Value Creation and Value Appropriation: An Integrative, Multi-Level Framework

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Value creation by individuals and firms plays a central role in the evolution of populations by enabling adaptive efficiency. Once created, value may become embedded in resources which require deployment for value to be appropriated. Value appropriation is a two-step process through which a firm first competes against other firms to create and protect appropriation streams (i.e., inter-organizational value appropriation), then managers, employees, shareholders and other stakeholders compete to capture the value that has been retained within the firm (i.e., intra-organizational value appropriation). I argue that the inter- and intra-organizational value appropriation processes are driven by common elements, including not only bargaining power and isolating mechanisms but also relation-based power and opportunity-based action. I advocate an integrative approach due to the interplay between value creation and value appropriation processes.

INTRODUCTION

The dual processes of value creation and value appropriation represent crucial elements of competitive strategy for both firms and individuals. Accordingly, the value creation/value appropriation framework has become commonly deployed in both research and teaching in a diverse set of fields including strategy (Bowman & Ambrosini, 2000; Blyler & Coff, 2003; Chacar & Coff, 2000; Chatain, 2010; Coff, 1999; Coff, 2010; Moran & Ghoshal, 1999; Teece, 2000), entrepreneurship (Barney & Alvarez, 2002; Hitt, Ireland, Sirmon & Trahms, 2011), economics (Chatain & Zemsky, 2011; Van Reenen, 1996), and marketing (Mizik & Jacobson, 2003; Johansson et al, 2012; Wagner, Eggert & Lindemann, 2010). These scholars have alternatively argued that (a) value creation is more important, less understood, and more difficult to manage than appropriation (e.g., Moran & Ghoshal, 1996, 1999), (b) that value appropriation is poorly understood and is the more relevant process since only appropriation impacts firm profitability (e.g., Barney, 2001; Coff, 1999; Makadok & Coff, 2002), or (c) that firms must achieve some sort of healthy balance between the two (e.g., Bowman & Ambrosini, 2000; Mizik & Jacobson, 2003). In spite of the increasingly common use of the value creation and value appropriation framework in research and pedagogy in strategy, entrepreneurship and related fields, the lack of a common and integrated understanding of these dual processes impedes both research and pedagogy. In order to help fill this gap, I present an integrative theoretical framework of the value creation and value appropriation processes, which addresses the population, firm, and individual levels. Building on Coff's (1999) approach, I depict performance as a multiple stage process. In the first stage, value is created by individuals and firms. In subsequent stages, firms compete to appropriate value (i.e., inter-organizational value appropriation), while individuals compete to appropriate firm-level value (i.e., intra-organizational value appropriation). After considering each stage independently, I analyze the interactions between stages.

The paper proceeds in five sections. First, I define value as residing at the population level but being created by the innovative actions of individuals and organizations. Second, I discuss the linkage between value and resources. In this framework, value is created through action, but once value has been created, it often becomes embedded in resources that must be deployed for appropriation to occur. In the third section, I present a conceptual framework of value appropriation, in which individuals and organizations undertake actions and manipulate resources in order to capture value that exists at the population level. Four key elements of value appropriation include market-based bargaining power, relation-based power, isolating mechanisms, and opportunity-based action. These elements are common to both inter-organizational and intra-organizational value appropriation, although I identify differences between the two processes. Fourth, I discuss the manner in which value creation and value appropriation processes are intertwined, which demonstrates the hazards of focusing exclusively on either one of the two. In the final section, I discuss research applications and the practical and pedagogical implications of this framework.

VALUE CREATION

The creation of new value lies at the heart of economic development and a population's adaptive efficiency (Moran & Ghoshal, 1999; North, 1990; Schumpeter, 1934). Value creation results from actions that entail the novel combination and exchange of resources, by which resources are diverted from known applications to be deployed in new contexts (Schumpeter, 1928). To the extent that resources are diverted away from their best known uses, novel combinations may be allocatively inefficient. Over time, however, new combinations enable the discovery of new uses for resources, thereby leading to an increase in what has alternatively been called adaptive efficiency (North, 1990), dynamic efficiency (Ghemawat & Ricart i Costa, 1993), or x-efficiency (Leibenstein, 1976).

The perennial gale of creative destruction embodied in the competitive market process may appear wasteful, since seemingly redundant efforts at innovation may be observed, and innovators may find that the value they have created through an innovation is rapidly destroyed by a competing innovation. But this waste and redundancy generate new knowledge and the discovery of new means-ends relations. Paraphrasing Alchian (1950) and Hayek (1960), North (1990: 81) states that "In a world of uncertainty, no one knows the correct answer to the problems we confront and no one therefore can, in effect, maximize profits. The society that permits the maximum generation of trials will be most likely to solve problems over time."

