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### Reeling in the slack: An integrative review to reinstate slack as a central theoretical construct for management research

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**REELING IN THE SLACK:  
AN INTEGRATIVE REVIEW TO REINSTATE SLACK AS A CENTRAL  
THEORETICAL CONSTRUCT FOR MANAGEMENT RESEARCH**

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# **Reeling in the Slack: An Integrative Review to Reinstate Slack as a Central Theoretical Construct for Management Research**

## **Abstract**

Slack is a prominent construct in management research, shown to be relevant for a wide range of phenomena. Yet, despite slack's prominence and breadth of application, our review reveals a lack of clarity and consistency in the categorization, theorizing, and measurement of various types and forms of slack. This has led to differences in the characterization and treatment of seemingly identical kinds of slack, which prevents the full exploitation of the conceptual depth of the slack construct and thus the creation of robust knowledge about slack resources. Based on a review of 229 studies which explicitly theorized about slack, we identify two fundamental dimensions of the slack construct—*availability* and *fungibility*—that allow us to: (1) systematize and integrate past research about slack and its implications for organizations; (2) enrich and expand theorizing on slack by advancing a novel typology for understanding slack resourcing decisions and orchestration in organizations; and (3) reinvigorate and open new directions for future research on slack.

The concept of *slack*—defined as “potentially utilizable resources that can be diverted or redeployed for the achievement of organizational goals” (George, 2005 : 661)—has been a mainstay in management research for half a century and continues to be widely used. Given the range that is implied by this definition, such resources can be used by managers in multiple and often contrasting ways. For instance, excess resources can be used as a buffer to protect the organization from external shocks (e.g., Bromiley, 1991; Thompson, 1967), but can also serve as inducements to engage in both exploratory and exploitative growth strategies (Mishina, Pollock, & Porac, 2004; Nohria & Gulati, 1996). Similarly, resources that are currently committed can be reallocated to pursue the development of new capabilities, the personal goals of self-interested managers, or to maintain coalitions (Bourgeois & Singh, 1983; Cyert & March, 1963; March & Simon, 1958). This breadth of slack’s implications makes the construct central to major organizational theories, such as the behavioral theory of the firm, the resource-based view, and agency theory, as well as of broad practical relevance.

Despite slack’s extensive theoretical and practical appeal, however, our review suggests that slack might be at risk of becoming an amorphous concept that is shaped more by empirical considerations than theoretical investigations. This is reflected in at least two ways. First, many studies construe slack in a vague, generic manner, and do not elucidate the underlying characteristics of the slack resource under consideration. This is problematic, because the assumptions and arguments that link slack to organizational actions and outcomes have been shown to vary depending on the underlying characteristics of the slack resource (e.g., Mishina et al., 2004; Voss, Sirdeshmukh, & Voss, 2008). Indeed, studies that examine specific types (e.g., absorbed, unabsorbed) or forms (e.g., financial, human resource) of slack reveal important differences in the implications of these different kinds of slack for organizations. For instance, managers are generally more constrained in their ability to redeploy human resource (HR) slack as compared to financial slack, since the latter is highly fungible and can be easily

redeployed to pursue alternate goals (Kim & Bettis, 2014).

Second, as a consequence of slack's vague treatment, the studies that do specify the type and/or form of slack they examine, and use these designations as a basis for theorizing the underlying characteristics of slack, do so inconsistently. As a result, mixed findings are reported for slack that appears to be of the same kind. For example, while some studies state that HR slack is "largely path-dependent and context-embedded and is tightly tied up with current organizational arrangements" (Wang, Choi, Wang, & Dong, 2016: 506), others suggest that "HR slack serves multiple purposes in organizations pursuing strategic change" (Bentley & Kehoe, 2020: 187). Such inconsistencies point to the absence of a common theoretical foundation to the slack construct, which impedes careful theorizing and fruitful dialogue across studies. Left to follow the natural evolution of this trajectory, slack might drift toward a hollow, catchall term for 'any and all' kinds of excess resources with no clear theoretical foundation.

To avert such an eventuality and reinstate slack as a central construct for management scholars, we develop an integrative typology that consolidates prior research about slack and provides a systematic basis to theorize its organizational implications. We inductively derive our typology from a review of 229 studies, 207 being empirical, through which we identify *availability* and *fungibility* as fundamental conceptual dimensions of slack. While these dimensions are not new, their ambiguous application has prevented consistency across studies. We provide clarity to these dimensions, and in doing so offer a revised theoretical foundation to the slack construct that allows us to integrate and synthesize prior theorizing on slack. Availability captures the degree to which a resource can be independently accessed by an organizational actor and relates to its ease of recovery due to being (un)absorbed in the firm's operations or external to the firm (Bourgeois & Singh, 1983). Fungibility captures the degree to which a resource "can be applied to multiple ends interchangeably" (Mishina et al., 2004: 1183) and covers implications relating to its range of potential uses. We then propose a

typology, based on the four categories that result from an idealized consideration of high and low levels of these two dimensions, to arrive at four characteristic profiles of slack that vary in their constraints, depicted in Figure 1. We use this typology to appraise the literature in terms of how these different kinds of slack can have divergent implications for organizations due the discretion they afford managers and the strategies that they enable.

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Insert Figure 1 about here  
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Our review contributes to the literature in three ways. First, our typology provides researchers with a source to clarify, compare, and contrast the entire range of arguments and findings on slack, as well as highlights the mechanisms that have been invoked in the literature when theorizing about the implications of slack. Specifically, we identify *availability* and *fungibility* as fundamental dimensions that provide a revised theoretical foundation to the construct and uncover four kinds of slack with distinct characteristic profiles. We demonstrate how this revised foundation resolves previous inconsistencies and reveals commonalities across studies that are unaccounted for in previous attempts to systematize insights (e.g., Stan, Peng, & Bruton, 2014; Voss et al., 2008). Second, by surveying the literature through the lens of the four profiles of slack in our typology, we identify some patterns of managerial discretion and resourcing that provide a novel understanding of slack’s implications for organizations. We find that there is a significant imbalance in the distribution of studies across the four kinds of slack that comprise our typology, which represent important avenues for future research to explore. For example, we point to the importance of research on the implications of slack that is characterized by low availability and requires more managerial effort and time to redeploy (Vanacker, Collewaert, & Zahra, 2017), which remains a scarcely researched area. Finally, we propose a renewed program for future research on the implications of slack that emphasizes important individual-, organizational-, environmental-, and cross-level boundary conditions,

and suggest how these can be investigated at the nexus of different theoretical perspectives.

## **METHOD**

Following previous studies (e.g., Chuah, DesJardine, Goranova, & Henisz, 2023; Cooper, Cohen, Huppert, Levine, & Fleeson, 2023; Lazar, Miron-Spektor, Agarwal, Erez, Goldfarb, & Chen, 2020; Tranfield, Denyer, & Smart, 2003), we adopted a three-stage approach to conduct our review. These stages comprised: (1) formulation of the review strategy; (2) article search and selection; and (3) coding of selected articles.

In the first stage, we focused our review on slack in management and organization research. This refers to studies that investigated slack at the organizational-level or the organizational unit level. To identify relevant studies, we planned to search in the Web of Science (WOS) database across a set of 26 management and organization journals, which consisted of seven journals in the University of Texas at Dallas (UTD) list, ten journals in the Financial Times (FT) list, and nine journals that are not included in these lists but which publish research on similar management and organization topics, including on organizational slack. Because some in-press articles that are available online and some older articles might not be indexed by the WOS, we also planned to search the websites of these 26 journals to gather relevant articles that are not captured in the WOS search. Finally, we planned to execute an additional search of the WOS to identify highly-cited articles on slack published outside of the above journals.

In the second stage, we executed our search for articles in the WOS based on a query formulated in the first stage. After downloading all the matching articles, we filtered them based on two criteria. First, slack needed to be used in the paper's theorizing or featured as a construct in the hypotheses. Second, slack needed to be studied at the organizational or organizational unit level of analysis. We identified 229 articles that fit these criteria.

In the third stage, we coded information for each article related to themes in our review (e.g., slack type, slack form, definition, theoretical lens, and use of slack in the extant literature).

Figure 2 summarizes these three stages, which are detailed further in the online Appendix 1, including information about how the papers were coded to ensure consistency and accuracy. Online Appendices 2 through 11 present the information we coded from the articles in our sample, and online Appendix 12 lists all the articles in our review sample.

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Insert Figure 2 about here  
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## **ORGANIZATIONAL SLACK: A HISTORY AND DEFINITION**

We start our review by providing a brief history of the slack construct and highlighting differences in the evolution of slack that has led to the conceptual entanglement of resource availability and fungibility along a single dimension. We then document the different definitions of slack that have emerged in the literature, largely due to this conceptual unclarity. Finally, we propose a revised definition of slack that bridges the differences in the conceptualization that we identify. Establishing a shared definition is the first step towards reinstating slack as a central construct in management research.

### **A History of the Slack Construct**

Slack is generally understood to mean an organization's resources that are in excess of what it needs for daily operations. While the idea that excess organizational resources can facilitate adaptation has been discussed in early organization research (e.g., Penrose, 1959), slack was first treated as a key construct within a broader theory of organizational decision-making by Cyert and March (1963), who proposed that slack performs two roles. First, slack protects organizations from environmental fluctuations by acting as a buffer against internal and external pressures. While firms without slack might still manage to weather disruption from internal conflicts and environmental changes, slack provides firms with the means to address conflicts and adapt to changing environments without compromising their ongoing operations. Second, slack reduces goal conflicts between organizational subunits and lowers



the acceptance criteria for subunit proposals for action, thus enabling the exploration of risky projects with no immediate returns but potential long-term rewards for the organization. These roles of slack provide the foundation for most of the theorizing on slack by subsequent studies.

In this early conceptualization, slack is characterized as a unitary construct, encompassing all organizational resources that exceed the necessities of routine operations. A refinement of the construct was developed by Bourgeois and Singh (1983: 43), who proposed a decomposition of slack into three conceptually distinct types, namely “(readily) available, recoverable (with some effort), and potential slack” that may be accessed from the external environment. These different *types* of slack represent a decreasing order of the ease with which a slack resource can be recovered for potential use (i.e., its availability for ready deployment). This revision of the construct expanded the scope of slack to include not only resources that are surplus to requirements (i.e., excess) but also resources that can be recovered from current operations and redirected to other uses. Singh (1986) subsequently suggested another conceptualization of slack that is based on differences in availability, albeit without elaborating on the need for this different classification, consisting of absorbed slack, which refers to absorbed costs and largely corresponds to recoverable slack, and unabsorbed slack, which refers to uncommitted liquid resources and largely corresponds to available slack.

Despite these early insights on the differences between types of slack that vary in their availability due to ease of accessing the resources, by and large, this important distinction has not been leveraged theoretically. For example, while Singh (1986) suggested a re-conceptualization of slack consisting of absorbed and unabsorbed slack, this distinction is not carried over to the logic used in theorizing about the effect of slack on the outcome of organizational risk taking. Although the study reiterates the need for such a distinction when reflecting on the finding that absorbed slack affected organizational risk taking while unabsorbed slack did not, specific theoretical mechanisms driving these distinct effects were

not developed. The nuances between different types of slack are also largely overlooked by the subsequent literature, which continued to treat slack as a unitary construct in one the following three ways (Appendix 13 provides details about the studies that are cited next). First, many studies do not distinguish between the different types of slack theoretically or empirically (e.g., Arrfelt, Wiseman, & Hult, 2013; Shi, Connelly, & Cirik, 2018). Second, some studies do not theoretically distinguish between different types of slack but introduce a distinction empirically by using different measures (e.g., Bromiley, 1991; Iyer & Miller, 2008). Third, some studies acknowledge the differences between the types of slack both theoretically and empirically but do not leverage these differences when formulating their predictions about slack (e.g., Singh, 1986; Greve, 2003, 2007).

Another conceptualization of slack was introduced by Sharfman Wolf, Chase, and Tansik (1988), who proposed a classification based on different *forms* of slack that capture the resources' degree of flexibility to be used across a variety of situations (i.e., their fungibility). This consisted of two categories: namely high discretion slack, which refers to resources that can be applied to a wide variety of situations (e.g., cash); and low discretion slack, which refers to resources that can be applied to only a few specific situations (e.g., specialized machine capacity). Despite making such a distinction between different forms of slack, this study equates the fungibility dimension that it introduces to the availability dimension proposed by earlier studies (e.g., Bourgeois & Singh, 1983; Singh, 1986). Specifically, the authors state that, “the anchors of this dimension also resemble the Bourgeois and Singh (1983) ideas of potential (high discretion) and absorbed (low discretion) slack” (Sharfman et al., 1988: 602). As a result, later studies that have adopted the term ‘discretion’ to describe different forms of slack (e.g., George, 2005; Simsek, Veiga, & Lubatkin, 2007) have tended to use a single dimension to discuss its fungibility and availability, which has caused imprecision and inconsistencies in the literature. A summary of slack’s conceptual evolution is provided in Table 1.

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Insert Table 1 about here  
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Although a wide range of theoretical perspectives are used in studies on slack (e.g., we identified 17 theoretical perspectives that have been used in at least two papers in our review), the most frequently used are the behavioral theory of the firm (BTOF), the resource-based view (RBV), and agency theory. Out of the 229 papers in our review, 41% used at least one of these perspectives. Invoking the buffering and experimentation-enabling roles of slack, most of the studies we reviewed theorized a positive effect of slack on organizational outcomes, including innovation (Greve, 2003; 2007), corporate social responsibility (Kang, Germann, & Grewal, 2016), internationalization (Chang & Rhee, 2011), exploratory interfirm relationships (Kavusan & Frankort, 2019), and performance (Carnes, Xu, Sirmon, & Karadag, 2019; George, 2005), among others.

Besides this positive view of slack, more critical views on how slack affects firm behaviors and outcomes have also been developed. First, building on the ideas of Cyert and March (1963) that slack lowers the acceptance criteria for organizational actions, Bourgeois (1981) suggested that slack can also trigger complacency and suboptimal choices, instead of exploration and experimentation. This idea is developed by several subsequent studies which argue that, while some level of slack can facilitate experimentation, too much is likely to induce complacency (Nohria & Gulati, 1996), leading to predictions of curvilinear effects of slack on outcomes including firm performance (George, 2005; Tan & Peng, 2003) and innovation (Suzuki, 2018). Second, drawing on agency theory, some studies suggest that having access to excess resources enables managers to pursue their personal goals, which often come at the expense of organizational goals, ultimately leading to negative outcomes for the firm (Jensen & Meckling, 1976). Out of the 26 studies that invoked agency theory in their theorizing on slack either as an independent or moderator variable, only 18 ultimately theorized negative

effects about slack on organizational behaviors and outcomes such as performance (Wan & Yiu, 2009) and risk taking (Lim, 2017).

