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Articulating the Balance of Power: Comparing the Relative Weights of Human Capital Resources and Organizational Capabilities

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Articulating the Balance of Power: Comparing the Relative Weights of Human
Capital Resources and Organizational Capabilities

by

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DEDICATION

“Yea, I know that I am nothing; as to my strength I am weak; therefore I will not boast of myself, but I will boast of my God, for in his strength I can do all things” Alma 26:12

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It takes a village to earn a PhD. My wife and village chieftain, Mel, has raised our children through my many unanticipated late nights and long weekends at the office (not to mention absent mindedness when I was home) and I will forever be in her debt. My children (Maren, Norah, Sonya, and Anneke) have always been thrilled when I come home from work, which pushed me to get home sooner so I could spend more time with them. My parents have both encouraged me, pushed me, and listened to me as I struggled through the ups and downs of a graduate program and writing a dissertation. I can't count the number of hours I spent talking through my ideas with my dad, who tried his best not to influence my career choice and research interests (yet I followed in his footsteps anyways, sorry). I may not have finished my dissertation had my mom not offered to drive my family across the country so I could focus on writing and for demanding that I quit reading and put my ideas on paper. My sisters, by both earning doctorates, gave me the added motivation to earn one of my own. They each provided advice and encouragement along the way.

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ABSTRACT

Researchers have argued the importance of human capital to organizations for many years. Recent theoretical developments have distinguished between human capital, which is owned by individuals, and human capital resources, which are available to units for performance and competitive advantage. This distinction calls attention to different types of human capital, generic or specific. Studies have found positive unit-level effects emanating from both human capital resource types yet few studies have considered multiple types simultaneously, making it challenging to know which has greater explanatory power. Additionally, studies have also not considered the impact of organizational capabilities in conjunction with human capital resources. This study tests the effects of multiple types of human capital resources and organizational capabilities to determine the relative influence an organizational subunit has on strategic decision making. These tests are conducted using a large international dataset including multiple types of individual human capital and subunit capabilities, allowing us to compare the relative weights of each.

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CHAPTER 1

INTRODUCTION

Many studies have shown the value and importance of human capital for organizations, must notably popularized through the work of Nobel Prize winning economist Gary Becker in 1964. Discovering new insights and creating novel ideas regarding human capital after over 50 years of research is not easy yet scholars have attempted to reconceptualize human capital in order to more clearly articulate how organizations use human capital to realize a competitive, and sometimes sustained, advantage (L. Dyer & Reeves, 1995; Wright, McMahan, & McWilliams, 1994).

Recent research has called attention to how the collective human capital of individuals, here defined as an individual's knowledge, skills, abilities, and other attributes (KSAOs), within a unit create resources to their organization through an emergence process (Ployhart & Moliterno, 2011). The complicated emergent nature of these unit resources make them difficult to understand (both by the organization and competitors), create, imitate, purchase from labor markets, or steal from competitors.

Early attempts to understand how human capital resources become valuable resources focused largely on firm-specific human capital, or KSAOs that were not easily translated into different and competing firms. Since firm-specific KSAOs have limited applicability outside the focal organization it was theorized that these skills represent a valuable, rare, inimitable resource and hence a source of competitive advantage (H. C. Wang, He, & J. T. Mahoney, 2009). Since alternative human capital types, such as

general or occupation-specific, were not unique to the organization researchers believed that these resources could be more easily purchased from the labor market. This suggests that organizations have limited ability to appropriate rents from these common and accessible, therefore not rare or inimitable, resources.

Yet other research has called into question the limits of non-firm-specific resources to create value while also arguing the true value of firm-specific resources may be overstated (Campbell, Coff, & Kryscynski, 2012). Meta-analytic results seem to support the traditional view that greater explanatory power regarding firm performance (typically measured through financial metrics) is derived from firm-specific rather than generic human capital resources (Crook, Todd, Combs, Woehr, & Ketchen, 2011). Yet past studies have rarely considered multiple types of human capital resources within the same study making conclusions regarding the relative importance of the different resources difficult.

These meta-analytic findings also offer support to recent research suggesting generic human capital resources are still significantly related to organizational performance, challenging the assumption that generic human capital does not lead to superior performance (Crook et al., 2011). This then leads to the question of how organizations derive improved performance through the use of human capital resources that can be easily imitated by competitors through open markets. As suggested in literature on human capital emergence, organizations can create value from non-specific resources by combining generic human capital to create complementarities that are less easily understood and imitated by competitors (Ployhart, Nyberg, Reilly, & Maltarich, 2014).

Touching once more upon prior meta-analytical research, there have been numerous studies examining the relationship between human capital and firm performance ($N = 12,163$; $k = 68$; Crook et al., 2011), finding a significant and positive combined effect ($r_c = 0.21$). This leaves little doubt that the employees within an organization matter, as most every CEO will attest, but human capital resources are likely inputs into more complicated organizational capabilities which more directly impact firm outputs. Yet this meta-analysis found prior studies only considered financial or operational dimensions of firm-performance, leaving opportunities for future research on alternative performance metrics, such as power. These studies have also not considered whether there are intermediary mechanisms through which human capital relates to firm performance.

To summarize, human capital resources are important tools for organizations to gain competitive advantage but research has neither clearly identified the relative importance of different human capital resource types nor the relative importance of human capital resources compared against organizational capabilities.

This study attempts to contribute to this literature in the following ways. First, I will consider a more proximal organizational performance measure by looking at a within-organization outcome, subunit power. Second, I will consider three types of human capital resources: general, occupation-specific, and strategy-specific. Each resource type will likely impact subunit power so I attempt to determine the relative importance of each. Finally, I will consider if human capital resources are in general more important in explaining organizational performance than organizational capabilities.

In the following sections I will review the literature on subunit power to introduce the construct into the human capital resources literature. This will be followed by a review of human capital resources and organizational capabilities. Following this review, I will introduce the specific context in which this study takes place before proposing hypotheses. Hypotheses are then tested using a large international data set that measures different dimensions of human capital resources, organizational capabilities, and subunit power.

CHAPTER 2

LITERATURE REVIEW

2.1. SUBUNIT POWER

Lawrence & Lorsch (1967: 3) define an organization as “a system of interrelated behaviors of people who are performing a task that has been differentiated into several distinct subsystems, each subsystem performing a portion of the task, and the efforts of each being integrated to achieve effective performance of the system.” The nature and definition of these subsystems, or subunits as they will be called hereafter, will vary based on the design on the organization. A classical hierarchical organization might be broken into subunits based on business functions, such as manufacturing, accounting, and marketing. Other organizations may be structured by product lines, geography, or division. Modern organizational structures are often more complicated (Schilling & Steensma, 2001), layering multiple divisional structures on top of another (e.g., business function and product lines), or by creating networks of specialists coordinated through a central hub (Burns & Wholey, 1993; Miles & Snow, 1986). Regardless of the organizational form, subunits of the organization are differentiated by purpose, actions, and other attributes (Lawrence & Lorsch, 1967).

Although subunits have a common purpose, supporting the organization, these units will often compete over how limited organizational resources are distributed (Pfeffer & Salancik, 1974). Since an organization’s resources are finite, an increased allotment of resources to one subunit will likely come at the expense of another subunit.

In this way, subunits within an organization contend for organizational resources. The dynamics behind how organizations distribute their resources becomes the basis for theories about subunit power.

Subunits seek to influence decisions regarding resource allocation in order to divert more resources towards their subunit. These decisions can directly affect how resources are distributed (e.g., the amount of money given to a subunit at a given point in time) or may alter the strategy of the organization, thus shaping the direction of future resource allocations. Subunits will often influence organizational decisions in order to perpetuate their power (Lachman, 1989). These actions may limit the influence of low powered subunits over strategic decision-making, even if these other subunits possess critical information that may lead to a competitive advantage. Since not all subunits can have equal power (Perrow, 1970), studying subunit power may be an avenue to better understand an organization's strategic decision making process.

2.1.1. *Subunit Power*

Seminal studies of power identify five sources of interpersonal power within groups: reward, coercive, legitimate, referent, and expert (Raven & French, 1958). While these early foundations are critical in understanding the sources of individual power they have limited direct applicability to higher-ordered phenomena, such as the power of subunits or organizations (Perrow, 1970).

Emerson (1962) contends that power cannot be understood without accounting for the social relation between actors, specifically the dependency of one actor upon another. This concept of power and dependency was a key building block for developing a theory of subunit power. A subunit gains power in the organization as other subunits increase

their dependency on it (Jemison, 1981). From here, researchers sought to better understand the sources of subunit dependency which might lead to a subunit gaining power. Strategic contingency theory (Hickson, Hinings, C. A. Lee, Schneck, & Pennings, 1971; Hinings, Hickson, Pennings, & Schneck, 1974) and resource dependency theory (Hillman, Withers, & B. J. Collins, 2009; Pfeffer & Salancik, 1978; Salancik & Pfeffer, 1974) are the two dominant theories that describe sources of subunit power.

The goal of strategic contingency theory was to show how subunits become dependent upon one another through the control of contingencies. In this theory a contingency becomes “strategic” when it results in greater subunit power (Hickson et al., 1971: 222). In short, a subunit gains power as other subunits become dependent upon it (Emerson, 1962). The source of these contingencies is based on the assumption that uncertainty, defined as “a lack of information about future events, so that alternatives and their outcomes are unpredictable” (Hickson et al., 1971: 219), is a primary problem facing organizations (Thompson, 1967). It is important to note that organizations are faced with many uncertainties, and not all uncertainties are necessarily important. For example, organizations may be faced with uncertainty regarding changes in the regulatory environment that equally affect the organization and their competitors, limiting the competitive impact of the uncertainty. Critical uncertainties are those which provide the organization an opportunity to create a competitive advantage. Those subunits which help the organization cope with these uncertainties can gain power within the organization, either over the organization’s strategic decision making or over the behaviors of other subunits.

Using a sample of 28 subunits across seven manufacturing organizations, Hinings et al., (1974) tested three different subunit coping activities: prevention, information, and absorption. In their study, each coping mechanism was focused on managing inputs to the organization's operations. Prevention aims to limit unexpected variability in resources available to the organization, allowing the organization to operate without disruption. Information attempts to predict when and where these disruptions may occur. Since disruptions are inevitable, absorption then focuses on how subunits help the organization manage changes in inputs through alternative sources or combinations of other resources.

Subunit power is also affected by how easily other subunits can provide the same function or resources as the focal subunit. A subunit may provide critical information to cope with uncertainty but if that information can be substituted by equivalent information from other subunits it will have a more limited effect on subunit power. This power source is similar to non-substitutability in the resource-based view of the firm (Barney, 1991). When a resource or subunit behavior cannot be provided by other subunits within the organization it will lend greater power to the subunit. Research suggests that as other subunits seek to gain power they may attempt to replicate power-driving behaviors of other subunits (Verhoef & Leeflang, 2009). This is not to say that a substitutable action cannot be a source of power. A subunit may take tasks that may also be done by others and combine them in unique ways or with subunit-specific (though possibly non-critical) actions to create a new source of power that is less easily substituted (Ployhart et al., 2014).

The third source of subunit power according to strategic contingency theory is centrality of the subunit within the organization (Hinings et al., 1974) and is broken into

two parts: pervasiveness and immediacy. Pervasiveness focuses on where the subunit fits within the larger organizational network. It addresses the task interdependencies between subunits; in other words, how much does subunit A rely upon subunit B to get their work done. Immediacy is more concerned with importance of the subunit to the overall performance and outputs of the organization. In effect, centrality is concerned with how the subunit fits within the internally and externally focused components of the organization. Does the subunit enable other subunits to perform their tasks, and does the subunit enable the organization to reach its goals? Hinings et al., (1974) find that immediacy, the effect of the subunit on the organization, is of greater importance, with respect to subunit power, than pervasiveness. This suggests that how the subunit contributes to other subunits is not as important in determining its power as how the subunit contributes to the organization's performance.

Hinings et al., (1974) found that a subunit having high measures of any single power source was not enough to obtain the highest levels of power. They suggest that the strongest power requires subunits to measure high on each source of power (coping with uncertainty, immediacy, non-substitutability, and pervasiveness). The authors conclude that coping with uncertainty was the most important source of power and that without this power source subunits are unable hold the most power in their organization with respect to other subunits. After coping ability, the authors state that immediacy is the next most important dimension of power, followed by non-substitutability, and pervasiveness. These findings suggest that managing uncertainty matters a lot, as does the role the subunit plays in accomplishing the organization's objectives (immediacy). Subunits

which manage uncertainty may gain greater power as other subunits and organizational decision makers become more reliant upon these subunits to resolve uncertainty.

In developing strategic contingency theory, Hickson et al., (1971: 218) define power as “the determination of the behavior of one social unit by another”. This definition focuses on the outcomes of power, or getting others to do what you want. The authors draw from Kaplan (Kaplan, 1964) to describe three dimensions of power: weight, scope, and domain. Weight, in reference to subunit power, refers to the amount of influence one subunit has over another decisions. Scope represents the number of behaviors of a subunit that are influenced by another subunit. Domain then represents the number of other subunits or other entities that a subunit has influence over. In short, domain defines how many other people a subunit controls, scope is the range of behaviors the subunit controls in other subunits, and weight is influence of the subunit in making specific decisions.

Subunits have the ability to exercise power at different levels in the organization. A subunit can influence the behavior of the employees within their unit by imposing control mechanisms. A subunit can directly influence other subunits by restricting access to critical resources which only that subunit possesses. A subunit can influence the organization by providing critical information or resources necessary for the organization’s success.

While power can be used to accomplish many things, in this paper I will generally relate subunit power to the influence a subunit has over strategic decision making within the organization. As subunits gain power they also gain greater influence within the organization (Jemison, 1981). Strategic influence encompasses other common

conceptualizations of subunit power, the ability of a subunit to control organizational resources or the number of subunits under control of another subunit, by focusing more broadly on strategic decisions.

Determining resource allocation is a critical consequence of increased power but such control is only one aspect of strategic decision making and often results from other strategic decisions. Prior to allocating resources strategic decisions may determine where the organization will compete (e.g., industries, markets, geographies), how the organization will compete (e.g., differentiation, customer value, types of products), with what the organization will compete (e.g., people, finances, and other resources), and how to design the organization (Hambrick, 1980; Porter, 1991). Decision-making is one of the primary focal points of the other major theoretical perspective on subunit power, resource dependency theory (Pfeffer & Salancik, 1974).

Resource dependency theory was both a parallel and extension to strategic contingency theory. This theory explicitly draws from earlier work on dependency and power (Emerson, 1962; Thompson, 1967) to explain how power is determined at a macro level. Initially, the theory was developed to better understand how subunits gain power within organizations by contributing resources to understand uncertainties which originate from the external environment. The result of subunit power is more resources being allocated to the subunit through control of organizational decision-making. This extends strategic contingency theory by explicitly describing the means by which subunits cope with uncertainty using resources. Resources in this framework can involve both physical goods (e.g., money) and information (Jemison, 1981). For example, an organization may be faced with uncertainty about a planned expansion into a new market.

A subunit can provide resources through knowledge of regulations or people with prior experience in the new market. Essentially, resource dependency theory more clearly articulated that resources are a type of strategic contingency that can be used by subunits to gain power.

While the earliest studies on resource dependency theory (Pfeffer & Salancik, 1974; Salancik & Pfeffer, 1974; Salancik, Pfeffer, & Kelly, 1978) were intended to explain intra-organizational power, the theory's largest contributions to management scholarship have come elsewhere (e.g., mergers, joint ventures, shaping the environment; see Hillman et al., 2009 for a review). Resource dependency theory has also made meaningful contributions to two intra-organizational literatures, top management teams and boards of directors. While most research on these intra-organizational phenomena have not focused on subunits they can still inform our understanding of subunit power.

Studies of top management teams and directors suggest that individuals can exert meaningful influence over organizational decision-making based on the individual's ability to contribute meaningful information about the external environment or other resources (Frooman, 1999). Since members of the top management team often represent entire subunits, as those individuals amass greater power the subunit also gains power.

Additional contributions to strategic contingency theory have considered alternative sources of subunit power. Pondy (1977) proposes three ways a subunit can manipulate the organization by creating new uncertainties that only the subunit can resolve. While these hypotheses were not tested, they raise questions concerning the value subunits provide to the organization. While managing uncertainty can increase a subunit's power it does not necessarily mean the organization will benefit.

Other sources of subunit power have also focused on possible detrimental effects. Lachman (1989) suggests that subunit power is best predicted by previous subunit power. Powerful subunits and individuals have the ability to determine what problems are most salient to the organization which results in determining the organization's strategy and objectives (Rajagopalan, Rasheed, & Datta, 1993). Having a single subunit dominate an organization can limit the firm's long-term performance as avenues for new development and expansion are cut-off in a quest for greater simplicity and focus on this one subunit's objectives (Miller, 1993).

Opportunities to gain power from resources are also affected by the quantity of available resources. During times of strong organizational performance there will likely be ample resources available to both the organization and individual subunits. This situation limits the necessity of subunits to compete over scarce resources, thus limiting the need and opportunity to develop and exert power (Hills & T. A. Mahoney, 1978). Ample resources reduce the potential for one subunit to become dependent on another subunit (Emerson, 1962), thus limiting opportunities for power.

Saunders (1990) and Astley & Zajac (1991) both suggest that access to power and exercising power are separate concepts. Capacity for power may originate from structural sources outlined in the original strategic contingency framework (ability to cope with uncertainty, non-substitutability, and centrality) but capacity does not mean a subunit has actual power. The relationship between power capacity and realized power is moderated by how important a department is to the overall organization. When subunits have a high power capacity but no control over resources they aren't likely to have real power. If a

subunit has a high power capacity and high control over resources the subunit should then be considered powerful.

Hambrick (1981) used strategic contingency theory to determine power in top management teams (TMT) in different environmental contexts: hospitals, life insurance companies, and private four year colleges. In this study, TMT member influence was enhanced through environmental scanning behaviors (e.g., product and market trends, innovations in operations, regulatory changes), even if the subunit represented by the TMT member did not directly relate to uncertainties facing the organization. While TMT members representing a subunit will likely be better positioned to address uncertainties related to that subunit's resources, other TMT members can still gain power on behalf of their subunits if they effectively scan the environment. Thus power may accrue regardless of a TMT member's functional background or responsibility. This study also suggests that subunit power may be a function of both collective and individual traits.

Hambrick's study also opens an avenue to consider individual-level sources of subunit power. Strategic contingency theory was originally focused wholly on structural dimensions of power in order to concentrate on subunit traits. This was to move away from research on individuals that only considered psychological and behavioral sources of power (Hinings et al., 1974; Lachman, 1989). More recent calls have also suggested increased attention to a microfoundation approach to understanding power (Hillman et al., 2009) and other unit-level phenomena (Felin & Foss, 2005).

While many studies have considered resources as physical (e.g., budgets, see Pfeffer & Salancik, 1974), or organizational (I. Cohen & Lachman, 1988; e.g., hierarchical position, see Perrow, 1970), few have considered alternative types of

resources, such as human or nonstructural organizational resources, such as capabilities. These resource types have been used in a variety of studies to better understand how individual attributes contribute to group level phenomenon. With regards to subunit power, a primary source of subunit power, coping with uncertainty, can exist at both the group and individual level. Individuals possess certain knowledge, skills, and abilities (e.g., environmental scanning ability, knowledge of organizational systems) that can allow them to manage uncertainty for their individual span of influence. Research suggests that these individual attributes may have an effect on higher-level power (Blackburn, 1981) but there have not been studies that explore subunit power from a human capital resource perspective.

2.2. HUMAN CAPITAL RESOURCES

Human capital has been a dominant theme in management and economics literature for decades (or centuries depending on your familiarity with Adam Smith's *Wealth of Nations*). The theory is widely studied across a variety of disciplines including psychology (Schneider, 1987), sociology (Coleman, 1988), management (Hatch & J. H. Dyer, 2004; Ployhart & Moliterno, 2011), and economics (G. S. Becker, 1964; Schultz, 1961). The variety of research disciplines who draw from human capital theory have created tremendous confusion among social science traditions regarding terminology and measures. Even within the narrower confines of management research, scholars have often used the term 'human capital' to mean a variety of things.

Multiple attempts have been made to clarify these confusions, including theoretically clarifying articles (Molloy & Ployhart, 2012; Ployhart & Moliterno, 2011), review articles (Fulmer & Ployhart, 2014; Nyberg, Moliterno, Hale, & Lepak, 2014;

Wright & McMahan, 2011), special journal issues (Wright, Coff, & Moliterno, 2014), books (Burton-Jones & Spender, 2011), interest groups (Coff, Lepak, Hesterly, & Wright, 2010), and symposium (Nyberg & Wright, 2015). Needless to say researchers seem to care about human capital. The purpose of this paper is not to introduce or bridge definitions of human capital but to use existing definitions of human capital resources to better understand how people might be used by their units.

