EMPLOYMENT SECURITY, EMPLOYABILITY AND SUSTAINABLE COMPETITIVE ADVANTAGE

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Employment Security, Employability and Sustainable Competitive Advantage

Abstract

The employment relationship is undergoing fundamental change and promises of employment security, long a central feature of the modern employment relationship, are increasingly losing credibility (Cappelli, 1995). Many see this change as an inevitable response to a dilemma brought about by the increasingly dynamic competitive environments that many employers must reckon with; "dynamic environments require flexible workers, flexible workers require a stable employment relationship, but stable employment relationships may not be possible in dynamic environments" (Heath, Knez, & Camerer, 1993: 89). Whatever the reason for its demise, however, companies world-wide are abandoning long held promises and policies of employment security, with no clear alternative to replace it. In this paper, we present a model of sustainable competitive advantage in dynamic environments that points to one way of overcoming this dilemma and provides a theoretical basis for addressing the observed changes in employment practices. In our model, rent creation replaces rent appropriation as the key source of competitive advantage and employability substitutes for employment security as the defining characteristic of the employment relationship. Such a relationship, we show, can provide for stable and adaptable employment relationships and may, therefore, be of advantage for the firm as well as for the employee.

EMPLOYMENT SECURITY, EMPLOYABILITY AND SUSTAINABLE COMPETITIVE ADVANTAGE

> *"The rational reconstruction of society . . . is now upon us in full force. . . . It is the task of sociologists to aid in that construction [in the design of organizations, institutions and social environments], to bring to it the understanding of social processes, to ensure that this reconstruction of society is not naive, but sophisticated, to ensure, one might say that it is indeed a rational reconstruction of society"*
>
> (Coleman, 1992: 14, emphasis in original).

The importance of social organization to our lives and to our sense of self has long been a driving force that has motivated the study of sociology and of organizations. Moreover, the ubiquity of "constructed" organizations and their growing influence on the economic activity of modern society is widely acknowledged (e.g., see Simon, 1991). Indeed, Coleman (1992) has argued that "the very basis of organization" in modern societies is itself in the midst of a two-century long transformation away from what he labelled "primordial social organization" (viz., organizations developed through birth and the social relations of blood ties and related "primordial" institutions, such as religious bodies) toward social organizations that are "purposively constructed."

While, as individuals, our interaction and likely relationship with constructed organizations may have become nearly inescapable, the stability of that relationship is now being called into question as never before. At the same time that constructed organizations and, among them, business firms in particular, are becoming more important to our economic and social lives (even if only by default), they are also finding it increasingly difficult to fulfil the roles of the institutions they are replacing. This is, at least in part, because the nature of the employment relationship - a fundamental basis of many of these organizations - is currently being shaken at its very roots by the increasing uncertainty associated with employment security.

Over more than a decade now, facing an increasingly competitive and dynamic environment, firm after firm - in the United States and abroad - has abandoned its policy of providing secure employment to "downsize" its organization. Used initially as a stop-gap measure to stem the

flow of red ink to the bottom line of ailing firms, downsizing has since been almost institutionalized as a standard operating procedure, to be employed repeatedly, by even the healthiest of firms (see Capelli, 1995). The lingering threat that survivors of one downsizing will emerge only to be caught in the undertow of future waves of downsizing has effectively destabilized the employment relationship, causing profound dismay and anger among employees - at least in large corporations - who see it as a violation of their psychological contract (Rousseau, 1989).

This uncertainty in the employment relationship and its profound implications for individuals, firms and societies provide both the background and the motivation for this paper. Our purpose here is twofold, in that we have both positive and normative objectives. Our first objective is to redirect positive theory of the employment relationship. While it is generally recognized that the employment relationship can assume many different forms (Pfeffer and Baron, 1988), the theories we have to explain it tend to focus categorically on employment security as its core defining characteristic (Pfeffer and Cohen, 1984). There is little by way of theory development to guide us in understanding what it means to have an employment relationship that is more or less market like, or a job that is more or less secure. Yet, these are the types of relationships that probably have always been present in the employment landscape but that have now become much more common and far too visible to ignore. By focusing on the concept of "employability" - an alternative to employment security now being considered in practice (see Waterman, Waterman and Collard, 1994; Bartlett and Ghoshal, 1995) and defined by Kanter (1989:92) as an employee's "increased value in internal and external labor markets" - we seek to exhume a more solid foundation on which a more general theory of the employment relationship can ultimately be built.

Our second objective is more normative. The uncertain terms of the emerging employment relationships represent the greatest challenge now confronting large companies and their people and, through them, the social fabrics of most developed as well as developing societies. By examining the theoretical implications of the employment relationship in a more dynamic framework than is currently employed in related theories, we seek to suggest a

direction that can and (we believe) needs to be taken by at least some categories of employers to cope with this challenge in the interests of their firms and the people they employ, as well as the societies that support and are supported by them. In this normative goal, we see ourselves as responding to Coleman's clarion call, quoted at the very beginning of this paper, for theorists to direct their efforts not just to chronicling and conceptualizing the changes of the past but also to influencing the design of the institutional arrangements needed for a rational (i.e., better) reconstruction of society. As he said, "The ultimate justification of all these [theory development] endeavours will be their contribution to the optimal design of the constructed social organizations of the future" (1992:14). The proposals we present here, both with regard to the role of the firm in society that they imply and the nature of the employee-employer relationship that they are premised upon, we hope and believe, represent a move in this direction.

The Employment Relationship in a Dynamic Context

Our argument, in essence, is as follows. We wish to link the employment relationship of a firm with its viability, and hence its strategy. Historically, this link has not been a major theme within either the literature on firm strategy, which has focused on the external environment (e.g., Porter, 1979) or internal resources (conceptualized somewhat abstractly, see Conner, 1991) as the starting point of analysis, or the literature on the employment relationship, which has tended to ignore or underemphasize the inescapable fact that the viability, and hence much of the value, of the employment relationship is inexorably tied to the viability of the employer itself. In the recent past, several scholars have argued for the need to bridge this gap. For example, within the fields of organization theory and human resource management, Baron and Pfeffer (1994), Cappelli and Sherer (1991), Lado and Wilson (1994), and Jackson and Schuler (1995) have been among those who have argued for and contributed to the small but growing literature on "human resource management in context" - a literature that aims to incorporate the internal and external contextual factors such as business strategy, firm performance, and industry and labor market conditions that affect and are affected by the organizational "system that attracts, develops, motivates and retains

employees ..." (Jackson and Schuler, 1995:238). Similarly, within the strategy field, the rising popularity of the resource based view has shifted the focus of analysis from factors external to the firm (such as industry structure) to factors internal to the firm and there is now a growing recognition that many of the "dynamic capabilities" that underlie a firm's competitive advantage are grounded in its people and their relationships both among themselves and with the organization (Teece, Pisano and Shuen, 1994). It is to these evolving streams of literature that this paper aims to contribute by proposing a theory that relates the expected outcomes of a given employment relationship with the conditions necessary to support it.

However, in doing so, we depart from much of this literature in one important way. With a few notable exceptions (e.g., Teece, Pisano and Shuen, 1994), most of these authors have grounded their work in an explicit or implicit assumption of a relatively stable environment. In the strategy field, for example, while the historically dominant IO-based theories (e.g. Bain, 1956; Caves and Porter, 1977; Porter, 1979) were explicitly grounded in a static equilibrium framework, even much of the emerging literature on the resource based view is based on equilibrium definition of a firm's competitive advantage, that can neither provide a compelling explanation of how such advantage is initially developed (except by luck or foresight) nor relate it to any notion of the length of time it can be expected to be sustainable (see Barney, 1991: 103, 119). As a result, HR scholars aiming to develop a theory of "human resource management in context" and drawing their characterization of context from this strategy literature (among others) have similarly grounded their conceptualization of context in relatively static terms (e.g., Lado and Wilson, 1994; Wright, McMahan and McWilliams, 1994). In contrast, we seek to link the employment relationship of a firm with its strategy and viability in the context of a dynamic environment.

