

Kwansei Gakuin University
Social Sciences Review
Vol. 18, 2013
Nishinomiya, Japan

Organizational Slack, Structure, and Learning: A Review of Prior Literature

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Abstract

Organizational slack influences various aspects of organizational phenomena, including managerial coalition building, political behaviors, risk taking, competitive responses, and profitability. However, prior research findings on the relationship between organizational slack and innovation are inconclusive. Building upon prior work on organizational slack, organizational search, innovation, and agency costs, we propose a contingency perspective to reconcile the mutually contradictory findings. First, we argue that influences of organizational slack depend on the type of innovation considered – whether we consider exploitative innovation or exploratory innovation. Further, the influences of absorbed slack and unabsorbed slack are distinct. Contextual characteristics that are closely associated with particular types of organizational slack – including search modes, an organization's degree of selectiveness in their choice of legitimate slack usage, and the extent to which effective shareholder monitoring is ensured – condition the ways in which certain types of innovations are enabled by organizational slack. We also discuss a complementary relationship between behavioral theory of the firm and agency theory.

I. Introduction

One of the ironies of business organizations is that efficiency is not necessarily a recipe of success (Bourgeois, 1981). One good example of why efficiency does

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not necessarily equal success is the concept of organizational slack, which should be zero at equilibrium according to conventional economic theory (Cyert & March, 1963). However, it is apparent that even very successful organizations maintain some amount of organizational slack. Organizational slack is a unique class of organizational resource because managers are allowed considerable discretion in choosing how organizational slack is used. This managerial discretion is legitimized on the premise that organizational slack is not dedicated to specific purposes of maintaining current operations. Consequently, managers can flexibly spend organizational slack without sacrificing current performance.

However, the empirical results of works examining whether or not organizational slack positively influences organizations' well-being are mixed. Particularly, prior works' findings on organizational slack's influences on risk taking and innovation are inconclusive at best. Some argue for a positive relationship (Greve, 2003; Meyer, 1982; Singh, 1986), while others argue for a negative relationship (Bromiley, 1991; Latham & Braun, 2009; Palmer & Wiseman, 1999; Wiseman & Bromiley, 1996). Further, some scholars argue for a curvilinear relationship (Geiger, 2002; Kim, Kim, & Lee, 2008; Nohria & Gulati, 1996; Wiseman & Catanach, 1997). Further, still others deny direct influences of organizational slack and argue that organizational slack encourages managerial discretion, no matter in which directions managers exercise their discretion (Chattopadhyay, Glick, & Huber, 2001; Cheng & Kesner, 1997).

In this manuscript, we propose a contingency perspective to reconcile these inconclusive research findings—we argue that organizational slack differentially influences exploitative innovation and exploratory innovation (March, 1991). Extending prior work on alternative search modes enables us to theorize differential influences of organizational slack on alternative innovation types. We also argue that absorbed slack and unabsorbed slack (Singh, 1986) differ in their influences on innovation by building upon the theory of agency costs (Fama, 1980; Jensen & Meckling, 1976). With these arguments, we attempt to advance the understanding of organizational slack by emphasizing the need to be explicit on the distinction between alternative types of organizational slack, as well as between different innovation types. We also aim to show that agency theory complements behavioral theory of the firm when we try to explain organizational slack's influences on innovation.

II. Inconsistency in Prior Work

The most straightforward and neutral definition of organizational slack may be the “disparity between the resources available to the organization and the payments

required to maintain the coalition” (Cyert & March, 1963: 36) of managers. One reason why organizational slack is a unique class of organizational resource is that organizational slack influences managerial decisions. For example, it is argued that organizations with more organizational slack are less likely to make changes in their technical core because organizational slack buffers organizations from competitive requirements by absorbing environmental variation (Thompson, 1967). Put differently, organizations can weather competitive difficulties without drastically changing themselves because organizational slack allows organizations to maintain satisfactory performance, even under adverse conditions. Further, given that organizational slack is a type of resource that is uncommitted to specific purposes, it enables a substantial degree of managerial discretion, which may or may not be exercised appropriately. When organizational slack is used appropriately, it can be characterized as the “cushion of actual or potential resources which allows an organization to adapt successfully to internal pressures for adjustment or to external pressures for change in policy, as well as to initiate changes in strategy with respect to the external environment” (Bourgeois, 1981: 30).