While the precise definition and measurement of human capital varies widely in these different disciplines, in general the term relates to the knowledge, skills, abilities, and other attributes of an individual. This conceptualization follows earlier attempts to define human capital by Becker (G. S. Becker, 1964) as an individual level asset (Nyberg et al., 2014) that may determine economic performance. From these individual-level origin scholars then define human capital according to the specific theory being studied.

2.2.1. Construct Definition

Scholars have recently distinguished human capital (attributes of individuals used for economic purposes) and human capital resources (human capital available to a unit) (Ployhart et al., 2014; Ployhart & Moliterno, 2011). Since the purpose of this study is to understand subunit influence, my subsequent discussion will largely focus on the unit-level resource, human capital resources. In the following section, I will briefly review relevant human capital resources literature in order to later argue how these subunit resources may increase the subunit's power.

2.2.1.1. Distinguishing Human Capital as a Resource

Human capital traditionally refers to the knowledge, skills, abilities, and other attributes (KSAO) of individuals (G. S. Becker, 1964). Human capital is wholly

possessed by individuals though both firms and individuals may make investments in human capital. Individuals make investments in their human capital through education, training, and other experiences that expand their personal KSAOs. Organizations invest in human capital through staffing (i.e., hiring individuals with high levels of KSAOs) or training (i.e., improving the KSAOs of existing employees) (Youndt & Snell, 2004). The possession of human capital by organizations does not necessarily mean individuals will be a resource to the organization (Coff, 1997), though many studies have made this assumption. Such studies consider human capital as a single-level construct (typically at the individual, firm, or national level) but fail to account for precisely how KSAOs owned by individuals can be valuable to higher-order units, such as teams, organizations, or countries.

Ployhart & Moliterno (2011) was one of the earliest attempts to explicitly define and theorize about the multi-level nature of unit-level human capital. They define a human capital resource as “a unit-level resource that is created from the emergence of individuals’ knowledge, skills, abilities, and other characteristics (KSAOs)” (Ployhart & Moliterno, 2011: 128). In order for human capital to be a true resource of the unit it not only needs to be accessible to the unit but must also be capable of affecting unit performance. Ployhart et al (Ployhart et al., 2014) distinguishes between human capital resources and strategic human capital resources based on the ability of the resource to maintain competitive parity or create competitive advantage, respectively. Both strategic and non-strategic resources may originate from either individual or unit (collective) levels so long as they are accessible to the unit for performance purposes.

An individual may possess KSAOs that are accessible by the unit for unit-relevant purposes directly. Examples of these type of individual human capital resources include star performers (Call, Nyberg, & Thatcher, 2015; Groysberg, L.-E. Lee, & Nanda, 2008; Kehoe, Lepak, & Bentley, 2016), members of the organization's top management team (Geletkanycz & Hambrick, 1997; Marcel, 2009), or other leaders (Goodall, Kahn, & A. J. Oswald, 2011). Alternatively, unit-level human capital resources originate from combinations of individuals' KSAOs. These combinations of KSAOs from different individuals become a unit-level resource through emergence.

Emergence is the process by which individual level phenomena work together to create a higher-level construct (Kozlowski & Klein, 2000; Ployhart & Moliterno, 2011). Emergence has two general forms, first composition emergence occurs when common lower-level constructs are essentially the same as higher-level constructs (see Chan, 1998). In this emergent process individuals are easily replaced since individual-level attributes are homogenous. Second, compilation emergence occurs when unique lower-level constructs are combined into a unique higher-level construct. In this emergent process each individual represents a heterogeneous component of the high-level construct, and replacing any individual will result in a changed collective (Kozlowski & Klein, 2000; Ployhart et al., 2014; Ployhart & Moliterno, 2011).

With respect to human capital, emergence describes how the human capital of employees is combined to create a unit-level resource. The emergence enabling process is determined by the complexity of the task environment and emergence enabling states (Ployhart & Moliterno, 2011). Task environments can encourage emergence by increasing interdependence and cooperation between individuals. As the task

environment increases in complexity, the ability for an independent individual to successfully operate within that task decreases. Emergence enabling states describe how individuals within the unit “act, think, and feel” (Ployhart & Moliterno, 2011: 135).

While the task environment determines the amount of interdependence among individuals, emergence enabling states describe how individuals within the group actually interact.

Studies of human capital at the macro and micro levels often fail to take into account this emergence process (Ployhart & Moliterno, 2011). At the macro level it is not enough to create a unit-level measure of human capital resources by simply aggregating employee firm tenure or education. Human capital resources should account for the full range of employee KSAOs. Without incorporating a range of KSAOs research may overlook emergent effects of human capital on unit-level outcomes. They argue that unit-level human capital resources should account for content (cognitive and non-cognitive human capital) and specificity (context-generic and context-specific). Failure to adequately describe the emergence process or define levels of theory and measurement can lead to fallacious interpretations. These mistakes may include improperly matching levels of theory and measurement (e.g., measuring individual human capital using firm-level measures), failing to describe contextual factors (e.g., individual KSAOs may be more appropriate in different organizational climates), or believing that findings at one level will automatically apply to another level (e.g., better performing individuals will lead to improved firm performance).

An important conclusion of human capital emergence describes how generic individual KSAOs can still create a competitive advantage for the unit. Early resource-

based theory argued that human capital resources can become a source of competitive advantage for their organization since these resources are often difficult to replicate by competitors (Barney, 1991). Without understanding emergence one might falsely conclude that any organization can capture the value of another firm's human capital resources by simply hiring employees with similar types and amounts of human capital. Doing this would ignore important unit-specific enabling processes. Similarly, using unit-specific enabling processes can allow a unit to create a competitive advantage from generic human capital (Campbell et al., 2012).

2.2.1.2. Human Capital Resources Dimensions

Building upon a unit-level definition of human capital resources, Nyberg et al., (2014) conducted an extensive literature review of studies that treat human capital as a resource of the unit or firm. Using 92 empirical studies related to human capital resources, this study identified three dimensions of human capital resources: type, context, and antecedents. Since the focus of this study is how subunits can increase their influence over strategic decision making through use of resources I will focus my discussion on the type and context dimensions. This is not to say that antecedents of subunit human capital resources play no part in subunit strategic influence, but I simply chose to focus my conceptual development elsewhere.

2.2.1.2.1. Type Dimension

Human capital resource type was defined as “the individual-level psychological KSAOs that a study's author(s) claimed to examine as characteristic of the unit-level HCR” (Nyberg et al., 2014: 321). Types of human capital resources include skills or abilities and knowledge of individuals that are considered resources to the unit. Nyberg et

al (Nyberg et al., 2014) find that most studies involving types of human capital resources fail to specify individual KSAOs or the how individual KSAOs emerge to become a resource to the unit. This lack of specificity raises concerns regarding conceptual linkages between individual and unit levels. Logic would suggest that a unit's human capital resource based upon individual's knowledge of manufacturing systems will be more pertinent to the unit's operational efficiency than the unit's sales strategy. While inherent, it is no less important for research to more granularly define types of individual KSAO and their unit-level relationship to unit-level outcomes.

In addition to specifying KSAOs types, individual human capital may be classified as generic or specific (e.g., firm or unit-specific, occupation-specific, or task-specific) (Campbell et al., 2012; Pil & Leana, 2009; A. Smith, Houghton, Hood, & Ryman, 2006; Wright & McMahan, 2011). Generic human capital is determined by KSAOs that are broadly applicable across a variety of organizations, industries, or jobs. This type of human capital could refer to an individual's general mental ability, conscientiousness, education, or other traits. Generic human capital is often operationalized in macro literatures using an individual's highest level of obtained education or using psychometric assessments in micro literatures. In this study generic human capital resources may refer to KSAOs that are applicable outside the focal subunit but within the organization or more broadly outside the organization.

Firm or unit-specific human capital is described by individual KSAOs that do not easily translate to other organizations. Unit-Specific human capital is often gained through longevity with a unit. As an individual's unit-tenure increases they gain knowledge regarding unit-specific processes, people, resources, and other systems, which

may increase efficiency or performance. This type of human capital has been suggested as a primary driver of competitive advantage since these KSAOs may provide limited or reduced value outside the organization (Crook et al., 2011; Lado & Wilson, 1994; Peteraf & Barney, 2003; Teece, Pisano, & Schuen, 1997) though recent literature has challenged this belief (Campbell et al., 2012; Lazear, 2009). Within this study I will focus on human capital resources that are specific to an organizational subunit, with limited applicability to other organizational subunits. Since I conceptualize subunits through a functional classification (e.g., finance, accounting, marketing, etc), subunit-specific knowledge is related to occupation-specific human capital (Kambourov & Manovskii, 2009).

Task specific human capital pertains to KSAOs that apply uniquely to a specific job or outcome and may be used within the organization or more broadly (Gibbons & Waldman, 2004). In a study of teacher effectiveness Pil & Leana (2009) found a significant effect at the individual teacher-level from task-specific skills, teaching mathematics, on student performance while generic human capital, education level, was not. When aggregating to the team level this same study failed to find a significant effect for task-specific human capital but did find a significant effect for generic human capital, the average education level of the team. In this study my focus is on how subunits influence an organization's strategic decision making. As such, I conceptualize task-specific human capital resources as unit-level emergent KSAOs that pertain to understanding an organization's strategy and competitive environment, which I define as strategy-specific human capital.

2.2.1.2.2. Context Dimension

Related to specific human capital, the second dimension of human capital resources identified by Nyberg et al., (2014) refers to the context or setting in which the resource is used. Within this dimension they identify three contexts: global, leadership, and organizational activity. Studies of global human capital resources examine how human capital resources are used outside of the United States. Studies of leadership human capital resources examine the human capital of organizational executives, including the CEO, top management team, and board of directors. The setting of organizational activities considers unit-level activities, and has largely been utilized in mergers and acquisitions or research and development studies. As mentioned previously, the context of this study is intra-organizational, focusing on the human capital resources of organizational subunits. Future discussions of unit-specific human capital resources in this study are then considered at the subunit level. As such I must also define organization human capital at the broader-organization level.

2.2.2. Subunit Power and Human Capital Resources

Research on human capital resources have largely focused on either organizational actions that cultivate or manage human capital resources (Wright & McMahan, 2011) or how the resource affects organizational financial or operational performance (Crook et al., 2011). Meta-analyses of both types of research (see Combs, Liu, A. Hall, & Ketchen, 2006 for a study of managing human capital and; Crook et al., 2011 for human capital's effect on organizational outcomes) have largely supported the belief that human capital resources can be a valuable tool for the organization.

Generalizing across both these studies I can conclude that human capital is strongly related to organizational performance.

Additionally, Crook et al., (2011) found that studies using aggregation to measure human capital resources have a weaker effect than those using direct unit-level measures, though this effect was not necessarily large or strongly significant ($r = .14$ versus $.21$, $p < .10$, page 451). One weakness of this conclusion is the lack of studies that included both aggregated and non-aggregated measures. While this study will not assess unit-level human capital resources directly it will incorporate unit-level measures of capabilities. This may not perfectly align with Crook's finding but still allows a more direct comparison between measures based in different levels of analysis.

Additionally, despite the multitude of studies focused on organizational outcomes, few studies considered more proximal outcome measures at the unit level. This gap may also explain the difference Crook et al found in aggregated and non-aggregated measures of human capital. Since aggregated measures of human capital resources are based on individual evaluations, aggregating these measures may result in isomorphic dependent and independent constructs (Bliese, Chan, & Ployhart, 2007; Klein, Dansereau, & R. J. Hall, 1994). As suggested by Bliese et al., (2007) and prior discussion in this paper, it is important to select measures of individual human capital which have a more clear, and theoretically reasoned, relationship with outcomes of interest. Additionally, picking a performance construct more proximal to the individual level of analysis should reduce the attenuation of aggregated effects.

Based on my prior review and discussion of subunit power I propose subunit power as a potential, and likely, outcome of human capital resources. In predicting

subunit power as an outcome of human capital resources I assume that theory regarding unit-level human capital resources (Ployhart et al., 2014; Ployhart & Moliterno, 2011) applies equally to subunits. The human capital resources, task environments, and emergence enabling states of the subunit will then refer to the individuals within the subunit, the subunits tasks, and the social systems within the subunit.

As discussed previously, opportunities for subunit power may be determined by the amount of uncertainty faced by the organization. A subunit will acquire greater power as the subunit is able to help the organization cope with this uncertainty, in a unique and valuable way, and the centrality of the subunit within the intra-organizational network and with regards to the organization's production of goods or services.

At the individual level, an individual's KSAOs may become a human capital resource of the subunit when those skills directly influence the amount of power afforded to the subunit, either through coping with uncertainty or centrality. This type of subunit resource is often manifest through the subunit's senior leader belonging to the organization's top management team. At this level the subunit's influence over strategic decision making may be impacted by this senior person's business knowledge, political skills, and environmental scanning behavior. A TMT member's strategic influence is more likely determined from functional-agnostic KSAOs rather than KSAOs specific to their represented subunit, as found by Hambrick (1981). Additionally, one could argue that a subunit within the organization only has influence by way of this senior leader (Adner & Helfat, 2003).

Different members of the top management team will each bring different capacities to deal with organizational uncertainty, lending different amounts of power to

different individuals, and thus subunits. But at least some capacity differences will originate from the resources available within the subunit, such as the knowledge and abilities of other subunit members. Indeed, theory (Blackburn, 1981) and empirical findings (Floyd & Wooldridge, 1992; 1997) suggest that individuals within a subunit may influence the organization's strategy by providing the senior most subunit member with strategically pertinent information. This information is often unique to the subunit, being based on the unique and personal knowledge and experience of subunit members (Floyd & Wooldridge, 1997).

Individual-level human capital resources of TMT members and their relation to subunit power are easy to conceptualize but will not be the focus of the remainder of this study. While these skills are no doubt important, the value any single individual brings to a subunit may also be temporary, as individuals may leave the organization largely at their choosing (Coff, 1997). Thus I will focus the remainder of my discussion on how the collective individual KSAOs become a human capital resource for the subunit to gain power.

For a subunit's human capital resources to become a source of power requires the emergence of specific individual-level KSAOs related to strategic decision-making or coping with uncertainty. In order for individual human capital to emerge requires task complexity and enabling states (Ployhart & Moliterno, 2011). In other words, for individual attributes to emerge would require a complex task environment and opportunities for individuals within the group to interact. The basic premise of strategic contingency theory is that uncertainty leads to power by creating dependencies in subunits whose actions become contingent upon the actions of other subunits to cope

with uncertainty. Thus, I might argue that as the organization is faced with greater uncertainty, creating greater opportunities for subunit power, the task complexity also increases. So as the level of uncertainty increases so does the efficacy of the emergence process.

Next, emergence requires enabling states, allowing individuals within the subunit to interact in ways that create a unique unit-level resource. Another proposal of strategic contingency theory suggests that the centrality of the subunit within the organization will increase the subunit's power. While network centrality is often related to boundary spanning behaviors that increase collaboration, these inter-subunit behaviors would not necessarily create greater intra-subunit interaction. For a subunit's individual human capital to emerge requires those within the subunit to interact with one another but does not make any assumptions or statements requiring interaction with those outside the focal subunit. However, as individuals play a more central and boundary spanning role across subunits, the complexity of their tasks increases (yet adding additional support for increased task complexity and emergence).

Ployhart & Moliterno (2011) suggest that task complexity and emergence enabling state may be interrelated and we see reasons why such a relationship would exist within this context. As individuals within a subunit are asked to connect disparate nodes within the organization they will be less likely to complete their responsibilities without assistance from others. As task complexity increases with increased extra-unit relationships, members of the subunit may draw more heavily upon other members of their own subunit for guidance. Members of the subunit will be better positioned than external comrades to provide counsel based on a better understanding of the subunits

processes, capabilities, and purpose. While external support may provide knowledge more specific to the external issues, inter-subunit networks will contextualize, interpret, and advise other subunit members using language and resources specific to the subunit.

I therefore propose that the subunit's human capital resources will likely emerge into the strategic resources available to the subunit for the purposes of gaining greater power within the organization. The specific power gleaned from these resources will be dependent upon the types of human capital possessed by those within the unit and the capabilities of the unit to leverage those resources to create value for the organization. In the following section I will introduce a specific subunit with limited physical resources, which creates greater dependency upon human capital resources to gain power. Having introduced the subunit context, I will present hypotheses regarding how general, occupation-specific, and strategy-specific human capital resources can increase subunit power. Additionally, I will hypothesize how the subunit's capabilities may increase the subunit's power, and that capabilities will explain more variance in subunit power than measures of subunit human capital resources. Finally, I discuss how an intra-organizational moderator may alter the relationship between human capital resources, capabilities, and power.

2.3. ORGANIZATIONAL CAPABILITIES

My discussion up to this point has largely focused on defining human capital resources. Defining human capital resources does not tell us how organizations use these resources to accomplish their objectives. Having resources is not the same as using resources and it is not hard to imagine a scenario where an organization fails to convert a resource advantage into a competitive advantage. Take, for example, a university with

state of the art classrooms and a gourmet cafeteria yet students often take online classes. Classrooms and cafeterias could create a competitive advantage in attracting students who plan to physically attend classes yet offer no advantage for students who rarely set foot on campus. Likewise, organizations fail to convert their human capital resources into competitive advantage when they don't have accompanying capabilities (Linnehan & De Carolis, 2005).

Unfortunately, clarity regarding the construct of capabilities is not much better than that of human capital. Existing is a broad conceptualization of organizational capabilities as the ability of an organization to do something (Nelson & Winter, 1982: 52) which may be referred to in the literature as capabilities (Teece et al., 1997), organizational capabilities (Chandler, 1992; Dierickx & Cool, 1989), managerial capabilities (Adner & Helfat, 2003; Kor & Mesko, 2013), capacity (W. M. Cohen & Levinthal, 1990), routines (Foss, 2003; Levitt & March, 1988; Zollo & Winter, 2002), intelligence (Bettis & Prahalad, 1995), processes (Linnehan & De Carolis, 2005; Teece et al., 1997), patterns (Linnehan & De Carolis, 2005), function of individuals (Felin & Foss, 2005), activities (Ray, Barney, & Muhanna, 2004), competencies (Lado & Wilson, 1994), or resources (Danneels, 2010; Sirmon, Hitt, & Ireland, 2007). Each of these terms may refer to a nuanced view of capabilities or to a specific type of capability but such differences are not the focus of this paper.

In this study I will refer to capabilities as actions of an organization (or in this case a subunit) used to accomplish a goal through leveraging resources and processes (Wright, Dunford, & Snell, 2001). Capabilities may encompass both human capital resources and part of the human capital resources emergence process but are more

concerned with how those resources are deployed for the good of the unit (Danneels, 2010; Lado & Wilson, 1994; Teece et al., 1997). Capabilities are fed in part by human capital resources but also include the organization's culture, systems, processes, and other values (Leonard-Barton, 1992; Wright et al., 2001). Capabilities are not measured through aggregate human capital since aggregating or combining human capital describes neither how the resource is used nor non-human resources, such as technologies, systems, or culture. Capabilities are assessed independently from the human capital resources of the unit in order to concentrate on the actions of the organization to accomplish specific tasks (Kogut & Zander, 1992; Nahapiet & Ghoshal, 1998; Nelson & Winter, 1982). Therefore, assessing capabilities, what a unit does, is accomplished directly at the unit-level as opposed to a composition or compilation of individual actions.

2.4. STUDY CONTEXT

Recent trends in management research have focused on the role of human capital in creating competitive advantage (Aguinis, Gottfredson, & Joo, 2012; Chambers, Foulton, Handfield-Jones, Hankin, & Michaels III, 1998). As the United States continues to transition from a manufacturing and industrial economy to a knowledge and service-based economy (Miles & Snow, 1984), firms have invested more resources into developing their employees' KSAOs to create competitive advantages (Barney, 1991). Organizations which understand when and how to invest in their employees' human capital have been shown to outperform their competitors during times of uncertainty (Y. Kim & Ployhart, 2014). This attention on human capital has also drawn attention to how organizations manage their employees through the HR function (Huselid, 1995; Wright et

al., 1994). How an organization can best manage its human capital then becomes a source of organizational uncertainty.

It then stands to reason that as competition over human capital increases, organizations might gain additional competitive advantages through the HR function, which is tautologically tasked with managing the organizations' employees (Stiles & Trevor, 2006). Yet despite what seems like a natural match between human capital being a source of uncertainty and HR departments being tasked with managing the organization's people, HR has struggled to gain strategic influence (Guest & King, 2004).

Observers and advocates of HR have been calling for the function to become a strategic business partner and "sit at the table" of strategic decision making for many years (Lawler & Mohrman, 2003; D. Ulrich, 1998). These calls have pushed for HR to move from an administrative to a strategic role under the pretext that using human resources effectively within an organization is essential to competitive advantage (Barney, 1991) and that HR understands how to fit the business's human resources to the business strategy better than other functions (Wright et al., 1994; 2001).