Once new value is created, the benefits accrued by the creator often dissipate rapidly as the fruits of progress are passed on to customers, communities, competitors, and others. The process of passing on the fruits of progress serves multiple purposes. First, this equilibrating process enables the attainment of allocative efficiency. Allocative efficiency complements adaptive efficiency, and economic development can be said to occur both when a population's production possibility frontier is expanded (i.e., adaptive efficiency) and when the allocation of existing resources is shifted toward the edge of the production possibility frontier (i.e., allocative efficiency). Second, the disclosure of new value and the knowledge associated with it may facilitate the discovery of new value sources by others. Third, the passing on of value may create the proper incentive structure for complementors to contribute to value creation. For instance, customers and suppliers may contribute to the value creation process of a firm when they can share a portion of the resulting value.

Defining and Distinguishing Value

I define value as *potential or realized utility within a population*. Value includes not only realized utility as evidenced by monetary returns or satisfaction (e.g., consumer surplus, shareholder returns, managerial rents) but also the potential for future utility contained in value that has not yet been appropriated. The value created through actions such as the introduction of a new product, a new technology, or a new way of doing business may be difficult or impossible to quantify until it has been appropriated. However, this level of abstraction is necessary because value creation and value appropriation are two distinct but interrelated processes, which implies that these processes are mutually dependent but not redundant. In a later section, I discuss the myopia that can result from focusing exclusively on value that is manifest in an appropriable form. Moreover, the highly uncertain and unquantifiable nature of value creation is a source of opportunity for firms, since this creates the differences in expectations that enable one to appropriate value (Barney, 1986).

Departing from most prior research, I define value with respect to a population, rather than either a focal firm, its customers, or its shareholders. Certain scholars (e.g., Bowman & Ambrosini, 2000; Mizik & Jacobson, 2003; Porter, 1985) have focused on customer-centric conceptions of value such as *use value*, defined as customers' subjective judgment of value, and/or *exchange value*, the price a product or resource commands in the market. These definitions require that value ultimately be passed on to consumers, which may not happen in otherwise value-creating cases such as a cost-saving innovation (e.g., Makadok & Coff, 2002: 11). Other scholars in both finance and strategy (e.g., Seth, 1990; Seth, Song, & Pettit, 2002) have defined value in terms of shareholder returns. As indicated by Coff (1999), shareholders are unlikely to capture all of the value created within a firm, and cases likely exist in which shareholders capture no value at all.

The concepts of value and rent are closely related but distinct. Rent is defined as a payment to an owner of a factor of production in excess of the minimum required to induce that factor into employment (Hirshleifer, 1980; Milgrom & Roberts, 1992). While rent is a useful concept for depicting the returns to physical resources and intangible resources with clear property rights (e.g., patents), it is less applicable for returns to resources that are intangible and/or exhibit ill-defined property rights, such as ideas, social contacts, or knowledge. In such instances, it may be difficult or impossible to quantify the minimum required to induce that factor into employment. Also, value creation activities do not necessarily generate rents, but rather may generate an increase in the minimum required to induce a factor of production into employment. Value may therefore be appropriated in the form of rents or by extracting existing value from resources (e.g., via exchange or consumption). In the rest of this article, I focus on value rather than rent, though others have used the term rent in a similar manner to the way I use value (e.g., Barney and Arikan, 2001; Blyler & Coff, 2003; Coff, 1999).

Why Should We Be Concerned with the Creation of Unappropriated Value?

The concept of value that has not been realized or appropriated is highly abstract. While value appropriation is generally visible in the form of revenue streams such as shareholder returns, executive compensation, and labor contracts, the creation of uncaptured value is substantially more difficult to identify, much less quantify. As a result, the notion of value creation often takes on a nebulous and indeterminate nature, leading some to utilize terms such as 'potential value' (Moran & Ghoshal, 1999), 'intrinsic value' (Porter, 1991), and 'bundles of potentiality' (Nelson, 1997). Managers and researchers alike may legitimately wonder why they should be concerned with the value creation process when only value appropriation impacts the bottom line. Value creation may be relevant to fields such as new growth theory within economics (e.g., Romer, 1994) or institutional evolution (e.g., North, 1990), but why should management scholars and practitioners be concerned?