Following this positive perspective on organizational slack, organizational scholars, particularly those of behavioral theory, argue that an enabling relationship exists between organizational slack and innovation (Greve, 2003; Singh, 1986). Innovation is an act of creating new values. As such, innovation is often characterized as uncertain, risky, and resource consuming. Because organizational slack is not tied to specific operational requirements, managers can experiment with organizational slack when trying new strategies, organizational structures, and new products, thereby increasing the likelihood of successful innovation. The assumption underlying these arguments is that organizational decisions are often an outcome of political concessions among conflicting managerial coalitions (Cyert & March, 1963). Without uncommitted excess resources, initiatives with uncertain future consequences would be closely scrutinized by competing managerial coalitions before approval was given, if any was given at all. Accordingly, one notable weakness of this argument is that it characterizes organizational decisions as purely internal processes and ignores the influences of external stakeholders, particularly shareholders.

On the contrary, agency-theory scholars argue for a competing perspective of organizational slack. From the perspective of these scholars, organizational slack is an indication of waste and inefficiency and is associated with less effective resource usage (Fama, 1980; Jensen & Meckling, 1976). For example, organizational slack is often used as a managerial perquisite, including using the slack for unrelated diversifications, nice offices, or excess payments to managers. From agency theorists’ perspective, it is problematic when valuable resources are not used for

productive purposes to increase shareholder value. Even when organizational slack is used for more productive purposes, agency scholars are concerned that monitoring whether slack is properly used (or not) may be difficult because organizational slack is under substantial managerial discretion. As a discretionary resource, organizational slack may not be controlled by formal internal systems. Organizational slack may also loosen budget restrictions. Consequently, standard approaches, including budgeting and auditing, may not be very effective for ensuring appropriate use of organizational slack. The underlying assumption of these arguments is that organizational decisions are characterized by the conflict between managers and shareholders and managers often choose to benefit themselves at the cost of shareholders unless appropriate monitoring and incentive tools are in place (Dann & DeAngelo, 1988; Fama, 1980; Jensen, 1986; Jensen & Meckling, 1976; Malatesta & Walkling, 1988; Walkling & Long, 1984). Put differently, it is assumed that managers always try to take advantage of ineffective monitoring by shareholders, and that shareholders understand how to increase the value of their firm at least as well as their managers. It may be too simplistic to ignore the effects of a manager's professional reputation (which encourages them to be diligent in increasing shareholder value) (Fama, 1980). Further, the assumption that shareholders are able to make good managerial judgments may be too optimistic. However, there are other organizational scholars who empirically show that organizational slack is negatively associated with risk taking, thereby supporting agency theory scholars' perspective on organizational slack (Bromiley, 1991; Wiseman & Bromiley, 1996).

Given these competing views on organizational slack, some others try to reconcile them by proposing a curvilinear (or an inverted U-shaped) relationship between organizational slack and innovation (Geiger, 2002; Kim et al., 2008; Nohria & Gulati, 1996). They argue that organizational slack enables innovation only until excessive slack renders organizations too complacent and optimistic to aggressively pursue risky initiatives including innovation. Once the amount of organizational slack exceeds a certain threshold, managers grow increasingly reluctant to innovate as more organizational slack becomes available. The proposed curvilinear relationship is argued to reconcile "slack-as-resources-for-change and slack-as-a-buffer arguments" (Cheng & Kesner, 1997: 5), as discussed above. Although it seems reasonable that we obtain a curvilinear relationship by reconciling organizational scholars' and agency-theory scholars' perspectives, it is not quite clear why the relationship would be an inverted U-shaped one rather than a U-shaped one. In fact, there are some scholars who argue for a U-shaped relationship between organizational slack and risk taking (Wiseman & Catanach, 1997), suggesting the need for further studies.