There are likely many reasons why HR has not realized increased strategic power within their organizations, of which I will only mention a few, beginning with a brief discussion of the history of HR departments (for a deeper discussion of the history of HR departments see Kaufman, 2014). HR departments first came into existence as organizations increased in size during the industrial revolution. In smaller organizations, the responsibility for employee management falls on an owner or line manager. It is not until organizations reach a certain size where having an HR specialist becomes a worthwhile investment. While organizations increased in scale beginning in the early 20th

century, labor unions came into power with the New Deal and passage of the Nation Labor Relations Act of 1935. Unions created a great deal of uncertainty for organizations, which as discussed previously creates opportunities for subunits to gain greater power. Unfortunately for HR, the function received blame for creating unfriendly employee policies which necessitated New Deal policies and was left out of early labor union relationships and related strategic decisions (these responsibilities would fall on corporate leaders and thugs).

For many organizations the role of HR and personnel management were relegated to perfunctory and administrative tasks (Lawler & Mohrman, 2003). While this relegated position of HR was not ubiquitous, HR did have strategic impact in some organizations, it did create a bias in the minds of many people. These biases created a path dependency that restricted opportunities for HR to gain influence. Guest & King (2004) explain several results of this path dependency. First, with limited power and influence on organizational decision making, HR is often without a say in the organization's goals and priorities. Without identifying challenges related to HR, problems may arise as the organization makes decisions that fail to account for people-related issues. This leaves the HR department in a low power condition (Legge, 1978), requiring the subunit to react to problems as they arise instead of helping the organization avoid them.

Consider a merger between two organizations with very different cultures and HR is not involved in decision-making until after the merger is completed. This may result in a painful transition as cultural issues between the two organizations create dissatisfaction with employees, leading to turnover. While these issues may not have been entirely avoided their effects may have been attenuated if addressed sooner. Problem-solving

behavior may be valuable to the organization but it takes resources away from HR that could be used to proactively avoid such problems. By not having resources to engage in strategic activities, non-HR managers perceive HR as having little to add to strategic decision making.

Second, with unclear measures of performance HR struggles to prioritize tasks and responsibilities. Without clear direction, HR is again left to respond to whatever problems are given them by others, often marginalizing HR to administrative burdens. Third, since HR is often held in low esteem by others, the function struggles to recruit top talent into their ranks. Therefore, the function is often left with people who have limited capacity to work at higher, more strategic levels, and may lack the personal drive to advance up the organization's hierarchy. Unfortunately, even when HR professionals do advance to the highest levels of the organizations, placing them in a high power condition (Legge, 1978), they are not always equipped with the requisite KSAOs to gain credibility or offer meaningful insight.

An early study of HR department power found that HR departments increased their power through symbolic actions (Galang & Ferris, 1997). In relation to subunit power, symbolic actions are used to create the appearance of legitimacy through the use of language or behaviors that attempt to portray the department in a certain way even if not based in reality (Brown, 1994). Beginning in the 1980s as HR departments tried to gain a foothold within the organization's political hierarchy these symbolic actions proved very valuable. HR departments had limited access to legitimate or hierarchal authority, requiring behaviors that granted HR the perception of legitimacy despite still struggling to overcome its historical obstacles. These actions may be credited for the

increased presence of HR leaders in senior leadership teams within organizations yet the long term efficacy of symbolic behaviors may be limited.

Galang & Ferris (1997) used a measure of symbolic action to show how these actions increased the department's power in a cross sectional survey. Their measure asked respondents to evaluate how often the HR department engaged in certain behaviors including "is concerned with how reports/documents look as much as with what they contain", "uses such terms as 'competitive advantage,' 'bottom line,' 'efficiency,' 'organizational goals,' 'value-added,' 'productivity,' 'assets,' and the like"; "releases only positive information about the performance of the HR department in official/formal reports"; "relates stories or anecdotes that portray the importance of HRM to the organization"; "displays certificates in office area attesting to the HR staff's training and professional affiliations." (Galang & Ferris, 1997: 1416)

Lacking from their measure was any consideration of the ability of the HR department to resolve uncertainty, solve problems, provide resources, span intra-organizational boundaries, or carry out other behaviors suggested to increase subunit power (Hickson et al., 1971). While the symbolic actions measured by Galang & Ferris (1997) may have predicted a short-term (i.e., cross-sectional) power condition they likely would have less and less value as the organization expected real value generating behaviors. Symbolic actions may have helped HR departments increase legitimacy during the early push for HR to gain a seat at the strategic decision-making table, however they would provide few resources for the department to use once it got there. If solely focused on the symbolic actions, the department will not provide concrete and tangible benefit to

the organization, thus limiting the cultivation and ascendancy of the HR department's influence in strategic decision making.

Unfortunately for HR departments (but fortunate for this dissertation) there have been few subsequent large-scale studies of antecedents of HR department power. One recent study examined the role of HR departments in Higher Education Institutions in the United Kingdom (Farndale & Hope-Hailey, 2009). In this study HR departments were found to have relatively little influence in their universities' strategic decisions outside of staff planning. This result is hardly surprising given the highly specialized nature of faculty staffing decisions in a university setting where responsibility for key personnel decisions fall within academic departments. Other studies of HR department power have found that HR departments might gain power by devolving, or outsourcing, non-strategic HR work, thus freeing up resources to focus on strategic priorities. Shifting administrative responsibilities allowed HR departments to change their role within the organization (Kulik & Perry, 2008). Conversely, HR departments which devolve responsibilities that enable the subunit to cope with organizational uncertainty can have a negative impact on department power (Reichel & Lazarova, 2013).

2.5. LITERATURE REVIEW CONCLUSION

In this chapter I discussed subunit power and human capital resources after which I introduced a context where the relationship between a subunit's human capital resources and power may be pronounced. In the following chapter I propose hypotheses related to how an HR department/subunit can gain greater power within their organization based on the human capital resources and subunit capabilities of the department. I consider three human capital resources available to the subunits: general KSAOs, subunit-specific

KSAOs, and KSAOs related specifically to a subunit's influence over strategic decision making. I then test how capabilities of the HR department might increase the department's power and compare the explanatory power of the department's human capital resources and department capabilities.

CHAPTER 3

HYPOTHESES

3.1. HUMAN CAPITAL RESOURCE TYPES

As I discussed previously, this study compares three different types of human capital resources: generic, occupation-specific, and strategy-specific. Generic human capital refers to individual KSAOs that are widely applicable, such as education, personality, values, or general mental ability (Ployhart & Moliterno, 2011). Firm, or in this study unit-specific, human capital refer to KSAOs that relate to the unit to which the individual belongs but may not apply elsewhere in the competitive landscape (Campbell et al., 2012). Since the focus of my study are functional subunits, unit-specific human capital can be thought of as occupation-specific human capital (Kambourov & Manovskii, 2009). In the context of this study occupation-specific human capital will refer to individual KSAOs related to HR departments that might not translate into other organizational subunits. While some HR skills are certainly applicable outside of HR departments, (e.g., resolving concerns or negotiating) I focus on KSAOs generally attributed to the HR function.

Finally, I propose a new type of human capital resource, strategy-specific, which refers to KSAOs related to understanding the organization's strategy and competitive context. These three human capital resource types relate to the organizational arenas mentioned by Frost (1989), namely technical (occupation-specific), practical (generic), and strategic, and will be explained in greater detail in the following sections.

3.1.1. *Generic Human Capital Resources*

Generic human capital refers to individual KSAOs that are broadly applicable across contexts, such as firms, occupations, or responsibilities. Generic human capital may include individuals' general mental ability, personality, values, interpersonal skills, interests, education, and other attributes (Ployhart & Moliterno, 2011). Greater amounts of generic human capital can increase an individual's ability to absorb new knowledge, develop specific-human capital, and solve problems (Ployhart, van Iddekinge, & Mackenzie, 2011; Schmidt, 2002; Skaggs & Youndt, 2004; Wright et al., 1994) as well as increased ability to manage complexity, navigate contradictory demands or information, or cope with uncertainty (Schultz, 1961; W. K. Smith, 2014; Snell & Dean, 1992).

Studies have demonstrated the positive effects of generic human capital on individual and team performance (Bell, 2007; Schmidt, 2002). As other members of a team come to rely upon individuals with greater generic human capital, those individuals gain greater influence over team decision making. These findings hold across all levels of job complexity (Schmidt, 2002) which suggests that greater amounts of generic human capital resources might have a positive effect on outcomes related to subunit power. Strategic contingency theory proposes that subunits which help the organization cope with uncertainty are granted greater power and influence over decision making.

Operating in uncertain environments is challenging. These environments are often very complicated and unstructured (Mintzberg, Raisinghani, & Theoret, 1976) and may not have clear or even ideal solutions (W. K. Smith, 2014). To be effective requires understanding complex, ambiguous, and sometimes contradictory information and demands. Since individuals are boundedly rational (March & Simon, 1958) we might

expect that the greater the limits of an individual's bounded rationality (i.e., greater generic human capital) the more capable that person should be at making decisions that benefit the unit or organization (Eisenhardt & Zbaracki, 1992; March & Simon, 1958).

Generic human capital resources can indirectly create other unit or task specific human capital resources (Ployhart et al., 2011) but are not context specific. Generic human capital resources then relate to a subunit's general ability to cope with uncertainty and not related to any specific ambiguity. General coping behaviors may be manifest by a subunit's ability to manage disruptions to the organization's operations (Hinings et al., 1974) or tensions between conflicting demands (Birkinshaw, Crilly, Bouquet, & S. Y. Lee, 2016). Since organizations are faced with many types of uncertainty, a greater general capacity to cope with uncertainty will likely increase a subunit's power.

Hypothesis 1: A subunit's generic human capital resources will be positively related to that subunit's power relative to other subunits.

3.1.2. *Specific Human Capital Resources*

Generic human capital resources may provide a subunit with general knowledge and capacity but studies have found that specific human capital resources have a stronger relationship with firm outcomes (Crook et al., 2011). Specific human capital resources can be harder for others to imitate thus providing the organization with a more sustainable competitive advantage (assuming such capital is valuable to firm outcomes). In this study I will consider two types of specific human capital, occupation and strategy-specific, and expect both to have positive effects on subunit power.

In this study occupation-specific human capital resources will refer to resources available to a subunit within an organization that have limited relevance to other

subunits' core responsibilities. Since this study is focused on the subunit of HR departments, occupation-specific human capital resources are focused on KSAOs related to managing the organization's stock of human capital. This type of human capital resource may have inter-organizational generalizability as HR departments exist within most large organizations, but is less likely to be competed for intra-organizationally by other functional subunits. Occupation-specific human capital resources related to HR may have some role outside of HR departments but the primary value and benefit derived from these resources is owned by HR departments.

In this study, occupation-specific human capital resources must provide the subunit with increased ability to manage uncertainty facing the organization in order for the subunit to gain power. Human capital resources derived from functional expertise provide organizations with valuable information that other departments may struggle to replicate (Farndale & Hope-Hailey, 2009). By not being available to other subunits, occupation-specific human capital can provide a subunit with a competitive advantage (in this case competing for power over strategic decision-making) so long as the resource provides value to the organization. Less valuable occupation-specific skills may still increase the relative power of the subunit though this advantage will likely be small.

Organizations are faced with increased demands surrounding environmental, demographic, regulatory, technological, and other changes (Schuler, 1990) each of which can be at least in part resolved through people, creating a highly competitive market for talented employees (Aguinis et al., 2012). These competitive labor markets increase the uncertainty regarding an organization's existing and potential human capital and human capital resources. Organizations which effectively manage these uncertainties achieve

competitive advantage (Y. Kim & Ployhart, 2014). Thus subunits that help their organizations acquire, motivate, train, or develop employees, thereby improving the organization's performance, should increase in power.

Sources of subunit power come from the subunit's ability to cope with uncertainty and centrality within the organization (Hinings et al., 1974). Coping with uncertainty regarding the organization's human capital occurs through prevention (e.g., maintaining a consistent supply of human capital), information (e.g., anticipating future human capital needs), and absorption (e.g., managing disruptions or changes to human capital) (Hinings et al., 1974). Centrality occurs as a subunit provides other subunits with human capital necessary for their performance.

Referring back to the context of this study, HR departments are often tasked with managing other subunits' human capital in several ways. First, HR departments may be responsible for recruiting employees on behalf of other units. For example, the HR department in Boeing recruits, interviews, and hires thousands of engineers per year. Individual managers or project teams are not equipped to handle the quantity of applicants and thus rely upon HR to provide essential human capital. Second, HR departments can bring together individuals to form teams with complementary skills that create unique value to the organization. The HR department's boundary spanning position gives it knowledge that is not available to business-units with more limited information about developments in other parts of the organization (Russ, Galang, & Ferris, 1998). Third, HR departments can help design individualized training or career development to equip employees with essential KSAOs for future responsibilities. This

may involve international job-assignments or other responsibilities that must be coordinated from a position higher in the organization's hierarchy.

While not all HR functions are unique to HR departments (Doorewaard & Meihuizen, 2000; Mitsuhashi, Park, Wright, & Chua, 2000; Schuler, 1990) I still expect that as HR departments more effectively staff, manage, and motivate their organizations' employees (Lawler & Mohrman, 2003) that the department will increase in power (Oh, Blau, Han, & S. Kim, 2015).

Hypothesis 2a: A subunit's occupation-specific human capital resources will be positively related to that subunit's power relative to other subunits.

Task-specific human capital resources are those resources related to a specific assignment, responsibility, or process (Gibbons & Waldman, 2004). Task-specific human capital is similar to occupation or industry specific human capital in that it is not entirely specific to a firm. Additionally, this type of capital is not specific to a single occupation or industry since some tasks are context agnostic. An employee with task-specific human capital can use this capital in multiple ways within a firm or within an industry depending on the nature of the task.

In this study I am concerned with the "task" of understanding organization's strategy and competitive environment, which I will refer to as strategy-specific human capital. Using this as my task diverges from the traditional conceptualization of task-specific human capital by loosening the requirement that the capital be independent of a specific firm. Understanding an organization's strategy and competitive environment requires integrating general and organization-specific human capital; each type of capital being necessary but insufficient. To understand an organization's strategy and

competitive environment may require general knowledge about industrial risks but also knowing how the organization is vulnerable to those risks. Understanding customer desires does have limited value unless coupled with knowledge of the organization's resources that can create new products or services. Interpersonal skills that help an individual build relationships can be coupled with knowing who key organizational actors are, granting the person access to and influence with those who set the organization's strategy.

Strategy-specific human capital resources are related to my discussion of generic human capital resources, which focused on a broad capacity to manage ambiguity and uncertainty independent of a specific context. Strategy-specific human capital resources narrowly define the context as specific to an organization. Strategy-specific human capital resources are also different than possessing generic and firm-specific human capital. My conceptualization of strategy-specific human capital requires a direct application of generic human capital within a firm-specific setting.

This integration is a key determinant of understanding and enacting the organization's strategy. It also enables subunits to better cope with organizational uncertainty. Subunits with high levels of strategy-specific human capital resources are positioned to identify environmental uncertainty, through generic human capital resources, and respond to uncertainty, through firm-specific human capital resources. In this way increased strategy-specific human capital resources may provide subunits with greater power and influence.

Hypothesis 2b: A subunit's strategy-specific human capital resources will be positively related to that subunit's power relative to other subunits.

3.1.3. *Generic Versus Specific*

Our first two hypotheses predict that as a subunit increases its human capital resources it will gain greater power within the organization, regardless of the type of resource being cultivated. These theories fall in line with other research regarding human capital resources in predicting better outcomes as you get more resources. Saying that increasing either general and specific human capital will lead to improved performance is somewhat expected even when considering different measures of unit performance. What these previous studies have not considered is the relative influence of different resource types in explaining variation in unit-outcomes. While each resource type may lead to improved performance, few studies have considered these resource types simultaneously.

A meta-analysis of human capital found that specific human capital had a stronger relationship with firm performance than generic human capital across 66 studies (Crook et al., 2011). While meta-analysis is a useful tool to determine effect sizes across studies it is limited by the availability of previous studies. Without considering the effects of general and specific human capital simultaneously we cannot say with certainty which resource explains the greatest variation in performance. Different types of human capital are likely related (Ployhart et al., 2014), and the shared variance between resources cannot be captured through meta-analytical techniques unless previous studies included multiple resource types.

By considering multiple resource types simultaneously, we can ask the question, which human capital resources explain more variation in performance? (A detailed discussion regarding decomposing common and unique variance can be found in the methods section.) Each of these human capital resource types are relevant to subunits

gaining greater power yet each of these will likely impact subunit performance in different amounts (Nyberg et al., 2014; Ployhart et al., 2014) because they impact subunit and organizational performance in different ways. General KSAOs explain how individuals within the subunit might handle complexity and problem solving. Occupation-specific KSAOs will provide the unit with capacity to address specific uncertainties regarding talent management faced by organizations, a source of significant organizational uncertainty. Strategy-specific KSAOs are most specifically concerned with understanding the organization's strategy which is most closely aligned with the concept of strategic decision making.

Strategic contingency theory suggests that since occupation-specific human capital resources directly help organizations cope with uncertainty these resources may explain significant variance in subunit power. These resources are also the least likely to be possessed by competing subunits. However, other literature advocates that KSAOs most relevant to the measure of performance will explain the most variance, which suggests that strategy-specific KSAOs related to organizational strategy are most important. To further complicate matters, one study which included multiple measures of human capital resources found that at the unit level, generic human capital resources are the most important (Pil & Leana, 2009, this same study did not find a significant generic human capital effect at the individual level).

Despite the lack of consensus in the literature, I believe that as human capital resource types become more specific to a context they will explain more variability in subunit power. Referring back to strategic contingency theory, subunits cope with uncertainty through prevention, information, and absorption. Prevention and information

both focus on managing uncertainty before disruptions to the organization occur.

Absorption concentrates on how subunits manage organizational uncertainties as they arise through problem solving, often through combinations of resources or adapting existing processes to meet new demands. Absorption is expected to have a larger influence on subunit power than prevention or information since this type of coping is focused on managing actual disruptions as opposed to speculative uncertainty.

Thus, I expect strategy-specific human capital resources to explain the most variance in subunit power. This type of human capital resource incorporates elements of both general and firm-specific human capital, allowing subunits to not only identify uncertainty but to understand how the uncertainty affects the organization and how to effectively cope with it. Individuals with high levels of strategy-specific human capital will have a greater understanding of resources available to the organization as well as the context in which the firm operates. As organizations increase in size they become increasingly complex, often incorporating disparate product or service lines, countries, or business units. As complexity increases, those individuals who possess strategy-specific human capital will have more opportunities to work with the organization's resources and within the organization's context to cope with uncertainty. This complexity establishes a task environment conducive to the emergence process, thus creating a subunit-level resource. Subunits with greater levels of strategy-specific human capital resources are then able to increase in power through this collective strategy-specific resource.

This type of human capital resource is also conceptually most closely related to influencing strategic decision making. As such I expect this resource to explain the most

variance in subunit influence over strategic decision making in comparison to the other human capital resource types.

Following strategy-specific human capital resources I expect occupation-specific resources to explain variations in subunit power than generic human capital resources. Occupation-based resources also contain elements of coping with uncertainty through absorption, though to a lesser amount than strategy-specific resources since the context in which the individual KSAOs apply is more narrow. Occupation-specific human capital allows individuals to deal specifically with uncertainties regarding designed changes or other disruptions to the organization's pool of human capital. Managing the organization's human capital is a complicated process, involving various types of skills and expertise ranging from very micro to very macro. For example, HR professionals within a department may be expected to deal with employee grievances, understand employee motivations (such as compensation), develop staffing, training, or leadership development programs, predict external labor markets, or merge national and organizational cultures. This complicated task environment creates interdependencies between HR professionals, each of whom might possess varying types and levels of HR-related KSAOs. These interdependencies promote the emergence of a subunit resource. As subunits manage human capital-related uncertainty for the organization they become more central to the organization thus providing the subunit with increased power.

Finally, I expect generic human capital resources to explain the least amount of variance in subunit power. These resources will be the most easily imitated by other subunits since they do not require any firm-specific KSAOs. Generic human capital

resources' lack of firm-specificity limits this resource's ability to cope through absorption, thus attenuating their explanatory power regarding subunit power.

Hypothesis 3: Strategy-specific human capital resources will explain the greatest amount of variance in subunit power, followed by occupation-specific and generic human capital resources, in that order.

3.2. SUBUNIT CAPABILITIES

Organizational, or unit, capabilities represent the routines, processes, and actions taken by a unit to accomplish a given task. These capabilities are not simply a measure of collective individual KSAOs since organizations have memory and systems that supersede individual contributions (M. D. Cohen & Bacdayan, 1994; Fiol & Lyles, 1985; Nelson & Winter, 1982). This is not to say that human capital resources do not play a role in unit-capabilities but that such resources do not fully describe the domain of unit-capabilities (Spender, 1996).