While the BTOF, RBV, and agency theory have been the dominant theoretical perspectives used to study slack, our review also revealed that the evolving approaches in how management scholars have been studying organizations is partly reflected in more recent research on slack. For example, aligned with the growing emphasis in management research on non-financial performance, such as that relating to environmental and social factors, slack has been increasingly examined—whether explicitly or implicitly—from a stakeholder theory perspective from 2010 onwards. While we could identify only two papers of this kind published between 1981 and 2010 (Alvarez-Gil, Berrone, Husillos, & Lado, 2007; Wu, 2008), comprising 2.4% of the papers in our review during this period, seven such papers were published between 2011 and 2023, accounting for 4.8% of the papers in this more recent period. We anticipate that studies on slack will continue to be informed by the evolving approaches to studying organizations, as we discuss in the future research section.

### **Definition of Slack**

The differences in the conceptualization and interpretation of slack over time have led to the emergence of various working definitions of the construct. Slack was first coined in Cyert and March's (1963: 36) seminal work, *A Behavioural Theory of the Firm*, where they defined organizational slack as the difference between a firm's total resources and the payments required to members of the coalition within an organization to ensure their participation. Out of the 162 papers in our review that provide a definition of slack, 23% (37 papers) used Cyert and March (1963) as a source (e.g., Iyer & Miller, 2008; Titus, O'Brien, & Dixit, 2022; Xu, Yang, Quan, & Lu, 2015). Building on this original definition, later studies offered alternative definitions that: (a) extended the scope of slack to accommodate both excess and potential resources; and (b) incorporated the implications of slack (further) into the definition by

emphasizing the role of excess resources in protecting the firm from internal and external pressures and enabling experimentation. Specifically, Bourgeois (1981) suggested a comprehensive measure for the slack construct using financial ratios and, to substantiate their proposed measurement, developed a conceptual grounding for the construct. In this grounding, they state:

“Organizational slack is that 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)

This is the most frequently cited definition of slack used in the literature, with 28% of the studies (45 papers) using it as a source. Taking the extended scope of slack to include potential resources a step further, subsequent studies offered specific definitions based on the resources' degree of availability. For instance, Bourgeois and Singh (1983) defined available slack as resources that are not structurally integrated into an organization's operations, recoverable slack as resources that have already been absorbed into an organization's operations as excessive costs but could possibly be reclaimed, and potential slack as resources the firm may be able to access from the external environment. Similarly, Singh (1986) defined unabsorbed slack as uncommitted excess liquid resources and absorbed slack as excess costs within an organization. These two definitions are cited by 7% of studies (two and nine papers, respectively) as a theoretical source to define different types of slack (e.g., Kim, Kim, & Lee, 2008; Tang, Qian, Chen, & Shen, 2015), but are cited more frequently as sources to support the use of different empirical measures of slack (by 19% of the studies that included a measure of slack, i.e., 35 out of 180 papers). We see this disparity as aligned with our observation highlighted above (and further detailed in Appendix 13) that some studies recognize the multidimensionality of the slack construct empirically without reflecting this in their theorizing.

In addition to these definitions, Nohria and Gulati (1996: 1246) emphasized the complacency-inducing role of slack and defined the construct as “the pool of resources in an organization that is in excess of the minimum necessary to produce a given level of organizational output.” They position surplus slack resources as a source of inefficiency “synonymous with waste and as a reflection of managerial self-interest, incompetence, and sloth” that is subject to agency costs (Nohria & Gulati, 1996: 1248). Of the studies in our review that provide a definition of slack, 14% (22 papers) used this definition (e.g., Berk & Kase, 2010; Ploeg, Knobens, & Vermeulen, 2022). Finally, 11% of the studies (18 papers) that provided a definition used the more recent one proposed by George (2005: 661), which captures slack more broadly as “potentially utilizable resources that can be diverted or redeployed for the achievement of organizational goals.” The remaining papers in our review sample that had references to define slack (excluding the 40% of studies, i.e., 91 papers, that did not explicitly provide a reference for the definition of slack they use) used a combination of different sources.

In its conceptual evolution, slack has been defined in slightly different ways, possibly bounded by the theoretical context in which it was invoked—slack as excess and or potential resources (Bourgeois & Singh, 1983; Singh 1986; George, 2005), waste that can be used by self-interested managers to pursue personal goals (Nohria & Gulati, 1996), and a buffer to protect the organization and stimulate strategic change (Bourgeois, 1981; Cyert & March, 1963). To bridge these nuances and to avoid specific-theory-bounded definitions, we adopt the recent, widely-used definition proposed by George (2005). Specifically, we define slack as *potentially utilizable resources that can be diverted or redeployed to pursue the goals of one or more organizational actors*. While remaining theory-neutral, this definition allows for differences in the types and forms of slack, as aligned to its availability and fungibility, and the goals that direct its application, which can encompass an individual member, as well as of subunit(s), and the organization itself, or, depending on their alignment, a combination of these

actors.

## **AN INTEGRATED TYPOLOGY FOR THEORIZING (WHAT) SLACK (DOES)**

Based on our review, we propose a renewed theoretical foundation to the slack construct built on two conceptually orthogonal dimensions—availability and fungibility—that we identify from the extant literature. We demonstrate how a typology that is based on these dimensions provides a basis to integrate and systematize currently fragmented insights across studies. To do so, we start by providing evidence of the need for a revised theoretical foundation for the slack construct by detailing problems and inconsistencies that have resulted from the entanglement of availability and fungibility in prior work.

### **Evidence of the Need for a Revised Theoretical Foundation**

Our review revealed that most of the research on slack has been devoted to understanding its implications and examined its role as an explanatory variable. Such studies account for 56% of our sample of 229 papers, and include a combination of conceptual (e.g., Gary, 2005; Pitelis, 2007), qualitative (e.g. Dolmans, Burg, Reymen, & Romme, 2014; Meyer, 1982), and quantitative (e.g., Julian & Ofori-Dankwa, 2013; Karim, Lee, & Hoehn-Weiss, 2023) papers (for further details, please see Appendix 6) that examine how slack enables or constrains various firm actions and outcomes.<sup>1</sup> This focus is not surprising given that the definition of slack that is most frequently cited in the literature, i.e., Bourgeois (1981), emphasizes the role of slack as a facilitating construct that allows the organization to adapt to external change and initiate internal change. Given the clear tendency in the literature to examine slack as an explanatory variable (rather than as an outcome), we focus on clarifying

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<sup>1</sup> For conceptual and qualitative papers, and other studies that might not use the term ‘explanatory variable’ to describe how they examine slack, we nevertheless used this label in cases where slack was antecedent to some other phenomenon. While necessarily imprecise, this classification allows us to capture the range of ways, and the extent, in which slack has been used as an explanatory variable across studies that utilize different approaches. The quantitative papers in our sample included studies where slack was used as an independent (60%), moderator (34%), mediating (1%), or control (5%) variable.

the implications of slack in our effort to systematize the literature. Indeed, even the small number of studies that focus on slack as an outcome variable and examine how it is cultivated (8 papers) still tend to offer some arguments about the implications and role of slack to justify the importance of studying the construct as an outcome (e.g., Kannan-Narasimhan, 2014; Leuridan & Benoit, 2022).

In our review, 38% (87 papers) of studies do not specify or theorize the distinguishing characteristics of the slack resource under consideration and instead treat slack as a unitary construct. Even though these studies invoke a diverse array of arguments about slack that indicates its benefits as a buffer to protect the organization from internal and external shocks or as an inducement to pursue a wider range of strategies, they do not link these to—or derive them from—differences in the underlying characteristics of slack that they examine. Indeed, this vague construal of slack that prevails in the literature is reflected in the use of generic labels when theorizing about its implications, such as excess resources (Bansal, 2003), slack search (Reb, Feldman, Iyer, & Shapira, 2021; Ren, Mulotte, Dussauge, & Anand, 2022), organization slack (Pitelis, 2007), and slack (Arrfelt et al., 2013; Tang, Nadkarni, Wei, & Zhang, 2021). Not being clear about the distinguishing characteristics of the slack resource that is examined in a study makes it a challenge to build knowledge about the mechanisms that link different kinds of slack to the respective organizational actions and strategies that are deployed. As Sharfman and colleagues (1988: 602) state, different kinds “of slack resources give managers greater or lesser degrees of discretion and flexibility in their approach to reducing internal or external pressures.”

Although most studies do not theorize the distinguishing characteristics of slack they investigate, those studies that have done so tend to invoke arguments that are aligned to either the type (40%, 91 papers) or form (33%, 76 papers) of slack, which generally provide information about a resource’s availability and fungibility, respectively. For instance, early



studies differentiated between types of slack based on ease of recovery, which, as we have previously highlighted, Bourgeois and Singh (1983: 43) conceptualize into the categories of available, recoverable, and potential slack. In theorizing the implications of different types of slack that vary in their availability, other scholars have used terms such as absorbed and unabsorbed (Greve, 2007; Love & Nohria, 2005; Singh, 1986), abundant (Iyer & Miller, 2008), and discretionary slack (George, 2005; Sharfman et al., 1988). However, studies that use such terms to refer to types of slack that vary in their availability often conflate the type of slack with the form of slack (e.g., financial and HR slack). For example, Paeleman and Vanacker (2015: 822) state that “HR slack represents absorbed slack, which consists of resources that are highly idiosyncratic to context and more difficult to deploy.” Similarly, Voss and colleagues state that “the unabsorbed nature of financial slack also implies a lack of structural constraints; it can be readily allocated to a range of exploration activities” (2008: 149). These positions contrast with arguments in studies that emphasize differences in the availability of slack that is of the same form. For instance, financial slack can be unabsorbed in the form of cash or financial instruments (Deb, David, & O’Brien, 2017; Greve, 2003) but also absorbed in the form of debt (George, 2005; O’Brien, 2003).

In addition, studies that invoke arguments that are aligned to the form of slack have theorized and reported different implications for slack that is seemingly identical. For example, while several studies argue that HR slack is ‘sticky’ and can be redeployed to only a narrow range of potential uses due to its specialized nature (e.g., Mishina et al., 2004; Malen & Vaaler, 2017), others suggest that HR slack can also be more generic and offer managers flexibility in its redeployment to a range of potential uses (e.g., Bentley & Kehoe, 2020; Danneels, 2008; Lecunona & Reitzig, 2014). We see similar discrepancies in the assumptions about the deployment of financial slack, which is positioned as being highly flexible for managers when it is in the form of cash but inflexible in its range of uses when in the form of debt (George,

2005). Accordingly, not being clear about the differences and assumptions relating to both the type and form of slack has led to inconsistencies in the literature and a proliferation of labels for slack (see Appendix 7), which has “obfuscated the consistency across studies” (Carnes et al., 2019: 58).

The issues we have documented in this section point to the lack of a shared theoretical foundation for the slack construct. In particular, there is a need to disentangle slack type from slack form, and to treat these as conceptually orthogonal. We suggest that this can be done by aligning them to the dimensions of availability and fungibility, respectively. While there have been prior attempts to dimensionalize the characteristics of slack according to type- or form-based designations (e.g., Bourgeois & Singh, 1983; Sharfman et al., 1988; Stan, Peng, & Bruton, 2014; Voss et al., 2008), these studies have tended to conceptualize slack using a single dimension, to not be clear about their assumptions regarding the dimension they do not focus on, or to inadvertently conflate these dimensions.

With these in mind, we propose a way to systematize and integrate the extant literature on the various types and forms of slack by clearly separating availability and fungibility as two distinct conceptual dimensions. Type-based designations that have been used in the literature, e.g., unabsorbed slack, potential slack, can be subsumed under the availability dimension, which captures the degree to which a resource can be independently accessed by a given organizational actor. Form-based designations that have been used in the literature, e.g., financial slack, HR slack, can be subsumed under the fungibility dimension, which captures the degree to which a resource can be applied to alternative uses. These dimensions form the basis of our integrative typology. In this typology, we identify four characteristic profiles of slack that result from a consideration of high and low levels of each dimension. Consistent use of these dimensions in theorizing about slack, as well as being clear about the associated mechanisms for a given dimension and the level of that dimension, will increase

commensurability across studies and help reinstate slack as a central construct in management research. Next, we elaborate on these two dimensions and the assumptions that are made in relation to them in studies' theorizing about the implications of slack. We also provide quotes from the papers in our review to illustrate when slack is either implicitly assumed, or explicitly argued, to be high or low in each dimension (additional quotes appear in Appendix 14).

### **Availability**

The dimension of availability is grounded in early work that sought to differentiate between different types of slack based on the “ease or quickness with which the slack resource could be recovered for potential redeployment” (Bourgeois & Singh, 1983: 43). These types ranged from slack that is characterized by high availability, which refers to resources that are not currently tied up in firm operations and are immediately available for use (Chen & Miller, 2007), to slack that is characterized by low availability, which refers to resources that need to be recovered or redirected from current operations for use elsewhere (Marlin & Geiger, 2015) or obtained from the external environment. Given that these differences in the availability of slack were explicitly defined through the lens of financial slack, subsequent work often used form-based designations, e.g., financial slack or HR slack, to define slack that varied in its availability, which contributed to the conflation of type and form that we highlighted above.

To compound matters, Singh (1986) introduced the term absorption to distinguish between slack that is currently uncommitted versus slack which is committed within the focal firm. Given the internal focus of this distinction, it excluded slack that was potentially available from the external environment. As a result, subsequent studies that have used the notion of absorption to conceptualize availability have often failed to account for potential slack. For instance, Voss et al. (2008: 149) argue that “absorbed resources are tied to current operations.” However, this excludes resources that may be accessed externally from strategic partners or creditors. To provide clarity to this dimension, availability in our typology refers to the degree

to which a resource can be independently accessed by an organizational actor for deployment. For instance, resources that are currently absorbed in the firm's operations or are external to the firm cannot be independently accessed and are subject to negotiation, therefore they are characterized by low availability. To paraphrase Cyert and March (1963: 37), it is only when a firm *possesses* excess resources that they are "not subject to general bargaining."

Most of the papers in our review sample (163 papers) either implicitly, by using a particular definition of slack, or explicitly, by articulating arguments that directly relate to it, invoked the availability of slack when theorizing about its implications for organizations. Within this set, 157 papers focused on slack that was considered high in availability. For the most part, as indicated above, these studies theorized slack as a unitary construct, but used a definition that emphasized slack resources as those that are in excess of what is needed for operational requirements (Chen, 2008; Lin, 2016), that are abundant (Arrfelt et al., 2013), available (Stevens, Moray, Bruneel, & Clarysse, 2015; Wan & Yiu, 2009), or that are qualified by another term that is indicative of high availability. As such, the default assumption in the literature is that 'slack' refers to resources that are readily available for deployment. Indeed, as Karim and colleagues (2023: 12) stated in their investigation of the role of slack in alleviating task bottlenecks:

"Resources 'not used fully in current operations' (Penrose, 1959, p. 67) are unused (i.e., available) resources, or referred to as 'slack' resources: 'Slack is potentially utilizable resources that can be diverted or redeployed for the achievement of organizational goals' (George, 2005, p. 661). In the study of organizations, terms that have been used interchangeably include slack resources, unused resources, excess resources, extra resources, abundant resources, and available resources. The opposite condition of having slack resources is one of scarcity (Cyert & March, 1963)."