Another approach used to reconcile competing perspectives on organizational slack is denying the inherent effects of organizational slack; possibly, depending on the contextual characteristics, organizational slack may differentially influence an organization's response to competitive requirements (Cheng & Kesner, 1997). Alternatively, focus may need to be given to the relationship between organizational slack and the degree of managerial discretion, discretion that may be either risk-taking or risk-averse, depending on the degree of environmental threats and opportunities rather than on behaviors adopted as a consequence of varying degrees of managerial discretion (Chattopadhyay et al., 2001).

III. Contingency 1: Exploitative Innovation and Exploratory Innovation

In this manuscript, we propose a contingency perspective to reconcile the mutually contradictory research findings—we consider the possibility that organizational slack differentially influences distinct types of innovation. We particularly focus on the differences between exploitative innovation and exploratory innovation (March, 1991) because the differences between these two types of innovations are most relevant to our argument. Further, some scholars indicate that the effects of organizational slack are different for exploitation and exploration (Voss, Sirdeshmukh, & Voss, 2008).

First, the inconsistent findings from research indicate that organizational slack's influences may be different across distinct types of innovation. Specifically, it is widely understood that when innovating, the choices that might be made in terms of structural design, degree of process formalization, and organizational culture are quite distinct depending on whether exploitative innovation and exploratory innovation is being aimed for (Benner & Tushman, 2002; March, 1991; McGrath, 2001). For example, organizational slack may encourage the adoption of an organizational structure characterized by large staff function, which may enable exploitative innovation at the cost of exploratory innovation. Another possibility is that organizational slack may allow managers to adopt less formalized control mechanisms, thereby inhibiting exploitative innovation but encouraging exploratory innovation. In short, the influences of organizational slack on exploitative innovation and exploratory innovation may not be identical—the influences may even be completely opposite.

Second, organizational slack may encourage managerial discretion (rather than directly influence innovation), but the direction in which managers exercise discretion depends on various factors, including strategy, among others. One of the most widely agreed upon demarcations of innovation strategy is the one between mechanistic organization and organic organization (Burns & Stalker, 1961), with the

former being associated with exploitative innovation and the latter being associated with exploratory innovation (*ibid.*). We argue that organizational slack may enable managerial discretion, which then encourages either exploitative innovation or exploratory innovation.

In this manuscript, we follow March (1991) and others (Benner & Tushman, 2002; Bierly & Chakrabarti, 1996; Crossan, Lane, & White, 1999; Katila & Ahuja, 2002; Puranam, Singh, & Zollo, 2006; Puranam & Srikanth, 2007; Rosenkopf & Nerkar, 2001; Sørensen & Stuart, 2000; Sidhu, Commandeur, & Volberda, 2007; Zhou & Wu, 2010) in defining exploitative innovation and exploratory innovation as alternative modes of organizational learning. More specifically, we define exploitative innovation as the use and refinement of existing knowledge in domains internal to the organization, whereas we define exploratory innovation as the search and pursuit of new knowledge in domains external to the organization.

1. Organizational Slack and Exploitative Innovation

First, we argue that organizational slack is negatively associated with exploitative innovation. We make this argument primarily because increases in organizational slack are associated with being less responsive to competitive changes and feeling less urgency to solve current performance problems (Litschert & Bonham, 1978; Yasai-Ardekani, 1986). It is argued that organizations with more organizational slack may be able to adopt an organizational structure that is “different from that dictated by contextual variables” (Litschert & Bonham, 1978: 216) because organizational slack can be used to “pay the price” of “a relatively loose fit between” (*ibid.*) organizational structure and contextual requirements. Consequently, when a particular organizational structure is selected, managerial discretion, or “value of the dominant coalition” (*ibid.*: 217), plays a more important role than competitive requirements.