Youndt & Snell (2004) articulate a relationship between unit-capabilities and human capital resources through the concept of intellectual capital. Intellectual capital is defined as “the sum of all knowledge firms utilize for competitive advantage” (Subramaniam & Youndt, 2005: 451) which is determined by the organization's human, social, and organizational capital. Both organizational and social capital are concerned with institutionalized knowledge within an organization, with organizational capital focused on formal systems, processes, and structures and social capital focused on networks of individuals. These differ from human capital, which is determined by KSAOs residing within individuals. Even when aggregating human capital to a unit-level, human capital is still grounded within the KSAOs of individuals. Organizational and

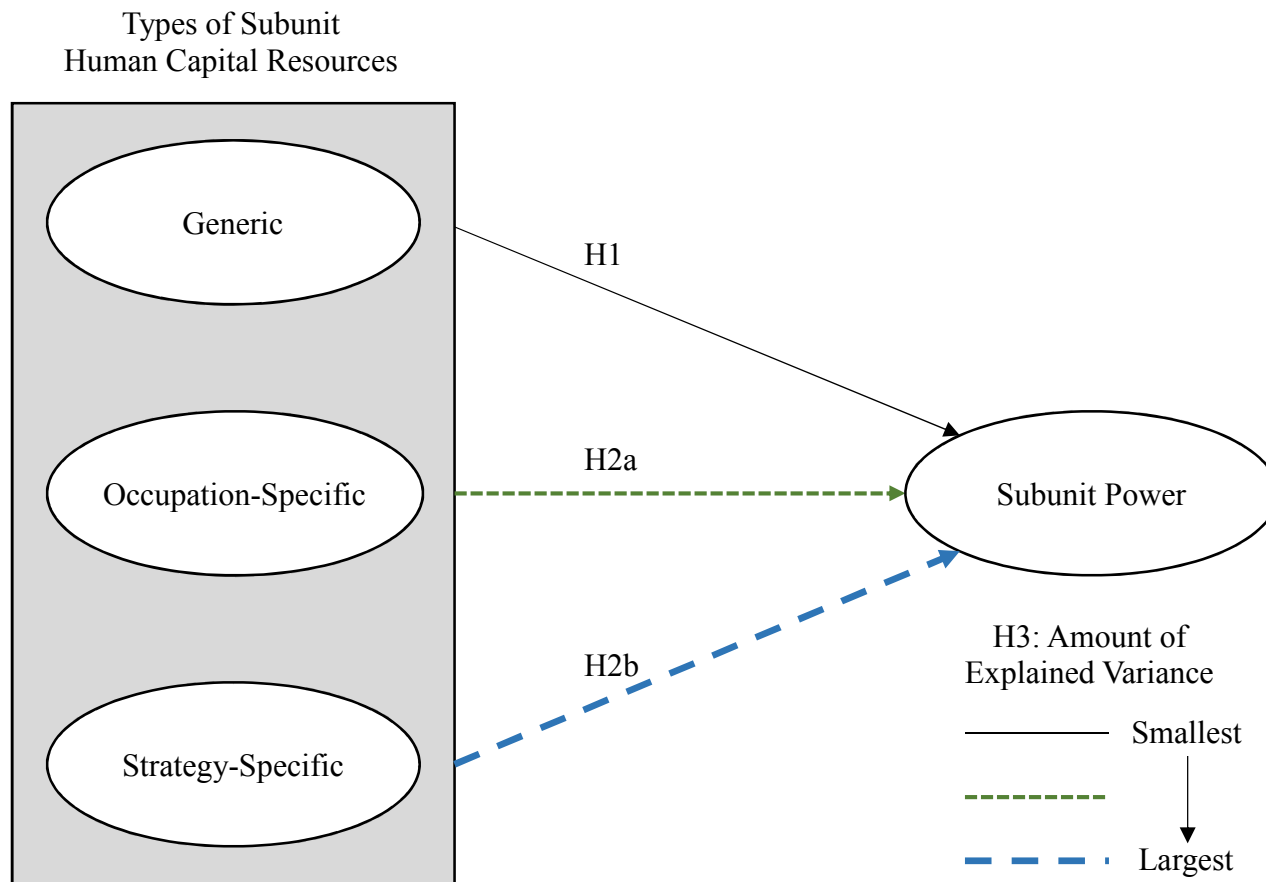


Figure 3.1 Subunit Human Capital Resources and Subunit Power

social capital, which are also elements of unit capabilities, draw from the unit's human capital as a resource but possessing resources does not necessarily translate into action. A box of worms (human capital) cannot catch a fish. Further, a lure paired with proper bait (social capital) will only feed a fish if not combined with a hook (organizational capital). Only after combining a worm, lure, and hook and casting all into the water can a fisherman effectively catch a fish. Actions and capabilities of a subunit (casting a fishing line) are made possible through aligning human (worms), social (pairing lure and worm), and organizational (hook) capital but still require the unit engage in beneficial behaviors (Wright et al., 2001). Thus, subunit capabilities are separate yet related to the unit's human capital resources.

This study will specifically consider subunit capabilities that address two uncertainties facing organizations. The first considers the role of 'talent,' as it was broadly discussed by Chambers et al., (1998), or more specifically the human capital resources of the organization (Dries, 2013). Many studies have suggested that human capital resources may provide a key competitive advantage that is difficult for competitors to replicate or substitute (Barney & Wright, 1998; Wright et al., 1994; Wright & McMahan, 1992; Wright, McMahan, McCormick, & Sherman, 1998). The second uncertainty is concerned with information (Bariff & Galbraith, 1978). In a knowledge economy the ability for organizations to gather, process, and leverage information are key to obtaining competitive advantage (Daft & Lengel, 1986; S. Wang & Noe, 2010). There are no doubt a multitude of additional ways that HR departments might gain greater power within their organizations (Frost, 1989; Lawler & Mohrman,

2003) but for sake of simplicity and sanity I will limit my discussion to how the department manages the organization's human capital and information.

Research regarding the role of HR in managing an organization's human capital has a long history, often studied in the context of strategic human resource management (SHRM). SHRM is primarily concerned with understanding how HR policies, processes, and practices serve to manage the individual human capital of an organization. Empirical and theoretical work has shown a connection between HR systems and organizational performance (Barney & Wright, 1998; Bowen & Ostroff, 2004; Wright, Gardner, Moynihan, & Allen, 2005). While a complete understanding of the linkage between SHRM and firm performance is still being developed (B. E. Becker & Huselid, 1998; Bowen & Ostroff, 2004), I feel as though there is sufficient evidence to suggest such a relationship does exist (Combs et al., 2006; Jiang, Lepak, Hu, & Baer, 2012). Based on this relationship I expect that managing an organization's human capital can provide HR departments with increased power.

Hypothesis 4a: A subunit's capability to manage the organization's human capital will be positively related to that subunit's power relative to other subunits.

While HR departments are not typically associated with an organization's information system they can still play an important part in the process through boundary spanning between external and internal stakeholders (Floyd & Wooldridge, 1997). Boundary spanning activities have been shown to increase influence over strategic decision making (Jemison, 1984). The first way HR departments interact with the external environment is by sharing organizational information with external parties (Russ et al., 1998). This may occur through recruiting efforts, where the HR department is

responsible for sharing information regarding the organization's culture, strategy, and goals in order to attract employees who would fit well within the company. Second, the HR department scans the environment for information relevant to bring into the organization. For example, through recruiting interviews HR departments may discover their industry has increased hiring for a specific type of technical ability. HR departments may also build relationships directly with customers in order to ensure the organization is hiring employees with the requisite skills to meet customer demands. This leads us to HR's role as an internal boundary spanner.

The HR function is uniquely positioned within an organization to span across business unit, geographic, or other intra-organizational boundaries (Ferris, Galang, Thornton, & Wayne, 1995; Minbaeva, 2005). HR departments are often responsible for disseminating information regarding a company's culture, strategy, or practices between units or hierarchies and interpreting that information in ways that are easily understood (Russ et al., 1998; Soliman & Spooner, 2000). This centrality grants HR departments with access to additional knowledge which can be used to improve their unit performance or gain greater influence in the organization (Tsai, 2001) by brokering information exchange across organizational boundaries.

For example, HR's central position can be used to distribute information within a global organization through global leadership development programs (Novicevic & Harvey, 2004). Managing such development programs across broad geographies or business units allows HR to bring leaders from throughout the organization together. This fosters information exchange both between distal subsidiaries and from headquarters. HR departments have some control over the information shared in these programs.

Additionally, HR departments can encourage transferring information regarding organizational practices and routines using rotational job assignments (Kostova, 1999). A well-functioning HR department can overcome certain information sharing obstacles by acting as a structural bridge between locations or units.

Hypothesis 4b: A subunit's capability to manage the organization's information will be positively related to that subunit's power relative to other subunits.

3.3. CAPABILITIES VERSUS HUMAN CAPITAL RESOURCES

Failure to consider capabilities limits how I understand human capital resources use and deployment. Capabilities are the behaviors and actions of organizations—what organizations do. Capabilities are in part determined by an organization's resources (human capital, physical, organizational) but the benefit of these resources are determined by their use (Coff, 1997). Resources may determine capacity or potential but capabilities determine the value an organization can gain from proper resource management. Thus we might expect better resources to improve unit-level outcomes but this effect occurs through the unit's capabilities to apply and leverage those resources. Resource management involves structuring the resource portfolio, combining resources to create capabilities, and leveraging capabilities to create an advantage of market opportunities (a resource, a process, and an opportunity).

Having human capital resource advantages are not enough to create a competitive advantage, otherwise the organization that spent the most on attracting the best employees would dominate an industry. For example, for many years the New York Knicks spent millions more than other professional basketball teams to acquire the best talent yet regularly failed to compete for a championship. We also see examples where

sports teams are faced with significant personnel losses yet continue to outperform their competitors. In 2007 the New England Patriots' quarterback was voted the most valuable player in the league after setting numerous records for individual performance. During the first game of the 2008 season this player was injured yet the team still managed to finish tied for sixth best record in the league. While there are certainly counter examples, these stories demonstrate the potential for organizational systems to provide a significant advantage over the aggregate individual KSAOs of a unit.

An HR department may be full of HR professionals with deep knowledge about the organization, external environment, and strategic knowledge but if these employees don't have opportunities to use their KSAOs the department's ability to influence strategic decision making will be limited. Capabilities draw from unit human capital resources, and are enacted by unit behaviors, processes, values, routines, and other things that access and deploy resource capacity (Subramaniam & Youndt, 2005).

Some individual types of human capital resources (e.g., star performers) may have significant value creating capacity for the unit but unless the unit has systems in place to utilize that capacity the resources will go under-utilized. Star performers may still be reliant on social capital, production systems, or intellectual capital, which are partially owned by the unit, for performance (Grigoriou & Rothaermel, 2014). A star scientist can invent valuable patents but unless the organization has complementary production or manufacturing capability those patents will have limited value to the unit.

An exceptional individual can certainly have a disproportionate effect on unit outcomes but such individuals are rare. The rarity of these individuals limits opportunities for many organizations to have access to star performers. Organizations that

employ stars certainly can achieve an advantage over their competitors but this does not suggest that firms without star performers cannot obtain a competitive advantage. Star performers are also highly mobile, thus allowing them to negotiate higher salaries which reduce the value an organization gains through their services. There are certainly instances where individual abilities will play a dominant role in determining organizational outcomes, but I believe that those are uncommon contexts with narrow boundary conditions.

The examples given above only touch at conflicting perspectives within the academic literature regarding whether competitive advantage comes from individuals or organizations. Many scholars have suggested that strategic management theory should focus on the microfoundations of organizational differences (Felin & Foss, 2005; Felin & Hesterly, 2007). Such arguments are based on the belief that individuals determine the resources available to an organization. Just like firms within an industry are not homogeneous, individuals between organizations have significant differences (Felin & Hesterly, 2007). Organizations may have access to individual KSAOs but the unit does not own these resources (Wright & McMahan, 2011). Without individual human capital resources systems and process have nothing to draw from.

As Coff (1997) points out, human assets can be a strategic resource for an organization, similar to an oil field; but unlike an oil field, people can quit and move to a competing firm, can demand higher wages, can become unmotivated or unsatisfied with their work environment. He goes on to argue that while many attributes of human assets are desirable, for example tacit knowledge, human assets have the ability to leave the organization at any time, making it difficult to create sustainable competitive advantage

by simply acquiring the best and brightest people. Organizations that create effective systems however will be robust to changes to the stock of human capital available to the unit (Dierickx & Cool, 1989).

Studies of organizational learning have discussed how organizational knowledge is not simply determined by the collective knowledge of individuals. Organizational learning is embedded within the history, values, culture, and routines that guide and direct individual and organizational behavior (Argote, McEvily, & Reagans, 2003; Sirmon et al., 2007). These capabilities can be independent of individuals' decisions, actions, and turnover (Levitt & March, 1988). Organizations may hire employees with new KSAOs but those KSAOs do not create a unit level competitive advantage without an the ability of the organization to use those skills (Kogut & Zander, 1992). Individuals may own their KSAOs but without an associated organizational capability those individuals' attributes will go unused.

Hypothesis 5: Subunit capabilities will explain more variation in subunit power than subunit human capital resources.

3.4. CONTEXTUAL MODERATOR

Up to this point I have only considered how subunit resources and capabilities directly affect the power of the subunit. I will now discuss an intra-organizational factor that might alter how those resource and capabilities impact the power of HR departments.

As I previously discussed, the uncertainties facing an organization will determine how subunits gain power. I have argued that uncertainty regarding human capital resources and information provide opportunities for HR departments to gain more power. This suggests that in contexts where employees are the primary drivers of firm

performance HR departments should have greater power. Yet studies have shown in certain knowledge-driven organizations (e.g., Universities) HR departments have little or no power (Farndale & Hope-Hailey, 2009; Hills & T. A. Mahoney, 1978; Pfeffer & Salancik, 1974). In these contexts, the demands for individual KSAOs are very specific with very specialized knowledge.

It would be difficult for an HR professional to evaluate the quality of an agriculture scientist. They simply would not have the requisite prior knowledge, vocabulary, or criteria on which to determine whether to hire or how to train a tenure-track agricultural faculty. This suggests that as the knowledge demands for an organization increase the influence of HR departments regarding strategic decision making will diminish. In these situations, HR becomes a micro-strategy, where each department takes their own actions regarding HR policy and practices. Having too much direction from an organizational HR department may limit department-level decision makers (managers) from finding and implementing the policies and procedures most relevant to their unit's needs.

In these situations, HR may still provide value to the organization through training managers and other leaders about how to lead and manage teams. In this way HR departments act as an advisor or consultant more than decision-maker. In these situations the HR department would largely exist at a corporate or administrative level where the function might work primarily in creating culture, advising managers, and organization design, and administering basic services (Schuler, 1992). However, evidence does not exist that suggests HR departments take on these types of strategic roles within knowledge intensive organizations. Thus, I propose the following.

Hypothesis 6: As organizations become less reliant on knowledge-based competitive advantage the relationship between resources and capabilities of HR departments and department power will increase.

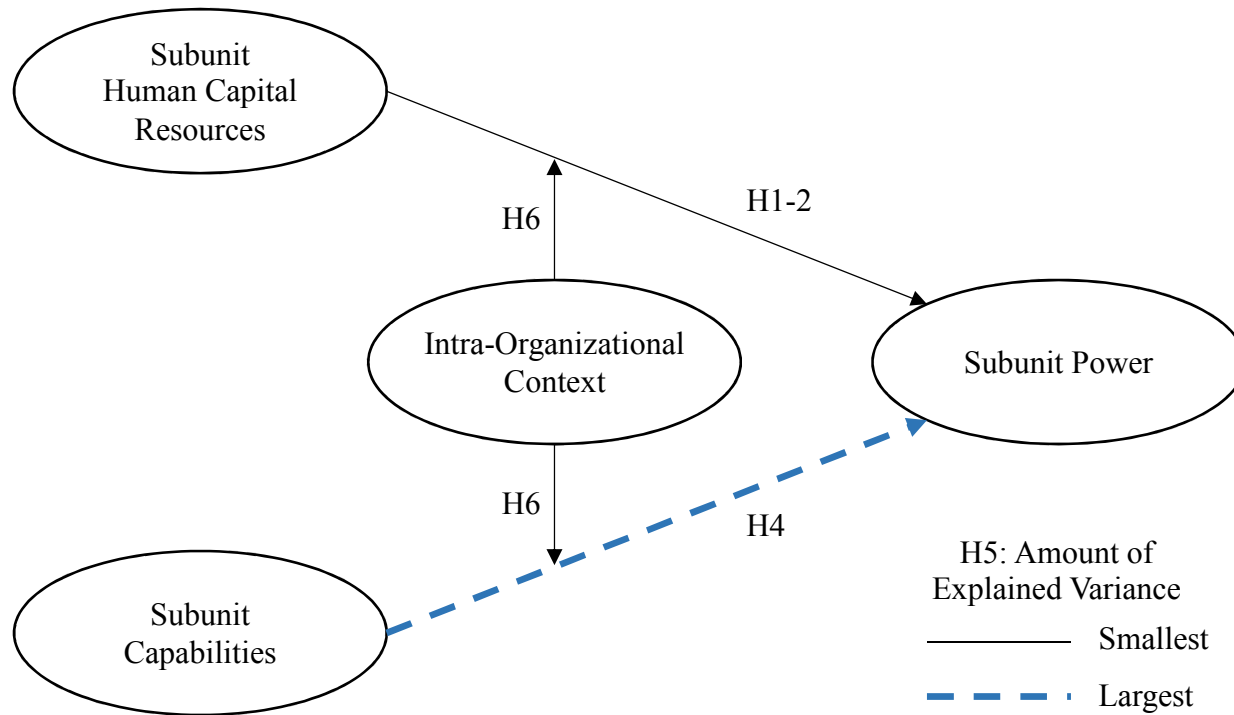


Figure 3.2 Model of Subunit Power

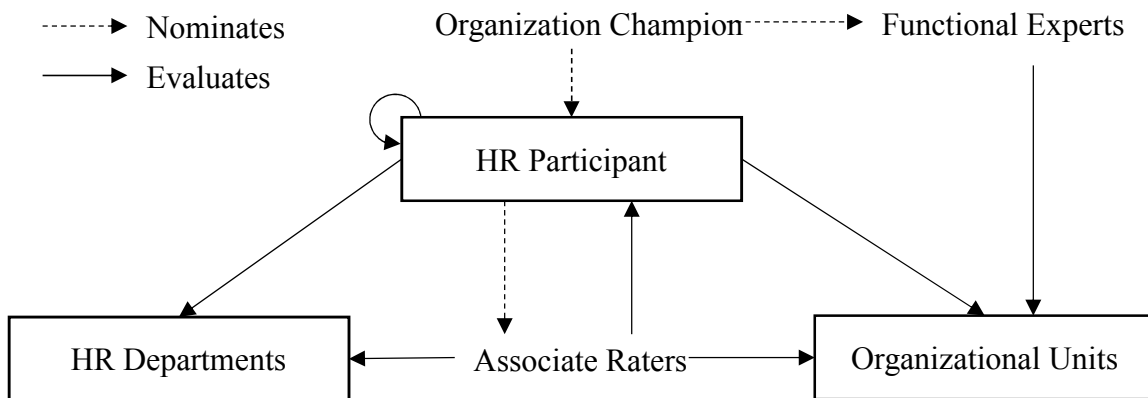
CHAPTER 4

METHODS

Starting in 1987, and repeating every 4-5 years thereafter, the Human Resource Competency Study (HRCS) has focused on empirically defining competencies of HR professionals that link to individual and organizational effectiveness (D. Ulrich, Younger, Brockbank, & M. Ulrich, 2012). In the most recent round of data collection, taking place from March through September 2015, data were gathered on individual HR professionals, HR departments, and business units. The study focuses at the business unit level under the pretense that this level is more appropriate for studying HR department power since HR is more likely to have an influence over strategy formulation and implementation at this level in the organization.

This round of the HRCS involved multiple steps and surveys. First, organizations were recruited by our regional partners and asked to provide an internal person to champion the project. The organization champion nominated HR professionals within their organization to participate in a 360-degree survey evaluation. The organization champion could nominate any number of HR participants (the observational unit of the 360-degree survey) but only the first ten were allowed without cost to the organization. Additionally, the organization champion nominated functional experts within the business unit who possessed specific knowledge regarding the business unit's finances, HR policies, information management, innovation activities, mergers and acquisitions, strategy, and organizational demographics. These functional expert surveys were not used

in the current study. Second, after HR participants enrolled in the system they were asked to nominate at least 3 raters from within HR, at least 3 raters from outside HR, and their supervisor. Third, each rater and participant were asked to complete 1) a 360-degree survey on behalf of the participant, 2) a demographic survey about themselves, 3) a survey regarding the HR department, and 4) a survey about the business unit. A complete diagram of this process is shown in Figure 4.1.