This shift from a static to a dynamic perspective matters a great deal because it explicitly acknowledges the possibility - indeed, the likelihood - that a sustainable competitive advantage in one evolutionary period will become a persistent (i.e., costly to eliminate) source of competitive disadvantage at some later time. As Peteraf (1993: 184) has noted, in a

dynamic environment, specialization becomes a double-edged sword. While the mutual dependency it engenders can be a source of competitive advantage, it can also reduce the firm's flexibility to respond to environmental and technical changes. Heath, Knez and Camerer (1993) have highlighted one possible implication of this stability-flexibility dilemma in the context of a firm's human resource practices, in general, and its employment relationship, in particular: "Dynamic environments require flexible workers, flexible workers require a stable employment relationship, but stable employment relationships may not be possible in dynamic environments" (p89).

In the context of our analysis, the change from a relatively static to a dynamic perspective has two specific implications. First, in a dynamic environment, quasi rents are not sustainable. Therefore, in such an environment, a strategy based on sustained appropriation of quasi-rents - the underlying premise of much (but not all) of the strategy literature - is inappropriate. As argued by Winter (1995), D'Aveni (1994), Moran and Ghoshal (1996 b) and others (see, for example, the collection of essays in Montgomery, 1995), in a dynamic environment, a firm's competitive advantage flows from its ability to continuously create and appropriate transient Schumpeterian rents. Therefore, in our analysis of competitive advantage, we focus on a firm's ability to create new rent sources, rather than to protect existing ones.

Second, in a dynamic environment, firm-specific human skills can quickly become obsolete, because of the risks of substitution, in the short-term, and of innovation, in the long-term. Therefore, in such an environment, a theory of the employment relationship that focuses primarily on the benefits of firm-specific human skills and capabilities - one of the key arguments offered in support of employment security (Doeringer and Piore, 1971; Pfeffer and Cohen, 1984) - is also inappropriate. In such an environment, competence destroying discontinuities (Tushman and Anderson, 1986) can break the reinforcing cycle of employee specialization leading to the need for employment security and, hence, to greater specialization by making the specialization of a firm's employees a primary contributor to the ultimate likelihood of the simultaneous erosion of a firm's competitive advantage and the employee's job security. Therefore, in our analysis of the employment relationship, we

substitute the current theoretical focus on employment security with one on employability, which, we argue, reduces the potential cost of skill obsolescence and enhances both the firm's and the employee's flexibility to cope with the possibility of discontinuous environmental change.

Table 1 provides an overall summary of our arguments as well as a roadmap for the remaining part of the paper. The column titled "dominant model" identifies the key concepts that theoretically link employment security to a firm's competitive advantage in a relatively stable environment, as can be inferred from the mainstream literatures on the employment relationship and on firm-level strategy. In essence, therefore, it identifies the concepts and arguments that define our point of departure. These concepts and arguments are briefly explicated in the following section of the paper.

- Table 1 about here -

The column titled "alternative model" summarizes the key concepts in our theory relating employability with a firm's competitive advantage in the context of a dynamic environment. While some elements of our argument linking the different concepts may be relatively new, it will be manifest from the table that most of the concepts we use are drawn from the work of others - much of it in the domain of a nascent but rapidly growing literature at the intersection of the resource based view of strategy and the evolutionary theory of the firm. These concepts and arguments are presented in the third section of the paper.

We must emphasize at this stage that we are not presenting the alternative model as an inherently superior one, from either a theoretical or a practical perspective. The value of employability as the basis of the employment relationship depends on its viability and its usefulness to both employees and employers. Such viability and usefulness, in turn, are likely to be influenced by other characteristics of the external and occupational labor markets within which the firm must operate and by the characteristics of the firm's own internal labor market and its business environment. The last section of the paper identifies these boundary conditions of our theory, and concludes with a discussion of its implications for research and

practice.

EMPLOYMENT SECURITY AND COMPETITIVE ADVANTAGE: THE POINT OF DEPARTURE

The employment relationship is a principal defining element of most formal organizations (Simon, 1951). Pfeffer and Baron (1988: 257) have characterized this relationship as a "continuum ... ranging from long-term attachments between workers and organizations under a system of bureaucratic control, to arrangements in which workers are only weakly connected to the organization either in terms of physical location, administrative control, or duration of employment." Until the early 1980s, however, the historical evolution of the employment relationship, not only in the United States but also worldwide, has been marked by a shift from the latter to the former - that is, from simple, market or craft-based control (i.e., employer-employee exchanges mediated by either open labor markets or craft-based trade unions or guilds) to bureaucratic control that relies on long-term employment relations and a hierarchy of formal rules and internal advancement policies as the primary means of securing and controlling workers (Jacoby, 1985; Pfeffer & Baron, 1988). This trend has been most pronounced in the case of large corporations: contrary to popular caricatures, employment security has been as central to the management practices of Western companies like IBM in the United States and Philips in Europe as it has for Eastern companies like Toyota in Japan and Samsung in Korea, at least in the four decades following the Second War (see Hall, 1982).

It is not surprising, then, from its pervasiveness in practice, particularly among the world's largest and most successful organizations, that employment security and the Internal Labor Markets (ILMs) that are commonly associated with long-term employment relations, feature prominently in most theories of the employment relationship. The emergence and institutionalization of such relationships have been attributed to many factors. These include: (a) firm-specific explanations, including those concerning the impact of technology and technological change (Doeringer & Piore, 1971; Pfeffer & Cohen, 1984) on the need to develop and/or preserve idiosyncratic human capital that is of relatively greater value to a

single firm (see, also, Becker, 1962); (b) transaction-specific explanations, where idiosyncratic capital is of relatively greater value to a specific transaction or job with a single firm (Baron, Davis-Blake, & Bielby, 1986; Williamson, 1975); and (c) institutional and structural explanations, where political and institutional forces inside and outside the organization - e.g., the presence of and the focal organization's relationship with other internal units, unions or professional groups (Pfeffer & Cohen, 1984), or of gender differentiation (Baron, et al., 1986) create some dependency for or in the focal organization (Pfeffer & Salancik, 1978).

As is readily apparent from the diversity of these explanations, there are not only multiple determinants of the structure of employment but there also exist considerable differences among theories over the particular reasons for ILMs, the nature of the long-term employment relationships they enable and the mechanisms through which ILMs emerge and influence these relationships. There is, however, a common theme that extends throughout much of the received view that it is employment security and the ILMs supporting it that most distinguish the employment relationship from the types of transactions (of labor for service) that are commonly observed in external labor markets. However employment is structured, when it involves employment security (however determined) and that security is threatened, firm specific human capital comes to the fore as a pivotal issue. For this reason and because firm specific human capital is, perhaps, the single attribute that most readily connects the nature of the employment relationship with the sources of a firm's competitive advantage, we focus this paper on firm specific explanations.

Such firm-specific explanations of the benefits of employment security emphasize three factors which also help establish the link between employment security and the competitive advantage of a firm (see table 1).

First, employment security provides both the firm and the employee with an incentive for investing in the development of firm-specific, idiosyncratic knowledge, skills and competencies (Doeringer and Piore, 1971; Becker, 1962; Williamson, 1975). It is the idiosyncratic or heterogeneous characteristics of these firm-specific resources that, in turn,

provide the source of rents for the firm. As the strategy literature emphasizes, heterogeneity is "the sine-qua-non of competitive advantage" (Peteraf, 1993: 185); it is the inherent cause of scarcity necessary for rent generation and is the key defining characteristic which separates industries, strategic groups and individual firms from the forces of competitive markets and, consequently, allows them to earn quasi-rents (Rumelt, 1984; Barney, 1991).

Second, employment security also reduces turnover by, among other things, reducing employee mobility. Firm-specific knowledge and skills are imperfectly mobile outside the focal firm. Hence, they are difficult for employees to market to the external labor market (Williamson, 1985). There is perhaps a positive aspect too to this lack of mobility in as much as employment security can provide an opportunity for employees to safely combine their local knowledge and skills with other investments (e.g., time and effort) in their organizations but, in both economics and organization theory, this idea has been overshadowed by the notion that employers benefit from such investments in firm-specific skills only when it is more difficult (i.e., costly) for their employees to leave their organizations (see, for example, Pfeffer and Baron, 1988: 261 and Wachter and Williamson, 1978: 556).