More specifically, with more organizational slack, organizations can absorb the costs of inappropriate organizational choices in terms of organizational design, strategic decisions, and operational initiatives. For example, with more recoverable slack, organizations can reduce their bankruptcy risk, as measured by the downside risks of return on equity (ROE) (Reuer & Leiblein, 2000), because profit decreases can be avoided by simply cutting excess costs, or by decreasing organizational slack. Likewise, organizations with more organizational slack grow less responsive to competitive requirements when they perform well, because the potential performance improvements enabled by paying closer attention to competitive environment looks marginal. Organizational slack may also be accumulated during times of favorable performance so that excessive upward adjustment of organizational aspiration may be avoided. Therefore, “slack operates to stabilize the

system in two ways: (1) by absorbing excess resources, it retards upward adjustment of aspirations during relatively good times; (2) by providing a pool of emergency resources, it permits aspirations to be maintained (and achieved) during relatively bad times” (Cyert & March, 1963: 38).

More formally, organizations can keep their attainment discrepancy (Lant, 1992; Levinthal & March, 1981), or the discrepancy between a performance target and achieved performance, at a minimum by adjusting realized performance either by decreasing or by increasing organizational slack. Put differently, organizations with more organizational slack are associated with having smaller and less frequent attainment discrepancies. Consequently, an organization’s search for solutions to a performance problem, or a “problemistic search,” is expected to be less intensive when more organizational slack is available (Cyert & March, 1963: 80).

Problemistic search, or an organizational search characterized by intentional efforts to improve current performance, is one of the most important precursors for finding innovations that closely address performance problems associated with current knowledge. Accordingly, we argue that innovation targeted at improving or modifying existing knowledge utilized for current business (henceforth referred to as exploitative innovation) decreases to the extent that organizational slack increases.

2. Organizational Slack and Exploratory Innovation

On the other hand, we argue that organizational slack is positively associated with exploratory innovation. As discussed above, organizations with more organizational slack are less constrained by current competitive requirements in their strategic as well as operational decisions. Consequently, we argue that organizations insulated from competitive requirements may decrease their efforts in exploitative innovation. Conversely, alleviating pressures from current competition actually enables exploratory innovation (Christensen & Bower, 1996; Cooper & Smith, 1992). As is widely acknowledged, current competitive pressure discourages organizations’ efforts in exploratory innovation because returns from exploratory innovation are uncertain and remote, if any returns are gained at all (March, 1991). Accordingly, organizational slack enables exploratory innovation by buffering organizations from current competitive environments. In short, the effects of organizational slack are asymmetrical between exploitative innovation and exploratory innovation.

More formally, organizational slack allows organizations to satisfice during searches by lowering the threshold for acceptability (Bourgeois, 1981: 36) so that “projects that would not necessarily be approved in a tight budget” are indeed accepted (Cyert & March, 1963: 279). Consequently, “slack provides a source of funds for innovations that would not be approved in the face of scarcity but that

have strong subunit support” (ibid.).

Additionally, experimental projects that would not be justified based on short-term profit potential but that look promising in terms of long-term profit potential can be accepted. Such an experiment or a search that is motivated and enabled by organizational slack is termed “slack search” (Greve, 2003); these searches are distinct from “problemistic search” in that the motivation for a slack search is not associated with addressing a particular performance problem. Instead, slack searches offer the potential to generate future alternatives that are not constrained by current competitive requirements. Consequently, slack searches are expected to be more intensive when more organizational slack is available.

Accordingly, innovations targeted at identifying or generating new knowledge that is beyond the scope of current business (henceforth referred to as exploratory innovation) increase to the extent that organizational slack increases.

IV. Contingency 2: Absorbed Slack and Unabsorbed Slack

In the foregoing discussion, we discuss the distinction between exploitative innovation and exploratory innovation. However, our argument also suggests that these alternative types of innovation are associated with distinct types of organizational slack. Alternative types of organizational slack differ in the extent that organizations are selective in their choice of legitimate slack usage. Here, we are particularly concerned about the distinction between absorbed slack and unabsorbed slack (Singh, 1986).

Absorbed slack is organizational slack that is distributed to particular usage, or “absorbed into the system design as excess costs” (Bourgeois & Singh, 1983: 43). Put differently, organizations are relatively selective in their choice of absorbed slack usage, or are constrained. Examples of absorbed slack include excess inventory, excess machine capacity, and indirect staff. Absorbed slack is nearly the same as recoverable slack (Bourgeois & Singh, 1983), or low-discretion slack (Sharfman, Wolf, Chase, & Tansik, 1988).