Some scholars have argued directly or indirectly that value appropriation is of more immediate concern to managers than value creation. For instance, Makadok and Coff state that in terms of explaining profitability, value creation "is relevant only insofar as it affects value captured by the firm, but it has no independent relevance of its own" (2002: 10). Most research within the RBV (e.g., Barney, 1991; Collis & Montgomery, 1995) addresses only value appropriation, even when referring to the term *value creation*. According to established research, the answer to the question "Which value do we value?" (Makadok & Coff, 2002: 12) is apparently value appropriation, not value creation.

I contend that this perspective may lead managers down the wrong path. Managers that constrain their strategies to focus on value appropriation will be limiting their appropriation opportunities to value that has already been created. Managers, employees, shareholders and others would then be competing over a dwindling pool of existing value, as has recently been observed among many airlines and integrate steel mill operators. Another argument that might be made is that managers should be concerned with only that portion of unappropriated value that is actually appropriable by their firms. While this approach would appear to help managers cope with the complex and uncertain nature of value creation, it is likely to be as difficult to identify ex ante whether or not unrealized value will be appropriable by a given firm as it is to quantify that value. By omitting consideration of unknown and unforeseeable means of appropriating value, managers are likely to still fall victim to myopia with this approach as well. For instance, though a firm may lack the complementary assets needed to appropriate new value (e.g., the right distribution network to commercialize a new product), the firm should not necessarily forego the opportunity to create new value. So value creation should be of direct concern to researchers and managers, regardless of appropriation concerns, but appropriability will have an important bearing on value creation. In a subsequent section of this paper, I explore in greater detail the linkages between value creation and value appropriation.

The Relation between Resources and Value

I contend that value is not created by resources, but rather by the actions of individuals and organizations in factor markets, internalized transactions, and product markets. This perspective is consistent with recent theoretical work on dynamic capabilities (e.g., Eisenhardt & Martin, 2000; Teece, Pisano, & Shuen, 1997), which has emphasized the actions and processes by which resources are deployed, combined, acquired, sold, renewed, and released. Resources play a key role because they are the result of value creation processes and they are exploited in value appropriation processes.

Value creation often entails the development of strategic resources. When successful, R&D initiatives result in technological capabilities, inter-organizational collaborative efforts such as joint ventures and alliances lead to the creation of social capital, intra-organizational collaboration leads to social capital and organizational culture, and a successful product launch leads to the establishment of brand-name capital. Most of these resources cannot be easily purchased in factor markets, but must be built through new combinations undertaken within and between firms. An emphasis on resources and capabilities adds substance to the otherwise opaque concept of new value creation, since newly created, unappropriated value may become embedded in resources which may in turn be amenable to valuation techniques.

Value appropriation often entails the extraction of value that is embedded in resources. Resources exhibit stickiness in accumulation (Dierickx & Cool, 1989) as well as in exploitation. To convert resources into appropriated value (i.e., utility) requires time; therefore, appropriation is more a process, not an event.

VALUE APPROPRIATION

Once value has been created, what rules govern the value appropriation process? In a previous section, I identified value as being created and residing at the population level. Value is ultimately appropriated by individuals (i.e., shareholders, employees, executives, middle-level managers, customers, other stakeholders), but other than customers and external stakeholders, these individuals are generally nested within firms that in turn are nested within a population. Value appropriation, then, is comprised of two related processes: *inter-organizational value appropriation* (i.e., how value is distributed among the firms within a population) and *intra-organizational value appropriation* (i.e., once value is appropriated by a firm, how that value is distributed among the firm's internal stakeholders). In this section, I present a general theoretical framework governing both inter-organizational and intra-organizational value appropriation. While most elements of this framework apply to both types of value appropriation, I indicate differences between the two, most importantly the unique role of relation-based power in intra-organizational value appropriation.

Inter-organizational value appropriation is the domain of well-established management theories including externally-focused theories based on industrial organization economics (e.g., Porter, 1980) as well as the internally-focused resource-based view of the firm (e.g., Amit & Schoemaker, 1993; Barney, 1986; Barney, 1991; Peteraf, 1993). From both perspectives, firms contend with competitors, suppliers, customers, and others to appropriate value, either by occupying a superior position in product markets or by possessing firm-specific resources that are difficult to imitate (Moran & Ghoshal, 1996). Inter-organizational value appropriation is also a central concern of research focused on joint ventures, strategic alliances, buyer-supplier relations and inter-organizational networks (e.g., Dyer, 1997; Gulati & Singh, 1998; Inkpen & Beamish, 1997). In spite of the diversity of contexts in which inter-organizational value appropriation has been studied as well as the variety of theoretical perspectives adopted, most research on inter-organizational value appropriation has centered around the bargaining power firms exploit to establish appropriation streams and the isolating mechanisms they employ to defend those streams.