Some studies that have distinguished between different types of slack tend to use a specific label to indicate high availability, such as available, unabsorbed, and discretionary

slack, but nevertheless describe such resources in a similar way to the descriptions used in studies that adopt a generic label for slack. For instance, studies put forth that “available slack corresponds to the uncommitted resource(s) readily available to support new initiatives” (Tseng, Tansuhai, Hallagan, & McCullough, 2007: 968) and “unabsorbed (or high discretion) slack refers to firm resources that can be redeployed in a short time, such as cash, cash equivalents, raw material inventory, and marketable securities (Sharfman et al., 1988)” (Ju & Zhao, 2009: 704). Of the 168 papers that invoked the availability of slack when theorizing its implications, only 28 focused on slack that was considered low in availability. These studies tend to theorize a specific type of slack to indicate its low availability, such as resources that are absorbed (Cabral, Iyer, & Miller, 2023; Huang & Chen, 2010), low discretion (Liu, Lin, & Cheng, 2011), or recoverable (Lu, Liu, & Osiyevskyy, 2022), and therefore already utilized in the firm’s current operations, or that are external to the focal firm as potential slack and thus currently unavailable. The difficulties in accessing low availability slack are noted in Marlin and Geiger’s (2015: 2685) study of the relationship between slack and innovation, where they state:

“Moreover, it is argued that recoverable slack in the form of excessive personnel or capital embedded in overhead can be difficult to recoup (Love & Nohria, 2005) and forces such as power and politics can negatively impact the recovery of this type of slack (Herold et al., 2006). [...] With regard to potential slack, the literature suggests that the above arguments do not hold because potential slack is not currently available, the use of it involves future interest expense, and it requires a great deal of scrutiny from principals and agents.”

Other studies that focus on slack that is low in availability have posed similar arguments. For instance, in their meta-analysis of the relationship between slack and firm performance, Daniel and colleagues (2004: 567) state that “by definition, firms cannot immediately employ either recoverable or potential slack to address opportunities or threats.”

## **Fungibility**

The dimension of fungibility was introduced to the slack literature by Sharfman and colleagues (1988) to capture different forms of slack resources that vary in their flexibility to be deployed to alternative uses. These forms ranged from slack that is characterized by high fungibility, which refers to “resources that can be applied to a wide-variety of situations and problems” (Sharma, 2000: 685), to slack that is characterized by low fungibility, which refers to resources that can be used in only a few specific situations. While numerous studies have conceptually entangled fungibility with availability, there are some studies that have isolated this as a single dimension (e.g., Karim et al., 2023; Mishina et al., 2004). Following this work, we use fungibility in our typology to refer to the range of uses over which a resource may be applied. Resources that are more generic, such as cash (Kim & Bettis, 2014) and non-specialized human resources (Bentley & Kehoe, 2020), tend to be high in fungibility and applicable to a variety of situations, whereas resources that are specific, such as specialized staff and machinery (Voss et al., 2008), tend to be low in fungibility and applicable to only a narrow range of situations. As Karim and colleagues (2023: 12) state:

“The latter is referred to as fungibility and is defined as ‘an attribute of a resource that facilitates its application to different organizational and market settings’ (Anand & Singh, 1997, p. 101). Stated differently, fungibility of resources means ‘attributes of the resources that allow or inhibit their deployment for alternative uses’ (Sapienza, Autio, George, & Zahra, 2006). The opposite of resource fungibility is specificity, which ‘narrows the domain of activities over which the resource can be applied’ (Levinthal & Wu, 2010, p. 783).”

In 86 papers in our review sample, we discerned lines of theorizing that touched upon or explicitly invoked arguments about the fungibility of a slack resource. Within this set, most studies (84 papers) focused on slack that was considered highly fungible and emphasized the flexibility of the resource (Kiss, Fernhaber, & McDougall-Covin, 2018) and the diverse range

of uses to which it could be deployed (Amason & Mooney, 2008; Kuusela, Keil, & Maula, 2017). This comprised studies that used a generic label for slack, as well as those that used a specific type- or form-based designation. For instance, De Carolis, Yang, Deed, and Nelling (2009: 150) argue that “slack resources are the stem cells of firms—they can be transformed into whatever resources are necessary to overcome the challenge or damage inflicted by the adverse event.” Studies on financial slack have proposed that “cash is the most easily deployed resource and provides managers the greatest degree of freedom in allocating it to alternate uses” (George, 2005: 666) and “cash is fully fungible” (Kim & Bettis, 2014: 2055). Similarly, in studying the value of different forms of excess human resources, Lecuona and Reitzig (2014: 958) propose that, while human resources with generic skills are less effective at meeting the requirements for firm-specific activities, their general nature makes them broadly applicable:

“This is possible because general knowledge is constructed upon knowledge that is available in the ‘market’ and is not entirely specialized to a particular work setting (Helfat, 1994; Wang, He, and Mahoney, 2009). This type of knowledge is embodied in grammars akin to procedures, machinery, and technologies that are common across communities of practice that far exceed the boundaries of a specific organization (Barley, 1996; Barley and Bechky, 1994; Barley and Orr, 1997; Brown and Duguid, 1991).”

In 31 papers, slack was regarded as being low in fungibility, with an emphasis on the limits of a given slack resource to be deployed to alternative uses (Huang & Chen, 2010), its inflexibility (Stan et al., 2014), or specialized nature (Mishina et al., 2004; Su, Xie, & Li, 2009). For instance, in contrast to the high fungibility of HR slack that has broadly applicable skills, other studies have emphasized the limitations of HR slack that is assumed to be specialized, which “likely constrain the pursuit of opportunities in areas that require different skills” (Vanacker et al., 2017: 1312) and “are highly idiosyncratic to context and more difficult to redeploy” (Paeleman et al., 2017: 771). Similarly, in referring to operational slack in their

investigation of the implications of different forms of slack for innovation in U.S. theaters, Voss and colleagues (2008: 150-151) proposed that:

“Because operational slack is neither difficult to obtain nor unique to a given organization, organizations should not perceive motivational constraints in deploying it. However, because operational slack is absorbed and generally tied to a specific purpose within an organization, it is relatively difficult to reallocate to alternative uses in the near term.”

#### **Four Characteristic Profiles of Slack**

It is clear from the above that availability and fungibility represent distinct, conceptually orthogonal dimensions. The joint consideration of high and low levels of these dimensions yields a typology that comprises four characteristic profiles of slack that vary in the constraints they present (as depicted in Figure 1). This typology allows us to systematize the extant literature and map the various kinds of slack used to date, and reveal the commonalities and differences in the arguments and mechanisms that are linked to these different kinds. The Table in online Appendix 15 provides a mapping of all the papers in our review sample according to our typology. As we elaborate in the sections that follow, a systematic and joint consideration of these two dimensions allows us to be more precise and nuanced when it comes to the implications of different kinds of slack.

Slack that is characterized by high availability and high fungibility in the top-right quadrant of Figure 1 represents what we call *unconstrained slack*. Unconstrained slack can be independently accessed by an organizational actor and applied to a broad range of uses. Our review suggests that the high availability and fungibility of this kind of slack will afford managers maximal discretion for deployment. Indeed, high availability presupposes that such slack is free of structural constraints that limit its access and is ready to be utilized (Karim et al., 2023), and high fungibility means that such slack has broad applicability and can be used by managers to pursue a variety of different strategies and options interchangeably (Mishina et



al., 2004).

In contrast, slack that is characterized by low availability and low fungibility in the bottom-left quadrant represents what we call *constrained slack*. Constrained slack cannot be independently accessed by an organizational actor and can be applied to only a narrow range of uses to which the resource is specialized. The arguments that are used by the studies in our review regarding the low availability and fungibility that characterize this kind of slack suggest that it is the most restricted and offers managers minimal discretion for deployment. Given its low availability, such slack is structurally constrained and not readily accessible due to being internally absorbed in current operations or external to the focal firm (Voss et al., 2008). Thus, its access and potential uses are subject to general bargaining and negotiation by organizational actors who seek it (Marlin & Geiger, 2015). Further, its low fungibility means that it can be deployed to only a narrow range of situations, which limits managers' strategic options.

Slack that is characterized by high availability and low fungibility in the bottom-right quadrant represents what we call *applicability-constrained slack*. While applicability-constrained slack can be independently accessed by an organizational actor and has no structural constraints that make its uses subject to general bargaining and negotiation, the specialized nature of the resource (low fungibility) limits the discretion of managers by constraining the strategic options that they can pursue. Conversely, slack that is characterized by low availability and high fungibility in the top-left quadrant represents what we call *accessibility-constrained slack*. While accessibility-constrained slack is broadly applicable and can be used by managers to pursue a diverse array of strategic options, its low availability means that it is structurally constrained and its access and uses require negotiation.

## **PATTERNS OF THEORIZING ABOUT THE DIFFERENT KINDS OF SLACK REVEALED BY OUR TYPOLOGY**

Having established our typology based on availability and fungibility as two fundamental dimensions, and derived four characteristic profiles of slack, we now survey the

literature through the lens of these four kinds of slack to outline patterns that emerge in the theorizing and findings about slack's implications for organizations. For instance, what are the differences or commonalities across studies with respect to their emphasis on the managerial discretion to deploy kinds of slack that vary in their constraints? Do studies link these different kinds of slack to specific modes of organizational action and the resourcing strategies that are employed? Appraising the literature through the lens of our typology can answer such questions and reveal novel insights regarding the patterns of slack resourcing in firms. This consideration also allows us to highlight the distribution of studies across the four characteristic profiles of slack, identifying tendencies in the literature to focus on the implications of certain kinds of slack, possibly to the detriment of building knowledge about other kinds of slack, and revealing other areas that require further investigation.

To explore the patterns in theorizing across the four characteristic profiles of slack that emerge from our typology, we focus on studies that either implicitly or explicitly addressed both the availability and fungibility dimensions in their theorizing. As such, we exclude studies that theorize slack generically, not attending to differences in availability and fungibility (24%), studies that conceptualize slack using only the availability dimension (43%), and studies that conceptualize slack using only the fungibility dimension (7%). Only 32% of the studies in our review sample (73 papers) considered availability and fungibility concurrently. Within this set of studies, some of which explore more than one kind of slack in the same study, 65 papers examined *unconstrained slack*, which is characterized by high availability and high fungibility; 15 papers investigated *constrained slack*, which is characterized by low availability and low fungibility; 11 papers studied *applicability-constrained slack*, which is characterized by high availability and low fungibility; and seven papers considered *accessibility-constrained slack*, which is characterized by low availability and high fungibility. We present our survey following this same order, starting with the most frequently used kind of slack. Within each

kind of slack, we organize our review of the implications around those that pertain to managerial discretion and then those that relate to strategies used by firms, respectively.

### **The Implications of Unconstrained Slack for Managerial Discretion and Firm Strategy**

Unconstrained slack refers to resources that can be independently accessed by an organizational actor and applied to a wide range of uses. As indicated above, this kind of slack is by far the most studied among the papers that jointly considered availability and fungibility. As might be expected with this kind of slack being what we term ‘unconstrained’ and providing managers with the greatest degree of latitude for deployment, we found that most of the prior work in this group (68%, 44 of 65 papers) theorized that such slack affords managers maximal discretion. These studies suggest distinct mechanisms that arise from availability and fungibility, which work in combination to allow for extensive managerial discretion.

In terms of availability, research in this group asserts that when managers are not faced with resource scarcity and have readily accessible slack, they are likely to experience increased discretion due to the relaxation of managerial controls (Huang & Chen, 2010; Lu et al., 2022). The logic is that as the availability of slack increases, the monitoring and governance of the use of slack by principals decreases. For instance, in discussing the implications of unconstrained financial slack, De Massis and colleagues (2018: 365) state that “the additional availability of resources enables powerful actors in the firm to perform a wide variety of tasks and pursue personal agendas (Jensen, 1986; Stevens et al., 2015).” The authors go on to argue that, “beyond a certain structural level, financial slack resources may relax the attention of decision-makers to risk taking and innovation (Kim et al., 2008; Nohria & Gulati, 1996),” therefore providing managers with the freedom to use slack resources for whatever ends they see fit. Similarly, in studying the effects of unconstrained slack on the exporting behavior of Belgian manufacturing firms, Paeleman and colleagues (2017: 771-72) state that:

“Hence, confronted with resource constraints or limited slack, managers may have

incentives to take less-costly, more-standardized patterns of activities related to increasing the intensity of exporting (Lin et al., 2009). When firms hold excessive levels of slack, managers may engage in “slack search” because they are flush with slack resources (Lant & Montgomery, 1987; Levinthal & March, 1981).”

In terms of fungibility, slack resources that can be applied to a variety of different uses are argued to provide managers with greater discretion as they offer a greater menu of choice for potential allocation (e.g., Abdurakhmonov, Ridge, Hill, & Loncarich, 2022; Mishina et al., 2004). For instance, in discussing the discretion afforded by unconstrained slack, studies have stated that “these resources are highly flexible and can be applied to wide range of activities, thereby constituting high discretion slack (Sharfman et al. 1988, George 2005)” (Kim et al., 2008: 405), and that such resources are “the most easily redeployable [...] and therefore, managers have the greatest discretion in allocating them to alternative uses (George, 2005; Greve, 2003)” (Paeleman & Vanacker, 2015: 829). Among the remaining studies in this group, 19 did not theorize about the impact of this kind of slack on managerial discretion. However, in contrast to the consensus that unconstrained slack affords managers the greatest degree of discretion, 2 papers suggest that this kind of slack provides managers with the least discretion (e.g., Liu et al., 2011; Suzuki, 2018). For instance, Liu and colleagues (2011) suggest that within family-owned firms, managerial discretion over unconstrained slack is minimal, as family owners are more likely to monitor and hold close control over such resources. Indeed, Gentry, Dibrell, and Kim (2016) find that family-influenced firms seek to cultivate unconstrained slack as a safety net to buffer the firm from unseen events, thereby reducing managers’ discretion. Similarly, Suzuki (2018: 557) argues that because unconstrained slack “can be clearly identified as liquid resources in excess of current business requirements” and, thus, easier to monitor by shareholders, managers have little discretion over its uses.

In terms of the strategies that managers pursue using unconstrained slack, 68% of studies (44 of 65 papers) in this group theorized its use for enabling the pursuit of exploratory

strategies. These studies argue that such slack fosters experimentation, innovation, and risk taking in new product and market domains (e.g., Dutta, Malhotra, & Zhu, 2016; Latham & Braun, 2009; Vanacker et al., 2017). For instance, in their study of radical innovation in Chinese high-technology firms, Troilo and colleagues (2014: 262) argue that the “perceived availability of discretionary resources sets the stage for creativity in a given organizational context because managers and employees feel less constrained by traditional approaches to doing business, and are more favorably inclined toward higher risk and untried ideas (Andrews and Smith, 1996).” Similarly, in examining the role of unconstrained slack in driving new capabilities, Danneels (2008: 525) states:

“Slack provides the leeway necessary to pursue strategic activities (Sharfman *et al.*, 1988), such as exploration. Levinthal and March argued that slack resources allow an ‘irresponsible’ search for new opportunities: ‘Slack encourages search activities that cannot be justified in terms of their expected return for the organization’ (Levinthal and March, 1981: 309). Nohria and Gulati noted that slack allows experimentation that might not be approved in a more resource-constrained organization: ‘In organizations that have little slack, managerial attention is likely to be focused first and foremost on short-term performance issues rather than on more uncertain innovative projects’ (Nohria and Gulati, 1996: 1249).”