On the other hand, unabsorbed slack is an alternative type of organizational slack in which there are excess, liquid, and uncommitted resources in an organization. Unabsorbed slack is also more readily redeployable because it is not assigned to any particular usages (Bourgeois & Singh, 1983; Singh, 1986). Therefore, organizations are less selective in their choice of unabsorbed slack usages. The best examples of unabsorbed slack are cash and marketable securities. Scholars also use available slack (Bourgeois & Singh, 1983), or high-discretion slack (Sharfman et al., 1988) to denote unabsorbed slack. While potential slack (Bromiley, 1991; O’Brien, 2003; Wiseman & Bromiley, 1996) is also a type of

undistributed organizational slack, we exclude it from our consideration because it seems unrealistic to finance innovation by increasing debt.

1. Absorbed Slack and Exploitative Innovation

A straightforward extension of the comparative argument above, on alternative types of organizational slack, allows us to argue that the type of organizational slack most closely associated with exploitative innovation is absorbed slack. We make this argument because problemistic searches, or the precursors to exploitative innovations, are characterized as local searches (Stuart & Podolny, 1996) “in the neighborhood of the problem symptom,” as well as “in the neighborhood of the current alternative” (Cyert & March, 1963: 121).

Such local searches are conducted most effectively by those who experience the performance problem most directly (Cyert & March, 1963: 122). For example, the problem of failing to meet sales targets would be most effectively addressed by the sales department, whereas failing to achieve yield targets would be most effectively addressed by the manufacturing department.

It is quite natural to assume that those who experience performance problems most directly will try to address their problems with the resources within their discretion, or with absorbed slack. Therefore, we argue that the degree of available absorbed slack is negatively associated with focal slack owners' efforts to address attainment discrepancies by way of exploitative innovation.

Several empirical studies show that organizations with more absorbed slack are less willing to assume risks associated with innovation. For example, “managers from firms with low levels of recoverable slack placed less weight on perceived threats when making governance mode decisions than managers from organizations with high levels of recoverable slack” (Steensma & Corley, 2001: 287). Such a low tolerance for risk taking may be a consequence of internally oriented resource allocation patterns associated with recoverable slack (Cheng & Kesner, 1997). In fact, some argue that internally orientated allocation patterns result in managerial perquisites. For example, increases in recoverable slack are negatively associated with political behavior among top management teams, while increases in available slack are irrelevant (Bourgeois & Singh, 1983). These findings indicate that increases in recoverable slack are spent as perquisites to resolve conflicts among managerial coalitions rather than as investments in organizational competitiveness. In fact, Wiseman and Catanach (1997: 804) characterize recoverable slack as being “closest to reflecting the concept of ‘X-efficiency’,” which is the discrepancy between current and maximum output given current resources (Leibenstein, 1969).

Therefore, we offer our first proposition on the relationship between absorbed slack and exploitative innovation.

Proposition 1. Absorbed slack is negatively associated with exploitative innovation.

2. Unabsorbed Slack and Exploratory Innovation

While problemistic searches are concerned about current performance shortfall, slack searches (Greve, 2003) aim for innovations that satisfy curiosity and further understanding (Cyert & March, 1963). Therefore, slack searches are hardly legitimized by short-term profit opportunities. However, alternative usages of organizational slack are closely scrutinized as to the extent that the slack is explicitly distributed (and thus absorbed) to particular usages. Because of this scrutinizing, some authors contend it is “unlikely that committed resources can be converted easily into uncommitted resources in a manner that spurs organizational innovation” (Mone, McKinley, & Barker, 1998: 123), implying that unabsorbed slack enables slack searches more effectively than absorbed slack does.