Without this reduced mobility, firm-specific knowledge and skills generated through employment security would not contribute to the firm's competitive advantage. While resource heterogeneity is necessary for sustainable advantage, it is not sufficient; for the advantage to be sustainable, heterogeneity must be preserved. This is accomplished through what Rumelt (1984) described as "isolating mechanisms" which operate at the firm level - just as entry and mobility barriers operate at the industry and strategic group levels (Porter, 1979) - to impede the mobility and imitability of resources between firms and, thereby, retard any tendency of them to become more homogeneous and to dissipate rents to actual or potential competitors or to buyers or suppliers or even to the ultimate consumer. In other words, while employment security contributes to the creation of firm-specific knowledge and skills, it also contributes to the development of isolating mechanisms by impeding the mobility of employees and thereby creates the condition for sustainability of the competitive advantage arising from those firm-specific resources.

Third, employment security also contributes to the efficiency advantages of the firm by depressing employees' wage demands. As argued in internal labor market theories, individual workers often tend to be more risk-averse than the employer which creates an opportunity for arbitrage: in return for the protection that ILMs offer from external labor market competition, employees accept lower wages and remain with the organization. This yields quasi-rents, together with considerable discretion for the employer to appropriate these rents (Milgrom and Roberts, 1992: 350).

Collectively, these arguments provide a consistent explanation of how employment security can lead to a firm's competitive advantage (see figure 1). To summarize, employment security increases investments made by the firm and by its employees in building firm-specific knowledge and skills. This has the twin effect of enhancing the firm's efficiency in executing its existing activities and of reducing the employees' mobility and wage demands. These effects collectively create quasi-rents which the firm appropriates to its competitive advantage. The advantage, in turn, provides the resources and the incentives for building firm-specific skills.

-Figure 1 about here -

COMPETITIVE ADVANTAGE IN DYNAMIC ENVIRONMENTS: A THEORY OF EMPLOYABILITY

While this model of the association between employment security and competitive advantage is simple, clear and logical, in the introductory section of this paper we have already identified some of its key limitations. As we have suggested, the theoretical premises of this model are drawn from an equilibrium framework, and the model, therefore, relates to the context of a relatively stable environment. In the context of a dynamic environment some of the main links in its internal logic break down.

More specifically, at the present time, for many firms and their employees, neither the starting

point of the model - viz., an employment relationship based on employment security - nor the key outcome - viz., achievement of competitive advantage through sustained exploitation of specifiable, appropriable quasi-rents - is viable. As Pfeffer and Baron (1988: 257) have documented, from the mid-1980's, there has been a general reversal in the historic trend toward long-term stable employment relationships, and as Cappelli (1995:563) has argued, this reversal is not a limited (i.e., applicable only to the periphery of the organization, to protect its core of permanent employees, as argued by Pfeffer and Baron) or temporary phenomenon but represents a breakdown across many aspects of internal labor markets, even of permanent employees. Similarly, in dynamic environments, a strategy based on sustained appropriation of quasi-rents does not work because of obsolescence. Worse still, given that the resources generating such quasi-rents in a particular evolutionary period need to be valuable, rare, non-tradable and non-substitutable (Dierickx and Cool, 1989), they are likely to become distinct liabilities in future periods (Leonard-Barton, 1992). As they are slow and costly to accumulate, they are also likely to be slow and costly to dispose of.

Therefore, for such dynamic environments, one needs a different theory of competitive advantage and, to the extent that there is a link between the nature of the employment relationship and the competitive advantage of the firm, one also needs a different theory of the employment relationship.

The arguments of Schumpeter (1934) and Penrose (1959) provide the starting point for such a theory. According to both of them, the competitive advantage (and growth) of a firm depends not on its ability to appropriate quasi-rents built through monopoly positions in product or factor markets but on its ability to continually create Schumpeterian rents through innovation and entrepreneurship. More recently, Winter has re-emphasised this argument by suggesting that "the emphasis the strategy literature gives to <u>sustainable</u> advantage may have the unintended consequence of diverting attention from the effective pursuit of transient rents" (1995: 159, emphasis in original). Further, in making the distinction between resources and resource conversion activities, Rumelt (1987) has already provided the basic intuition necessary for building such a theory of competitive advantage based on a firm's ability to

create Schumpeterian or entrepreneurial rents - i.e., temporary excess returns to innovation and uncertainty (Peteraf, 1994; Winter, 1995).

Resource conversion, according to Rumelt, is the ability of a firm to flexibly exchange resources within the firm and with the market, and to use and combine those resources with other readily available resources in ways that are not available to other firms. This is Schumpeter's classic definition of entrepreneurship, which Penrose proposed as the key driver of firm growth. Employability, we suggest, may be an appropriate basis of the employment relationship if the creation of Schumpeterian rents through dynamic efficiency and entrepreneurial growth is the goal, just as employment security may be the more suitable mechanism for the appropriation of quasi-rents accrued through achieving higher static efficiency in existing activities (see figure 2).

- Figure 2 about here -

Advanced General Skills

The key difference between the models represented in Figures 1 and 2 (and contrasted in Table 1) lies in the distinction between firm-specific skills and what we have labelled "advanced general skills" as the source of the firm's competitive advantage. In the first model, firm-specificity of individuals' skills is the source of appropriable quasi-rents; in the second model, it is the firm's organizational capability of creating particular skill-combinations internally and of linking those skill-combinations to appropriate external opportunities that is the primary source of Schumpeterian rents for the firm. The firm's advantage in the second model is based on its ability to induce innovative behavior rather that on its ability to exercise monopoly power over the capabilities of its people.

In this second, more dynamically sensitive model, both the rent creation potential of the firm and the employability of the firm's employees are enhanced by skills that are general but advanced, i.e., superior to those widely available in the market. General skills may be of many types. For example, they may be content skills, such as those associated with specific disciplines (e.g., from basic reading, language or farming skills to more advanced facilities

with certain nuances of these disciplines, like higher-order mathematics), technologies (e.g., opto-electronics) or tasks (e.g., brand management) that, by themselves, are quite general in the sense that they are relevant in a wide variety of business contexts and organizations. They may also be process skills, such as in coordinating specific horizontal chains of activities like project management, or new product creation, which also are more general than firm-specific.

While general, none of these skills are undifferentiated. Just as there are better and worse economists, there are better and worse molecular biologists as well as more or less competent managers of the new product creation process or of large and complex projects. In the model of competitive advantage we have presented in figure 2, firms aim to enhance the quality and level of the knowledge and skills of their employees so that while general, their skills are also advanced.

The most important distinction between firm-specific skills and advanced general skills is that the latter cannot be a source of appropriable quasi-rents for the firm. At one extreme, completely specific skills have no opportunity cost. All returns to them are economic rents - i.e., "excess returns to a factor over its opportunity cost" (Peteraf, 1994: 154). Similarly, at the other extreme, none of the returns from completely general skills are rents. By further delineating general skills as advanced, we introduce the notion of differential quality and, hence, scarcity (at least temporary scarcity) into consideration. To the extent that general skills are advanced, at least a portion of their returns can be appropriately classified as scarcity rents - i.e., monopoly rents but with no incentive to restrict output (Winter, 1995: 21-22). But because they are general, these skills are mobile. Hence, they are free to move to similar or even higher value applications in a variety of settings, both inside and outside the firm in which they were developed. Consequently, any rents derived solely from such skills are appropriable by the owner of the skills, i.e., the employee, and not the employer.

Such advanced general skills are clearly attractive to the employee. In an environment of frequent exogenous shocks which can reverse the fortunes of even the healthiest companies almost overnight, job security with a single company cannot fulfil the role of employment security that is implied in the literature we referred to in the preceding section. Advanced

general skills, by being fungible across many firms, offer the promise of employability as a much more credible, general and secure form of employment security (Kanter, 1989). Further, because they enhance employability, advanced general skills "level the playing field" by relaxing the binding hold that specific skills can, and often do, have on employees. By eliminating the employee as a source of appropriable quasi rents, the firm can no longer gain at its employees' expense and must look elsewhere (viz., new rent creation) for appropriable rents. As a result, the employee gains not only through reduced vulnerability to rent expropriation hazards but also in the potential opportunities associated with the alternative sources of rents that the firm must now create to remain viable.