Intra-organizational value appropriation is not as clearly understood as inter-organizational value appropriation, though recent research has begun to explore this process (e.g., Coff, 1999; Chacar & Coff, 2000; Bowman & Ambrosini, 2000; Blyler & Coff, 2003). In particular, Coff (1999) employed the metaphor of the firm as a nexus of contracts (Jensen & Meckling, 1976) to demonstrate that one theory of inter-organizational value appropriation, the resource-based view, can be extended to shed light on intra-organizational value appropriation. Much like in the case of value appropriation, emerging research in intra-organizational value appropriation has focused on the bargaining power of individuals.

In an effort to present a general theory of value appropriation, I identify four elements of value appropriation that apply to both inter- and intra-organizational contexts: market-based bargaining power, relation-based power, isolating mechanisms, and opportunity-based action. My emphasis on market-based bargaining power and isolating mechanisms follow directly from prior research, such as the work of Coff (1999). My approach departs from that of Coff (1999) and others in two respects, however. First, in addition to market-based bargaining power and isolating mechanisms, I identify two other elements of the value appropriation process not fully addressed in prior research: relation-based power and opportunity-based action. Second, I emphasize that differences between market- and hierarchy-based governance mechanisms generate important differences between inter- and intra-organizational value appropriation. These elements are discussed in the following sections.

Market-Based Bargaining Power

Whether focused on how a firm gains leverage over buyers, suppliers, competitors and others, or on how individuals gain leverage over employers, owners, employees, cohorts, etc., extant value appropriation research has generally centered on how one actor uses product or factor markets to gain bargaining power over others. An actor gains *market-based bargaining power* by harnessing market forces to establish unilateral dependence. Unilateral dependence means that the focal actor is less dependent on the other than the other is on the focal actor. Unilateral dependence is enforced through the issuance of explicit or implicit threats of market recourse that are perceived to be credible. For instance, a firm may appropriate value generated through a supplier relation by ensuring that the supplier's cost of replacing the firm exceeds the firm's cost of replacing the supplier. Likewise, an employee may appropriate value generated within a firm by establishing and demonstrating the ability to secure a higher-paying job elsewhere. In sum, individuals and firms derive market-based bargaining power by maintaining the option to rapidly replace a transaction partner without incurring a substantial loss of efficiency (i.e., keeping their own switching costs low and avoiding lock-in) while denying their transaction partners the same recourse (i.e., making sure that their transaction partners have locked in and face high switching costs).

Unilateral dependence arises from many sources (Coff, 1999; Pfeffer, 1981; Porter, 1980). First, unilateral dependence arises when one party to a transaction faces high switching costs or replacement costs while the other does not. This may occur if the former is able to be identified as scarce and non-substitutable, thereby requiring small numbers contracting. Second, scarcity can be created via collective action—otherwise substitutable actors may use unified action to artificially increase replacement costs—though collusion is usually unlikely to be sustained over long periods. Third, information asymmetries may convey bargaining power upon the better-informed actor, and this actor may actively manage information flows and seek to occupy and sustain structural holes so as to maintain bargaining power

(Burt, 1992). In all cases, market-based bargaining power is derived from the establishment of small numbers bargaining for only one party involved in a transaction.

One limitation of bargaining power approaches is the implicit assumption that value appropriation is the result of an arms-length bargaining process between parties who can identify the sources of value in a transaction and know the true underlying value of the resources they contribute. This is apt to often be a valid assumption, particularly as concerns inter-organizational value appropriation. Even if explicit bargaining does not take place, actors are likely to stake out positions based on their own assessments of the value they contribute. However, there are circumstances under which this assumption is inappropriate, in which case outcomes are determined less by bargaining and more by institutional constraints, norms, and heuristics. For instance, executive compensation packages are more likely to be determined on the basis of intra-industry comparisons and historical norms than on the basis of equating wages with marginal production.

An additional and more important limitation of bargaining power is that while situations in which unilateral dependence exists are somewhat common, situations involving bilateral dependence may be even more common, particularly for intra-organizational transactions. Bilateral dependency creates a small numbers bargaining situation for both parties to a transaction. As in the case of unilateral dependency, bilateral dependency leads to the possibility of appropriable quasi-rents, but the distribution of these rents is difficult or impossible to specify ex ante (Klein, Crawford, & Alchian, 1978). Both parties have the ability to hold up the other, and both parties are therefore also subject to being held up. In such situations, bargaining power is less meaningful and is less likely to determine the outcome of the value appropriation process.