Put differently, absorbed slack is too constrained in its possible usages to enable slack searches, while unabsorbed slack encourages flexible searches for new ideas and knowledge that may not be useful for addressing current business requirements. Because unabsorbed slack can be transformed to absorbed slack at any time, unabsorbed slack also allows organizations to be less responsive to competitive requirements (Smith, Grimm, Gannon, & Chen, 1991). However, when firms with unabsorbed slack choose to respond to competitive requirements, the amount of unabsorbed slack is negatively associated with the likelihood of competitive response imitation (*ibid.*). Smith et al. (1991)’s findings indicate that unabsorbed slack enables organizations to search for non-local knowledge when trying to innovate a variety of response options, including entirely new actions. With unabsorbed slack, organizations insulate themselves from short-term competitive requirements so that they can innovate to radically revise their “technical core” (Thompson, 1967), whereas absorbed slack insulates organizations and allows dismissal of the urgency of incremental adjustments, preserving their “technical core.” The finding that unabsorbed slack is more likely to be accumulated by organizations that adopt externally oriented resource allocation patterns (Cheng & Kesner, 1997) also supports our argument that unabsorbed slack enables organizations to search distant domains.

Therefore, we offer a following proposition on the relationship between unabsorbed slack and exploratory innovation.

Proposition 2. Unabsorbed slack is positively associated with exploratory innovation.

V. Contingency 3: Agency Costs

Although theoretical understanding on differences between absorbed and unabsorbed slack is still limited (Singh, 1986; Wiseman & Catanach, 1997), agency theory represents a promising theoretical perspective with which to evaluate how absorbed slack and unabsorbed slack differ in terms of their influences on managerial risk taking, and thus on subsequent innovation. In the foregoing discussion, we differentiate between absorbed slack and unabsorbed slack by considering internal conflicts among managerial coalitions over the discretionary use of organizational slack. However, we argue that absorbed slack and unabsorbed slack also differ in terms of the degree that managers versus shareholders have external conflicts regarding risk taking.

Compared to shareholders, managers are less willing to pursue risk-seeking initiatives because managers' well-being is closely tied to the fate of their organizations (Fama, 1980). If the failure of high-risk initiatives negatively influences organizational performance, managers may be forced to accept pay cuts, to witness damage to their reputations, or even to lose their jobs. Consequently, managers generally prefer low-risk initiatives over high-risk initiatives (Baysinger, Kosnik, & Turk, 1991; Francis & Smith, 1995; Hill & Snell, 1989). In contrast, shareholders expect managers to increase risk taking because higher risk is associated with higher expected financial return. Unlike managers, shareholders are not concerned about the potential downsides of higher risk, because shareholders can reduce their exposure to financial risks by diversifying their investments (Fama, 1980).

We argue that such conflicts of interest between managers and shareholders are particularly relevant to the usage of absorbed slack, as monitoring the usage of absorbed slack is more difficult than monitoring the usage of unabsorbed slack.

First, it is very difficult for external stakeholders to identify excess costs. In fact, it is difficult for even managers to precisely identify excess portions of total costs. On the other hand, it is relatively easy to identify unabsorbed slack. For example, marketable securities, a typical example of unabsorbed slack, are self-explicit. Second, absorbed slack often represents perquisites for managers, which may be a necessity for managers but is a waste for shareholders. Third, quantifying returns from absorbed slack is very difficult, whereas returns from unabsorbed slack can be quantified relatively easily. These characteristics of absorbed slack pose substantial challenges for shareholders trying to monitor slack. In contrast, as long as unabsorbed slack remains unabsorbed, identifying infringements on shareholder interests is quite difficult because the existence of unabsorbed slack per se does not particularly erode shareholders' interests (although opportunity costs may incur).

The inappropriate usage of unabsorbed slack (i.e., distributing unabsorbed slack to certain usages, including absorbed slack) is what may substantially harm shareholders.

Therefore, we argue that managers avoid risk taking to the extent that monitoring by shareholders is difficult, or that more absorbed slack is available. Put differently, absorbed slack allows managers to avoid risk taking to the extent that shareholders experience difficulty in monitoring usages of absorbed slack. Further, the difficulty of monitoring absorbed slack's usage increases as available absorbed slack increases (Jensen, 1986; Kim et al., 2008). Organizational slack intensifies the agency problem because monitoring organizational slack is difficult to the extent that more slack resource is available for discretionary usages by managers.