Although prior research in this group indicates a strong relationship between unconstrained slack and the pursuit of exploratory strategies, some studies suggest that there are curvilinear effects of such slack on exploration, depending on its degree (Tan & Peng, 2003). For example, Nohria and Gulati (1996: 1249-50) argue that, because “slack promotes greater experimentation but also promotes diminishing levels of discipline,” there will be an inverted U-shaped relationship between slack and innovation. Similarly, in their study of the relationship between slack and R&D, Kim, Kim, and Lee (2008: 406) propose that, “equipped with too much slack, firms may become complacent and overly optimistic, and feel less

compelled to make investments in R&D.”

Of the remaining papers in this group, 19 did not theorize a specific strategy to which unconstrained slack is deployed. Instead, these studies invoked broad arguments that emphasized the availability and range of potential uses that unconstrained slack could be used to theorize its effect on outcomes such as firm performance (e.g., De Massis, Kotlar, Mazzola, Minola, & Sciascia, 2018; Jung, Foege, & Nueesch, 2020) and corporate social responsibility (e.g., Harrison & Coombs, 2012). We identified only one study that proposed a specific resourcing strategy for unconstrained slack that was not considered exploratory. Specifically, adopting the complacency-inducing role of slack, Bradley, Wiklund, and Shepherd (2011: 540) argue that managers with a high degree of unconstrained slack become inward looking and “will continue to direct the attention of their strategic decisions and actions towards the source of their past success.”

Taken together, research in this group suggests that unconstrained slack tends to provide managers with maximal discretion and is deployed to pursue exploratory strategies. However, as shown, there are a small number of studies that find patterns of managerial discretion and resourcing that run counter to this general observation. More research is needed to understand the boundary conditions that shape managers’ discretion over unconstrained slack and the resourcing strategies by which it is deployed.

### **The Implications of Constrained Slack for Managerial Discretion and Firm Strategy**

Constrained slack refers to resources that cannot be independently accessed by an organizational actor and can be applied to only a narrow range of uses. Although this kind of slack is the most restrictive, due to being constrained in both its availability and fungibility, most of the studies in this group (eight of 15 papers) do not theorize about the impact of both constraints on managerial discretion. Only two papers theorized about the implications of both the accessibility and applicability constraints of constrained slack on managerial discretion.

These papers emphasized the difficulties that managers face in recovering such slack from current operations and applying it to new situations. For instance, in discussing the implications of specialized HR slack that is currently absorbed in the firm, Voss et al. (2008: 151) argue that “human resources that are acquired and developed to build existing routines likely possess skills that are most applicable to incumbent product domains.” The authors further argue that “shifting human resources within organizations is structurally difficult and may face political hurdles that typically accompany decisions pertaining to skilled personnel (Mishina et al., 2004)” (Voss et al., 2008: 151). Similarly, in conceptualizing the role of constrained slack for state-owned enterprises, Stan, Peng, and Bruton (2014: 477-78) state that:

“Absorbed slack cannot be easily redeployed by the organization, in part due to its high level of asset specialization (Love & Nohria, 2005)” [...] “organizations cannot immediately redeploy this type of slack. They have to restructure operations, thus having a lower level of discretion, presenting an inverse U-shaped relationship to performance (George, 2005).”

Five studies theorized only about the applicability constraint of this kind of slack on managerial discretion, thereby neglecting the implications of accessibility constraints. These studies invoked arguments about constrained slack’s narrow application, which tends to be used as a buffer to help support current operations, workflow, and the maintenance of the organization (e.g., Chen & Huang, 2010; Huang & Chen, 2010). However, in contrast to studies that emphasized the limits imposed on managerial discretion by constrained slack, one study in this group proposed that such slack provides managers with the most discretion, as it “can lead to loose organizational controls because managers can use these resources in a way that is difficult for principals to detect and this could involve suboptimal utilization of resources” (Marlin & Geiger, 2015: 2685).

In terms of strategies, the majority of studies in this group (six of 15 papers) theorized about managers’ use of constrained slack to pursue strategies that were limited by the

resource's narrow specialization, i.e., low fungibility (e.g., Vanacker et al., 2017; Xu et al., 2015). As such, the accessibility constraint of this kind of slack does not factor into the theorizing on managers' choice of strategic options in these studies. As an example of this focus on fungibility and lack of attention to availability, prior research has proposed that constrained slack, "due to its high level of asset specialization (Love & Nohria, 2005)" [...] "is associated with a reduced focus on exploration and an increased focus on exploitation activities" (Stan et al., 2014: 476), which aim to enhance existing competencies and resources. Similarly, in examining the effect of slack on problemistic search, Cabral and colleagues (2023: 8) state that:

"From a path dependence perspective, this suggests that slack resources absorbed within operations may have a reinforcing effect, dissuading experimentation or breaking from current trajectories. In essence, bloat in the administration will reinforce the "neighborhood-of-existing-policy rule" and slow the firm's movement to new search domains (Cyert and March, 1992)."

Of the remaining studies in this group, five did not theorize about a specific strategy to which constrained slack is deployed. These studies invoked broad arguments about how constrained slack can be used as a buffer to support existing operations or an enabler of exploration, when theorizing its influence on outcomes such as firm performance (Tan & Peng, 2003), innovation performance (e.g., Huang & Chen, 2010), and corporate social responsibility (e.g., Lu et al., 2022). Despite acknowledging the limits of constrained slack, four papers in this group suggest that "firms with low discretion slack are able to take more strategic actions" and "make mistakes and experiment with new international strategies" (Lin et al., 2011: 85). However, the logic connecting constrained slack that is characterized by low availability and fungibility to exploratory strategies is rarely theorized in these studies. A notable exception is Kannan-Narasimhan's (2014) study of how managers of high technology firms navigate resource scarcity by creatively repurposing the uses of wasting resources currently sitting idle



in different areas of the business to support innovation. Such creative repurposing “makes assets that were previously deemed as non-recoverable seem fungible” (Kannan-Narasimhan, 2014: 500).

In sum, while a small proportion of studies in this group acknowledge how both the accessibility and applicability constraints of constrained slack impinge on managerial discretion, these limits are rarely fully theorized in connecting this kind of slack to the types of strategies that are pursued in using it. In particular, we find that studies tend to neglect the accessibility constraint of slack and do not theorize the impact that limited accessibility has on managerial discretion and resourcing. This represents an opportunity for future research to explore how the uses of constrained slack are negotiated among those that control its access.

### **The Implications of Applicability-Constrained Slack for Managerial Discretion and Firm Strategy**

Applicability-constrained slack refers to resources that can be independently accessed by an organizational actor but can be applied to only a narrow range of uses. As might be expected for this kind of slack, we find that most of the studies in this group (six of 11 papers) theorized it as providing managers with limited discretion to deploy these resources to contexts outside of their narrow specialization (e.g., Malen & Vaaler, 2017; Paeleman & Vanacker, 2015; Voss et al., 2008). For instance, in their examination into the role of specialized HR slack on the internationalization of SMEs, Kiss and colleagues (2018: 19) argue—talking about this kind of slack—that it is “more difficult for managers to deploy these resources”. Similarly, Mishina and colleagues (2004: 1183) state that:

“One characteristic of resource slack that is particularly important in this regard is the degree of discretion associated with the resource. Resource discretion refers to the ability to convert slack to other uses should the need or opportunity arise (e.g., Sharfman et al., 1988). The more specific a resource is to a particular use, the less discretion management has in deploying excess amounts to alternative uses (e.g., Montgomery

and Wernerfelt, 1988; Wernerfelt and Montgomery, 1988).”

Even though this kind of slack is constrained in its applicability, three papers did not theorize how this constraint impinges on managerial discretion (e.g., Ju & Zhao, 2009; Wang et al., 2016). Offering a different perspective to the consensus in this group, i.e., that applicability-constrained slack limits managerial discretion to uses that are proximate to the resource’s specialization, two studies suggest that such slack would in fact provide managers with maximal discretion. For example, Suzuki (2018: 557) argues that constrained slack provides managers with maximal discretion as its use is harder for shareholders to monitor than that of unconstrained slack, thereby amplifying agency costs.

With respect to the strategies that are deployed using applicability-constrained slack, most studies in this group (seven of 11 papers) theorized its uses in pursuing strategies that are commensurate with this constraint. These studies emphasize how such slack confines the firm to strategic options that are within the range of situations that the resource can be applied, such as buffering or expanding the firm’s existing activities (Malen & Vaaler, 2017) or pursuing expansion opportunities that build on what the organization has done previously (Mishina et al., 2004). For example, in discussing the implications of applicability-constrained slack that is tied to major (relational) customers, Voss and colleagues (2008: 150) state that such slack reduces managers’ “willingness to stray from ongoing value-creating activities” and instead focuses their attention of activities “in keeping with expressed expectations of relational customers (Voss, Montoya-Weiss, & Voss, 2006).”

Among the remaining studies in this group, three papers theorized how applicability-constrained slack facilitates exploratory strategies (e.g., Berk & Kase, 2010), emphasizing how such slack can enable risk taking and experimentation (e.g., Kiss et al., 2018). However, an explicit logic explaining how such resources can be used to pursue strategies beyond the narrow specialization they are tailored to was not provided. Only one paper in this group did not

theorize a specific strategy for applicability-constrained slack. Taken together, while research on this kind of slack is not extensive, most studies indicate that it provides managers with limited discretion to pursue strategies that correspond to the resource's specialized uses. However, there are some studies which suggest that applicability-constrained slack affords managers maximal discretion and enables the firm to pursue exploratory strategies. Given the specialized nature of this kind of slack, further research is required to unpack how it can be converted to alternative uses.

### **The Implications of Accessibility-Constrained Slack for Managerial Discretion and Firm Strategy**

Accessibility-constrained slack refers to resources that cannot be independently accessed by an organizational actor but can be applied to a broad range of uses. Research on this kind of slack is scant, being examined by only seven papers in our review sample. Although this kind of slack is restricted in its accessibility, most studies within this small group (four of seven papers) did not explicitly theorize the impact of this constraint on managerial discretion. However, in a study of resource reallocation between business units of the Samsung group, Keum (2023) provides evidence to suggest that the discretion to access scarce resources at the cost of other divisions depends on managers' political power. Among the studies that do theorize the impact of accessibility-constrained of slack on managerial discretion, two papers suggest that such slack offers managers a high degree of discretion, despite either being absorbed in current operations (Titus et al., 2022) or external to the firm (Stan et al., 2014) and, therefore, subject to negotiation. However, the logic connecting accessibility-constrained slack to high managerial discretion in these studies is not clearly outlined.

Three papers in this group examined the implications of accessibility-constrained slack. Two of these studies addressed the limits imposed by accessibility-constrained slack when theorizing its potential uses and emphasized the need for organizational actors to engage in political behaviors to navigate access and negotiate the uses of this kind of slack among those

that control it (Kannan-Narasimhan, 2014; Leuridan & Benoit, 2022). For instance, in a study of slack generation in a hospital setting, Leuridan and Benoit (2022: 1185) state that organizational actors access this kind of slack “by negotiating with the hospital’s administration. These negotiations about the excess resources absorbed in the unit concern staff, the configuration of space or equipment.” The final study in the subset of papers does not theorize a specific strategy towards which accessibility-constrained slack is deployed; rather, it examines the relationship between this kind of slack and the performance of state-owned enterprises (Stan et al., 2014). Overall, there are limited insights on how managers come to have discretion over accessibility-constrained slack and how its uses are negotiated among those actors that control its access. This represents an opportunity for future research, as we discuss in the next section.

#### **A RESEARCH AGENDA TO REINSTATE SLACK AS A CENTRAL CONSTRUCT**

In this final section, we draw on our integrative typology and findings from appraising the literature to present a renewed program for future research on the implications of different kinds of slack. First, we offer directions for future research according to the four characteristic profiles of slack that comprise our integrative typology. Given the skewed distribution of the literature to date across the kinds of slack, which strongly favors unconstrained slack, we highlight relatively untapped areas for future work on slack that varies in its constraints. More generally, we propose new lines of inquiry according to each quadrant of our typology and offer indicative research questions for scholars. These future directions and potential research questions are summarized in Table 2. In addition, we identify important methodological considerations for future empirical research on slack based on the inconsistencies we observe in the literature regarding the current use of slack measures.

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Insert Table 2 about here  
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## **A Research Agenda on the Four Characteristic Profiles of Slack**

*Unconstrained slack.* Unconstrained slack is by far the most studied kind of slack in the literature. Although prior work has illustrated that this kind of slack tends to afford managers with maximal discretion to pursue exploratory resourcing strategies, there are important questions about the implications of this kind of slack that remain unaddressed. First, some studies in this group demonstrate how unconstrained slack has a curvilinear (inverted U-shaped) relationship with exploration (e.g., Kim et al., 2008; Nohria & Gulati, 1996; Tan & Peng, 2003), indicating that the degree of such slack shapes both the discretion afforded to managers and the modes of action to which it is deployed. While this work suggests that managers are less likely to engage in exploratory strategies at high levels of unconstrained slack, as this leads to both less monitoring by principals and a tendency towards the status quo, boundary conditions at the individual-, organizational-, environmental-, and cross-level considerations may explain the observed differences in the literature about its deployment.

At the individual-level, our understanding of how the dispositions, traits, cognitions, and motives of managers influence the deployment of this kind of slack is an open area for research. Upper echelons theory has long documented how managers' personal attributes directly influence the actions and outcomes of the organizations that they manage (Hambrick & Mason, 1984). Drawing on these insights, future research could examine how the differences in managers' personality traits and dispositions, such as narcissism, regulatory focus, and temporal focus, influence how unconstrained slack is deployed. For example, do managers who are high on narcissism pursue more exploratory, uncertain strategies using unconstrained slack, as compared to managers who are low on narcissism? Similarly, are managers who exhibit a temporal focus that is oriented towards the past more conservative in their deployment of unconstrained slack, as compared to managers who exhibit a temporal focus that is oriented towards the future?

At the organizational-level, there is ample scope to expand insights about firm characteristics that affect managers' discretion over and the strategic uses of unconstrained slack. Although some work has highlighted how family-owned and family-influenced firms affect managers' control of unconstrained slack and how it is used (e.g., Gentry et al., 2016; Liu et al., 2011), little is known about how managers of firms that are guided by alternative institutional logics, such as those with a community-, market-, or state-logic, or a mix of different logics (Thornton, Ocasio, & Lounsbury, 2012), differ in their use of such slack. For example, how do the uses of unconstrained slack differ between B-corps that prescribe to a community-logic, which emphasizes social and environmental good, versus firms that prescribe to a market-logic, which emphasizes profit and shareholder wealth maximization? Are there tensions in the uses of unconstrained slack for firms that are influenced by conflicting logics? How are such tensions resolved and what strategies are pursued as a result?