For the firm too, there are some obvious advantages of having its human capital in the form of a pool of differentiated, advanced and general skills. Of all its assets, the risk of substitution in firm-specific human assets may be the most costly substitution risk for the firm to bear. Most other assets often can be abandoned for little additional cost. However, human assets, like physical sites which pose significant environmental liabilities, are increasingly costly to dispose of. By reducing the "half life" of investments in firm-specific resources, dynamic environments increase both the risk and the cost of such substitution. Advanced general skills of employees reduce this risk and the cost of substitution. Employability not only raises the employee's qualifications for jobs with other firms but also for other jobs within the firm, enhancing the firm's flexibility to reassign people to new opportunities as they emerge. Therefore, in uncertain environments where the risk of skill obsolescence is high, enhanced employability can actually enhance a firm's ability to maintain employment stability and also allow employees to extend their value and tenure with the same firm, if they wish.

Advanced general skills also contribute to individual and, thereby the expansion of, organizational absorptive capacity. "The premise of the notion of absorptive capacity is that the organization needs prior related knowledge to assimilate and use new knowledge" (Cohen & Levinthal, 1990: 129). By implication, then, some, if not all, of this "prior related knowledge" is non-specific and, therefore, general. Advanced general skills provide individuals with the "breadth of categories into which prior knowledge is organized, the

differentiation of those categories, and the linkages across them" which "permits individuals to make sense of and, in turn, acquire new knowledge" (Cohen & Levinthal, 1990: 129). Appropriate contextual knowledge is needed to make knowledge fully intelligible. Since prior related knowledge is necessary to assimilate new knowledge, the nature and content of the newly created or assimilated knowledge is influenced by that of the old. Advanced general skills enable the individual to develop a finer grained resolution of the knowledge structures in which newly encountered information is embedded and interpreted.

However, as has been noted earlier, because advanced general skills are mobile and relatively scarce, the "service flows" (Winter, 1995) from these resources applied as generic inputs are likely to be fairly priced and, therefore, unlikely to yield the firm any particular advantage. Nor is any particular firm likely to be or to remain the optimal developer or user of such skills for any specifiable length of time. Over time, other firms are likely not only to compete away any expected advantage from such skills, but also to compete away the resource itself, leaving the initial firm the liability to have incurred the cost of developing such skills essentially as a public good. Advanced general skills, therefore, are a necessary but insufficient condition for building a theory of sustained competitive advantage that is consistent with employability as the basis of the employment relationship. A number of questions must be addressed before such a model can be made useful. First, how can individual advanced general skills be accumulated and deployed in a cost effective manner? Second, how can individual advanced general skills be transformed into a firm capability to create and to appropriate Schumpeterian rents? Third, how can a firm's potential for creating such transient rents through on-going innovations be exploited and protected to ensure a sustainable competitive advantage? We consider each of these questions in turn.

Developing Advanced General Skills through Accumulating Mechanisms

Scarcity is the essence of advanced general skills. Firms can acquire and develop such skills through what we will call accumulating mechanisms, which include mechanisms for recruiting from among the highest levels of such general skills available in the external labor market (e.g., McKinsey hires the top graduates from the most reputable business schools and

AT&T's Bell laboratories goes to great lengths to attract the most respected graduate students from the best technical institutions around the world), and for investing large amounts of resources in continually enhancing those skills internally through both training and work assignments (Andersen Consulting, for example, allocates ten percent of its revenues for training).

The role of accumulating mechanisms is twofold. First, they influence the context in which individual advanced general skills are acquired, and thereby, influence the nature of the fields in which these skills are most likely to be applied and further developed by the employee. Second, accumulating mechanisms ensure and promote the development of organizational level advanced general skills and, thereby, define the context in which organizational level absorptive capacity is ultimately created and developed.

While the need for effective selection, training and development mechanisms, so as to develop a pool of people with advanced knowledge and skills in different fields, is fairly straightforward, these mechanisms also have certain consequences for the development of advanced general skills that need to be highlighted. To develop advanced general skills (as with the creation of rents in general), a firm must deploy its existing stock of advanced general skills to this task, which may not represent the most efficient use of those skills in a static equilibrium sense. This raises the need to address the issue of sacrifice - i.e., why innovation (i.e., achieving dynamic efficiency) often requires the sacrifice of valuable current resource deployment opportunities.

Sacrifice. It has recently been argued by Winter that "the value of idiosyncratic resources to the firm - i.e., the present value of their future rent streams - is affected by the fact that their possible uses include development of more idiosyncratic resources" (1995: 155). He has further suggested that in many cases "when resources are creatively applied to extend the capabilities of the firm . . . this source of value may greatly outweigh the present value of directly productive service flows" from such resources (p. 155-156). A similar argument has also been made by Itami in his suggestion that "Too much emphasis on effective utilization" of those assets that are both inputs and outputs, "prevents efficient accumulation" of such

assets (1987: 17).

Herein lies both the theoretical and the practical crux of accumulating mechanisms. They imply a sacrifice on the part of the firm. While recruitment and selection are essential components of a firm's accumulating mechanisms, internal training and development are relatively the more important source of the scarcity inherent in advanced general skills. Such training and development, in turn, require the investment of the firm's existing stock of advanced general skills (partners of Andersen Consulting, for example, are given quotas for the time they must spend as instructors in the firm's formal in-house training programs, as well as for the time they must allocate to mentoring individual consultants in their ward). Such use in developing further advanced general skills may not be the most efficient deployment of the firm's existing stock of such skills, in a static equilibrium sense (nor is it likely to be the best use of such skills in terms of their owners' individual interests), but it is essential for creating the self-reinforcing cycle that allows a firm to continually stay ahead of the ongoing enhancement of such skills in the external labor market. Such sacrifice of static efficiency on the part of the firm, in turn, engenders similar sacrifice on the part of employees that is essential for the sustainability of the firm's advantage from such advanced general skills and to which we shall revert later in this paper.

As we have noted earlier, while the ability to create advanced general skills is a <u>necessary</u> condition for achieving competitive advantage through employability, it is <u>not sufficient</u>. Although the acquisition and enhancement of advanced general skills, through accumulating mechanisms, constitute both necessary and sufficient conditions for building an individual's employability, for the firm they pose a significant liability that must be offset by additional rent producing and sustaining mechanisms to ensure the creation of sustainable competitive advantage. The firm must be capable of deploying its advanced general skills in ways which allow it to create and realize more value than can be realized by those same skills optimally deployed in other firms. This is accomplished largely by expanding the firm's organizational absorptive capacity beyond the sum of the independent absorptive capacities of its individual employees - i.e., through <u>linking mechanisms</u>.

Building Rent Creating Potential through Linking Mechanisms

The shift from firm-specific skills to advanced general skills removes human capital as a source of appropriable quasi rents for the firm. Now the only way the firm can build a sustainable competitive advantage from its employment relationship is if it finds a way to create Schumpeterian rents. As Conner has suggested, it is the way in which a firm's resources are linked together that is key to such a rent creation process; "it is the linkage of an input to the firm's existing asset base - and especially, the relative strength of that linkage as compared to that which competitors would achieve" that is central to rent creation (1991: 136, emphasis in original). Linking mechanisms enhance the firm's potential for creating rents from a given set of resources (including resource conversion activities) by doing precisely this, i.e., by enhancing the underlying "linkedness" of these resources.

Whereas accumulating mechanisms build the firm's stock of human (and physical) capital, from which its employees are the principal beneficiary, linking mechanisms build social capital that benefits both employer and employee. Linking mechanisms permit resources to be accumulated, combined and deployed in ways that facilitate the creation and appropriation of rents. That is, they promote the building of organizational "appropriative capabilities" (Szulanski, 1993). The rents we focus on here are similar to those which Rumelt (1987) refers to as "entrepreneurial rents" but their source of value resides not in a single entrepreneur but in the firm's collective stock of knowledge and skills embedded in its people and in the mechanisms which link them together. Linking mechanisms are those that bundle and deploy a firm's human and other resources in ways that enable a firm to assimilate new information and facilitate the exploitation of new rent opportunities. Like Kogut and Zander's (1992) organizing principles, linking mechanisms link people to one another internally and to market opportunities externally.