1. Absorbed Slack and Exploratory Innovation

Building on the discussion above, we argue that the relationship between absorbed slack and exploratory innovation is predominantly positive, concave downward – the relationship shows the combination of the overall positive trend and the increasingly negative influences of managerial risk avoidance.

In the previous section, we argue that exploratory innovation is most effectively enabled by unabsorbed slack, but this does not necessarily mean that absorbed slack precludes exploratory innovation. Although the usage of absorbed slack is more constrained to specific purposes than unabsorbed slack is, absorbed slack may still allow managers to exercise discretion (limitedly). For example, a manufacturing manager may explore a radically new design for raw materials processing with his or her discretionary budget. In short, absorbed slack may also be associated with positive influences on exploratory innovation, but these positive influences are substantially weaker than unabsorbed slack's influences.

Further, this overall positive trend is under the increasingly negative influences of managerial risk avoidance that are associated with increases in absorbed slack. Particularly in the case of exploratory innovation, managers' interests and shareholders' interests are poorly aligned because exploratory innovation entails higher risk than exploitative innovation. Accordingly, the more the absorbed slack that is available, the more managers are reluctant to bear the risks associated with exploratory innovation.

Therefore, we argue that the relationship between absorbed slack and exploratory innovation is obtained by combining the negative influences of managers' risk avoidance with the positive influences of managerial discretion. We expect that the net results of these offsetting effects is shown by a predominantly positive, concave-downward curve, because the marginal increase in exploratory innovation diminishes as managers grow more risk avoidant as the amount of

absorbed slack grows.

Proposition 3. There is a predominantly positive, concave-downward relationship between absorbed slack and exploratory innovation.

2. Unabsorbed Slack and Exploitative Innovation

We follow a similar argument to develop our fourth proposition on the relationship between unabsorbed slack and exploitative innovation. Specifically, unabsorbed slack buffers organizations from competitive requirements, albeit less effectively than absorbed slack does, because unabsorbed slack may not necessarily be used to address attainment discrepancy as was discussed above. Accordingly, we argue that there is a negative relationship between unabsorbed slack and exploitative innovation, but the relationship is less explicit than in the case of the negative relationship between absorbed slack and exploitative innovation.

As for unabsorbed slack's effects on allowing managers to avoid risks, we argue that the influence of more effective monitoring by shareholders, which is associated with unabsorbed slack, is marginal because exploitative innovation may not be closely associated with risk taking. Consequently, the positive effects associated with more effective shareholder monitoring would not be strong enough to offset negative effects of buffering.

Therefore, we argue that the relationship between unabsorbed slack and exploitative innovation is marginally negative. Our final proposition is stated as follows.

Proposition 4. Unabsorbed slack is associated with exploitative innovation in a marginally negative manner.

VI. Discussion

In this concluding section, we discuss our contributions. First, we have reconciled mutually contradictory prior findings on organizational slack by proposing a contingency perspective on the relationship between organizational slack and innovation.

Building upon prior research on organizational slack, organizational searches, innovation, and agency costs, we suggest that it may not be accurate to argue that organizational slack directly encourages or discourages particular behaviors. Alternatively, we argue that contextual characteristics – including search modes, an organization's degree of selectiveness in its choice of legitimate slack usages, and the extent to which effective shareholder monitoring is ensured – condition how

certain types of innovation are encouraged. These contextual characteristics are closely associated with particular types of organizational slack, which determines the relationship between alternative types of organizational slack and innovation. Accordingly, our argument reconciles the arguments of prior works that suggest a direct (either positive or negative) relationship exists between organizational slack and innovation and the arguments of more recent works that suggest that organizational slack has a moderating effect.

The proposed contingency perspective allows us to argue for differential influences of organizational slack on innovation, by taking into account the asymmetry of organizational slack's buffering effects. Organizational slack buffers organizations from environmental changes, which then influences exploitative innovation and exploratory innovation differentially. Buffered organizations are less likely to try to improve performance by way of exploitative innovation. However, the same buffer provides organizations the flexibility for managers to shift their attentions from current viability toward future viability (Levinthal & March, 1993). Put differently, organizational slack adjusts the balance between managers' short-term perspective and long-term perspective. The arguments by agency-theory scholars and organization-theory scholars are not mutually contradictory but are concerned with different but related ideas (Tan & Peng, 2003). Accordingly, our contingency perspective also reconciles "slack-as-resources-for-change and slack-as-a-buffer arguments" (Cheng & Kesner, 1997: 5).