All individuals were asked to provide demographics

Figure 4.1 Data Collection Process

4.1. SURVEY DESIGN

To ensure greater accuracy in our results and reduce common method bias the HRCS uses 360-degree survey methodology. While the 360-degree methodology certainly has some limitations, the research team believe it is the best data collection instrument for our research for at least two reasons. First, 360-degree methodology allows us to avoid reliance on self-report data when constructing a competency model. We purposefully utilized multi-rater methodology to avoid the well-documented pitfalls of self-report data, such as common method variance, consistency motif, and social desirability (Brief, Burke, George, Robinson, & Webster, 1988; Donaldson & Grant-

Vallone, 2002; Podsakoff & Organ, 1986). Second, the 360-degree methodology allows us to survey individuals outside of the HR profession who may not be subject to the same biases and lay theories that exist in HR. These individuals include a wide range of functional background, tenure, and organizational position.

The superordinate objective of the HRCS is to determine which HR competencies are most important for individual, department, and organizational performance. As such, the research team used multiple approaches to determine what to include on the survey instrument. First, the team approached regional partners to help gather information about the HR profession in different geographical areas. This round of the HRCS included more than 20 partners with significant presence in each of the major world regions. Regional partners include business schools (e.g., CEIBS in China or IAE in Brazil) and professional organizations (e.g., HRCI based in the US or AHRI in Australia).

During the course of 12-18 months these regional partners conducted interviews and focus groups with HR professionals and business leaders, emphasizing two questions: (1) “what are the major trends that are occurring in the global and local business environments; (2) “within the context of those trends, what will HR professionals need to know, do, and be in the coming years to drive business performance?” The research team also conducted interviews and focus groups with the same overarching questions. Collectively, the research team and regional partners conducted hundreds of interviews, workshops, and focus groups with thousands of HR professionals and business leaders. The research team then worked with our regional partners to synthesize key findings and themes from the interviews and focus groups. These synthesized findings were used as a lens to design the actual survey instrument.

After completing the focus groups, the research team hosted a large group workshop in London in October 2014 with representatives from each regional partner. This workshop led to eliminating questions that were redundant from the sixth iteration of the survey as well as developing new questions that captured potential competencies that emerged from the focus groups but were not adequately reflected in the prior survey instrument.

Second, the research team analyzed data from the previous round of data collection in 2012 to empirically determine items that performed strongly or weakly. Items that did not load in a factor analysis, items that loaded poorly, or items that exhibited strong cross loadings were dropped from the survey to reduce survey length. Additionally, scales that comprised of a large number of items were trimmed by considering scale performance with certain items removed. This empirical analysis provided a starting point for eliminating old survey questions to make room for new survey questions based on focus group results.

Third, the research team conducted a detailed literature review of other competency models as well as survey instruments used in both academic and practitioner studies that were related to HR competencies. We then used the information from regional partners, prior survey results, and literature reviews to develop a new survey instrument, iterating survey drafts with regional partners to ensure the practical relevance of items. The final survey instrument contained 123 items that measure the competencies HR professionals may need to possess in order to be effective. These 123 individual competencies were assessed using a 5-point Likert scale. Respondents were also asked to

complete 78 survey items regarding the HR department and business-unit. Each respondent in the study also provided individual demographics.

4.2. SAMPLE

The HRCS represents one of the largest and most comprehensive studies of HR professionals, with over 90,000 survey responses collected over its 30-year history. The current round of data collection gathered more than 38,000 surveys completed globally (over 50,000 individuals were entered into the survey system)—rating nearly 4,000 HR professionals from nearly 1400 organizational units. Participants were recruited through a combination of email lists owned by the financial sponsors (Stephen M. Ross School of Business at the University of Michigan and The RBL Group), 22 regional partners, and various trade publications. Due to the many recruitment tactics used in the study we were unable to track overall participation rates, nor can I analyze for any response bias in the data.

HR participants were individual HR professionals who chose to participate in the 360-degree survey process. In return for their participation, every HR professional was promised a free detailed and individually personalized feedback report along with any general reports from the study. The study was open between March and September 2015, allowing for regional differences in holidays and vacations. In total, 7,335 participants registered for the option to participate in the study, of which 3,964 provided usable data (54%).

Once HR participants enrolled in the study they were asked to nominate at least five raters including one supervisor, at least 3-5 HR, and at least 3-5 non-HR associate raters. In total, 43,010 associate raters were invited to participate in the study of which

27,904 provided usable data (64.9%), regarding the 3,964 HR participants. On average, HR participants were rated by 6.8 associates. Of the almost 28,000 associate raters, 10,998 were non-HR associates and 13,168 came from within HR. This study then consisted of substantial insight from outside HR, as opposed to traditional HR competency studies that focus primarily on only HR professionals.

These participants were spread across 1,395 different business units, of which 194 provided sufficient data for inclusion in this study. To be included, business units were required to have at least 2 HR participants (each participant requiring at least 3 raters, not including self-ratings or executives), 3 ratings from within HR, 3 ratings from outside HR to evaluate the organization, and 1 executive (Mount, Judge, Scullen, Sytsma, & Hezlett, 1998). My final sample includes 17,299 total respondents, of which 1,954 were HR participants, 13,259 were raters, and 2,086 were executives.

On average, HR departments were 30% male, with employees having 15.42 years of total work experience, 12.11 years of HR work experience, and 7.64 years of firm experience. The modal education level within these departments was a bachelor's degree. The average number of HR related certifications possessed by employees within these departments was .48 and 8% of employees were expatriates.

4.3. MEASURES

From these 123 competency items and individual demographics I selected a subset of measures that pertained specifically to the constructs discussed in this paper, namely general human capital, occupation-specific human capital, and strategy-specific human capital. Generic human capital was assessed using individual demographics and specific human capital measures were determined using exploratory factor analysis of the

123 competency items. These items factored into 9 domains, two of which I use in this study and will be explained later. A complete list of survey measures, as well as other items used in the HRCS are contained in Appendix A. Demographic questions can be found in Appendix B.

In addition to survey items evaluating individual HR professionals, we asked raters to evaluate the HR department and organization in which the HR professional worked using 78 items. From these items we used exploratory factor analysis to select a subset of measures related to the HR department capabilities for managing the organization's human capital and information. A list of these items is included in Appendix C, along with other items included in the unit-level survey in Appendix D.

4.3.1. *Subunit Power*

There is no definitive measure of subunit power and prior research has operationalized the construct in a variety of ways, including hierarchal position, scope of authority, dependency upon other subunits, board or senior team memberships, or resource control (Galang & Ferris, 1997; Hinings et al., 1974; Lachman, 1989; Russ et al., 1998; Salancik & Pfeffer, 1974). In this study I use a perceptual measure of power (Lachman, 1989) by asking participants to evaluate the HR department involvement in strategic decision making relative to seven other functions: finance, accounting, marketing, sales, operations/logistics, research and development, and information technology. This question was completed by all participants who completed the organizational survey but for the purposes of this study I only included responses from executives outside the HR function, who should be most familiar with the strategic

decision making process. Individuals who were used to calculate subunit power were not included in other measures in my analysis to avoid common method bias.

4.3.2. *Human Capital Resources*

Generic human capital resources were determined using the education level obtained from all HR respondents (including raters and participants), aggregated to the unit-level. This measure had nine levels ranging from some high school to doctorate degree. Education level has been used in prior studies as a measure of generic human capital (Sweetland, 1996) and been found to have a positive effect on performance outcomes (Pil & Leana, 2009; K. G. Smith, C. J. Collins, & Clark, 2005). Specific human capital resource types were created using an aggregate of HR professionals within the business unit. Each competency item asked a rater to evaluate their agreement on a 5-point Likert scale with 1 being ‘Strongly Disagree’ and 5 being ‘Strongly Agree’.

Occupation-specific human capital resources were measured using 21 items, focused on how well the HR participant managed the organization’s human capital. Example items include, “Facilitates meaningful developmental work experiences”, “Attracts appropriate people”, and “Manages succession plans for key leadership positions”.

Strategy-specific human capital resources were determined using 16 item focused on how well the HR participant understood the business-unit’s strategic contingencies. Example items include, “Understands who makes key decisions in your organization (e.g., people who control important resources)”, “Accurately anticipates |ORGUNIT|’s risks”, and “Focuses internal organizational actions on creating value for customers”.

Each human capital resource measure was calculated by first finding an average score by rater, then aggregating to the HR participant, then aggregating to the business-unit. Self-ratings and ratings from executives were excluded from these calculations to avoid problems with self-evaluation and common-method bias. In order to be used in my analysis HR participants were required to have at least 3 eligible raters and business units were required to have at least 2 eligible HR participants. Thus each independent measure in my analysis were determined by multiple raters.

4.3.3. Subunit Capabilities

I used two measures of subunit capabilities: the HR department's ability to manage the organization's human capital resources and the ability of the HR department to manage information. These measures were completed as part of the organizational survey completed by all respondents yet I chose to only include responses from non-HR participants to reduce common-method bias and assuming that these raters are often the beneficiaries of the stated capabilities. Whereas measures of human capital resources were derived from aggregating the KSAOs of individuals, measures of subunit capabilities were determined directly at the subunit level by asking respondents to evaluate their agreement concerning their HR department's use of different HR practices.

Human capital management items are essentially measures of high-performance work systems and in this study include 6 items. Example items include, "Employees are provided comprehensive training throughout their careers (i.e., training beyond the skills required by the trainee's current job)" and "On average, the pay level (including incentives) of our employees is higher than that of our competitors".

The ability of the HR department to manage information was determined using 9 items. Example items include, “HR imports external information into [ORGUNIT] for decision making”, “HR is involved in bringing in centrally important external information to share across the organization”, and “HR ensures the full utilization of information in [ORGUNIT]’s decision making”.

4.3.4. *Moderators*

The importance of knowledge for the organization to obtain a competitive advantage was measured using four items from the organizational survey. Participants were asked to evaluate the importance of these items in order for their organization to be successful. Items include innovation, external sensing, leveraging technology, and knowledge.

4.4. ANALYTICAL PROCEDURES

To determine unit-level human capital resources I first aggregated survey measures to individual HR participants. Second, I aggregated individual HR participants to the unit-level to get a measure of unit-level human capital resources. Measures of unit capabilities were measured at the unit-level, with participants asked to evaluate either their HR department or business unit. Participant ratings were then aggregated to create unit-level capability measures.

Hypotheses 1, 2, 4, and 6 were tested using linear regression at the unit-level. Hypotheses 3 and 5 were evaluated using variance decomposition (Genizi, 1993). Variance decomposition is used to evaluate the relative contribution of correlated independent variables to the dependent outcome. This approach parses out the unique and shared contribution of each independent variable (Nimon & F. L. Oswald, 2013; Nimon,

Lewis, Kane, & Haynes, 2008). From this I can determine the relative influence of each predictor against the criterion, suggesting which independent variables explain the most variance in my outcome variable. Alternative approaches to variance decomposition, such as all-possible subsets regression, generally produce similar results as Genizi (1993) while requiring substantially computing power.

CHAPTER 5

RESULTS

Descriptive statistics are shown in Table 5.1. Generic human capital resources, capability to manage human capital, and capability to manage information are all significant and positively correlated with subunit power while strategy-specific and occupation-specific-human capital resources are not. The standard deviations for the two types of specific human capital resources are noticeably small (0.19 and .022, respectively), which is likely an artifact of aggregation, first aggregating raters to participants, then participants to the unit level. I also note that Cronbach's alpha for these two scales, as well as information management capability, are quite high (0.96, 0.98, 0.96) suggesting the scales likely include redundant items. I also note that the correlation between strategy-specific human capital resources and occupation-specific human capital resources is high, 0.80. Such a strong correlation could be cause for concern in a regression analysis but an examination of variance inflation factors suggested multicollinearity did not have a strong adverse effect in my analysis. The largest variance inflation factor was associated with occupation-specific human capital resources (2.88).

5.1. HYPOTHESIS TESTS

Our first hypothesis proposed a positive relationship between generic human capital resources and subunit influence, which was supported in Model 1 of Table 5.2. Hypotheses 2a and 2b proposed positive relationships between strategy-specific and occupation-specific human capital resources, which were not supported (Models 2 and 3,

Table 5.1 Descriptive Statistics

Variable	Mean	SD	1	2	3	4	5	6	7
1. Subunit Power	2.97	0.55	<i>0.85</i>						
2. Generic HCR	6.16	0.52	0.22	-					
3. Strategy Specific HCR	4.11	0.19	0.03	-0.05	<i>0.96</i>				
4. Occupation Specific HCR	3.97	0.22	0.08	0.03	0.80	<i>0.98</i>			
5. Human Capital Management Capability	3.49	0.31	0.28	0.16	0.11	0.20	<i>0.79</i>		
6. Information Management Capability	3.48	0.46	0.26	0.09	0.25	0.30	0.40	<i>0.96</i>	
7. Intra-Organizational Context	3.95	0.29	0.02	0.14	0.11	0.17	0.36	0.40	<i>0.88</i>

Note: n = 194. Correlations with absolute values above 0.14 are statistically significant at $p < .05$. Cronbach's alphas are reported across the diagonal where appropriate. Subunit power was measured by non-HR executives. Generic human capital resources were measured using all HR employees within a business unit. Strategy and occupation specific human capital resources were measured by all non-executive and non-self-raters. Subunit capabilities and intra-organizational context were assessed by raters outside of the HR function who were not executives.

Table 5.2). Hypotheses 4a and 4b were both supported, finding a positive relationship between subunit power and two types of subunit capabilities, human capital management and information management (Model 5, Table 5.2).

Table 5.2 Regression Results for Direct Effects

Variable	Model 1	Model 2	Model 3	Model 4	Model 5
Intercept	1.54** (0.47)	2.67** (0.85)	2.18** (0.73)	1.07 (0.98)	0.31 (0.97)
Generic HCR	0.23** (0.08)			0.22** (0.08)	0.18* (0.07)
Strategy Specific HCR		0.07 (0.21)		-0.16 (0.34)	-0.13 (0.32)
Occupation Specific HCR			0.20 (0.18)	0.30 (0.30)	0.05 (0.29)
Human Capital Management Capability					0.33* (0.13)
Information Management Capability					0.21* (0.09)
Log-Likelihood	-155.41	-159.98	-159.46	-154.78	-146.00
Model R ²	0.05	0.00	0.01	0.05	0.13
AIC	316.82	325.97	324.91	319.55	306.01

Note: n= 194; Standard errors in parentheses. † $p < .10$; * $p < .05$; ** $p < .01$; two-tailed hypothesis tests.

Hypothesis 3 proposed that the amount of variance in subunit power explained by human capital resources would be greatest as the resource types became more specific to the firm. Thus we would expect that the relative weight of strategy-specific human capital resources to be larger than occupation-specific human capital resources, which would be larger than generic human capital resources. As shown in Table 5.3 the hypothesized pattern was not supported. In fact, from this table it appears as though generic human capital resources explain the greatest amount of variance in subunit power, followed

occupation-specific human capital resources, and then strategy-specific human capital resources. This pattern is opposite from what I proposed in Hypothesis 3.

Though none of the human capital resources measures explain a large portion of the overall variance in subunit power (see Total-Raw, Table 5.3), generic human capital resources account for 86.45% of the variance accounted for by these variables. This dwarfs the relative weight of both occupation-specific (10.77%) and strategy-specific (2.78%) human capital resources. Further analysis exploring the relationship between these variables will be discussed in Section 5.2, Supplemental Analysis.

Hypothesis 5 proposed the relative weights of subunit capabilities would be greater than the relative weights of human capital resources. This pattern was supported, with capabilities explaining 70.80% of the variance in subunit power accounted for by these two variable types (see Table 5.4).

Hypothesis 6 suggested that when knowledge management is less important to an organization, an intra-organizational context, the relationship between human capital resources and subunit capabilities with subunit power will increase. This hypothesis was partially supported (see Table 5.5). Neither generic human capital resources nor subunit capability types significantly interacted with intra-organizational context (Model 3, Table 5.5). The two types of specific human capital resources both had significant interactions with intra-organizational context, though in opposite directions. Strategy-specific human capital resources interacted negatively with intra-organizational context, such that the relationship between strategy-specific human capital resources and subunit power was negative in contexts with high required knowledge management capability. The relationship between strategy-specific human capital resources and subunit power was

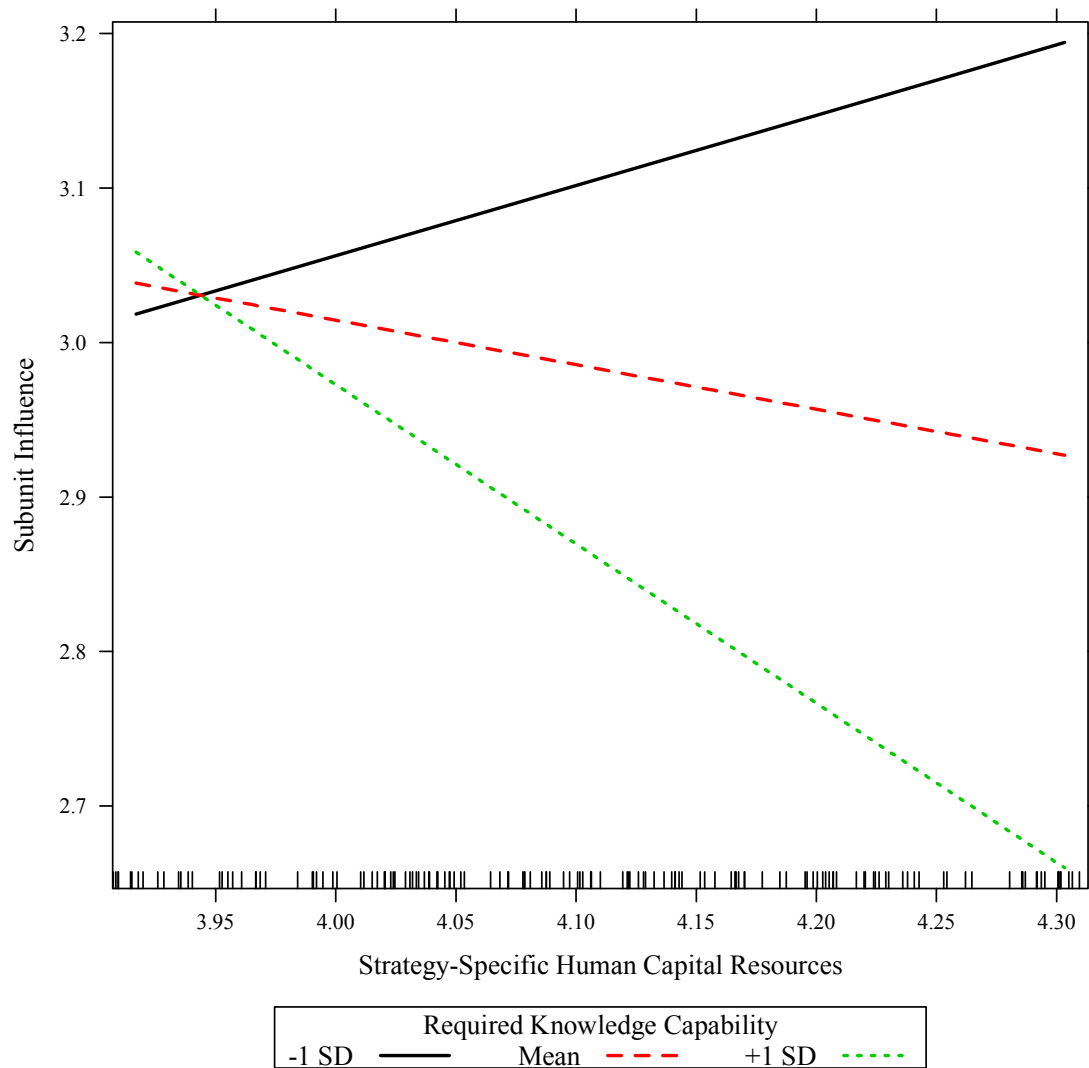


Figure 5.1 Interaction Between Strategy-Specific Human Capital Resource and Required Knowledge Capability

positive relationship in contexts with low required knowledge management capability, (see Figure 5.1).

There was a positive interaction between occupation-specific human capital resources and intra-organizational context. Occupation-specific human capital resources had a positive relationship with subunit power in contexts with low required knowledge management capability. The relationship between occupation-specific human capital resources and subunit power was negative in contexts with high levels of required

knowledge management capability (see Figure 5.2). Taken together, in contexts with high knowledge capability demands, HR departments may find greater power when they have high levels of occupation-specific human capital resources and low levels of strategy-specific resources. In contexts with low demands from knowledge capabilities HR departments may find greater power at high levels of strategy-specific human capital resources and low levels of occupation-specific resources.