Linking mechanisms are distinguished best, perhaps, by their role in facilitating the provision of more or less open access to multiple sources of information and knowledge without unnecessarily binding linked parties to each other and, thereby, isolating them from others. They include those organizational policies, practices, values and norms which: shape

networks of formal and informal relationships and communication flows; influence personnel assignments, rotations and training; encourage the seeking and provision of information, advice and support; and minimize the potential for information or power asymmetries. But while the list of potential linking mechanisms continues almost indefinitely, it is important to note that by distinguishing 'open access' from 'binding dependencies' this definition of linking mechanism excludes many links that serve to channel or impede access.

Indeed, linking mechanisms are, perhaps, more usefully characterized by the types of links they seek to avoid than by those they support. High on the list of what could be considered as mechanisms which impede linking, by their tendency to isolate information sources and to influence (typically by regulating or controlling) the content and flow of information, would be hierarchical or power relationships, which can use the power of authority, status or political influence to narrowly specify (either explicitly or implicitly) and attempt to direct the relevancy, access, transmission, and use of all types of information. Besides common hierarchical (i.e., superior-subordinate) reporting relationships, other examples of structural impediments to linking include "gatekeeping" or "boundary-spanning" roles in organizations (Tushman, 1977). Structural impediments, while useful (e.g., in economically focusing attention) and sometimes necessary, become dysfunctional for those types of problems and requirements for action which Burns and Stalker argue "cannot be broken down and distributed among specialist roles within a clearly defined hierarchy" (1961: 6).

By enhancing firm-specific social capital, linking mechanisms serve a number of critical functions. First, they create the potential for enhanced innovativeness, which increases the rent creating capacity of the firm by increasing the absorptive capacity of the organization as a whole as well as that of its individual members. Second, they enable the firm to appropriate the rents they help make possible.

Rent creation potential. While no systematic formula for rent creation or innovation can exist (Barney, 1986; Dierickx & Cool, 1989: 1506n; Rumelt, 1984) and specific opportunities for rent creation are largely triggered by unexpected events (Rumelt, 1984), firms, like individuals, can improve their chances of benefiting from knowledge that is diffused in the

public domain. The process of doing something different with current knowledge also inevitably leads to new knowledge creation. Whether or not firms are capable of exploiting their share of opportunities depends on their capacity to absorb relevant information and on their ability to appropriate knowledge from it. By increasing their knowledge appropriation capacity, firms can enhance their capabilities to generate innovations and to quickly and/or creatively imitate or adapt the innovations of others and, consequently, enhance their rent creation potential. Just as advanced general skills enhance individual absorptive capacity, linking mechanisms allow individuals to access firm specific organizational routines (Nelson & Winter, 1982) to expand the absorptive capacity of the organization as a whole. Linking mechanisms comprise the communication network which is influenced by those efforts to deploy resources to directed activities (Teece, et al., 1994) and which, in turn, influences those more autonomous initiatives which are likely to emerge and give rise to new knowledge creation and innovation.

Opportunities for the creation of Schumpeterian rents increase with increasing absorptive capacity (Cohen & Levinthal, 1990). "An organization's absorptive capacity will depend on the absorptive capacities of its individual members. To this extent, the development of an organization's absorptive capacity will build on prior investment in the development of its constituent, individual absorptive capacities, and, like individuals' absorptive capacities, organizational absorptive capacity will tend to develop cumulatively. A firm's absorptive capacity is not, however, simply the sum of the absorptive capacities of its employees . . ." (Cohen & Levinthal, 1990: 131). Linking mechanisms helps the organization and its members build absorptive capacity at both the individual and the organizational level. Greater absorptive capacity, in turn, increases the potential for identifying, assimilating and exploiting innovation enhancing knowledge as it is created inside and outside the firm.

Rent appropriation. As indicated in the discussion above, linking mechanisms are not hardwired linkages among the firm's human and other resources; they are the intangible resources of an organization that allow both directed and spontaneous linkages among these resources to emerge as and when new innovation-creating opportunities become available. As

such, they are organizational assets that are nearly impossible to trade, imitate or substitute for. Because the mechanisms for forming and disbanding such linkages are embedded in the firm's organizing principles (Kogut & Zander, 1992) and exist only incompletely in the minds of its employees, no individual or group of individuals can walk away with this intangible resource in an easily reproducible form. As a result, such linking mechanisms allow the firm to create and appropriate rents, despite the general nature of the component assets and skills.

Together, accumulating mechanisms and linking mechanisms comprise both the hardware and software (both tangible and intangible) for accumulating the resources and arranging the resource conversion activities necessary for building the organization's capacity or potential for creating rents. But ability alone, whether individual or organizational, is not enough to ensure the behavior that it enables. To convert the potential for rent creation into actual rents, the firm must elicit the appropriate behavior from its capable employees and organizational sub-units. Further, for the resulting competitive advantage to be sustainable, it must also ensure that most, if not all, of those employees choose to remain with the organization, even when they have the opportunity to leave. These are the functions of bonding mechanisms which are described and discussed next.

Achieving Sustainability through Bonding Mechanisms

When applied to human capital, isolating mechanisms (which impede the mobility of this capital) permit the firm to appropriate rents that the individual generates within the firm but cannot realize himself or herself either in the firm or elsewhere. In enhancing employability of its employees by enhancing their general skills, firms consciously reject the idea of <u>binding</u> people through the constraint of immobility. But, to sustain the ability to create Schumpeterian rents through flexible combination of such skills, firm's must create <u>bonding mechanisms</u> that enhance the mutual attractiveness of both the firm and the employee to one another. These mechanisms include those that create a shared sense of purpose and a common set of values and, thereby, help shape a coherent and attractive institutional context within the firm (Moran & Ghoshal, 1996a). As Douglass North has argued, "institutions alter the price paid for one's convictions" (1990 : 26). By creating an alignment between the

convictions of its members and the overall purpose of the firm, bonding mechanisms achieve continuity in the employment relationship through mutual seduction and choice rather than through reciprocal dependence and the lack of alternatives.

In the context of an employment relationship based on employability, accumulating mechanisms also serve as perhaps the most important bonding mechanism. The continual development and renewal of advanced general skills provides an effective inducement to attract and retain a high quality workforce. Creating an environment where each individual has ample opportunity to realize his or her highest potential only reinforces this inducement. The sacrifice made by the firm in deploying its stock of advanced general skills to build further advanced general skills also induces a reverse sacrifice on the part of the employees who choose to stay with the firm.

In other words, while the first-order effect of employability may be to enhance employees' monitoring of alternative opportunities and the likelihood of their exploiting such opportunities, its second-order effect may be exactly the opposite and, over time, the second-order effect may prove to be the more powerful. In a dynamic and competitive environment where the risk of job obsolescence is high, employment security can be sustained only if the individual's employability is "current". Leaving an organization with enhanced employability to exploit other job opportunities exposes the individual to the next round of job obsolescence. Only by working for and <u>remaining</u> with a firm which continuously updates and enhances employability can one achieve employment security and offset the loss of long-term employment guarantees.

There are important differences, however, between employment stability as viewed in the traditional employment relationship and that which may result from an employment relationship based on the notion of employability. While the vulnerability of both employer and employee is greater in dynamic environments, the burden on the employee is more because of "one labor power and one job" (Horvat, 1982: 447) and because the capabilities and marketability of the employee increase in importance relative to the viability and reliability of the employer as determinants of long-term employment security. Enhanced

employability adjusts for this asymmetric dependency by shifting the balance in the need for employment stability more toward the employer. As such, employability places, more squarely on the employer, the burden of earning (as opposed to merely "granting") greater stability in the employment relationship. Employment stability, then, is achieved, not by binding the employee to the firm (i.e., through reduced mobility) but through bonding, by enhancing the attractiveness of remaining with the organization.