In terms of the environmental-level, most studies on slack are implicitly premised on bureaucracy and centralized-governance norms, through which the uses and allocation of unconstrained slack are determined by hierarchy and power. A fruitful area for future work is to examine how alternative modes of governance, such as that based on platforms and ecosystems, may lead to differences in how unconstrained slack is controlled and allocated. For example, how is slack managed and allocated among firms that adopt a platform strategy and rely on the resources and efforts of other partner organizations and complementors?

Another promising avenue for future research involves examining the implications of unconstrained slack as a cross-level phenomenon by considering the interplay of boundary conditions at multiple levels of analysis. For instance, the potential complementarities and tensions between the individual-level traits and dispositions of managers, and the organizational-level logics that the firm prescribes, may jointly influence managers' perceptions of discretion and the uses of unconstrained slack. To speculate, narcissistic

managers who focus on short-term personal gains at the expense of long-term performance (Buyl, Boone, & Wade, 2019) may feel more empowered to use unconstrained slack in firms that prescribe to a market-logic, which emphasizes self-interest and shareholder value as core elements (Thornton et al., 2012). Conversely, in firms that prescribe to logics that are misaligned with the goals and focus of narcissistic managers, such as those that prescribe to a family-, state-, or community-logic, which emphasize the interests of other stakeholders beyond shareholders, such managers may feel less empowered to use unconstrained slack.

***Constrained slack.*** Although constrained slack is the second most studied kind of slack in our typology, taken in the absolute research on this kind of slack is nonetheless quite limited. Our review demonstrated that the accessibility and applicability constraints of constrained slack impose significant limits on managers' discretion over and the uses of such slack (e.g., Voss et al., 2008), given that it represents a context of resource scarcity within organizations. However, most studies in this group do not theorize these constraints, leaving important questions unaddressed.

At the individual-level, our understanding of how managers navigate the accessibility and availability limits of constrained slack is largely unknown (Kannan-Narasimhan, 2014). To address this shortcoming, future research may explore the tactics that managers use to negotiate access to specialized slack resources that are either currently absorbed in operations elsewhere within the focal firm or that are external to the firm. For example, given that access to specialized resources internally is a largely zero-sum exchange (assuming that the desired resources exist within the firm) and implies a reallocation of resources from one subunit to another, future research can examine the process through which managers gain access to such resources. Do managers who differ in their power, status, or experience vary in their ability to access constrained slack? How do managers who are low in power and status navigate access to specialized resources? In addition, it is possible that managers may perceive opportunity in

the scarcity of options that are imposed by constrained slack and engage in creative actions to cultivate slack in light of resource scarcity by recombining or recasting other (unused) resources in novel, previously unforeseen ways. Indeed, this was demonstrated in one paper in our review sample (e.g., Kannan-Narasimhan, 2014). Future research can extend these insights to examine how differences in managers' personal attributes and background may affect their perceptions of the strategic value of constrained slack.

At the organizational-level, novel insights can be gained by exploring how constrained slack affects the formation of inter-organizational relationships and the dynamics of resource exchange between resource-dependent firms. We could not identify any study in our review sample that directly addressed the inter-organizational implications of this kind of slack. The possession of constrained slack may influence the selection of alliance partners and acquisition targets to access specialized resources. For example, do organizations with constrained slack use these constraints to define the criteria for selecting alliance partners and acquisition targets? Regarding the dynamics of resource exchange, the differences in power between exchange partners may lead to asymmetries in how constrained slack is allocated (Pfeffer & Salancik, 1978). For instance, do firms with less power forfeit their constrained slack to more powerful exchange partners, such as major customers or suppliers?

At the environmental-level, future research may draw on differences in industry attributes and institutional context to examine how these may influence a firm's ability to navigate resource scarcity. For example, do firms that operate in less munificent industries and in contexts that embrace scarcity navigate the limits and uses of constrained slack better than firms that operate in munificent industries and contexts? A particularly fruitful area would be to examine how societal changes in patterns of work, such as that of the gig economy and availability of specialized gig workers, enable or hinder the strategies open to firms with constrained slack. For example, can resource constrained firms utilize gig workers as an



external buffer of slack to deal with internal and external shocks?

Future research can also examine the potential cross-level influences that shape how managers navigate constrained slack. For instance, adopting a process perspective, which “address[es] questions about how and why things emerge, develop, grow, and terminate over time” (Langley, Smallman, Toukas, & van de Ven, 2013: 1), studies could explicate the potential complexities and mechanisms across levels that interact to influence how managers cultivate and access constrained slack. This is important, as constrained slack represents a context of resource scarcity, necessitating managerial effort to cultivate it over time. Based on the assumption that such resources can be accessed internally from other organizational subunits or externally from the environment, scholars might consider how managers and other organizational actors that differ in their power and status (e.g., hierarchical power, prestige, or expertise) form different types of coalitions (e.g., Mithani & O’Brien, 2021) to access and bargain the uses of constrained slack. For example, low status managers and other organizational actors may need to form more substantive coalitions inside the organization to access constrained slack compared to high status managers. Further, scholars may examine how these processes unfold in different environmental contexts, such as those characterized by varying degrees of munificence and dynamism.

***Applicability-constrained slack.*** Only a small proportion of studies in our review sample examined applicability-constrained slack. While there was a consensus among this small number of studies that the applicability constraint imposed on managers by such slack limits their discretion to use it to pursue strategies that are tied to the resource’s narrow specialization (e.g., Malen & Vaaler, 2017; Paeleman & Vanacker, 2015), some studies nevertheless indicate the potential for this kind of slack to enable exploration beyond its current uses (e.g., Berk & Kase, 2010; Kiss et al., 2018). However, by and large, the question of how such available but specialized resources are converted to exploratory uses, given their

applicability constraint, is not answered. We offer several suggestions for future research at different levels of analysis to explore this question.

At the individual-level, there may be differences in the attributes, traits, and cognitions of managers that shape the landscape of opportunities that they perceive for applicability-constrained slack. For instance, managers with different temporal dispositions—such as those with a future orientation versus those with a past orientation—may conceive alternative uses for such slack beyond its current constraints. Managers with a future orientation may be less constrained in their perceptions of a narrowly specialized resource and perceive a broader array of exploratory uses than managers with a past orientation who are tied to existing (historical) understandings. Similarly, attributes such as the background and experience of managers may shape their perceptions of the uses of applicability-constrained slack. For example, are managers with diverse experience across different technological domains more likely to find exploratory uses for this kind of slack than managers with less diverse experience?

At the organizational-level, there are several opportunities for future research. For instance, there are limited insights into how different kinds of slack influence patterns of organizational search. While extant theorizing on slack-induced search assumes that having available ‘slack’ resources will lead to increased search activities as the firm seeks new opportunities (Bromiley, 1991; Chen & Miller, 2007; Greve, 2003a), whether, and how, different kinds of available slack influence patterns of search is unknown. Most studies on slack search treat slack as a unitary construct, not accounting for differences in the availability and fungibility of slack. Future research, therefore, can examine how applicability-constrained slack may impose constraints on the dynamics of slack search. For instance, does possessing available slack that is low in fungibility facilitate local search in proximate domains? Do patterns of search differ for unconstrained slack versus applicability-constrained slack? Another fruitful area for future research would be to examine how applicability-constrained

slack is converted into different kinds of slack with alternative uses. While prior work has acknowledged that the uses of slack can be changed over time (e.g., Bentley & Kehoe, 2020), how applicability-constrained slack is converted in this manner is an unexplored area. For example, future work may draw on knowledge-based theories (e.g., Nonaka, 1994) to explore how the knowledge, skills, and abilities of specialized HR slack is repurposed.

At the environmental-level, future research can explore how differences in industry dynamics such as dynamism, munificence, and competition may influence the uses of applicability-constrained slack. For instance, firms operating in environments characterized by unpredictable demand and high competition may keep a stock of specialized slack on hand as a buffer to cope with changing operational requirements. In contrast, firms operating in munificent environments characterized by predictable demand may engage in strategies to reduce their stock of specialized slack (e.g., corporate downsizing) to become more efficient, as such resources can be easily accessed externally when required.

Considering the potential cross-level influences that shape the uses of applicability-constrained slack, future research could unpack the interaction between managerial traits or dispositions and organizational or environmental context. For instance, in terms of cross-level influences between the individual- and organizational-level, researchers could examine whether managers perceive different uses for applicability-constrained slack depending on the fit between their regulatory focus and performance feedback (e.g., Mount & Baer, 2022). We speculate that managers with a promotion-focus, who have a preference for pursuing gains, may be motivated to repurpose applicability-constrained slack and use it as a basis for exploration when the firm is performing below aspirations. This is because below-aspiration performance represents a loss context that is misaligned with their regulatory focus. By contrast, when the firm is performing above aspirations such managers may be less motivated to repurpose applicability-constrained slack and hence hold it as a buffer for current operations.

Similarly, considering cross-level influences between the individual- and environmental-level, researchers may examine how industry dynamism, munificence, and competition differentially shape the perceived uses of applicability-constrained slack depending on managers' dispositions. For example, managers with a prevention focus, who have a preference for avoiding losses, may use applicability-constrained slack as a buffer to manage environmental dynamism, while managers with a promotion-focus may use such slack as an inducement.

***Accessibility-constrained slack.*** Accessibility-constrained slack represents the slack category with the least developed theoretical insights in our review sample. Besides highlighting the necessity for political behaviors and negotiations to access and utilize this kind of slack (e.g., Keum, 2023; Kannan-Narasimhan, 2014; Leuridan & Benoit, 2022), the studies we reviewed (implicitly) suggest high managerial discretion over accessibility-constrained slack, even though this slack is absorbed in operations or is external to the firm (Stan et al., 2014; Titus et al., 2022). Yet, insights regarding the theoretical basis of such discretion remain scarce. We offer several suggestions for future research at different levels of analysis to examine the implications of accessibility-constrained slack for organizations.

At the individual-level, the power that managers possess within an organization and how they are socially evaluated by others may impact their access to highly fungible resources that are currently absorbed in a firm's operations. For example, how do different aspects of CEO power, such as structural, ownership, expert, and prestige power, affect decisions to reallocate accessibility-constrained slack? Structural power may allow a CEO to prioritize the allocation of such slack to specific units or projects that align with their strategic vision, whereas ownership power may lead them to allocate accessibility-constrained slack in ways that maximize shareholder value. For other managers, how does their reputation or status affect these redeployment decisions? Managers with high status or a strong reputation may have better access to top-level executives, including the CEO and the board of directors, which can

provide them with opportunities to influence the redeployment of accessibility-constrained slack towards their preferred strategies. Other personality attributes of managers, such as risk aversion, may also affect decisions about the redeployment of accessibility-constrained slack directly as well as by interacting with the abovementioned attributes.

At the organizational-level, a wide range of theories can be used to examine how accessibility-constrained resources may impact managerial discretion in organizations. For instance, future research can draw on the knowledge-based view to examine how organizations develop an ability to tap into highly fungible resources that exist in the environment. Resource dependence and stakeholder theories provide useful lenses for future research to examine whether organizations consider internal and external accessibility-constrained slack as complements or substitutes. When considered as a substitute, highly fungible environmental slack may reduce managers' dependence on internal stakeholders for resource access. How would that affect an organization's overall stakeholder orientation? What implications would it have for organizational design? For example, abundant environmental slack that is highly fungible may lead managers to adopt organizational structures that facilitate greater engagement with the environment through alliances and other open innovation initiatives. Transaction cost theory can be useful to further explore organizational decisions about resourcing strategies concerning accessibility-constrained slack. When certain organizational functions require more resources, do organizations opt to redeploy internally absorbed highly fungible slack, or do they choose to tap into their environments for such resources? How do transaction costs associated with market-based exchanges influence this decision?

At the environmental-level, future research could explore how organizations respond to changes in their environment that force them to deploy their accessibility-constrained slack in different ways. How do variations in external environmental factors, such as market turbulence, regulatory shifts, and competitive dynamics, influence the strategic deployment of

accessibility-constrained slack by organizations? For instance, during periods of heightened competition, decision-makers in organizations may find it easier to form a coalition to redeploy accessibility-constrained slack toward innovation and product development to maintain a competitive edge. In the context of changing external environments, what factors within the ecosystem surrounding organizations, including the behavior of industry partners, customers, and government agencies, influence the effective utilization and redirection of accessibility-constrained slack to meet evolving demands and circumstances? For example, industry partners' willingness to collaborate on joint ventures or adapt to changing market conditions may impact how organizations deploy their accessibility-constrained slack. Government policies and incentives could also shape resource allocation strategies in response to environmental shifts. Future research could also examine whether external communities and platforms (e.g., online communities, crowdsourcing platforms, e-commerce platforms) enhance or impede firms' access to fungible resources in their environment. For instance, organizations that are actively engaged in digital ecosystems may have improved access to a broader range of fungible resources due to the ease of networking, information sharing, and resource exchange.

Researchers can also examine the cross-level influences that affect how managers negotiate access to and the uses of accessibility-constrained slack. Similar to constrained slack, accessibility-constrained slack requires managerial effort to cultivate, given its low availability, but this type of slack will likely be subject to more intense bargaining among a diverse spectrum of actors because it can be applied to a broad range of alternative uses. Since prior work rarely addresses how managers come to have discretion over such slack, as we have demonstrated, future research that adopts a process perspective will provide scholars with the opportunity to investigate how such slack is accessed. For instance, scholars may examine how accessibility-constrained slack—such as that currently absorbed in the operations of one subunit of the

organization—is released and reallocated to other subunits. In particular, examining how various mechanisms across levels contribute to the reallocation of accessibility-constrained slack at the cost of one subunit to the benefit of another, including factors such as managerial political power (Keum, 2023) and subunit power, is a promising area for future work. Further, future work may examine the process through which managers negotiate the uses of accessibility-constrained in the external capital market to fund the development of firm-specific competencies and strategies. Because creditors are cautious in funding such activities (O'Brien, 2003; Sengul, Almeida Costa, & Gimeno, 2019; Titus et al., 2022), understanding how organizations negotiate the uses of accessibility-constrained slack is important for advancing our understanding of how such resources are obtained.

### **Methodological Considerations and Suggestions for Future Research**

Through the course of conducting our review and developing our typology, we came across issues of inconsistency in the operationalization of slack and the entanglement of availability and fungibility reflected in how slack is measured—leading to a disconnect in what studies theorize and what they empirically execute. These issues manifest in three ways. First, in some studies that examine a specific type of slack, this fact becomes clear only after the measure is introduced. For example, when theorizing that financial slack buffers organizations from the threat of failure and enables investments in new, firm-specific competencies, Lungeanu, Stern, and Zajac (2016) treat slack as a unitary construct, thus making no distinction between available and unavailable types of financial slack. However, in their measurement, the authors capture unavailable financial slack (i.e., financial slack as debt accessed from creditors), which is not typically considered to serve the purpose of buffering and investment in firm-specific competencies (O'Brien, 2003; Titus et al., 2022).