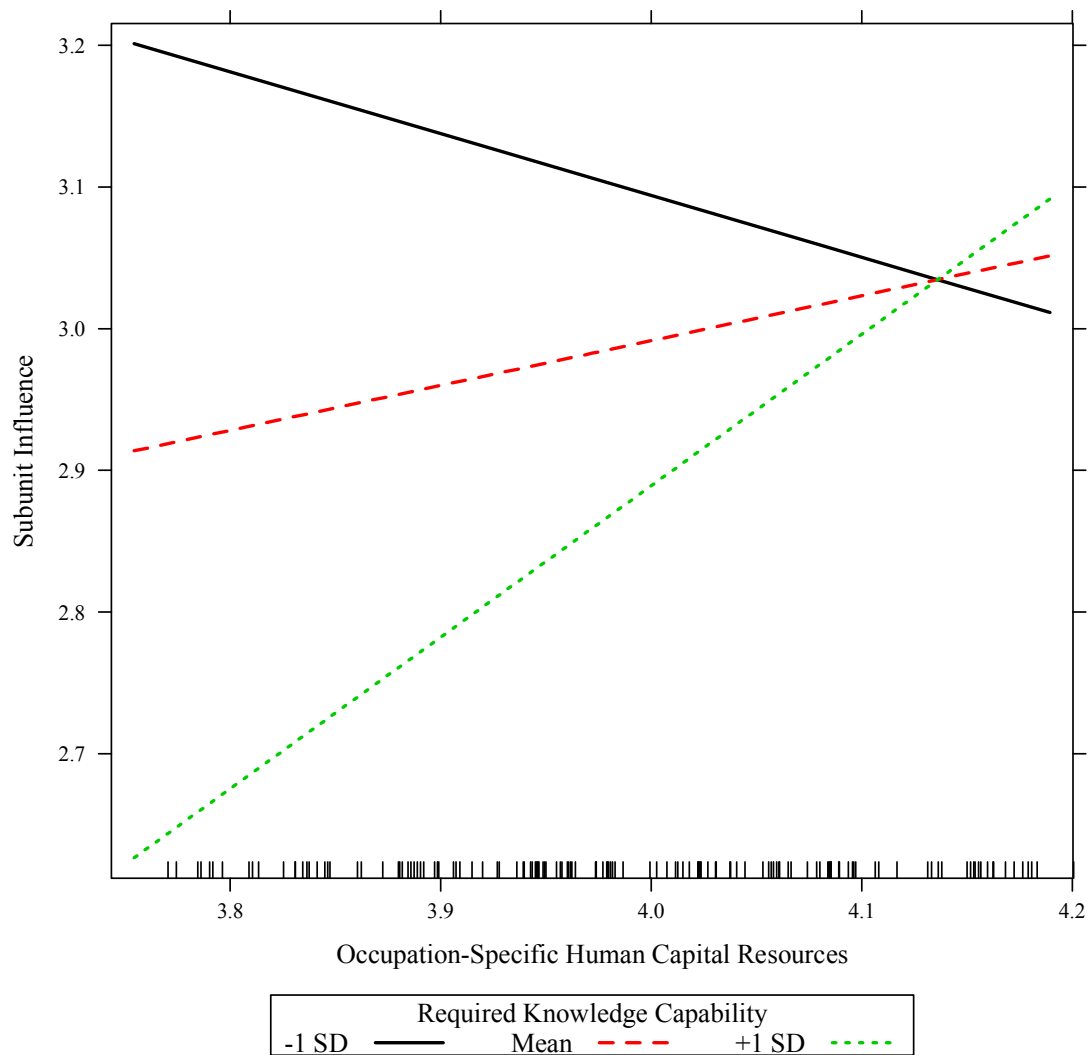


Figure 5.2 Interaction between Occupation-Specific Human Capital Resources and Required Knowledge Capability

Table 5.3 Variance Decomposition of Human Capital Resource Types

	Total-Raw	Total-Normalized	Unique-Raw	Unique-Normalized	Relative Weights-Raw	Relative Weights-Normalized
Generic HCR	0.0467	87.45	0.0432	87.69	0.0457	86.45
Strategy Specific HCR	0.0006	1.20	0.0012	2.35	0.0015	2.78
Occupation Specific HCR	0.0061	11.35	0.0049	9.96	0.0057	10.77
Column Total		100.00		100.00	0.0529	100.00

Note: Total-Raw represents bivariate R^2 with Subunit Influence. Unique represents variance explained in Subunit Influence by the variable after accounting for all other variables. Relative weights account for both common and unique variance explained. Note the sum of raw relative weights is equal to the unadjusted model R^2 found in Table 5.2, Model 2.

Table 5.4 Variance Decomposition of Human Capital Resources and Subunit Capabilities

	Total- Raw	Total- Normalized	Unique- Raw	Unique- Normalized	Relative Weights-Raw	Relative Weights- Normalized
Generic HCR	0.0467	23.28	0.0268	33.40	0.0360	26.74
Strategy Specific HCR	0.0006	0.32	0.0007	0.90	0.0010	0.74
Occupation Specific HCR	0.0061	3.02	0.0001	0.15	0.0023	1.72
<i>HCR Total</i>					<i>0.0393</i>	<i>29.20</i>
Human Capital Management Capability	0.0800	39.92	0.0282	35.09	0.0519	38.50
Information Management Capability	0.0670	33.45	0.0245	30.47	0.0435	32.30
<i>Capabilities Total</i>					<i>0.0954</i>	<i>70.80</i>
Column Total		100.00		100.00	0.1347	100.00

Note: Total represents bivariate R^2 with Subunit Influence. Unique represents variance explained in Subunit Influence by the variable after accounting for all other variables. Relative weights account for both common and unique variance explained. Note the sum of raw relative weights is equal to the unadjusted model R^2 found in Table 5.2, Model 5.

Table 5.5 Regression Results for Intra-Organizational Context

Variable	Model 1	Model 2	Model 3
Intercept	1.06 (1.02)	1.76 (12.97)	-5.00 (13.38)
Generic HCR	0.19** (0.07)	-0.23 (0.95)	-1.22 (1.05)
Strategy Specific HCR	-0.15 (0.32)	9.92* (4.53)	9.86* (4.55)
Occupation Specific HCR	0.08 (0.29)	-9.85* (3.89)	-9.96* (3.86)
Human Capital Management Capability	0.40** (0.14)	0.39** (0.14)	3.48† (1.88)
Information Management Capability	0.28** (0.10)	0.27** (0.09)	1.18 (1.59)
Intra-Organizational Context	-0.34* (0.14)	-0.60 (3.26)	1.09 (3.37)
Generic HCR × Intra-Organizational Context		0.11 (0.24)	0.36 (0.27)
Strategy Specific HCR × Intra- Organizational Context		-2.58* (1.15)	-2.57* (1.15)
Occupation Specific HCR × Intra- Organizational Context		2.57* (1.00)	2.60** (1.00)
Intra-Organizational Context × Human Capital Management Capability			-0.79 (0.48)
Intra-Organizational Context × Information Management Capability			-0.22 (0.39)
Log-Likelihood	-143.20	-139.31	-136.80
Model R ²	0.16	0.19	0.21
AIC	302.41	300.61	299.60

Note: n= 194; Standard errors in parentheses. † $p < .10$; * $p < .05$; ** $p < .01$; two-tailed hypothesis tests.

5.2. SUPPLEMENTAL ANALYSES

Having found mixed support for my theoretical model I engaged in a series of supplemental analyses to confirm and better understand my results. First, I reproduced the previous analyses using three measures of tenure, total professional, HR-related, and firm, which parallel my measures of human capital resources (generic, occupation-specific, and strategy-specific). Second, I used an alternative approach to determine the relative importance of each variable using dominance analysis. Third, I tested capabilities as mediators between the relationship of human capital resources and subunit influence using structural equation modeling (SEM). Fourth, I tested quadratic effects of human capital resources types in search of curvilinear relationships. Fifth, I considered gender as a moderator.

5.2.1. *Alternative Measures of Human Capital Resources Based on Tenure*

To confirm my findings, I considered alternative measures of human capital resources based on different types of average HR department tenure: total professional, HR-related, and firm. These different types of tenure measures provide rough proxies for the types of human capital resources I used in this study. Tenure measures make some assumptions. For example, I assume that individuals' types of KSAOs will increase with more tenure. There are certainly examples where this assumption would not hold but, *ceteris paribus*, a person with more tenure should exhibit greater KSAOs than those with less tenure.

Average professional tenure (parallel to generic human capital resources) was again significantly related to subunit power but the relationship was negative (see Model 1, Table 5.6). Average HR-related tenure (parallel to occupation specific human capital

resources) was significant and positively related to subunit power. Firm tenure (parallel to strategy-specific human capital resources) did not have a significant relationship with subunit power (see Model 2, Table 5.6). Only one measure of subunit capability, human capital management, was significantly related to subunit power (see Model 3, Table 5.6).

Table 5.6 Regression Results for Direct Effects Using Tenure Measures

Variable	Model 1	Model 2	Model 3
Intercept	3.47** (0.14)	3.43** (0.14)	1.65** (0.52)
Professional Tenure	-0.03** (0.01)	-0.06** (0.01)	-0.05** (0.02)
Firm Tenure		0.00 (0.01)	-0.00 (0.01)
HR Tenure		0.04* (0.02)	0.03* (0.02)
Human Capital Management Capability			0.32* (0.13)
Information Management Capability			0.14 (0.09)
Log-Likelihood	-152.83	-150.05	-143.80
Model R ²	0.07	0.10	0.15
AIC	311.65	310.10	301.60

Note: n= 194; Standard errors in parentheses. † $p < .10$; * $p < .05$; ** $p < .01$; two-tailed hypothesis tests.

Table 5.7 shows the results of a relative weights analysis of tenure-based measures of human capital resources. I again find that the amount of variance explained by human capital resources was greatest with generic, followed by occupation-specific, and strategy-specific, though the magnitude of the differences was less than my proposed measures (see Table 5.3). Table 5.8 also shows a similar pattern in explained variance as was found using my proposed measures of human capital resources (see Table 5.4).

Table 5.7 Relative Weights of Human Capital Resources Based on Tenure

	Total-Raw	Total-Normalized	Unique-Raw	Unique-Normalized	Relative Weights-Raw	Relative Weights-Normalized
Professional Tenure	0.0717	69.55	0.0746	74.01	0.0702	71.65
Firm Tenure	0.0187	18.10	0.0000	0.02	0.0099	10.16
HR Tenure	0.0127	12.34	0.0262	25.97	0.0178	18.20
Column Total		100.00		100.00	0.0979	100.00

Note: Total-Raw represents bivariate R^2 with Subunit Influence. Unique represents variance explained in Subunit Influence by the variable after accounting for all other variables. Relative weights account for both common and unique variance explained. Note the sum of raw relative weights is equal to the unadjusted model R^2 found in Table 5.2, Model 2.

Table 5.8 Relative Weights of Human Capital Resources Based on Tenure and Subunit Capabilities

	Total- Raw	Total- Normalized	Unique- Raw	Unique- Normalized	Relative Weights-Raw	Relative Weights- Normalized
Professional Tenure	0.0717	28.67	0.0408	40.86	0.0482	31.27
Firm Tenure	0.0187	7.46	0.0000	0.01	0.0079	5.15
HR Tenure	0.0127	5.09	0.0210	21.04	0.0129	8.34
<i>HCR Total</i>					<i>0.069</i>	<i>44.76</i>
Human Capital Management Capability	0.0800	31.98	0.0269	26.97	0.0504	32.69
Information Management Capability	0.0670	26.80	0.0111	11.13	0.0348	22.55
<i>Capabilities Total</i>					<i>0.0852</i>	<i>55.24</i>
Column Total		100.00		100.00	0.1542	100.00

Note: Total represents bivariate R^2 with Subunit Influence. Unique represents variance explained in Subunit Influence by the variable after accounting for all other variables. Relative weights account for both common and unique variance explained. Note the sum of raw relative weights is equal to the unadjusted model R^2 found in Table 5.2, Model 3.

Tenure-based measures explain 44.76% of the variance in subunit power as determined by this set of variables compared to 55.24% of variance explained by subunit capabilities. This shows a less lopsided influence of capabilities as was found using competency-based measures of human capital resources (29.2% and 70.8% respectively).

I was not able to reproduce the significant interactions found from my proposed human capital resources measures using tenure-based measures (see Table 5.9). In total, using tenure-based measures of human capital resources I was able to reproduce some of my previous findings though not all. Tenure measures seem to explain a larger proportion of variance in subunit power than competency-based measures.

5.2.2. Dominance Analysis

I used dominance analysis to confirm the relative weights analysis I previously conducted. This analysis found generic human capital resources to have a general dominance weight of 0.046 compared to 0.006 (occupation-specific) and 0.001 (strategy-specific). The ordering of variable importance was also confirmed using a bootstrapped pairwise dominance analysis, with generic human capital resources exhibiting general dominance over both occupation-specific and strategy-specific types of capital (99.6% and 99.3% respectively) and occupation-specific exhibiting dominance over strategy-specific human capital in 84.5% of bootstrap samples. This same pattern was found using a bootstrapped complete pairwise dominance analysis, with generic human capital resources showing complete dominance over occupation-specific and strategy-specific human capital resources (99.5% and 98.8% respectively). Given these results I conclude that in this study generic human capital resources were the most important resource type for explaining subunit power, followed by occupation-specific then strategy-specific.

Table 5.9 Regression Results Using Tenure Measures for Intra-Organizational Context

Variable	Model 1	Model 2	Model 3
Intercept	2.59** (0.64)	2.82 (1.95)	-8.65 (7.51)
Professional Tenure	-0.05** (0.01)	0.06 (0.18)	0.18 (0.20)
Firm Tenure	-0.00 (0.01)	-0.04 (0.15)	-0.09 (0.15)
HR Tenure	0.03* (0.01)	-0.09 (0.21)	-0.13 (0.21)
Human Capital Management Capability	0.40** (0.13)	0.40** (0.14)	3.06 (1.89)
Information Management Capability	0.21* (0.09)	0.21* (0.10)	0.58 (1.58)
Intra-Organizational Context	-0.35* (0.14)	-0.41 (0.48)	2.49 (1.89)
Professional Tenure × Intra- Organizational Context		-0.03 (0.05)	-0.06 (0.05)
Firm Tenure × Intra-Organizational Context		0.01 (0.04)	0.02 (0.04)
HR Tenure × Intra-Organizational Context		0.03 (0.05)	0.04 (0.05)
Intra-Organizational Context × Human Capital Management Capability			-0.68 (0.48)
Intra-Organizational Context × Information Management Capability			-0.09 (0.39)
Log-Likelihood	-140.69	-140.45	-139.00
Model R ²	0.18	0.18	0.20
AIC	297.39	302.90	304.01

Note: n= 194; Standard errors in parentheses. † $p < .10$; * $p < .05$; ** $p < .01$; two-tailed hypothesis tests.

5.2.3. Mediation Analysis

Although I do not have longitudinal data to properly test a causal mediation model I still tested for indirect relationships between human capital resources and subunit power through subunit capabilities. Even if resources are available to a unit that does not

ensure that the unit utilizes those resources to their advantage (Ployhart et al., 2014). Thus the possession of resources may only become beneficial to the unit through some type of unit-level action, which I previously defined as capabilities. Thus we might expect to see indirect effects of human capital resources on subunit power through subunit capabilities.

To conduct this analysis, I compared a full and partial mediation model using structural equation modeling (SEM). These models included both latent and observed variables to account for measurement error. Thus, each latent construct was defined by a number of observed variables in addition to testing the paths between measures. Each latent human capital resources measure was tested for partial mediation through both types of subunit capabilities, totaling six different indirect relationships. Partial and full mediation models did not demonstrate universally strong measures of fit, particularly for the measurement portion of my models (CFI = 0.768; RMSEA = 0.093; SRMR = 0.087; TLI = 0.758). Since I am primarily concerned with the structural portion of the model I feel it is appropriate to proceed with a mediation analysis though I do so with caution.

I found the partial mediation model had improved fit compared to the full mediation model [$(\Delta\chi^2 = 8.13, \Delta df = 3, p < .05)$], suggesting the use of the partially mediated model might be preferable. To test the significance of indirect paths I conducted a bootstrap analysis with robust standard errors. This found two significant indirect paths, both starting with occupation-specific human capital and traversing through human capital management capability ($\beta = 0.25, p = .04$) and information management capability ($\beta = 0.30, p = .03$). There was also a marginally significant indirect path from strategy-specific human capital through human capital management capability ($\beta = -0.20, p = .11$).

While these results help us better understand the dynamics between human capital resources and subunit capabilities, they do not fully explain the relationship between resources and subunit power. One of the significant indirect paths connected human capital resources associated with managing a unit's human capital with the subunit's capability to manage the unit's human capital. The conceptual association between these two constructs is inherent, and thus a significant indirect path is not surprising. It is entirely possible that if I utilized other similarly associated measures of human capital resources and subunit capabilities I would find additional indirect effects. This does not explain the lack of significant relationship between strategy-specific human capital resources and subunit power.

5.2.4. *Curvilinear Relationships*

One possible explanation for the lack of significance between my two specific types of human capital resources and subunit influence could be the existence of non-linear effects. Such a relationship would suggest that the rate of change between human capital resources and subunit power is inconsistent at different levels of resources. For example, a subunit might obtain greater power going from low to average levels of strategy-specific human capital resources than going from average to high levels. This example would suggest there is a significant benefit in having a general level of KSAOs regarding the organization's strategy and competitive environment, but investing in additional KSAOs will have little additional affect.

Table 5.10 shows the results of including quadratic terms for both types of specific human capital resources in my full model. These results show both strategy-specific and occupation-specific human capital resources have a significant curvilinear

effect on subunit power (a quadratic term for generic human capital resources was not significant and hence excluded from this table). Figure 5.3 shows the relationship between strategy-specific human capital resources and subunit power, and Figure 5.4 shows the relationship between occupation-specific human capital resources and subunit power. Figure 5.3 shows the relationship between strategy-specific human capital resources is negative except at low levels of strategic human capital resources in a context with low requirements for knowledge capability. Thus, as the strategy-specific human capital resources increases the perceived power of the HR department decreases. Conversely, Figure 5.4 depicts a generally positive relationship between occupation-specific human capital resources and HR department power, with the exception of low levels of occupation-specific human capital resources in a context with low levels of required knowledge capabilities.

Both figures show that HR departments generally have higher power in contexts where the importance of managing knowledge is low compared to contexts where this importance is high. This adds further support to Hypothesis 6, that HR department power will be greater in contexts with lower knowledge-related requirements.

5.2.4. Gender Effects

Up until this point I have largely considered factors related to the aggregate KSAOs of individuals, unit capabilities, or contextual factors. My final supplemental analysis will consider a different type of moderator, the concentration of men within the HR department. Power is often attributed in greater quantities to men (Groshev, 2002; Ragins & Sundstrom, 1989), thus we might expect departments with higher concentrations of men to have greater power.

Table 5.10 Curvilinear Effects of Specific Types of Human Capital Resources on Subunit Power

Variable	Model 1
Intercept	-91.98 (146.78)
Generic HCR	-1.65 (1.03)
Strategy Specific HCR	245.25* (100.24)
Strategy Specific HCR ²	-29.48* (12.40)
Occupation Specific HCR	-208.94* (81.13)
Occupation Specific HCR ²	25.89* (10.35)
Intra-Organizational Context	18.88 (36.88)
Human Capital Management Capability	4.33* (1.90)
Information Management Capability	0.80 (1.59)
Generic HCR × Intra-Organizational Context	0.46† (0.26)
Strategy Specific HCR × Intra-Organizational Context	-57.61* (24.99)
Strategy Specific HCR ² × Intra-Organizational Context	6.90* (3.09)
Occupation Specific HCR × Intra-Organizational Context	50.43* (21.07)
Occupation Specific HCR ² × Intra-Organizational Context	-6.22* (2.68)
Intra-Organizational Context × Human Capital Management Capability	-1.00* (0.48)
Intra-Organizational Context × Information Management Capability	-0.13 (0.39)
Log-Likelihood	129.78
Model R ²	0.27
AIC	293.55

Note: n= 194; Standard errors in parentheses. † $p < .10$; * $p < .05$; ** $p < .01$; two-tailed hypothesis tests.