But inducing individuals to join and remain in the firm is not enough. The firm must also ensure that its people and other resources are effectively deployed to earn enough money to support its commitments and to maintain its attractiveness to its employees. In other words, the firm must stimulate those behaviors among its employees that would ensure continuous engagement and adaptation of the processes through which it can maintain its competitive advantage. Bonding mechanisms promote such behavior by establishing and reinforcing a consistent pattern of affective and normative links through which employees identify with their organization. By what we have referred to earlier as "levelling the playing field," an employment relationship based on employability provides a foundation for building the kind of internal context that motivates employees' affinity for (i.e., affective commitment) or sense of obligation to (i.e., normative commitment) the organization's social community (Allen and Meyer, 1990), instead of a preoccupation with only the need to keep their jobs (i.e., continuance commitment).

Both affective and normative commitment are more likely to lead to extra-role behaviors (Bateman & Organ, 1983; Kim and Mauborgue, 1996) and to individual initiative and consummate cooperation, while continuance commitment is more likely to lead to only the minimum perfunctory compliance that is necessary to stay employed. Such extra initiative and cooperation engendered by employability can themselves be the sources of additional rents and, to the extent these rents may not be available in alternative jobs outside the firm, they represent increased quasi-rents which may offset both those that may be lost through the exercise of the mobility option by some, and by the enhanced wages that this option might create for others. However, unlike the quasi rents appropriated from isolated resources made

immobile through employment security, the quasi rents that are created through enhanced employability stem from the enhanced potential capabilities of the people within the firm.

Hence, it is the source of rents and not their existence that distinguishes the alternative models of competitive advantage that we have contrasted in this paper (see figures 1 and 2). Absent any substantive theory of rent creation (i.e., save luck or foresight), the static efficiency framework of the first model emphasizes the preservation of current period monopoly rents, primarily through restrictions in the mobility of a workforce with few employment alternatives and whatever increases in current period productivity that can be extracted from it. In contrast, the dynamic efficiency framework of the second model emphasizes future rent creation, through attracting and developing a cadre of individuals, whose relatively scarce skills are in high demand, motivating them to make short term sacrifices in the productivity of their scarce skills and enhancing their individual and collective potential to achieve a level of performance that is unobtainable elsewhere.

BOUNDARY CONDITIONS AND IMPLICATIONS

Historically, relatively stable environments have suppressed the demands for adaptability and have allowed firms to focus instead on building stable long-term employment relationships and on inducing those productivity gains that such relationships make possible. Indeed, employee and employer alike benefit from such stable employment relationships. As Heath et al. have argued, "Employees who feel assured about their future with a firm do not have to be paid as much, are more willing to make sacrifices for the firm, and are willing to allow paternalistic managers to withhold information from them" (1993: 89). But more important than the benefits in lower labor cost and greater employee tolerance that can be attributed to such attitudes, firms able to provide employment stability can also derive productivity gains from enhanced employee commitment and accumulation of firm-specific knowledge and skills. Moreover, there is little to suggest a priori that firms that are serious in their commitments to employment security cannot also achieve all the benefits we have posited to accrue in our alternative model (we would merely add that these firms also are likely to

employ some combination of accumulating, linking and bonding mechanisms to maintain their competitive advantages in innovation). As environments become more dynamic and competitive, however, this mutually reinforcing attribute of the employment relationship begins to unravel and the potential benefits of the relationship, itself, are called into question. Our purpose in this paper was to explore the implications of this situation, when the conditions necessary for the historical model are no longer satisfied. In other words, our arguments do not mean to suggest that an employment relationship based on employability is in general superior to one based on employment security, but only present an alternative when, for whatever reason, employment security is either not viable or not credible. Therefore, it is important at this stage to identify the boundary conditions of our model.

In moving from stable to dynamic environments, rents become more transient and their half-lives become shorter. For firms hoping to shift attention and resources from one rent stream to another, the transition becomes increasingly more problematic. As rents become shorter lived and their sources more varied and uncertain, it is less likely that the pursuit of one rent stream will provide the firm with the requisite set of knowledge and skills to pursue the next, and more likely that people whose knowledge and skills were once highly valued will ultimately become a liability. Also, the interests of employer and employee can easily become more incongruent as the gap between required and available resources widens. Consequently, the basis for and nature of an employee's commitment to the organization is likely to undergo a significant transformation if that employee is bound to the organization only through his or her lack of any alternative and the employer desperately needs new human capital that the employee does not have. The employment relationship, once the source of mutual dependency and benefit (based on a sense of mutual gain from mutual identification and obligation), becomes a major source of uncertainty and potential liability (based on an increasingly asymmetric dependency of the employee and burden for the employer). It is here that the effects of our model exhibit their full force.

Obviously, such dynamic environments require both employer and employee to be more flexible and adaptive (Heath, et al., 1993). As we have argued in this paper, employability

can provide greater flexibility to both employee and employer (i.e., in terms of both skills and opportunities to use those skills), enabling each to adapt more readily to changing circumstances and to exit the relationship without significant loss if there is no acceptable alternative. Employability offers a more credible route to career employment security (Kanter, 1989) for the employee in dynamic environments and reduces the firm's exposure to obsolescence in its human resources and its liability in caring for individuals with obsolete skills.

However, even in such environments, the viability of employability is influenced by other characteristics of the external and occupational labor markets within which the firm must operate and by the characteristics of the firm's own internal labor market (including job characteristics and career opportunities).

Where guarantees of employment security are perceived as credible (in the short-run, whether they, in fact, are or are not, in the long-run), and the firm's other commitments are secure, additional commitments to employability are less important to (some or even many) employees and are, therefore, less valuable to the employer but are just as costly (or even costlier) as when there is no employment security. Even where employment security is in decline but there still exists only rudimentary (i.e., imperfect or missing) external labor markets, like in Japan, the value of employability will be less because the infrastructure needed to match employees who have valuable knowledge and skills with job opportunities is likely to be inadequate at various stages in a worker's career. Moreover, the concept of employability has little relevance in labor markets that approximate the ideal of standard economic theory (i.e., many buyers and sellers of homogeneous labor units), like the market for migrant farm workers, where neither employment security nor employability is prevalent. This is so in these cases primarily because it only would serve to redistribute existing rents and cannot give rise to circumstances to create new value.

Indeed, as we have stressed throughout the paper, the opportunity for employees to create value for their employer through some discretionary behavior is a necessary condition for employability to be of practical use. Hence, employability is likely to be most beneficial for

individuals with careers that are likely to span job stints with multiple employers and that necessitate continuous updating of relevant knowledge and skills. Similarly, employability should most exhibit the effects we propose when it is found among employees whose jobs not only entail considerable discretionary behavior but where such behavior also affords the individual some potential to add value to the firm (e.g., by improving the job's productivity, the quality of its performance or even by eliminating the job itself). On the other hand, if a job's tasks are highly routinized and difficult to change, the job holder has few degrees of freedom to improve its performance characteristics. In such a situation, employability would be less likely to benefit the firm.

In addition, it bears reiteration that employability alone is not a sufficient condition for building sustainable competitive advantage from the employment relationship. Indeed, firms that replace employment security with employability, without the requisite complement of accumulating, linking and bonding mechanisms, are likely to lose more human and social capital than they are able to accumulate. Further, we also believe that some degree of employment stability for both employer and employee is necessary and possible in dynamic, as well as in stable environments and, as we have argued earlier, such stability is partly achieved (at least in dynamic environments) as the seemingly paradoxical consequence of enhanced employability.

Implications for Research

We began this paper by noting the increasing uncertainty that surrounds the employment relationship and the overall decline in employment security that has gone on for over a decade. As jobs become more uncertain and more dear, employers' bargaining power to extract concessions from their employees increases. In such a situation, any need to replace losses in employment security with employability or any other costly alternative will perhaps be apparent to only a few firms. Fewer still of these employers will actually back up the costless rhetoric in their recruiting brochures that extols their commitment to employability with the more difficult to build accumulating mechanisms that are necessary to enhance the employability of their workers. Out of perhaps a handful of firms that might actually

contribute to increasing the employability of their employees, many are likely to stumble in building the linking and bonding mechanisms that are needed to make it possible and desirable for their employees to add value to the firm and, hence, find reason to stay on.