Second, at times the conceptual arguments that relate to the type of slack that is theorized are not incorporated in the measurement. For instance, in an influential study that has

informed much of the subsequent research on slack within the performance feedback literature, Greve (2003: 688) theorizes that absorbed slack is only useful for innovation when it is in the form of specialized R&D staff rather than by costly facilities and high wages. However, in the study, absorbed slack is operationalized with a single measure (as the ratio of selling, general, and administrative expenses to sales) that does not reflect this important difference.

Third, inconsistencies in operationalizing slack are also observed across studies whereby the operationalization of slack is inconsistent with the sources cited as a reference for that measurement, or the same measure is used to capture different types of slack in different studies. An illustrative example is the use of *the ratio of working capital to sales or total assets* across studies as a proxy for slack. When developing a general measure for slack, Bourgeois (1981) suggested that an increase in working capital relative to sales indicates an increase in excess liquidity and, thus, slack. In a later study that distinguished between available, recoverable, and potential slack, Bourgeois and Singh (1983: 43) explicitly stated that the working capital to sales ratio was not used to measure any of these slack types, “since it contains both available and recoverable elements of slack.” However, later studies referred to Bourgeois and Singh (1983) for using the firm’s working capital to sales ratio to measure available (Marlin & Geiger, 2015), recoverable (Chen, 2008), and overall slack (Uhlenbruck, Hughes-Morgan, Hitt, Ferrier, & Brymer, 2017). Similarly, while Singh (1986) used the working capital to sales ratio to measure absorbed slack (corresponding to recoverable slack in Bourgeois and Singh, 1983), his study is cited as a reference to use working capital to sales ratio to capture available (Chen & Miller, 2007) and overall slack (Alvarez-Gil et al., 2007). The Table in Appendix 16 illustrates these examples in more detail.

***Future research suggestions for operationalizing slack.*** Like any construct, it is essential that the measurement of slack aligns with the assumptions and arguments that are leveraged to theorize its implications. As our illustrations show, this has not always been the



case in the literature. Our integrated typology underscores the need for increased precision when conducting empirical work in the selection of existing measures of slack or operationalization of new measures that can capture different kinds of slack. The different kinds of slack that comprise our typology vary in their constraints and, by extension, their implications for managers and how they are used. Thus, scholars need to be aware that the slack measure they adopt captures the mechanisms leveraged in terms of availability and fungibility when theorizing its implications. Recognizing that empirical research design choices will be driven by theoretical focus and data availability considerations in specific studies, we develop suggestions for the measurement of slack in three likely scenarios.

First, the most likely scenario in the short-term, is for future studies to follow measurement practices utilized in prior work by adopting commonly available archival data such as financial ratios. Future studies that choose this path should carefully consider the extent to which specific measures used by prior work can adequately capture the availability and fungibility of the slack resource(s) they examine. For example, when theorizing about slack with high availability and high fungibility, a measure that is based on a firm's liquid resources (commonly used for measuring unabsorbed slack), would be an appropriate choice. However, when theorizing about slack with low availability but high fungibility, debt-based ratios (commonly used for measuring potential slack) are unlikely to be appropriate because, while debt is indeed less available for rapid deployment than liquid resources such as cash, it also has low fungibility because the lenders can restrict its uses by the focal firm. Instead, measures based on excess costs (commonly used for measuring absorbed slack) would be more appropriate, because, while resources absorbed in excess costs cannot be rapidly deployed (i.e., low availability), once recovered they can be converted to liquid resources and allocated to a variety of uses (i.e., high fungibility). One option to develop rigorous measures would be to draw on the original sources of measurements, which also provide a theoretical grounding for

their suggested slack measures (e.g., Bourgeois, 1981; Bourgeois & Singh, 1983).

Another likely scenario is that some future studies might have access to proprietary data pertaining to a specific empirical context and would prefer to leverage these data to operationalize slack with their own measures (e.g., Lecuona & Reitzig, 2014). Measures developed using proprietary, and probably also primary, data have the potential to align with the theoretical constructs more closely than measures based on secondary, archival data. However, it is important that researchers have a deep understanding of their empirical context to make sound judgements regarding the extent to which their measures capture the availability and fungibility dimensions of slack resources they study. For example, HR slack is generally considered to have low fungibility because excess personnel are often assumed to have specialized skills in certain tasks. However, it can be difficult to ascertain the degree to which this assumption holds in a specific empirical context. Studies with datasets that can credibly overcome this challenge will have the potential to generate novel insights regarding the role of HR slack in affecting organizational behaviours, decisions, and outcomes.

Finally, social and technological developments may compel future studies to introduce new forms of slack. For example, the recent developments in artificial intelligence (AI) technologies are expected to lead many firms to expand their AI capabilities. Future studies may seek to study how excess AI capabilities (AI slack) affect various organizational phenomena. Our suggested typology of slack can facilitate the development of rigorous measures for such new forms of slack. For example, AI slack will have high availability if a firm's AI capabilities operate as a stand-alone function, but low availability if they are integrated into the specific operations of different organizational functions. Similarly, AI slack will have high fungibility if AI capabilities are based on general training data and low fungibility if they are developed for specialized purposes.

## **Evolution and Future Pathways of Slack Research**

Our typology can aid scholars in studying the role of slack in research domains that are gaining emphasis in management research. We present three examples that highlight how this can happen. First, the importance of nonmarket strategies involving organizations' social and political activities are increasingly recognized as critical aspects of firm behaviors and outcomes (Mellahi, Frynas, Sun, & Siegel, 2016). Consequently, future research may leverage slack to better understand firms' social and political actions. For example, Stevens et al. (2015) find that higher levels of slack strengthen for-profit organizations' attention to social goals. Scholars can use our typology to extend this work by theorizing and examining how different kinds of slack affect firms' social and political activities at a more granular level. For instance, while unconstrained slack may reduce a firm's dependence on nonmarket strategies, constrained slack, which is less fungible and available, might prompt political strategies aimed at enhancing the value of such resources.

Second, how digital technologies are transforming organizations is a key emerging area in management research (Lanzolla, Lorenz, Miron-Spektor, Schilling, Solinas, & Tucci, 2020; Menz et al., 2021). Following the advent of publicly accessible generative AI tools, a central concern of inquiries in this area is the degree to which AI tools can replace or augment human functions in organizations (e.g., Choudhary, Marchetti, Shrestha, & Puranam, 2023; Raisch & Fomina, 2024; Raisch & Krakowski, 2021). This represents an opportunity for future research on slack that our typology can guide. For instance, managerial choices to utilize AI tools may be shaped by the availability and fungibility of slack and the constraints they present. Managers who face contexts of resource scarcity (i.e., constrained slack) may be more inclined to develop AI capabilities to help address such constraints.

Third, the microfoundations perspective, which seeks to explore the micro-level determinants of organizational behaviors and outcomes by bridging micro- and macro-levels

of analysis (Felin, Foss, & Ployhart, 2015), can be leveraged to advance our understanding of how slack is accumulated and utilized. Our framework can help extend recent work that examines the role of slack in connecting micro-level determinants, such as CEO-level factors, to firm-level outcomes (e.g., Cho et al., 2023; Martin et al., 2016; Tang et al., 2015) by facilitating precise theorizing about slack and its effects. Namely, many of the cross-level research ideas we present can be investigated using a microfoundational lens. Such studies can examine, for example, how managerial perceptions of the uses of different kinds of slack vary by individual-level traits and dispositions. Our proposed typology could also facilitate tracing how macro-level environmental factors influence managers' perceptions of slack and its subsequent effects at the organizational level.

## **CONCLUSION**

Our goal was to develop an integrative typology that consolidates previous research on slack and establishes a systematic foundation for exploring its organizational implications. Without a structured typology, the term 'slack' risked becoming an ambiguous term for various surplus resources, lacking a clear theoretical foundation. This concern was evident in the inconsistent and imprecise theorizing of slack resources across studies, often overlooking or conflating important differences among its distinct dimensions. Thus, our work equips researchers with a tool to disentangle, compare, and contrast diverse arguments and findings related to slack. Additionally, our review also highlights the underlying mechanisms invoked in the literature when discussing the implications of slack. Our integrative typology, structured around the dimensions of availability and fungibility, establishes a common language. We hope that our efforts will promote more rigorous and accumulative theorizing of slack as a fundamental construct, enabling researchers to harness its full potential as a pivotal concept in management and organizational research.

## REFERENCES

- Abdurakhmonov, M., Ridge, J. W., Hill, A. D., & Loncarich, H. 2022. Strategic risk and lobbying: Investigating lobbying breadth as risk management. *Journal of Management*, 48(5): 1103-1130.
- Álvarez-Gil, M. J., Berrone, P., Husillos, F. J., & Lado, N. 2007. Reverse logistics, stakeholders' influence, organizational slack, and managers' posture. *Journal of Business Research*, 60(5): 463-473.
- Amason, A. C., & Mooney, A. C. 2008. The Icarus paradox revisited: How strong performance sows the seeds of dysfunction in future strategic decision-making. *Strategic Organization*, 6(4): 407-434.
- Anand, J., & Singh, J. 1997. Asset redeployment, acquisitions and corporate strategy in declining industries. *Strategic Management Journal*, 18: 99–118.
- Andrews, J., & Smith, D. C. 1996. In search of the marketing imagination: Factors affecting the creativity of marketing programs for mature products. *Journal of Marketing Research*, 33(2): 174-187.
- Arrfelt, M., Wiseman, R. M., & Hult, G. T. M. 2013. Looking backward instead of forward: Aspiration-driven influences on the efficiency of the capital allocation process. *Academy of Management Journal*, 56(4): 1081-1103.
- Bansal, P. 2003. From issues to actions: The importance of individual concerns and organizational values in responding to natural environmental issues. *Organization Science*, 14(5): 510-527.
- Barley S. R., & Bechky B. A. 1994. In the backrooms of science: the work of technicians in science labs. *Work and Occupations*, 21(1): 85–126.
- Barley, S. R. 1996. Technicians in the workplace: Ethnographic evidence for bringing work into organizational studies. *Administrative Science Quarterly*, 41(3): 404-441.
- Barley, S. R., & Orr, J. E. (Eds.). 1997. *Between craft and science: Technical work in US settings*. Cornell University Press.
- Bentley, F. S., & Kehoe, R. R. 2020. Give them some slack—They're trying to change! The benefits of excess cash, excess employees, and increased human capital in the strategic change context. *Academy of Management Journal*, 63(1): 181-204.
- Berk, A., & Kaše, R. 2010. Establishing the value of flexibility created by training: Applying real options methodology to a single HR practice. *Organization Science*, 21(3): 765-780.
- Bourgeois III, L. J. 1981. On the measurement of organizational slack. *Academy of Management Review*, 6(1): 29-39.
- Bourgeois III, L. J., & Singh, J. V. 1983. Organizational slack and political behavior among top management teams. *Academy of Management Proceedings*, 1983(1): 43-47.
- Bradley, S. W., Wiklund, J., & Shepherd, D. A. 2011. Swinging a double-edged sword: The effect of slack on entrepreneurial management and growth. *Journal of Business Venturing*, 26(5): 537-554.
- Bromiley, P. 1991. Testing a causal model of corporate risk taking and performance. *Academy of Management Journal*, 34(1): 37-59.

- Brown J. S., & Duguid P. 1991. Organizational learning and communities-of-practice: toward a unified view of working, learning and innovation. *Organization Science*, 2(1): 40-57.
- Buyl, T., Boone, C., & Wade, J. B. 2019. CEO narcissism, risk-taking, and resilience: An empirical analysis in U.S. commercial banks. *Journal of Management*, 45(4): 1372-1400.
- Cabral, J. J., Iyer, D. N., & O'Brien, J. P. 2023. How the ghosts of past experience haunt problemistic search. *Strategic Organization*, DOI: 10.1177/14761270221142554.
- Carnes, C. M., Xu, K., Sirmon, D. G., & Karadag, R. 2019. How competitive action mediates the resource slack–performance relationship: A meta-analytic approach. *Journal of Management Studies*, 56(1): 57-90.
- Chang, S. J., & Rhee, J. H. 2011. Rapid FDI expansion and firm performance. *Journal of International Business Studies*, 42: 979-994.
- Chen, C. J., & Huang, Y. F. 2010. Creative workforce density, organizational slack, and innovation performance. *Journal of Business Research*, 63(4): 411-417.
- Chen, W. R. 2008. Determinants of firms' backward-and forward-looking R&D search behavior. *Organization Science*, 19(4): 609-622.
- Chen, W. R., & Miller, K. D. 2007. Situational and institutional determinants of firms' R&D search intensity. *Strategic Management Journal*, 28(4): 369-381.
- Cho, S. Y., Choi, Y., Park, H. D., & Kwon, J. H. 2023. One man's death is another man's bread: The effect of a CEO's sudden death on competitors' strategic investments. *Journal of Management Studies*, (Forthcoming): <https://doi.org/10.1111/joms.12914>.
- Choudhary, V., Marchetti, A., Shrestha, Y. R., & Puranam, P. 2023. Human-AI ensembles: When can they work? *Journal of Management*, (Forthcoming): <https://doi.org/10.1177/01492063231194968>.
- Chuah, K., DesJardine, M. R., Goranova, M., & Henisz, W. J. 2023. Shareholder Activism Research: A System-Level View. *Academy of Management Annals*, DOI: 10.5465/annals.2022.0069.
- Cooper, B., Cohen, T. R., Huppert, E., Levine, E. E., & Fleeson, W. 2023. Honest behavior: Truth-seeking, belief-speaking, and fostering understanding of the truth in others. *Academy of Management Annals*, 17(2): 655-683.
- Cyert R. M., & March, J. G, 1992. *A Behavioral Theory of the Firm, 2nd edn*. Cambridge, MA: Blackwell.
- Cyert, R. M., & March, J. G. 1963. *A Summary of Basic Concepts in the Behavioral Theory of the Firm*. M. Wiener.
- Daniel, F., Lohrke, F. T., Fornaciari, C. J., & Turner Jr, R. A. 2004. Slack resources and firm performance: a meta-analysis. *Journal of Business Research*, 57(6): 565-574.
- Danneels, E. 2008. Organizational antecedents of second-order competences. *Strategic Management Journal*, 29(5): 519-543.
- De Carolis, D. M., Yang, Y., Deeds, D. L., & Nelling, E. 2009. Weathering the storm: the benefit of resources to high-technology ventures navigating adverse events. *Strategic Entrepreneurship Journal*, 3(2): 147-160.
- De Massis, A., Kotlar, J., Mazzola, P., Minola, T., & Sciascia, S. 2018. Conflicting selves: Family owners' multiple goals and self-control agency problems in private firms. *Entrepreneurship Theory and Practice*, 42(3): 362-389.