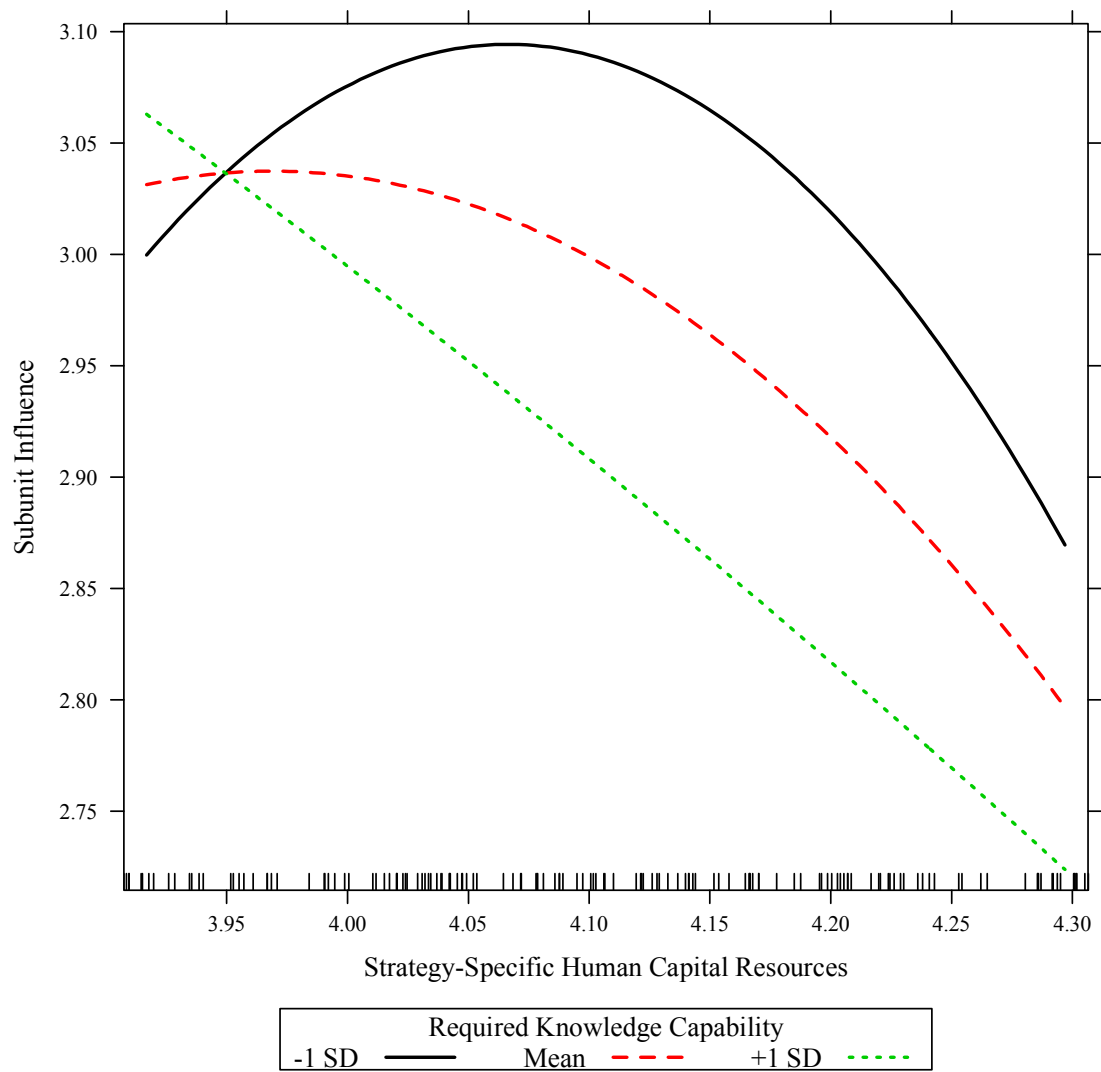


Figure 5.3 Curvilinear Relationship Between Strategy-Specific Human Capital Resources and Subunit Power

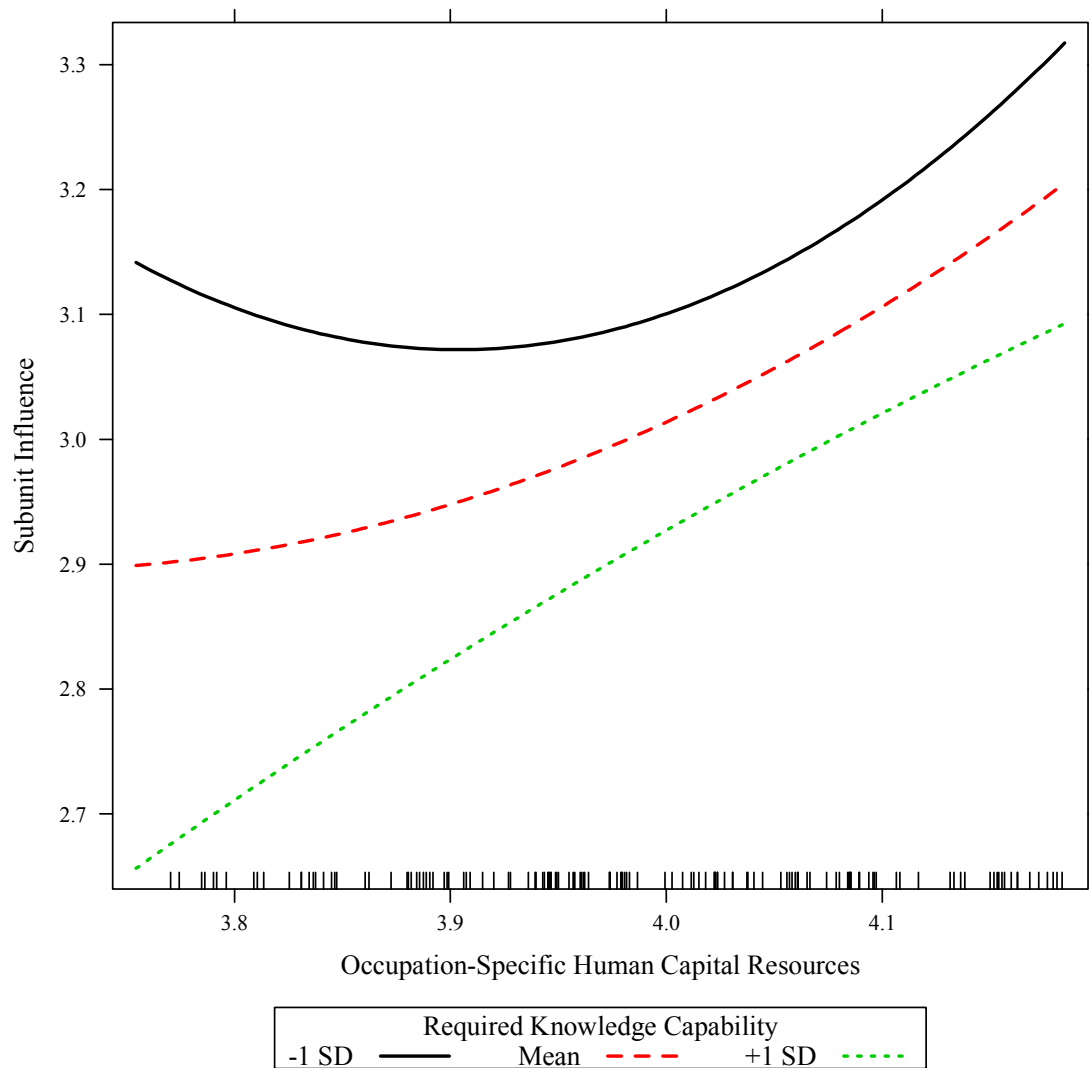


Figure 5.4 Curvilinear Relationship Between Occupation-Specific Human Capital Resources and Subunit Power

Contrary to my expectations, the concentration of men within HR departments has a negative relationship with department power (Table 5.11, Model 1). This relationship also has significant interactions with each type of human capital resources (Models 2 and 3). The interaction with strategy-specific human capital is show in Figure 5.5¹. There was

¹ Figures 5.5 and 5.6 closely resemble Figures 5.1 and 5.2 respectively (interaction of specific human capital resources and intra-organizational context) but the correlation

a positive relationship between strategy-specific human capital resources and subunit power when departments had low concentrations of men (or high concentrations of women, about 93% female). Conversely, there was a negative relationship between strategy-specific human capital resources and subunit power when departments had high concentrations of men (about 53% male). Thus it appears that departments with greater concentrations of women have more power when the level of strategy-specific human capital resources is high compared to departments that have higher concentration of men.

Figure 5.6 shows the interaction between the departments concentration of men and occupation-specific human capital resources (Model 2, Table 5.11). There was a strong positive relationship between occupation-specific human capital resources and subunit power when departments had greater concentration of men and a negative relationship when departments had high concentration of women.

Finally, Figure 5.7 shows the interaction between department concentration of men and generic human capital resources (Model 3, Table 5.11). Departments with high concentration of men appear to have little benefit from increasing levels of generic human capital whereas departments with greater concentration of women seem to have a significant benefit in terms of power as the department level of generic human capital increases.

These supplemental analyses have attempted to confirm my hypothesized results as well as better understand my findings. In general, I found support for which variables explained the most amount of variance in subunit power, with capabilities explaining

between gender concentration and intra-organizational context is 0.02, suggesting each moderator is capturing a different part of the relationship between human capital resources and subunit power.

more variance than human capital resources, and generic human capital resources explaining more variance than occupation-specific human capital resources, which in turn explain more variance than strategy-specific human capital resources. I also find some support for indirect relationships between human capital resources and subunit power through subunit capabilities. Through exploratory post-hoc analysis I also found support for potential curvilinear effects between the two specific types of human capital resources and subunit power. Additionally, I found a potential counter-intuitive finding, that departments with higher concentrations of men have less power than departments with higher concentrations of women. Given the exploratory nature of these analyses, these results would need validation in independent studies before I could have confidence in their effects. I will discuss implications of all of my findings in the discussion section.

Table 5.11 Gender Effects on Subunit Power

Variable	Model 1	Model 2	Model 3
Intercept	0.90 (0.99)	0.13 (1.62)	0.40 (1.66)
Generic HCR	0.17* (0.07)	0.30** (0.11)	0.35** (0.12)
Strategy Specific HCR	-0.18 (0.32)	0.54 (0.56)	0.50 (0.56)
Occupation Specific HCR	0.02 (0.29)	-0.72 (0.47)	-0.67 (0.48)
Human Capital Management Capability	0.29* (0.13)	0.29* (0.13)	0.12 (0.22)
Information Management Capability	0.21* (0.09)	0.22* (0.09)	0.21 (0.18)
Department Centration of Men	-0.41* (0.17)	1.63 (3.69)	0.74 (3.86)
Generic HCR × Department Centration of Men		-0.43 (0.27)	-0.60† (0.33)
Strategy Specific HCR × Department Centration of Men		-2.77† (1.63)	-2.63 (1.65)
Occupation Specific HCR × Department Centration of Men		3.03* (1.51)	2.83† (1.53)
Human Capital Management Capability × Department Centration of Men			0.60 (0.59)
Information Management Capability × Department Centration of Men			0.02 (0.40)
Log-Likelihood	-142.88	-140.08	139.51
Model R ²	0.16	0.19	0.19
AIC	301.77	302.17	305.02

Note: n= 194; Standard errors in parentheses. † $p < .10$; * $p < .05$; ** $p < .01$; two-tailed hypothesis tests.

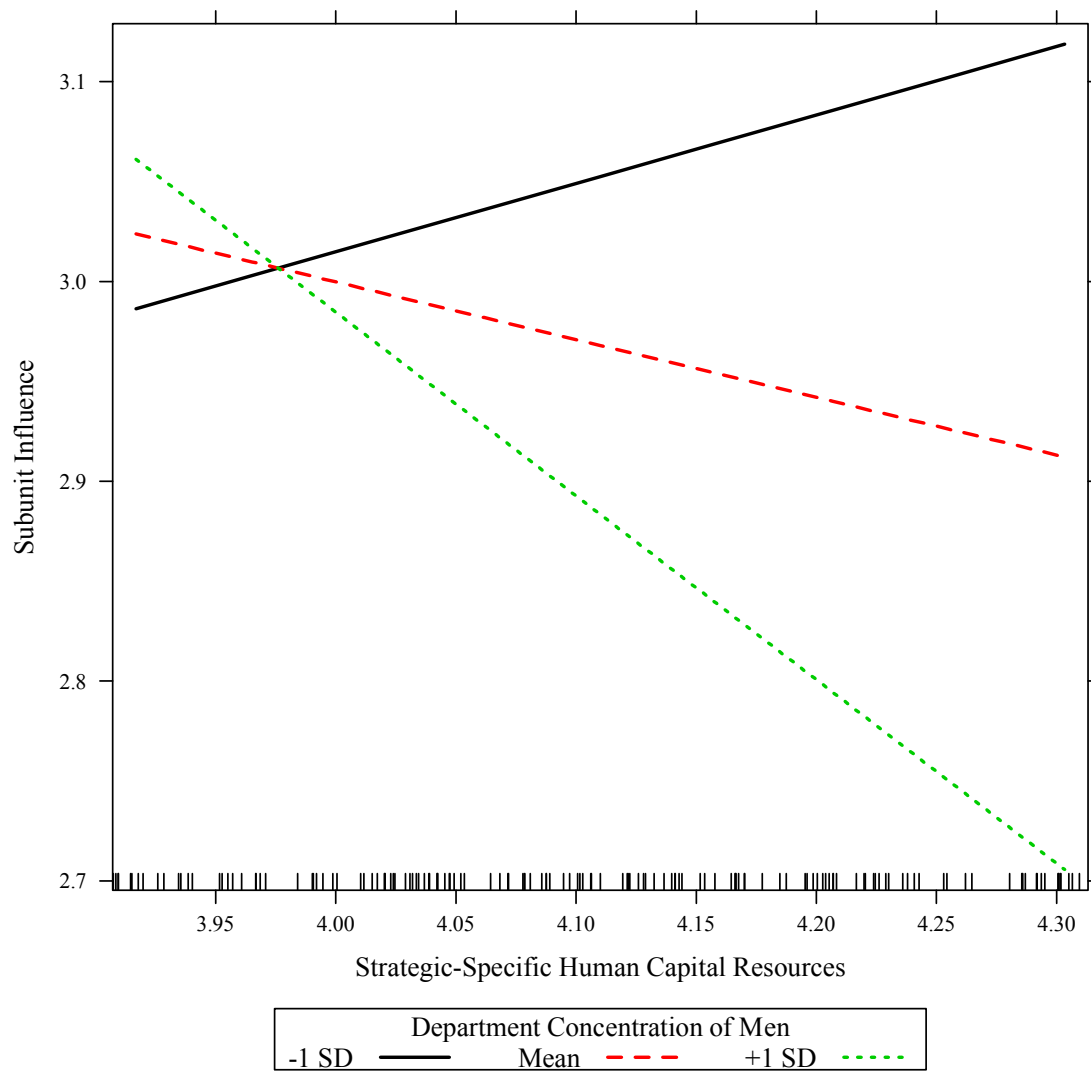


Figure 5.5 Effect of Strategy-Specific Human Capital Resources Moderated by Department Concentration of Men

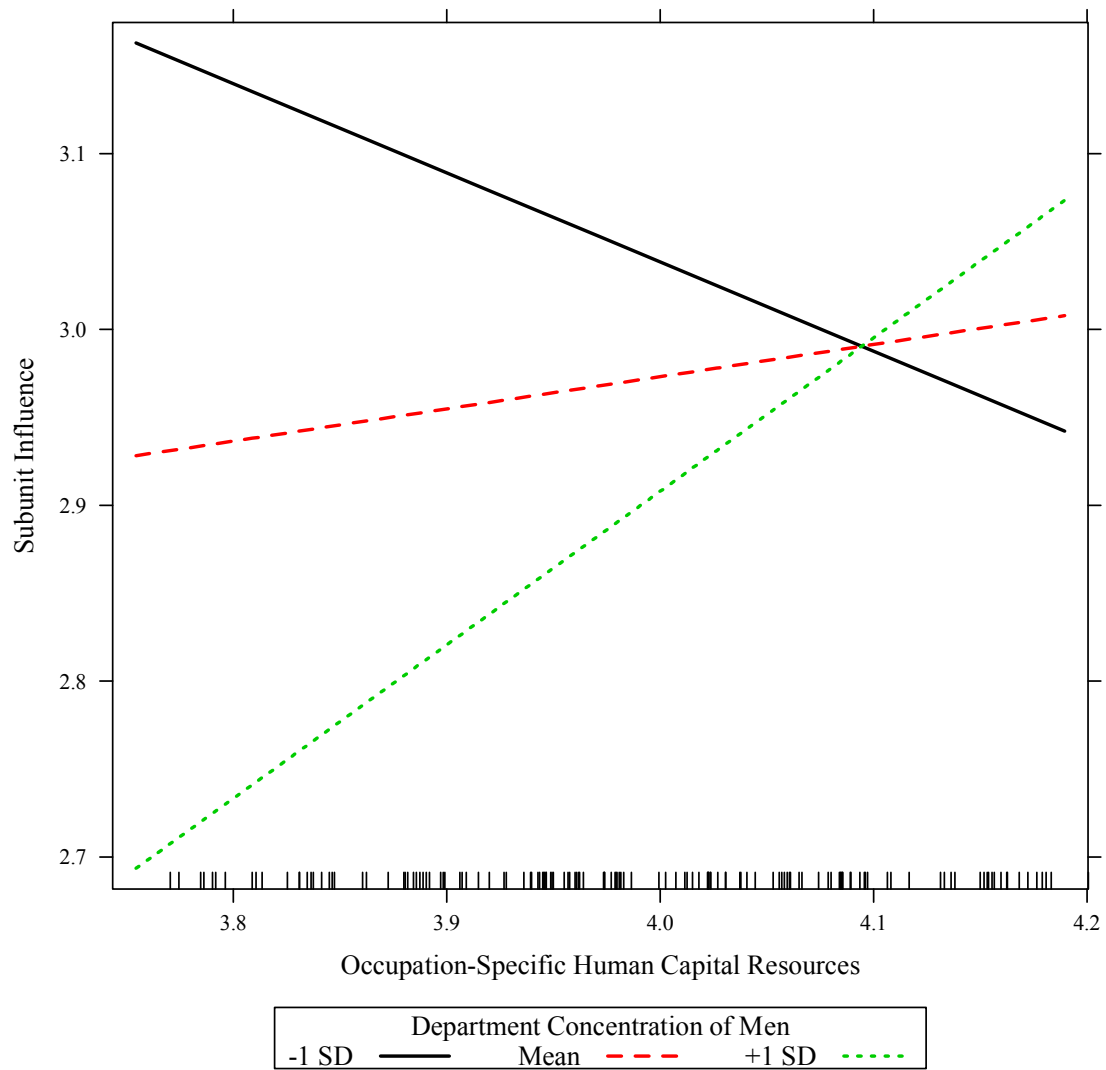


Figure 5.6 Effect of Occupation-Specific Human Capital Resources Moderated by Department Concentration of Men

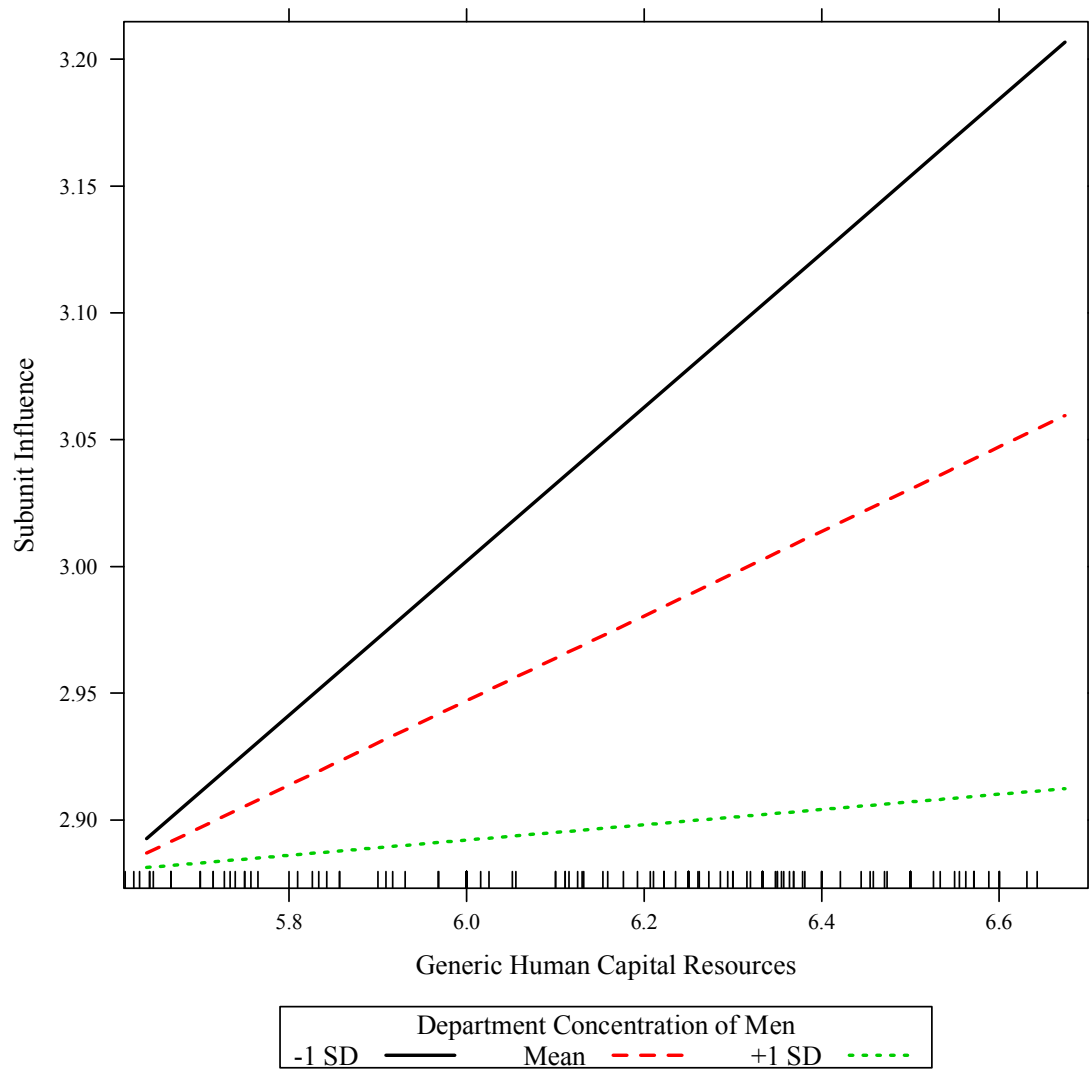


Figure 5.7 Effect of Generic Human Capital Resources Moderated by Department Concentration of Men

CHAPTER 6

DISCUSSION

The amount of uncertainty faced by organizations is continuing to increase through unstable regulatory environments, global competition, rapid innovation, shifting demographic trends, and market risk. These uncertainties create opportunities for actors, whether individuals or subunits, within organizations to obtain greater power through their ability to help the organization cope with these uncertainties. Those who gain power within their organizations may determine the strategy of the business, how to allocate resources, and ultimately organizational survival. By understanding intra-organizational power dynamics scholars might better predict how organizations may react to environmental disruptions or how the organization may evolve. In this study I sought to understand how subunits might increase power through their human capital resources and capabilities and which of these variables might explain the most variation in subunit power.

