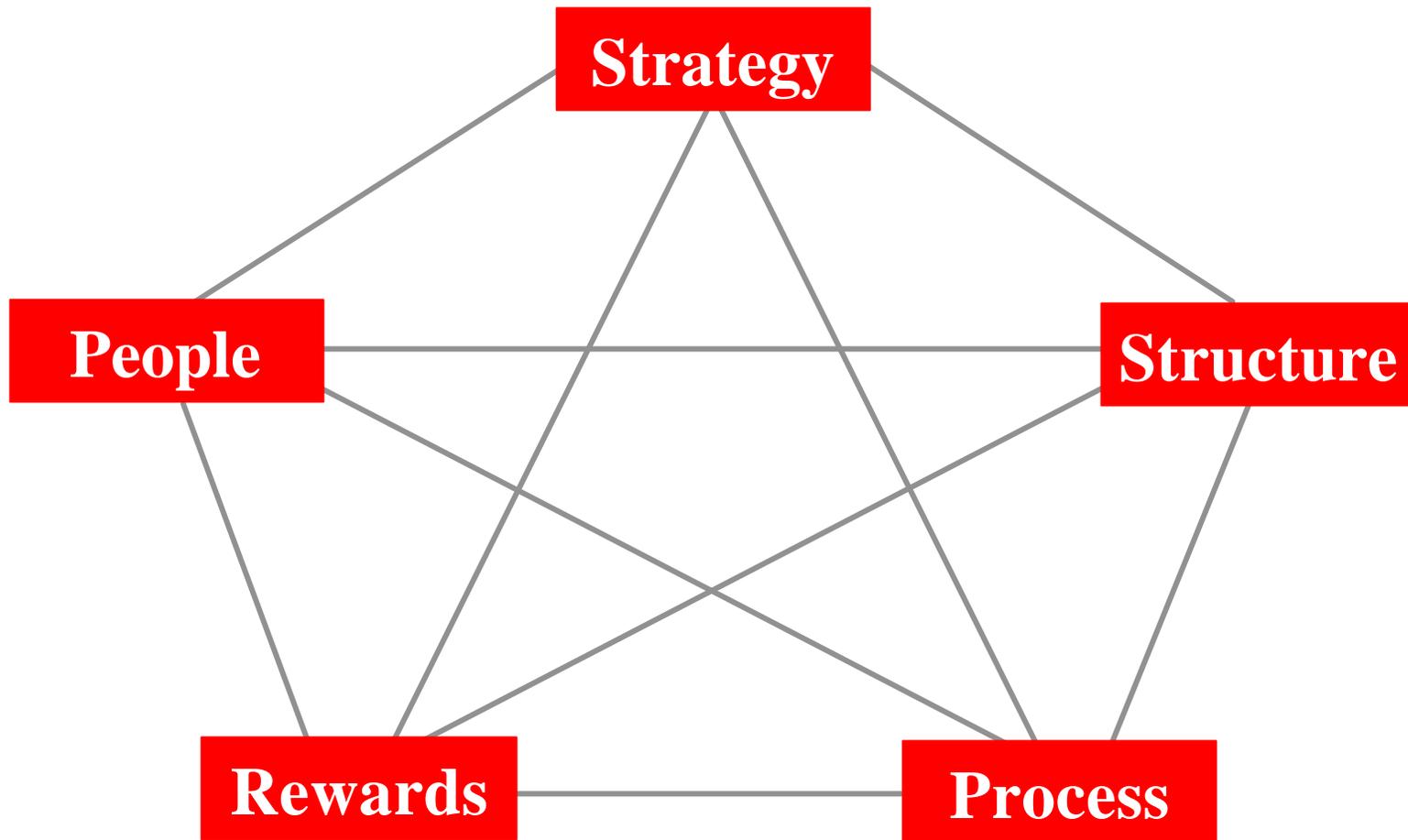


Figure 2 The Star Model