This limitation of the bargaining power approach to value appropriation is exacerbated by the fact that the key transactions affecting value creation and appropriation are likely to be subject to bilateral, rather than unilateral, dependency. The most strategic transactions—those that are integral to the creation and appropriation of value—often entail high human asset intensity, causal ambiguity, tacit knowledge, asset specificity, and social complexity (Coff, 1997). In such situations, markets are thin or non-existent, and internal organization is generally the preferred mode of governance both to mitigate risks of value expropriation (Williamson, 1996, 1998) as well as to promote value creation (Ghoshal & Moran, 1996). These situations appear therefore to reside outside the boundary conditions of market-based bargaining power. In a subsequent section, I elaborate on the implications of this limitation of bargaining power.

Relation-Based Power

Actors utilize a second form of power, distinct from market-based bargaining power, to gain an advantage in the value appropriation process, particularly when market-based bargaining power is irrelevant or inconclusive (i.e., when dependence is bilateral, rather than unilateral, particularly due to asset specificity). I refer to this second type of power as *relation-based power* because it is derived from one's ability to extract a greater portion of the value associated with an existing relation, rather than from the ability to present a credible threat of terminating the relation or otherwise shirking on a commitment. While bargaining power is conveyed on the basis of scarcity, relation-based power is conveyed on the basis of familiarity and legitimacy. Leverage is derived not from monopoly or monopsony power, but rather from existing relations and associated resources (e.g., status, prestige, legitimacy).

Consider the hypothetical example of two knowledge workers who play equally important roles in value creation for their firm. The first worker is a skilled technologist whose human capital is valuable, rare, and applicable to a broad number of industry contexts. The second worker has spent an entire career at a single firm and is uniquely positioned to broker intra-organizational knowledge flows by virtue of maintaining unparalleled social ties within the firm and by possessing tacit knowledge concerning organizational routines. Though both workers contribute valuable resources to the firm, the first worker contributes resources that are specialized but command substantial market value, while the second contributes valuable firm-specific resources that are not easily traded outside the firm. In this example, the first worker clearly possesses superior market-based bargaining power, since he or she can easily renegotiate an explicit or implicit contract, leveraging the ability to redeploy his or her human capital for another firm. The first worker should therefore be able to appropriate most or all of the value he or she contributes to the firm. The second worker does not possess market-based bargaining power, since the firm-specific resources he or she contributes have no market value, and the worker is equally dependent upon the firm to generate value as the firm is dependent upon the worker. If market-based bargaining power were the only mechanism for value appropriation, the worker would appropriate only an infinitesimal portion of value (i.e., slightly more than the reservation wage of zero). In actuality, a much more plausible scenario is that the worker will appropriate a significant portion of the value.

The precise cause behind a given case of relation-based power may be difficult to specify. In the case of the knowledge worker with firm-specific human and social capital, for instance, there are several reasons why this individual is likely to appropriate value in spite of the absence of market-based bargaining power. First, the resources contributed by this individual are highly visible within the firm, which may convey legitimacy. For instance, key individuals within the firm are likely to be aware of (and be a part of) this worker's elaborate intra-firm social network, whereas valuable external ties are less visible. Second, value appropriation is often a social process, rather than strictly an economic one, and socially-driven factors such as group affiliation, affect, and status may play a role in influencing appropriation processes. The individual's investments in firm-specific human and social capital, which in strictly economic terms are nothing more than sunk costs since their residual value outside the firm is zero, may convey socially-derived power even in the absence of market-based bargaining power. Third, appropriation schemes serve as a signaling mechanism, and while the firm may be able to exploit the fact that the focal individual has already made sunk cost investments in developing firm-specific resources, doing so would signal to less tenured employees that they should avoid making firm-specific investments.

The contrast between market-based bargaining power and relation-based power is evident through a comparison of different forms of appropriating value embedded in social capital. Market-based bargaining power stems from occupying the role of the tertius gaudens (Burt, 1992, 1997), by which an actor appropriates value created by brokering information flows across structural holes. From Burt's perspective, an actor can appropriate a greater amount of value by occupying a central role in a sparse network in which the actor bridges structural holes. In contrast to the perspective in which distinctiveness creates opportunities to broker information flows, another school of thought, associated with Coleman (1988), emphasizes that similarity conveys legitimacy, which in turn enables value appropriation. This second view of social capital is an example of relation-based power. An actor who occupies a central role in a dense network may be structurally redundant but is more likely to enjoy legitimacy and the benefits of clan membership (Ouchi, 1980).