- Deb, P., David, P., & O'Brien, J. 2017. When is cash good or bad for firm performance?. *Strategic Management Journal*, 38(2): 436-454.
- Dolmans, S. A., van Burg, E., Reymen, I. M., & Romme, A. G. L. 2014. Dynamics of resource slack and constraints: Resource positions in action. *Organization Studies*, 35(4): 511-549.
- Dutta, D. K., Malhotra, S., & Zhu, P. 2016. Internationalization process, impact of slack resources, and role of the CEO: The duality of structure and agency in evolution of cross-border acquisition decisions. *Journal of World Business*, 51(2): 212-225.
- Felin, T., Foss, N., & Ployhart, R. (2015). The microfoundations movement in strategy and organization theory. *Academy of Management Annals*, 9(1): 575-632.
- Gentry, R., Dibrell, C., & Kim, J. 2016. Long-term orientation in publicly traded family businesses: Evidence of a dominant logic. *Entrepreneurship Theory and Practice*, 40(4): 733-757.
- Geoffrey Love, E., & Nohria, N. 2005. Reducing slack: The performance consequences of downsizing by large industrial firms, 1977-93. *Strategic Management Journal*, 26(12): 1087-1108.
- George, G. 2005. Slack resources and the performance of privately held firms. *Academy of Management Journal*, 48(4): 661-676.
- Greve, H. R. 2003. A behavioral theory of R&D expenditures and innovations: Evidence from shipbuilding. *Academy of Management Journal*, 46(6): 685-702.
- Greve, H. R. 2007. Exploration and exploitation in product innovation. *Industrial and Corporate Change*, 16(5): 945-975.
- Hambrick, D. C., & Mason, P. A. 1984. Upper echelons: The organization as a reflection of its top managers. *Academy of Management Review*, 9(2): 193-206.
- Harrison, J. S., & Coombs, J. E. 2012. The moderating effects from corporate governance characteristics on the relationship between available slack and community-based firm performance. *Journal of Business Ethics*, 107: 409-422.
- Helfat C. 1994. Firm-specificity in corporate applied R&D. *Organization Science*, 5(2): 173-184.
- Herold, D. M., Jayaraman, N., & Narayanaswamy, C. R. 2006. What is the relationship between organizational slack and innovation? *Journal of Managerial Issues*, 18(3): 372-392.
- Huang, Y. F., & Chen, C. J. 2010. The impact of technological diversity and organizational slack on innovation. *Technovation*, 30(7-8): 420-428.
- Iyer, D. N., & Miller, K. D. 2008. Performance feedback, slack, and the timing of acquisitions. *Academy of Management Journal*, 51(4): 808-822.
- Jensen M. C., 1986. Agency costs of free cash flow, corporate finance, and takeovers. *The American Economic Review*, 76: 323-329.
- Jensen, M. C. , & Meckling, W. F. 1976. Theory of the firm: Managerial behavior, agency costs, and ownership structure. *Journal of Financial Economics*, 3: 305-360.
- Ju, M., & Zhao, H. 2009. Behind organizational slack and firm performance in China: The moderating roles of ownership and competitive intensity. *Asia Pacific Journal of Management*, 26: 701-717.

- Julian, S. D., & Ofori-dankwa, J. C. 2013. Financial resource availability and corporate social responsibility expenditures in a sub-Saharan economy: The institutional difference hypothesis. *Strategic Management Journal*, 34(11): 1314-1330.
- Jung, C., Foege, J. N., & Nüesch, S. 2020. Cash for contingencies: How the organizational task environment shapes the cash-performance relationship. *Long Range Planning*, 53(3): 101885.
- Kang, C., Germann, F., & Grewal, R. 2016. Washing away your sins? Corporate social responsibility, corporate social irresponsibility, and firm performance. *Journal of Marketing*, 80(2): 59-79.
- Kannan-Narasimhan, R. 2014. Organizational ingenuity in nascent innovations: Gaining resources and legitimacy through unconventional actions. *Organization Studies*, 35(4): 483-509.
- Karim, S., Lee, C. H., & Hoehn-Weiss, M. N. 2023. Task bottlenecks and resource bottlenecks: A holistic examination of task systems through an organization design lens. *Strategic Management Journal*, 44(8): 1839-1878.
- Kavusan, K., & Frankort, H. T. 2019. A behavioral theory of alliance portfolio reconfiguration: Evidence from pharmaceutical biotechnology. *Strategic Management Journal*, 40(10): 1668-1702.
- Kim, C., & Bettis, R. A. 2014. Cash is surprisingly valuable as a strategic asset. *Strategic Management Journal*, 35(13): 2053-2063.
- Kim, H., Kim, H., & Lee, P. M. 2008. Ownership structure and the relationship between financial slack and R&D investments: Evidence from Korean firms. *Organization Science*, 19(3): 404-418.
- Kiss, A. N., Fernhaber, S., & McDougall-Covin, P. P. 2018. Slack, innovation, and export intensity: Implications for small- and medium-sized enterprises. *Entrepreneurship Theory and Practice*, 42(5): 671-697.
- Kuusela, P., Keil, T., & Maula, M. 2017. Driven by aspirations, but in what direction? Performance shortfalls, slack resources, and resource-consuming vs. resource-freeing organizational change. *Strategic Management Journal*, 38(5): 1101-1120.
- Langley, A., Smallman, C., Toukas, H., & van de Ven, A. H. 2013. Process studies of change in organization and management: Unveiling temporality, activity, and flow. *Academy of Management Journal*, 56(1): 1-13.
- Lant, T. K., & Montgomery, D. B. 1987. Learning from strategic success and failure. *Journal of Business Research*, 15(6): 503-517.
- Lanzolla, G., Lorenz, A., Miron-Spektor, E., Schilling, M., Solinas, G., & Tucci, C. L. 2020. Digital transformation: What is new if anything? Emerging patterns and management research. *Academy of Management Discoveries*, 6(3): 341-350.
- Latham, S. F., & Braun, M. 2009. Managerial risk, innovation, and organizational decline. *Journal of Management*, 35(2): 258-281.
- Lazar, M., Miron-Spektor, E., Agarwal, R., Erez, M., Goldfarb, B., & Chen, G. 2020. Entrepreneurial team formation. *Academy of Management Annals*, 14(1): 29-59.
- Lecuona, J. R., & Reitzig, M. 2014. Knowledge worth having in 'excess': The value of tacit and firm-specific human resource slack. *Strategic Management Journal*, 35(7): 954-973.



- Leuridan, G., & Demil, B. 2022. Exploring the dynamics of slack in extreme contexts: a practice-based view. *Human Relations*, 75(6): 1167-1193.
- Levinthal, D. A., & Wu, B. 2010. Opportunity costs and non-scale free capabilities: Profit maximization, corporate scope, and profit margins. *Strategic Management Journal*, 31(7): 780–801.
- Levinthal, D., & March, J. G. 1981. A model of adaptive organizational search. *Journal of Economic Behavior & Organization*, 2(4): 307-333.
- Lim, E. 2017. CEO option wealth and firm risk-taking: An analysis of multiple reference points. *Long Range Planning*, 50(6): 809-825.
- Lin, W. T. 2016. FDI decisions and business-group insider control: Evidence from Taiwanese group-affiliated firms investing in the Chinese market. *Journal of World Business*, 51(4): 525-533.
- Lin, W. T., Cheng, K. Y., & Liu, Y. 2009. Organizational slack and firm's internationalization: A longitudinal study of high-technology firms. *Journal of World Business*, 44(4): 397-406.
- Lin, W. T., Liu, Y., & Cheng, K. Y. 2011. The internationalization and performance of a firm: Moderating effect of a firm's behavior. *Journal of International Management*, 17(1): 83-95.
- Liu, Y., Lin, W. T., & Cheng, K. Y. 2011. Family ownership and the international involvement of Taiwan's high-technology firms: The moderating effect of high-discretion organizational slack. *Management and Organization Review*, 7(2): 201-222.
- Lu, H., Liu, X., & Osiyevskyy, O. 2023. Doing safe while doing good: Slack, risk management capabilities, and the reliability of value creation through CSR. *Strategic Organization*, 21(4): 874-904.
- Lungeanu, R., Stern, I., & Zajac, E. J. 2016. When do firms change technology-sourcing vehicles? The role of poor innovative performance and financial slack. *Strategic Management Journal*, 37(5): 855-869.
- Malen, J., & Vaaler, P. M. 2017. Organizational slack, national institutions and innovation effort around the world. *Journal of World Business*, 52(6): 782-797.
- March, J. G., & Simon, H. A. 1958. *Organizations*. New York: Wiley.
- Marlin, D., & Geiger, S. W. 2015. A reexamination of the organizational slack and innovation relationship. *Journal of Business Research*, 68(12): 2683-2690.
- Martin, G. P., Wiseman, R. M., & Gomez-Mejia, L. R. 2016. Going short-term or long-term? CEO stock options and temporal orientation in the presence of slack. *Strategic Management Journal*, 37(12): 2463-2480.
- Mellahi, K., Frynas, J. G., Sun, P., & Siegel, D. 2016. A review of the nonmarket strategy literature: Toward a multi-theoretical integration. *Journal of Management*, 42(1): 143-173.
- Menz, M., Kunisch, S., Birkinshaw, J., Collis, D. J., Foss, N. J., Hoskisson, R. E., & Prescott, J. E. 2021. Corporate strategy and the theory of the firm in the digital age. *Journal of Management Studies*, 58(7): 1695-1720.
- Meyer, A. D. (1982). Adapting to environmental jolts. *Administrative Science Quarterly*, 27(4): 515-537.

- Mishina, Y., Pollock, T. G., & Porac, J. F. 2004. Are more resources always better for growth? Resource stickiness in market and product expansion. *Strategic Management Journal*, 25(12): 1179-1197.
- Mithani, M. A., & O'Brien, J. P. 2021. So what exactly is a “coalition” within an organization? A review and organization framework. *Journal of Management*, 47(1): 171-206.
- Montgomery C. A., & Wernerfelt B. 1988. Diversification, Ricardian rents, and Tobin's q. *RAND Journal of Economics*, 19(4): 623–632.
- Mount, M. P. & Baer, M. 2022. CEOs' regulatory focus and risk-taking when perform below and above the bar. *Journal of Management*, 48(7): 1980-2008.
- Nohria, N., & Gulati, R. 1996. Is slack good or bad for innovation? *Academy of Management Journal*, 39(5): 1245-1264.
- Nonaka, I. 1994. A dynamic theory of organizational knowledge creation. *Organization Science*, 5(1): 14-37.
- O'Brien, J. P. 2003. The capital structure implications of pursuing a strategy of innovation. *Strategic Management Journal*, 24(5): 415-431.
- Paeleman, I., & Vanacker, T. 2015. Less is more, or not? On the interplay between bundles of slack resources, firm performance and firm survival. *Journal of Management Studies*, 52(6): 819-848.
- Paeleman, I., Fuss, C., & Vanacker, T. 2017. Untangling the multiple effects of slack resources on firms' exporting behavior. *Journal of World Business*, 52(6): 769-781.
- Penrose, E. T. 1959. *The Theory of the Growth of the Firm*. New York: John Wiley.
- Pitelis, C. N. 2007. A behavioral resource-based view of the firm: The synergy of Cyert and March (1963) and Penrose (1959). *Organization Science*, 18(3): 478-490.
- Pfeffer, J., & Salancik, G. R. 1978. *The external control of organizations: A resource dependence approach*. New York, NY: Harper and Row Publishers.
- Ploeg, M., Knobens, J., & Vermeulen, P. 2022. We are in it together: Communitarianism and the performance-innovation relationship. *Research Policy*, 51(5): 104507.
- Raisch, S., & Fomina, K. 2024. Combining Human and Artificial Intelligence: Hybrid Problem-Solving in Organizations. *Academy of Management Review*, (Forthcoming): <https://doi.org/10.5465/amr.2021.0421>.
- Raisch, S., & Krakowski, S. 2021. Artificial intelligence and management: The automation-augmentation paradox. *Academy of Management Review*, 46(1): 192-210.
- Ref, O., Feldman, N. E., Iyer, D. N., & Shapira, Z. 2021. Entry into new foreign markets: Performance feedback and opportunity costs. *Journal of World Business*, 56(6): 101258.
- Ren, C. R., Mulotte, L., Dussauge, P., & Anand, J. 2022. Alliance performance and subsequent make-or-ally choices: Evidence from the aircraft manufacturing industry. *Strategic Management Journal*, 43(11): 2382-2413.
- Sapienza, H. J., Autio, E., George, G., & Zahra, S. A. 2006. A capabilities perspective on the effects of early internationalization on firm survival and growth. *Academy of Management Review*, 31(4): 914–933.
- Sengul, M., Costa, A. A., & Gimeno, J. 2019. The allocation of capital within firms. *Academy of Management Annals*, 13(1): 43-83.

- Sharfman, M. P., Wolf, G., Chase, R. B., & Tansik, D. A. 1988. Antecedents of organizational slack. *Academy of Management Review*, 13(4): 601-614.
- Sharma, S. 2000. Managerial interpretations and organizational context as predictors of corporate choice of environmental strategy. *Academy of Management Journal*, 43(4): 681-697.
- Shayne Gary, M. 2005. Implementation strategy and performance outcomes in related diversification. *Strategic Management Journal*, 26(7): 643-664.
- Shi, W., Connelly, B. L., & Cirik, K. 2018. Short seller influence on firm growth: A threat rigidity perspective. *Academy of Management Journal*, 61(5): 1892-1919.
- Simsek, Z., Veiga, J. F., & Lubatkin, M. H. 2007. The impact of managerial environmental perceptions on corporate entrepreneurship: Towards understanding discretionary slack's pivotal role. *Journal of Management Studies*, 44(8): 1398-1424.
- Singh, J. V. 1986. Performance, slack, and risk taking in organizational decision making. *Academy of Management Journal*, 29(3): 562-585.
- Stan, C. V., Peng, M. W., & Bruton, G. D. 2014. Slack and the performance of state-owned enterprises. *Asia Pacific Journal of Management*, 31: 473-495.
- Stevens, R., Moray, N., Bruneel, J., & Clarysse, B. 2015. Attention allocation to multiple goals: The case of for-profit social enterprises. *Strategic Management Journal*, 36(7): 1006-1016.
- Su, Z., Xie, E., & Li, Y. 2009. Organizational slack and firm performance during institutional transitions. *Asia Pacific Journal of Management*, 26(1): 75-91.
- Suzuki, O. (2018). Enabling or constraining? Unraveling the influence of organizational slack on innovation. *Industrial and Corporate Change*, 27(3): 555-575.
- Tan, J., & Peng, M. W. 2003. Organizational slack and firm performance during economic transitions: Two studies from an emerging economy. *Strategic Management Journal*, 24(13): 1249-1263.
- Tang, S., Nadkarni, S., Wei, L., & Zhang, S. X. 2021. Balancing the yin and yang: TMT gender diversity, psychological safety, and firm ambidextrous strategic orientation in Chinese high-tech SMEs. *Academy of Management Journal*, 64(5): 1578-1604.
- Tang, Y., Qian, C., Chen, G., & Shen, R. 2015. How CEO hubris affects corporate social (ir) responsibility. *Strategic Management Journal*, 36(9): 1338-1357.
- Titus Jr, V., O'Brien, J. P., & Dixit, J. 2022. Does performance breed slack? Ownership as a contingency to the performance feedback and slack relationship. *Journal of Management*, 48(5): 1270-1298.
- Thompson, J. D. 1967. *Organizations in Action: Social Science Bases of Administrative Theory*. New York: McGraw-Hill.
- Thornton, P. H., Ocasio, W., & Lounsbury, M. 2012. *The institutional logics perspective: A new approach to culture, structure, and process*. Oxford: Oxford University Press.
- Tranfield, D., Denyer, D., & Smart, P. 2003. Towards a methodology for developing evidence-informed management knowledge by means of systematic review. *British Journal of Management*, 14(3): 207-222.
- Troilo, G., De Luca, L. M., & Atuahene-Gima, K. 2014. More innovation with less? A strategic contingency view of slack resources, information search, and radical innovation. *Journal of Product Innovation Management*, 31(2): 259-277.