Additionally, our argument reconciles the competing perspectives on organizational slack given by behavioral theory and agency theory. Organizational scholars argue for a positive relationship between organizational slack and innovation, while agency-theory scholars argue for a negative relationship. Neither theory is without its drawbacks; behavioral theory focuses on only internal conflicts among managerial coalitions, while agency theory excessively simplifies by neglecting internal conflicts in order to focus on external conflicts between managers and shareholders. As we have shown above, agency theory complements behavioral theory because the former describes one aspect of managerial behaviors. In reality, organizations suffer some mixture of both internal and external conflicts, which inevitably influences the relationship between organizational slack and innovation.

Given that alternative types of organizational slack are associated with different degrees of agency costs, several measures to reduce agency costs – including managerial stock holding (Agrawal & Gershon, 1987; Eisenhardt, 1989; Jensen & Meckling, 1976; Walkling & Long, 1984) and stock concentration (Baysinger et al., 1991; Francis & Smith, 1995; Hill & Snell, 1989) – may moderate the relationship between organizational slack and innovation by reducing differences between

absorbed slack's and unabsorbed slack's influences on innovation. This topic may provide an interesting direction for future research.

Another straightforward avenue to extend our argument would be to examine the relationship between organizational slack and risk taking. By differentiating the degree of risks involved, it is expected that we would gain consistent findings on the relationship between slack and risk taking. On the other hand, the relationship between slack and organizational performance requires more careful consideration; whether exploitative innovation and exploratory innovation enable favorable performance depends on a wide variety of contextual characteristics, including environmental dynamics, competitive intensity, and organizational size.

Finally, our argument theorizes about the differences between absorbed slack and unabsorbed slack by taking account the differential degree of difficulties associated with monitoring by shareholders. Although prior research shows that "unabsorbed slack plays a role different from absorbed slack in risk taking" (Singh, 1986: 580), "there is no theoretical foundation for distinguishing between them or their effects on risk" (Wiseman & Catanach, 1997: 804). For example, some research indicates that the effects of high-discretion slack (unabsorbed slack) are more insightfully explained by organization theory, whereas the observed effects of low-discretion slack (absorbed slack) more strongly support agency theory (George, 2005; Tan & Peng, 2003), but "an a priori theory about the differential effects of the two slack components is lacking" (Singh, 1986: 567).

We argue that absorbed slack is associated with more substantial monitoring challenges for shareholders than unabsorbed slack is. This argument is a straightforward extension of the differences between slack in terms of associated managerial discretion. Monitoring appropriate usages of organizational slack is challenging for external stakeholders (including shareholders) to the extent that constraints placed on the usage of organizational slack is idiosyncratic to organizational contexts. Without understanding such idiosyncratic contexts, it is very difficult to judge whether focal slack is appropriately used or not. Monitoring the usages of absorbed slack is more challenging for shareholders to the extent that absorbed slack is distributed to particular idiosyncratic usages, while unabsorbed slack is not constrained by such idiosyncrasy. Differentiating between absorbed slack and unabsorbed slack is theoretically meaningful because unabsorbed slack can be converted to absorbed slack relatively easily, but this change is essentially irreversible. Such differences are also important because organizations' efforts on innovation can be maintained to the extent that effective shareholder monitoring is ensured.

It seems to be very difficult to identify organizations with no organizational slack. Further, organizational slack influences various aspects of organizational

phenomena, including coalition building (Cyert & March, 1963), political behaviors (Bourgeois & Singh, 1983), risk taking (Bromiley, 1991; Singh, 1986), competitive responses (Smith et al., 1991; Thompson, 1967), and profitability (George, 2005; Tan & Peng, 2003; Wang, Sun, Yu, & Zhang, 2013). However, understating of organizational slack is still limited, fragmented, and confused. We hope our arguments stimulate further discussion on this interesting construct.

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