Isolating Mechanisms

Since value often becomes embedded in resources, value appropriation may require the extraction of value embedded in resources. As is the process of resource accumulation (Dierickx & Cool, 1989), the process of extracting value from resources is likely to be subject to time-compression diseconomies. For instance, efforts to build a corporate reputation may exhibit lower returns when compressed over a shorter timer period, and for the same reasons, efforts to extract and capture the value that is embedded in a corporate reputation may also exhibit time-compression diseconomies (e.g., selling the brand associated with the reputation may yield lower profits than internally exploiting the reputation). In other words, strategic resources exhibit stickiness not only in their accumulation but also in their exploitation.

Due to these time-compression diseconomies, value that is embedded in resources is more apt to be extracted gradually in the form of an *appropriation stream* rather than captured instantaneously, hence firms and individuals run the risk of seeing others opportunistically expropriate value from resources they control or own. For this reason, isolating mechanisms are employed to inhibit the expropriation of value by others. At the inter-organizational level, firms may 'buy time' to allow them to extract value from a resource such as a new technology by employing isolating mechanisms such as patenting, trade secrets, and cospecialized assets (Levin, Klevorick, Nelson, & Winter, 1987; Teece, 1986). At the intra-organizational level, individuals may also use isolating mechanisms to hoard value to which they feel an entitlement, such as by refusing to disclose valuable information to co-workers or supervisors.

At both the inter- and intra-organizational levels, isolating mechanisms are defensive mechanisms used to inhibit value expropriation, and these actions have rightfully received much attention in prior research (e.g., Lippman & Rumelt, 1982; Rumelt, 1984). But an over-emphasis on the protection of existing value appropriation streams may lead to missed opportunities to generate new streams of value appropriation. Not only will the value creating activities of others be inhibited by the use of isolating mechanisms (e.g., trade secrets may prevent rival firms from improving upon a firm's new technology; likewise, workers who hoard knowledge or social ties may prevent co-workers from achieving new resource combinations), but the focal actor's own ability to create and appropriate new sources of value may be inhibited.

Opportunity-Based Action

The preceding three elements of value appropriation relate to power (market-based and relation-based) and the defense of that power via isolating mechanisms. While bargaining power is an important driver of value appropriation, I contend that the value a firm appropriates from the population in which it operates (or the value an individual appropriates from a firm) will only partially determined by the structure of the population and the position the firm occupies within that structure (or the structure of the organization and the individual's relation to the firm). Rather than being determined entirely by the establishment and defense of power and position, value appropriation is also the result of opportunistic and entrepreneurial actions.

Opportunistic actions have been associated with value appropriation by other scholars, but generally not with positive connotations. In particular, Williamson (1985, 1996) justifies the existence of the firm as a mechanism to avoid opportunistic appropriation actions, whereby opportunism is defined as "self-interest seeking with guile." During the recent wave of corporate scandals, one also has encountered an abundance of opportunistic appropriation actions that do not create and potentially even destroy value, such as accounting irregularities, insider trading, laddering, options repricing, and hidden compensation packages. Incidentally, most of these opportunistic actions have taken place within firm-based, not market-based, transactions, which calls into question the ability of hierarchical governance to alleviate the potential for opportunism. While these forms of opportunistic actions are clearly significant appropriation mechanisms, and they have implications not only for ethics and corporate social responsibility but only for shareholder returns and firm survival, I have chosen to focus on a broader set of opportunity-based appropriation actions that serve to realize and capture value.

Opportunity-based appropriation actions are entrepreneurial actions that do not require the existence of market-based nor relation-based power. Likewise, they are often ephemeral in nature, do not convey lasting first-mover advantages, and therefore are typically not easily defended through the use of isolating mechanisms. Nevertheless, these actions can serve as an effective means of appropriating value that otherwise would have been accrued by rivals, particularly by exploiting the competitive blind spots of those rivals (Grimm & Smith, 1997).

Consider the proverbial $10 bill on the sidewalk. Why is it that one individual will discover the money when others have passed it by? Why is it that one individual will exploit an entrepreneurial opportunity when others who seem to possess comparable or superior resources have failed to act on the opportunity? Only part of the answer has to do with positioning, structure, and bargaining power. Entrepreneurship theorists (e.g., Kirzner, 1973) have outlined the more central role of alertness and action in appropriation. Similarly, Burt (1992) has argued that entrepreneurial action stems from acting on information-based advantages that convey not just power, but freedom.