Indeed, if none of these firms is able to make employability work, the concept is likely to wither away before any fair test of its power can be made. Firms would then have more justification (and pressure) than they will need to continue the current world-wide trend to turn the employment relationship into what Weber (1978: 40-41) referred to as an "associative social relationship" (i.e., a social relationship that is based on a "rationally motivated adjustment of interests" between the parties of the relationship, see also Cornfield, 1981) and away from a "communal social relationship" (i.e., based on a "subjective feeling of the parties, whether affectual or traditional, that they belong together"). Unfortunately, treating the employment relationship more like a market relationship will not allow exchanges to be conducted as if they were mediated by well functioning markets (to do this, significant transaction costs must be eliminated, which is likely to be impossible for implicit contracts). Consequently, a potentially significant opportunity for practitioners and researchers to experiment with a form of relationship that might encourage the creation of value will have slipped away.

Hopefully, however, at least a few of these firms will find the right mix of accumulating, linking and bonding mechanisms to find some way to make employability work. If this happens - if even a single firm manages to remain viable while enhancing the mobility of its employees to other employers - it could (if it has the effects proposed in this paper) induce many other firms to do the same. More than a handful of firms with employment relationships built around enhanced employability would have significant implications for the nature of work. Firms with employees who are becoming more employable will have to make their work environment more rewarding and stimulating to their employees in order to retain their best people. Obstacles currently standing in the way of efforts to provide such conditions (because of bad management or coercive organizational structures that persist with asymmetric power differences, for example) might then begin to fall.

Along the way, there is much to be done to test and improve our understanding of the concept of employability. For instance, the extent to which the model can be generalized within (and perhaps beyond) the boundary conditions we speculated on above needs to be established. A number of fundamental questions, implicit in the theory presented here, also need to be addressed. For example, Can firms significantly boost their workers' employability merely by augmenting their level of advanced general skills? What if anything else is required and how can this be accomplished? How can/should employability be measured? Can employers with highly employable workers keep them long enough to benefit from their enhanced mobility? How long is long enough? To what extent do accumulating, linking and bonding mechanisms contribute to employability? To employment security? Does it matter if employability is restricted to one's current industry or occupational group? Does it matter who provides for an individual's employability - i.e., are the hypothesized effects the same whether the employee or the firm contributed to employability or should we expect interactions? What affect, if any will the stickiness in mobility that comes from factors other than employability (like immobile health care policies or pension benefits) have on the more mobile employee's behavior or on the firm's performance?

Clearly there is more to employability than skills and their half life or generalizability. Otherwise, highly skilled professionals would not experience such steep non-monotonic declines in their success in re-entering labor markets in the months following a termination or layoff. The first priority would appear to be to establish that employability varies among workers in similar jobs for similar industries, and to identify the factors that cause this variance. Ideally, one could conduct longitudinal studies tracking the careers of similar individuals with similar backgrounds through a sample of firms to establish the impact of job assignments and of training (on the job and other, firm specific and general) on each individual's ability to find progressively better jobs either within a single organization or in different organizations (time between jobs and compensation differentials would be two important indicators). At the same time, cross-sectional studies to establish a strong association among the variables as specified in the causal relationships proposed in the model (i.e., accumulating mechanisms and advanced general skills; advanced general skills and

employability; linking mechanisms, advanced general skills and absorptive capacity; bonding mechanisms and organizational commitment; organizational commitment, absorptive capacity and firm performance) would also provide avenues for fruitful and rigorous empirical inquiry.

Further, given our objective of exploring the association between the employment relationship and competitive advantage of a firm, our analysis has focused on the implications of employability for the firm, rather than the employee. Clearly, a host of important research questions will arise from an analysis of the effects of employability on the individual employee - e.g., what would its implications be on the concept of a career that has historically been such an important element of the employment relationship? As Homans (1950) had argued so long ago, a job has a social as well as an economic dimension: it provides a focal point for the structure of social groups that allow individuals to maintain their equilibrium under ordinary shocks of life. How would a relationship based on employability affect an individual's ability to create and maintain his or her "small group life"? What individual characteristics may make an employee more or less open to an employment relationship based on the concept of employability? Similarly, a more complete analysis of our model would also require an understanding of how different social and institutional factors - from cultural norms to the role of trade unions - may influence the viability and efficacy of employability, as well as how those social, political, cultural and institutional forces may themselves be affected by the progressive institutionalization of such an employment relationship. While outside the scope of our present argument, these and a variety of other individual and societal implications of employability clearly provide important and exciting avenues for both theoretical and empirical research.

Implications for Management Practice

In much of the literature we have reviewed in this paper, related both to theories of business strategy and theories of the employment relationship, there is no explicit attention given to the role, if any, of management. Within the resource based view of strategy, for example, the

resources themselves are the primary focus of analysis, with their various ascribed characteristics such as heterogeneity, immobility and imperfect imitability being related to firm performance with little attention to the intervening management variables that often endow the resources with their desired characteristics. Some authors acknowledge the role of the manager in creating and maintaining resource-based competitive advantage, but usually in a limited analytic role. Wernerfelt (1984), for example, assumes that managers can balance the need to exploit existing resources against the need to develop new ones by employing a resource-product matrix. And Barney's (1986) manager is assumed to be focused on organizational analysis of existing resources to determine the future value of assets they can acquire in factor markets.

Some key contributors to the resource based view have, however, begun to question this invisible or highly constrained management role. Dierickx and Cool (1989) have argued that many inputs are not freely tradable, but can only be accumulated, and that the uniqueness of each firm is determined by the way in which management uses the resources to create the actual inputs into the production process. Rumelt (1987) has reflected a similar view that "the task of general management is to adjust and renew these resources and relationships as time, competition and change erode their value" (p 558).

In this article we have presented a view of sustained competitive advantage in dynamic environments that suggests the specific tasks involved in the role ascribed to management by Dierickx and Cool, Rumelt and others. It is management's responsibility to develop, sustain and continuously enhance a firm's accumulating, linking and bonding mechanisms. They must establish the priority for and the mechanisms of recruitment, training and development through which the firm can accumulate its stock of advanced general skills. Similarly, they must create the processes for linking people to one another and to external opportunities through what we have described as "open access". And, finally, they must shape the purpose, values and norms of the firm so as to create a coherent and exciting internal context that bonds the members of the organization to one another and to the firm.

As we have argued earlier, accumulating, linking and bonding mechanisms are firm-specific resources and it is the co-specialization of these resources with the advanced general knowledge and skills of employees that enables a firm to develop sustainable competitive advantage in dynamic environments. Therefore, in the model we have presented, while a vast majority of the firm's employees maintain their employability, it is the managers of the firm who sacrifice their own career flexibility by specializing their roles, tasks and skills to the unique requirements of the firm. This is a sharp departure from the existing view in which most employees are seen as contributing to the development of firm-specific resources by specializing their skills to the requirements of the company while managers are seen as the integrating "generalists" whose skills are fungible across firms. In other words, our model suggests a fundamental reversal of roles : those who are commonly seen as the "generalists" because of their broad knowledge of the firm's processes, practices, resources and norms are actually the specialists because their skills and knowledge are firm-specific, while those who are presently called the "specialists" because of their expertise in specific technical, functional or process disciplines are actually the generalists because of the fungibility of their skills across firms. Such a role reversal has some profound implications not only for the internal labor market within firms but also for the structure of the external labor market in societies.