- Tseng, C. H., Tansuhaj, P., Hallagan, W., & McCullough, J. 2007. Effects of firm resources on growth in multinationality. *Journal of International Business Studies*, 38: 961-974.
- Uhlenbruck, K., Hughes-Morgan, M., Hitt, M. A., Ferrier, W. J., & Brymer, R. 2017. Rivals' reactions to mergers and acquisitions. *Strategic Organization*, 15(1): 40-66.
- Vanacker, T., Collewaert, V., & Zahra, S. A. 2017. Slack resources, firm performance, and the institutional context: Evidence from privately held European firms. *Strategic Management Journal*, 38(6): 1305-1326.
- Voss, G. B., Montoya-Weiss, M., & Voss, Z. G. 2006. Aligning innovation with market characteristics in the nonprofit professional theater industry. *Journal of Marketing Research*, 43(2): 296-302.
- Voss, G. B., Sirdeshmukh, D., & Voss, Z. G. 2008. The effects of slack resources and environmental threat on product exploration and exploitation. *Academy of Management Journal*, 51(1): 147-164.
- Wan, W. P., & Yiu, D. W. 2009. From crisis to opportunity: Environmental jolt, corporate acquisitions, and firm performance. *Strategic Management Journal*, 30(7): 791-801.
- Wang, H. C., He, J., & Mahoney, J. T. 2009. Firm-specific knowledge resources and competitive advantage: the roles of economic-and relationship-based employee governance mechanisms. *Strategic Management Journal*, 30(12): 1265-1285.
- Wang, H., Choi, J., Wan, G., & Dong, J. Q. 2016. Slack resources and the rent-generating potential of firm-specific knowledge. *Journal of Management*, 42(2): 500-523.
- Wernerfelt B., & Montgomery C. A. 1988. Tobin's q and the importance of focus in firm performance. *American Economic Review*, 78(1): 246-250.
- Xu, E., Yang, H., Quan, J. M., & Lu, Y. 2015. Organizational slack and corporate social performance: Empirical evidence from China's public firms. *Asia Pacific Journal of Management*, 32: 181-198.

**TABLE 1:**  
**Summary of Slack’s Conceptual Evolution**

Author	Description	Illustrative Studies Supporting Conceptualization
Cyert & March (1963)	Slack conceptualized as a unitary construct and includes all organizational resources that are surplus to operational requirements.	Bourgeois (1981); Peillex & Ureche-Rangau (2016); Stevenson, Kier, & Taylor (2021).
Bourgeois & Singh (1983)	Slack conceptualized into different <i>types</i> that are determined by their ease of recovery (i.e., availability). These types include available slack, recoverable slack, and potential slack.	Alessandri, Cerrato, & Eddleston, (2016); Chen (2008); Tseng, Tansuhaj, Hallagan, & McCullough (2007).
Singh (1986)	Slack conceptualized into absorbed and unabsorbed <i>types</i> . These types correspond to available and recoverable slack proposed by Bourgeois & Singh (1983).	Greve (2003a); Greve (2003b); Greve (2007); Jansen, Simsek, & Cao (2012).
Sharfman, Wolf, Chase, & Tansik (1988)	Slack conceptualized into different <i>forms</i> based on resource’s degree of flexibility to be used across a variety of situations (i.e., fungibility). These include high discretion and low discretion slack. Authors equate this fungibility dimension to the availability dimension offer in earlier studies	Chen, Simsek, Liao, & Kwan, (2022); George (2005); McGaughey (2007); Simsek, Veiga, & Lubatkin (2007); Sharma (2000).

*Note.* The illustrative studies that support the described conceptualization of slack may not cite the original author but explicitly use the conceptualization proposed.

**TABLE 2:  
Directions for Future Research on Slack**

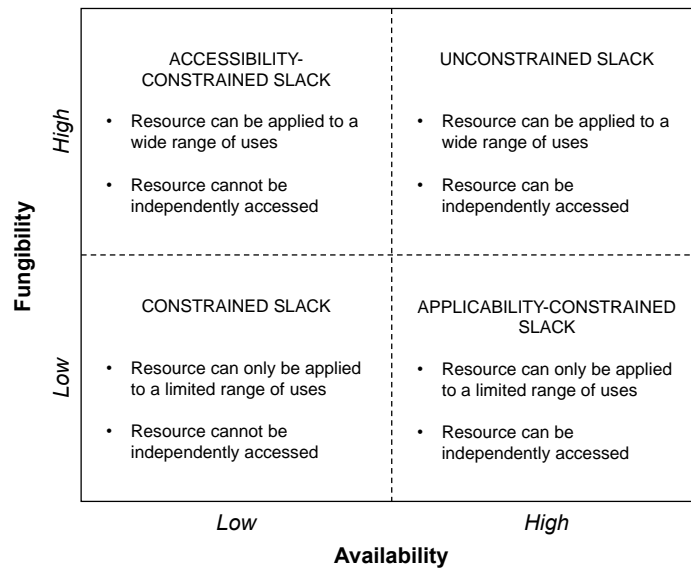
Slack Profile	Research Implications	Directions for Future Research	Potential Theoretical Perspective(s)
Unconstrained slack	Slack resources that can be independently accessed by an organizational actor (high availability) and applied to a broad range of alternative uses (high fungibility).	<i><b>Individual-level</b></i> Do managers' personal attributes (e.g., narcissism, temporal focus) affect their perceptions and deployment of unconstrained slack resources? Do managers that are high on narcissism pursue more exploratory, uncertain strategies using unconstrained slack than managers that are low on narcissism? Are managers that exhibit a past-focus more conservative in their uses of unconstrained slack than managers that exhibit a future-focus?	Upper echelons theory (UET)
		<i><b>Organizational-level</b></i> How do the uses of unconstrained slack differ between firms that are guided by alternative logics (e.g., community-, market-, family-logic)? Do the uses of unconstrained slack differ between B-corps that prescribe to a community-logic and firms that prescribe to a market-logic?	
		<i><b>Environmental-level</b></i> How is unconstrained slack allocated among firms that adopt a platform strategy and rely on the resources and efforts of other partner organizations and complementors?	Resource-based view (RBV)
		<i><b>Cross-level</b></i> How do managers' personal attributes (e.g., narcissism) and the firm's guiding logic (e.g., community-, market-, family-logic) jointly influence managers' discretion and uses of unconstrained slack?	UET; Institutional logics perspective
		<hr/>	
Constrained slack	Slack resources that cannot be independently accessed by an organizational actor (low availability) and only applied to a narrow range of alternative uses (low fungibility).	<i><b>Individual-level</b></i> How do managers negotiate access to constrained slack from other subunits of the organization? Do managers that differ in their power and status (e.g., experience and prestige) vary in their ability to access unconstrained slack? Do managers' psychological and cognitive attributes affect their perceptions of strategic value of inapplicable and inaccessible slack resources?	Agency theory; UET  BTOF; RBV; Resource dependence theory (RDT)
		<i><b>Organizational-level</b></i> Do organizations with constrained slack use these constraints as means to define the criteria for selecting alliance partners and acquisition targets?	

		How is constrained slack allocated between resource-dependent partners? Do firms with less power forfeit their constrained slack to more powerful exchange partners?	
		<b>Environmental-level</b> How do differences in industry attributes (dynamism, munificence, and competition) and institutional context influence a firm's ability to deal with constrained slack (i.e., scarcity)?	Institutional theory
		What impact do societal shifts in patterns of work, such as that of the gig economy and gig workers, have on a firm's ability to deal with constrained slack?	
		<b>Cross-level</b> What is the process through which managers negotiate access to and the uses of constrained slack? How is this process influenced by differences in managerial power and status? What types of coalitions are formed within the organization?	BTOF; UET
		How does the process of negotiating access to and the uses of constrained slack unfold in different organizational arrangements and environmental contexts?	
		<b>Individual-level</b> Do managers with different temporal dispositions (e.g., future- versus past-focus) conceive different uses for applicability-constrained slack?	UET
		Does the diversity of CEOs' background and experience influence the ways in which managers use (or repurpose) applicability-constrained slack?	
		<b>Organizational-level</b> How does applicability-constrained slack influence patterns of slack search? Do patterns of search differ between unconstrained versus applicability constrained slack?	BTOF; Knowledge-based view (KBV)
		How do firms convert the uses of applicability-constrained slack (such as specialized human resources)? Are there distinct patterns of conversion for repurposing slack?	
		<b>Environmental-level</b> How do differences in industry attributes (dynamism, munificence, and competition) and institutional context influence the uses of applicability-constrained slack?	RBV; Transaction cost theory (TCT)
		Do firms operating in environments characterized by unpredictable demand and high competition hold a higher degree of applicability-constrained slack?	
		<b>Cross-level</b> How do managers' personal attributes (e.g., regulatory focus) and performance feedback (e.g., above- and below-aspiration performance) jointly influence managers' discretion and uses of applicability-constrained slack?	BTOF; UET
Applicability-constrained slack	Slack resources that can be independently accessed by an organizational actor (high availability) but can only be applied to a narrow range of alternative uses (low fungibility).		

		How do managers' personal attributes and industry attributes (dynamism, munificence, and competition) jointly influence managers' discretion and uses of applicability-constrained slack?	
Accessibility-constrained slack	Slack resources that cannot be independently accessed by an organizational actor (low availability) but can be applied to a broad range of alternative uses (high fungibility).	<b>Individual-level</b>	
		How do different aspects of CEO power, such as structural, ownership, expert, and prestige power, affect the decisions to redeploy accessibility-constrained slack?	
		How does the reputation or status of managers affect the redeployment decisions concerning accessibility-constrained slack?	UET; Agency theory
		Are risk-averse managers more or less likely leverage their power, status, or reputation to influence decisions concerning accessibility-constrained slack?	
		<b>Organizational-level</b>	
		How do organizations develop an ability to tap into highly fungible resource that exists in the environment?	
		When do organizations consider internal and external accessibility-constrained slack as complements or substitutes?	BTOF; KBV, RDT, Stakeholder theory, TCT
		When certain organizational functions require more resources, do organizations opt to redeploy internally absorbed highly fungible slack, or do they choose to tap into their environments for such resources?	
		<b>Environmental-level</b>	
		How do variations in the external environmental factors, such as market turbulence, regulatory shifts, and competitive dynamics, influence the strategic deployment of accessibility-constrained slack by organizations?	
Do external communities and platforms (e.g., online communities, crowdsourcing platforms, e-commerce platforms) enhance or impede firms' access to fungible resources in their environment?	RBV; Institutional theory; Social network theory		
In the context of changing external environments, what factors within the ecosystem surrounding organizations affect the effective utilization and redirection of accessibility-constrained slack to meet evolving demands and circumstances?			
<b>Cross-level</b>			
What are the cross-level mechanisms that contribute to internal reallocation of accessibility-constrained slack between business units?			
What is the process through which managers negotiate the uses of accessibility-constrained slack from external actors (e.g., external capital market)?			

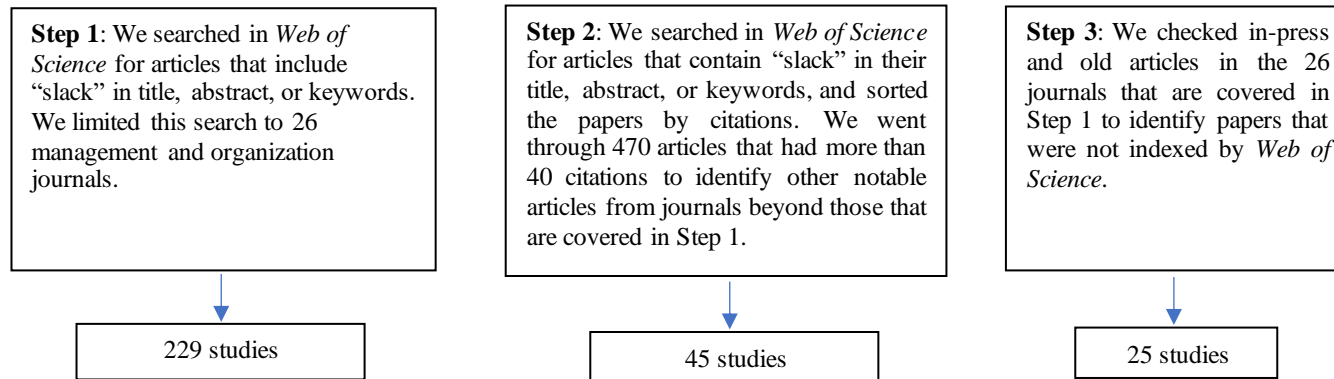


**FIGURE 1:  
A Typology of Slack Characteristics**

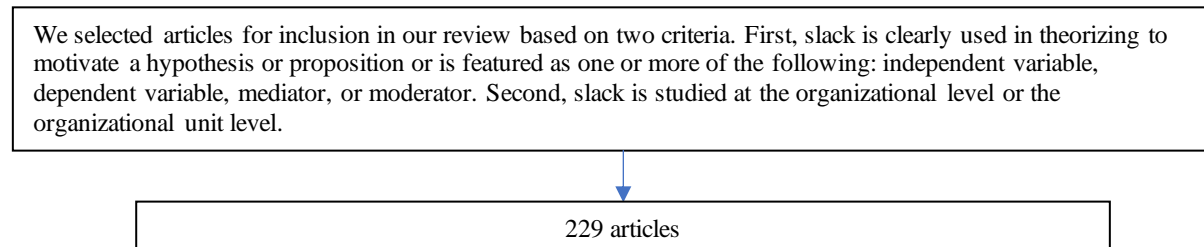


**FIGURE 2:**  
**Overview of Steps for Article Search, Selection, and Coding Process**

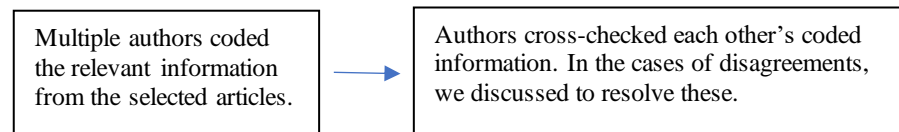
**1. Search Process (yielding a total of 299 studies)**



**2. Selection Process (yielding a total of 229 studies)**



**3. Coding Process**



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