Simply put, structure position matters but does not explain all value appropriation activity. In addition to the generally defensive positioning actions designed to enhance a firm's or individual's bargaining power and gain leverage over buyers, suppliers, competitors, and others, actors may undertake more offensive actions that stem not from the possession of a unique resource-based advantage or structural position (Grimm & Smith, 1997). In fact, the possess of a specific resource or structural advantage may actually inhibit entrepreneurial action, since resource advantages and structural positions constrain action and increase the strategic transparency or predictability of future action (Mosakowski, 2002).

Unique Aspects of Intra-Organizational Value Appropriation

Many of the same rules that govern value appropriation between firms apply in a similar fashion to value appropriation within firms. In both cases, the value appropriation process is largely driven by differences in the bargaining power of economic actors. However, there are also important differences in inter- and intra-organizational value appropriation processes that I believe have not received much attention in prior research. These differences stem from the different governance mechanisms around which inter- and intra-organizational transactions are structured. While inter-organizational value appropriation occurs through market-mediated transactions which generally entail a low level of asset specificity and uncertainty, intra-organizational value appropriation occurs through internalized transactions which are more apt to entail high degrees of asset specificity and uncertainty (Williamson, 1985).

Once value has been captured by the firm, it is less clear who within the firm will end up as the ultimate recipient of that value. Market-based bargaining power is difficult to evaluate, given the nature of team production (Alchian & Demsetz, 1972) and the indeterminacy that arises when dependence is bilateral (Klein et al, 1978). As discussed above, the firm-specific human capital and social capital of key employees may have little or no market value outside the firm, but does that necessarily mean that shareholders will capture the value generate from those resources? This question is likely to be resolved by examining differences in relation-based power, rather than market-based bargaining power. More generally, while both inter-organizational and intra-organizational value appropriation are influenced by (a) market-based bargaining power, (b) relation-based power, (c) isolating mechanisms, and (d) opportunity-based action, I propose the following propositions establishing boundary conditions over the strength of the first two elements, without identifying boundary conditions for the latter two elements.

P1: Differences in market-based bargaining power will have a stronger influence on inter-organizational value appropriation processes than on intra-organizational value appropriation processes.
P2: Differences in relation-based power will have a stronger influence on intra-organizational value appropriation processes than on inter-organizational value appropriation processes.

INTEGRATING VALUE CREATION AND VALUE APPROPRIATION PROCESSES

For ease of exposition, I have heretofore treated value creation and appropriation as independent processes. In this section, I outline the manner in which these two processes are interrelated. Building on prior research, I suggest that adequate levels of both value creation and value appropriation are essential for performance. However, I depart from prior research in identifying different levels at which value creation and appropriation are critical.

First, it is important to note that individual actions are unlikely to be associated entirely with value creation or appropriation, but rather some combination of the two. For instance, arbitrage activities are typically associated with value appropriation because the arbitrageur captures a portion of the difference between the buyer's and seller's estimations of value, thereby exploiting private information to capture existing value. However, arbitrage entails exchange, which is an important element not only in value appropriation but in value creation as well (Moran & Ghoshal, 1999), hence the arbitrageur may play a key role in value creation. This is borne out in the knowledge brokering activities of the design firm IDEO (Hargadon and Sutton, 1997), which brokers knowledge by transferring ideas and knowledge from one industry into a seemingly unrelated industry context. More generally, most entrepreneurial activities may be viewed as a combination of both value creation and appropriation, since they require both the discovery and exploitation of entrepreneurial opportunities (Shane and Venkataraman, 2000).

Second, while a single action may entail both value creation and appropriation, it is also possible that value creation activity will undermine value appropriation, or vice versa. Value creation entails the withdrawal of resources from known uses in order to redeploy the resources in hitherto unknown applications (Schumpeter, 1928), which results in a trade-off between known, appropriable value and unknown, potential value. As stated by Moran and Ghoshal (1999: 393), "This trade-off implies some certain loss in currently realizable value—in the withdrawal of resources from previously productive services—and some less certain gain in potential value from prospective services in the future." Likewise, a strict emphasis on value appropriation would preclude one from engaging in the novel combinations required for value creation.

Achieving Value Creation and Value Appropriation

Building directly on March's (1991) systems-based logic behind the need to balance exploration and exploitation activities within the firm, Mizik and Jacobson (2003) argue that firms must achieve a healthy balance between value creation and value appropriation to achieve a sustainable competitive advantage. They find empirical support for this hypothesis, modeling R&D activities as a proxy for value creation and advertising as a proxy for value appropriation. Further, this hypothesis seems to be born out in well-known examples of firms that emphasized one process at the expense of the other, with detrimental performance implications (e.g., IBM and Xerox appear to have under-emphasized value appropriation in the past, while integrated mill steel firms that dedicate substantial resources to seeking trade barriers and other forms of government protection appear to have under-emphasized value creation).