Theoretical Attributes	Dominant Model	Alternative Model
Strategic approach	Value appropriation: sustaining current (i.e., specifiable) rents and enhancing appropriability (Porter, 1979; Barney, 1991)	Value creation: facilitating the creation of new rents and new sources of rents (Moran and Ghoshal, 1996b; D'Aveni, 1994)
Type of rents	Specifiable Appropriable quasi-rents (Barney, 1991; Klein, et al., 1978; Williamson, 1975)	Non-specifiable Transient Schumpeterian rents (Rumelt, 1987; Winter, 1995)
Performance sustaining processes/mechanisms	Isolating mechanisms (Rumelt, 1984); entry and mobility barriers (Porter, 1979)	. Accumulating mechanisms (Dierickx & Cool, 1989) . Linking mechanisms (Cohen & Levinthal, 1990; Kogut & Zander, 1992) . Bonding mechanisms (Kim & Mauborgne, 1996; Organ, 1990)
Resource structure of the firm	Firm specific knowledge and skills (Becker, 1962; Doeringer & Piore, 1971; Williamson, 1975)	Advanced general knowledge and skills
Nature of employment relationship	Employment security (Jacoby, 1985; Pfeffer and Baron, 1988; Baron, Davis-Blake and Bielby, 1986; Pfeffer and Cohen, 1984)	Employability (Bartlett & Ghoshal, 1995; Kanter, 1989; Waterman, et al., 1994)

Table 1. Alternative Integrated Models of Firm Strategy and the Employment Relationship

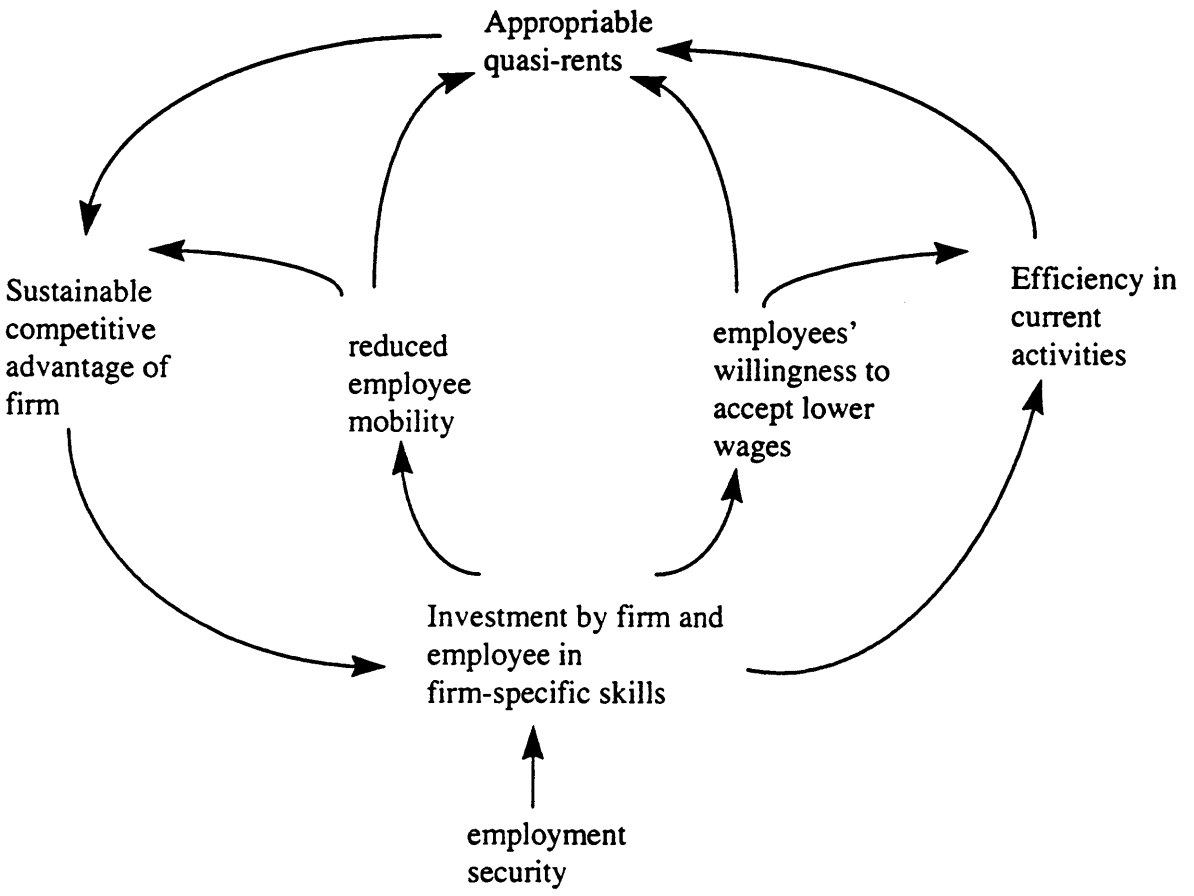

Figure 1
Employment Security and Competitive Advantage

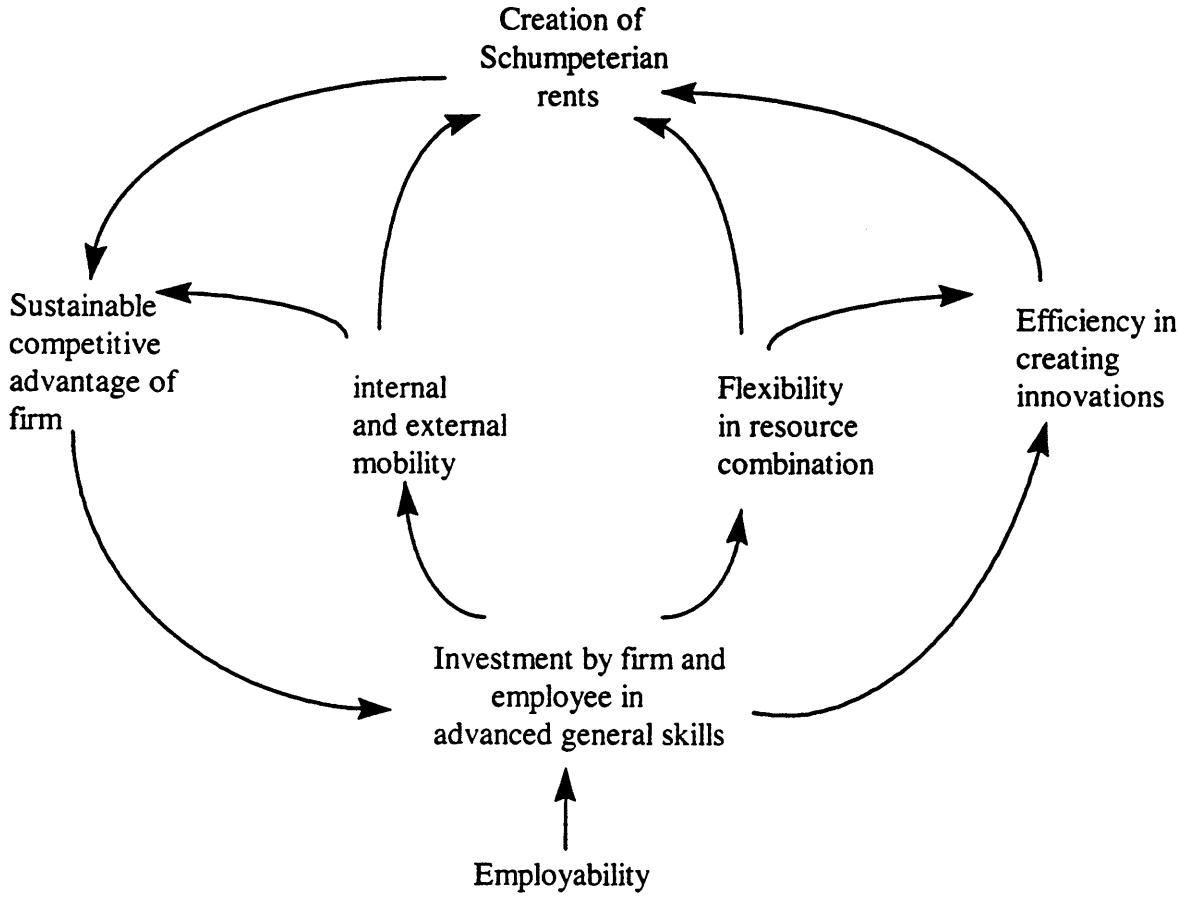

Figure 2
Employability and Competitive Advantage

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