As opposed to specific types of human capital resources, generic human capital resources were found to have a robust and positive relationship with subunit power. Given this consistent effect it is not surprising that generic human capital resources explained a greater percentage of variation in subunit power than my two types of specific human capital resources. I was surprised that strategy-specific human capital resources had a smaller explanatory power than occupation-specific resources. To make sense of this result I thought back a core proposition of strategic contingency theory, that

the more capable a subunit is at managing organizational uncertainty the greater power will be afforded to that subunit. As human capital resources become move from more firm-specific to more generic they might increase the number and types of uncertainties they can manage (Kor & Mesko, 2013). Strategy-specific human capital resources might effectively operate with the specific organizational context but might have limited use as that context changes or uncertainties that are not currently addressed by the organizations strategy and systems arise.

A collection of more generally applicable KSAOs will allow subunits to pivot as new uncertainties develop. General KSAOs are the foundation of a unit's other human capital resource types and thus provide the unit with a dynamic ability to develop new KSAOs and resolve problems. These resources can be applied broadly to address a range of uncertainties even though they may lack a deep integration with a specific organizational context.

Contrary to my predictions, I found that the possession of greater amounts of human capital resources did not have a universally positive relationship with subunit power. Of the three types of human capital resources included in this study only one, generic, had a significant direct effect on subunit power. The two types of specific human capital I studied, strategy and occupation, did not have a significant direct effect on power, though I did find significant effects from these two variables when moderated by intra-organizational context and in two supplemental analyses, suggesting a complex relationship between specific human capital types and subunit power.

Moderation effects suggest that an organizational context in which knowledge capability is important for achieving competitive advantage the effect of HR department

human capital resources and capabilities will decrease. I found that in contexts with lower knowledge-related capability demands the relationship of subunit power with strategy-specific human capital resources is positive and the relationship with occupation-specific human capital resources is negative. I found the opposite relationships in contexts with high knowledge capability demands, strategy-specific human capital resources had a negative relationship and occupation-specific human capital had a positive relationship with subunit power. This suggests that in contexts with low knowledge demands HR departments gain power through acting as strategic business partners (Hunt & Boxall, 1998) but might lose power with increased ability to manage the organization's human capital. In contexts with high knowledge demands HR departments might gain power through human capital management yet lose power when there's increased capacity for understanding the organization's strategy and environmental context.

One supplemental analysis including a curvilinear terms for both specific human capital resources types suggest a more consistently negative relationship between strategy-specific human capital resources and subunit power and a consistently positive relationship between occupation-specific human capital resources is more consistent. This could be interpreted to mean that HR departments might gain greater power as their capacity to manage the organization's human capital increases and capacity to understand the organization's strategy and environment decreases. Such a pattern might suggest that organizations would rather HR stick to HR related tasks rather than focus on becoming more versed in organizational strategy. Should this result hold in future studies, it would be a dramatic shift from trends for HR professionals to become more conversant in the language of business strategy in order for them to be seen as more credible.

In addition to outlining the relative weights of different types of human capital resources, in this study I was also able to compare the relative effectiveness of subunit human capital resources and capabilities to explain variance in subunit power. Despite only using two measures of capabilities (compared to three measures of human capital resources) I found that capabilities explained a significantly larger amount of variance than subunit human capital resources (70% to 30% respectively). This suggests the importance of studying unit-level actions when determining unit-level outcomes.

6.1. THEORETICAL AND PRACTICAL IMPLICATIONS

6.2.1. *Theoretical Implications*

A recent trend in management scholarship has placed increased attention on microfoundations of organizational action (Felin & Foss, 2005). This focus contends that organizational action is not carried out by faceless entities, but by individuals within an organization who make decisions, perform, and interact with their environment. This attention to individuals certainly has merits but might oversell the importance of individuals in large, complex organizations. Certainly, the resources available to an organization may constrain the actions the organization chooses to pursue (Tsoukas, 1996) but possession of resources does not necessarily mean those resources are used by the organization (Penrose, 1959). In this study I considered the effects of both a subunit's human capital resources and capabilities to understand how subunits gain power within their organizations. While I do not intend to undermine the importance of individuals in organizational systems my results do suggest research regarding organizational systems and capabilities should not be overlooked during the current pursuit towards microfoundations of competitive advantage.

In this study I introduced a new dependent variable to the human capital resources literature, subunit power. Many studies of human capital resources have focused on measures of unit-level performance (Crook et al., 2011; Nyberg et al., 2014), overlooking any impact these resources may have within the organization. Within this intra-organizational context, I found that generic human capital resources have a significant positive relationship with subunit power whereas measures of specific human capital resource types did not. Related to these significance tests, generic human capital resources explained a greater amount of variation in subunit power than occupation-specific resources, which in turn explained more variance than strategy-specific resources. This finding suggests that previous studies extolling the virtues of specific human capital resources over generic types might be more dependent upon the context or outcome measure than previously assumed (Kryscynski & D. Ulrich, 2015).

In this study I also introduced a new type of specific human capital resource, strategy-specific, that combined elements of both generic and firm-specific human capital resources by evaluating how individuals' general KSAOs are applied within a specific firm context. This combination may represent a more realistic operationalization of individual human capital, where general and firm-specific skills do not act independent from one another. Based on my chosen outcome measure, subunit influence over strategic decision making, it would appear that strategy-specific human capital resources would have a significant and positive effect, being closely aligned with the outcome measure's context. But using a context-specific measure of human capital resources was not panacea, despite theoretical and conceptual reasoning (Nyberg et al., 2014).

Strategy-specific human capital resources did not prove to have a direct impact on subunit power it did affect power when interacting with either intra-organizational context or the HR department's gender concentration. Contrary to our predictions, the general relationship between strategy-specific human capital resources and subunit power was negative. The precise reasoning behind this relationship could be highly context dependent and will be discussed at greater length in the practical implications. This finding may strongly support a core assumption of strategic contingency theory, that subunits will gain greater power as they cope with more organizational uncertainties. Strategy-specific human capital may be too tightly connected with the current state of the organization and unable to adapt to environmental changes.

6.2.2. Practical Implications

The large relative weights of the subunit capabilities suggest that departments seeking to gain greater influence within their organizations might be well served to invest in systems that transcend individual skills. As mentioned earlier in this manuscript, many researcher and practitioners have emphasized the need for organizations to obtain the best talent in order to succeed (Chambers et al., 1998). Yet the finite pool of high-performers (O'Boyle JR & Aguinis, 2012) creates opportunities for organizations to also compete by improving organizational systems. Such investments would be less susceptible to changes in individual personnel, allowing for more sustained performance. Investments in organizational systems would be largely owned by the organization as opposed to paying for the best individual employees who control their individual human capital. It is also possible that the cost of investing in organizational systems might be less than investing in individual contributors who can drive up their compensation through the labor market.

In this study I found certain contexts in which strategy-specific human capital resources can have a negative relationship with subunit power: when the organization competes on knowledge-based capabilities and when the HR department is highly concentrated with men. In such contexts it is possible that HR employees gaining greater strategy-related KSAOs interferes with their ability to do HR-specific tasks. When this occurs HR-related tasks may then fall upon line managers, who in turn grow frustrated with HR for not fulfilling their tautological responsibilities, which results in HR being pushed aside during strategic-decision making (Sheehan & Cooper, 2013; Teo & Rodwell, 2007).

It is important to note that a negative relationship between strategy-specific human capital resources and subunit power does not mean HR departments should avoid training their people to become more knowledgeable about the business. Although not proposed or reported in this study, I have found evidence suggesting a positive relationship between strategy-specific human capital resources and measures of HR department performance. While subunit power can inform our understanding of how organizations make decisions the construct does not necessarily correlate to either subunit or unit performance, depending on the measure of performance. For example, a subunit may have a high level of power, based on historical path dependencies, yet fail to reduce operational expenses.

Subunit performance may also be loosely correlated with sources of subunit power, such as coping with uncertainty or centrality. For example, a department might make investments to position itself in a central network position within the organization, thus limiting resources for investments to improve subunit efficiency. Subunit power can

affect unit performance by influencing the decisions and goals of the organization but the possession of power alone does not determine whether those effects are positive or negative. A subunit with high levels of power may use that power to move the organization in a direction advantageous to the subunit yet detrimental the unit, or may use that power to avoid a problem which only the subunit can see.

We found in a separate study that strategy-specific human capital resources can have a positive relationship with subunit performance. This creates a paradox for HR departments, by investing in strategy-specific human capital resources they may improve the performance of their department while simultaneously losing influence over strategic decision-making. Thus, training a generation of HR professional to have greater business knowledge in order to become strategic partners (Barney & Wright, 1998; Lawler & Mohrman, 2003) may in fact undermine the department's efforts to influence business strategy. Explicating the relationship between subunit power, subunit performance, and unit performance remains an interesting and important area for future research.

6.2. LIMITATIONS AND FUTURE DIRECTIONS

While this study had many advantages compared to other studies of subunit power or human capital resources (e.g., multiple measures of human capital of an individual evaluated by multiple people or using a large number of organizational units) it was not without limitations. I do not necessarily have a representative sample of HR professionals from the organizations in the study. However, for the purposes of this study this can actually serve as an advantage. Since participants in this study largely self-selected to participate I can reasonably assume that they feel confident in their own competence. While such confidence may be unwarranted I could also assume that participants are

more capable than those who chose not to participate. The counter argument to this would be that better HR professionals might not have the time or resources to complete a long survey but since this study uses 360 methodology the information I analyze in this study doesn't come from the HR professionals themselves but rather their peers, supervisors, or subordinates. So I will assume that the sample of HR professional skews towards higher-performing, more capable people.

This was also a cross-sectional study, which limits our ability to establish causal relationships. However, Crook et al (2011: 452) found that cross-sectional studies of human capital and performance performed about equally as longitudinal studies. While I still believe a longitudinal study would capture these effects more effectively (while also allowing for more refined hypotheses) I do not feel like this limitation alone undermines my results. One such opportunity for longitudinal research could explore whether the relationship between human capital resources and capabilities is reciprocal. While I did not find a robust mediation effect between resources and capabilities such lack of significance could have resulted from the cross-section study design, making it challenging to test for reciprocal or simultaneous effects (Semadeni, Withers, & Trevis Certo, 2014).

In addition to being a cross-sectional survey my study was also limited to a single type of organizational subunit and did not include alternative types of resources, such as physical or structural. Future studies could study subunit power by combining traditional physical or structural sources of power with the subunit human capital and subunit capabilities discussed within this paper across multiple types of subunits to get more robust results.

I also warn against drawing strong inference regarding the relative weights of my different variable types. Relative weights may explain the variance explained in a dependent variable but they do not necessarily determine which independent variables have the largest effect size. For example, a study could find a variable explains a substantial amount variance in an outcome yet has a small regression coefficient. This would suggest a highly reliable, though not very useful predictor.

There are different ways to measure the strength of a team, system, or department. One way to measure composite strength is to look at the average of all members of that system. This would give us an estimate of typical performance and what could be expected from typical employees. Since the focus of this study is strategic influence one could easily argue that it doesn't matter what the typical HR employee is capable of but what the better HR employees are capable of. For HR to have strategic influence may not require universal strategic skills but rather a select sample of the HR population who carries strategic capacity. Instead of measuring the KSAOs of the typical HR employee I focus on those who have the capacity for influence.

Even if the typical employee doesn't have the requisite KSAOs as long as some HR employees possess those skills HR should still have the ability to influence the organization's strategy. In this study I only considered the average KSAOs of HR professionals within a department to assess subunit human capital resources. An alternative approach could utilize qualitative comparative analysis or necessary condition analysis to see if there are certain combinations or levels of different types of resources and capabilities that results in higher levels of subunit power.

Future research should consider specific combinations of HR department resources. Combinations of resources can provide value that is less easily imitated by other subunits. Other subunits may gain responsibility over certain functional areas of HR but few, if any, subunits would have control or intimate knowledge of multiple HR functions. Even though some HR functions are not unique to HR departments they can still create a distinct department advantage when combined with other HR activities.

A final potential future direction comes from my supplemental analyses regarding the gender concentration of HR departments and subunit power. Contrary to my expectations, departments with greater concentration of men had less power than departments with greater concentration of women. I suggest that this counter-intuitive finding may have to do with the measurement of department power. Studies which consider power at an individual level have typically found men to possess greater than women (Ragins & Sundstrom, 1989), which would suggest that departments would have a positive relationship between concentration of men and subunit power, however, this study measured power directly at the subunit level.

By measuring power at the subunit level, evaluations of subunit power may be disconnected from potential negative gender biases. Raters may determine their perception based on the abilities of the subunit as opposed to perceptions of individuals within the unit. Since women typically perform at a higher level than men it would not be surprising that subunits with greater concentration of women would have greater power (Woolley, Chabris, Pentland, Hashmi, & Malone, 2010) so long as those evaluating the subunit do not consider individual members of the department, which might allow for gender bias to affect the rating.

6.3 CONCLUSION

In this study I found subunits can gain power within their organizations through human capital resources and capabilities. Of the different types of subunit human capital resources, generic resources had the greatest explanatory power compared against specific types of human capital resources. Subunit capabilities explained an even greater amount of variance than the combined measures of human capital resources, although a meaningful portion of variance was still explained by these resources. This suggests that future unit-level studies should account both unit capabilities and human capital resources.

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APPENDIX A

SURVEY ITEMS

Please evaluate the extent to which you agree or disagree with the following statements about [HRPARTICIPANT] (1 = Strongly Disagree, 5 = Strongly Agree)

Unit-Specific Human Capital Resources

1. Develops talent based on \$ORGUNIT\$'s needs
2. Works with line managers in developing their staff
3. Facilitates meaningful developmental work experiences
4. Develops local talent for local markets
5. Leverages workforce competency models in talent development
6. Attracts appropriate people
7. Leverages non-local talent effectively when needed
8. Assesses key talent
9. Creates teams with complementary skill sets
10. Identifies and prioritizes key positions
11. Invests in future leaders
12. Assesses leaders against established leadership metrics
13. Builds a business case for investing in leaders
14. Manages succession plans for key leadership positions
15. Establishes clear performance standards
16. Designs processes to deliver accurate performance feedback
17. Designs measurement systems that distinguish high-performing individuals from low-performing individuals
18. Facilitates the design of organizational structure (e.g., roles, responsibilities)
19. Builds opportunities for promotion for technical experts
20. Provides developmental programs for technical experts
21. Differentiates leadership potential from technical experts

Task-Specific Human Capital Resources

1. Understands changes in \$ORGUNIT\$'s external environment (e.g., social, technological, economic, political, environmental, demographic, etc.)
2. Understands how to compete against other organizations in your market
3. Understands who makes key decisions in your organization (e.g., people who control important resources)
4. Recognizes local opportunities for \$ORGUNIT\$'s success
5. Understands local political environment (e.g., potential obstacles in the local environment)

6. Is familiar with the local labor market (e.g., labor shortages, localization, demographics, local universities, and other educational institutions)
7. Understands expectations of external customers
8. Understands how \$ORGUNIT\$ makes money (e.g., who, where, how)
9. Understands investor expectations
10. Focuses internal organizational actions on creating value for customers
11. Aligns organizational brand with customers, shareholders, and employees
12. Knows how investors value \$ORGUNIT\$
13. Helps investors recognize the quality of leadership within \$ORGUNIT\$
14. Accurately anticipates \$ORGUNIT\$'s risks
15. Contributes to creating \$ORGUNIT\$'s strategy (e.g., help shape the vision of the future of the organization)
16. Identifies problems that are central to \$ORGUNIT\$'s strategy

General Human Capital

What is the highest education level that you have obtained?

(select only one)

1. Some high school
2. High school graduate or GED
3. Trade or technical training
4. Some college, no degree
5. Associate degree
6. Bachelor's degree
7. Master's degree
8. Professional degree
9. Doctorate

Alternative Tenure-Based Human Capital Measures

How many total years of professional work experience do you have?

How many total years of professional work experience outside of your home country do you have?

How many years have you worked for |ORGUNIT|?

Additional Demographic Questions

What is your job level in |ORGUNIT|?

(select only one)

- ☐ Entry level
- ☐ Non-supervisory employee
- ☐ Supervisor
- ☐ Management
- ☐ Executive
- ☐ Top executive
- ☐ Other

What is your sex?
(select only one)

- ☐ Male
- ☐ Female

Relative Subunit Power

Please evaluate how much you agree with the following regarding your HR department

1. HR has more influence than finance
2. HR has more influence than accounting
3. HR has more influence than marketing
4. HR has more influence than sales
5. HR has more influence than operations/logistics
6. HR has more influence than research and development
7. HR has more influence than information technology

HR Department Capability to Manage Organizational Human Capital

Please evaluate how much you agree with the following regarding your HR department

1. Performance appraisals provide employees with feedback for personal development
2. Employees are empowered to recommend necessary changes in the way they perform work
3. Employees are provided comprehensive training throughout their careers (i.e., training beyond the skills required by the trainee's current job)
4. Employee salaries and rewards are determined by the employee's contribution to the success of |ORGUNIT|
5. If a decision affects employees, usually their opinions are asked for in advance
6. On average, the pay level (including incentives) of our employees is higher than that of our competitors

HR Department Capability to Manage Information

Please evaluate how much you agree with the following regarding your HR department

1. HR ensures the consistent utilization of a common corporate language
2. HR imports external information into |ORGUNIT| for decision making
3. HR determines a policy for monitoring employee use of and access to key information
4. HR ensures the full utilization of information in |ORGUNIT|'s decision making
5. HR is heavily involved in bringing in centrally important external information to share across the organization
6. HR is heavily involved in identifying patterns in important data to generate insight

7. HR is heavily involved in bundling centrally important external and internal information to create competitive advantages
8. HR is heavily involved in identifying centrally important external information (i.e., social, political, technological economic, industry, customer, and competitive trends)
9. HR ensures the application of big data analytics in |ORGUNIT|’s decision making

Intra-Organizational Context: Necessary Knowledge-based Capabilities for the Organization (Moderator)

Please indicate the extent to which you agree that each of the organization capabilities is important for |ORGUNIT| to be successful.

1. Innovation: create products and services; identify new ways of getting work done; define new markets and product applications; specify new ways of reaching business goals
2. Knowledge management: identify and leverage best practices from its own organization and from other organizations; learn from successes and failures; create learning cycles; manage knowledge across internal boundaries
3. Leverage technology: acquire and exploit the latest trends in all forms of technology (including electronic; product; and production process technology); apply technology for maximum competitive advantage
4. External sensing: identify trends in customer and competitive markets; maintain sensitivity to local government, legal, and community trends