While agreeing with the basic idea of balancing value creation and value appropriation, I contend that there are important issues related to the level of analysis that are overlooked by firm-centered approaches. Specifically, while the need for value appropriation, broadly defined, is tightly coupled with firm survival, I contend that the need for value creation is not. Rather, value creation plays an instrumental role in ensuring the adaptive efficiency of a population. The 'system' in this case is the population, not the firm nor the individual. Firms and individuals may successfully outsource value creation, therefore, provided that a sufficient amount of uncaptured value resides at the population level. For instance, pharmaceutical firms need not necessarily undertake their own basic R&D initiatives if they can rely upon the research of an ample set of biotechnology firms, particularly if the pharmaceutical firm's core competencies reside in marketing and distribution, as is often the case. Therefore, the performance of any given population over time is dependent upon the existence of an adequate amount of value creation activities, but the same cannot necessarily be said for each firm within that population. In other words, the achievement of adequate levels of value creation is a necessary condition for the long-term performance of a population.

> *P3: The performance and viability of a population is positively and closely related to the presence of value creation activities within that population.*

At the firm level, firms must also be able to access newly created value, but I contend that they need not necessarily be the one to create that value. However, it follows that the only circumstance in which a firm would have no choice but to internalize value creation activities is when an insufficient amount of value is being created by others within their population. In other words,

> *P4: The returns to value creation activity within a firm are inversely related to the amount of value that is being created by others within the firm's population.*

Firm survival is more directly dependent upon the presence of value appropriation activities within the firm. While a firm may rely upon others to aid in value appropriation (e.g., co-marketing agreements, distribution, licensing, franchising), the firm's survival is contingent upon the firm being able to capture value from such arrangements. In other words,

> *P5: The performance and viability of a firm is positively and closely related to the presence of value appropriation activities within the firm.*

DISCUSSION

The joint processes of value creation and value appropriation have become important themes in recent management research. This paper outlines four areas of contributions to prior research. First, I define value and its creation at the population level, which helps guard against the myopia that often results from a more narrow firm-centered definition of value. Second, I indicate the relation between value and resources, i.e., value is not created by resources, but becomes embedded in resources which must be deployed for appropriation to occur. Third, I outline four elements of the value appropriation process: market-based bargaining power, relation-based power, isolating mechanisms, and opportunity-based action. While these elements apply to both inter-organizational and intra-organizational value appropriation, I identify differences between the two, which stem from the difference between market-based and firm-based modes of governances, as well as differences in the transactions governed under each mode. Finally, I discuss the manner in which value creation and appropriation processes are inter-related, and propose that value creation is a critical process at the population level, while value appropriation is a critical process at the firm level.

Substantial opportunities exist for empirical research into value creation and value appropriation processes, as well as the interaction between these processes. In terms of value creation, the primary barrier to empirical research is that value is difficult to measure in an un-appropriated form. In terms of value appropriation, significant contributions in management and other fields have shed light on how appropriated value is distributed between firms. In contrast, very little research has focused on value appropriation within firms (one exception is Coff & Lee, 2003). However, research in related areas such as executive compensation may shed light on value appropriation processes, and the adoption of an appropriation lens may likewise provide a valuable new perspective with which to view executive compensation.

Another area for potentially fruitful empirical research is the interaction between value creation and both inter- and intra-organizational value appropriation processes. The resource-based view, for instance, has focused primarily on inter-organizational value appropriation. Even though intra-organizational value appropriation is influenced by many of the same factors as inter-organizational value appropriation, the two are ultimately separate processes. Consideration of multiple levels at the same time may strengthen or weaken the implications of prior research.

Lastly, one specific area of research in which there is a need to resolve tension between value creation and value appropriation is the field of social capital. Nahapiet and Ghoshal (1998) outline the manner in which social capital is associated with value creation. However, Locke's (1999) criticism of this perspective is largely based on the 'dark side' of social capital in preventing others from appropriating existing value, such as in 'old boys networks'. It is clear that social capital has the potential of playing a fundamental role in value creation, but it is similarly clear that social capital is linked to value appropriation. The key empirical question is whether configurating social networks to enable value creation is compatible with the configuration of social networks for value appropriation.

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