12-2011

Development of an Organizational Hardiness construct: Examining configurations of Sensemaking, Organizational Identity, and Enactment.

Joshua Lloyd Ray
University of Tennessee - Knoxville, jray2@utk.edu

To the Graduate Council:

I am submitting herewith a dissertation written by Joshua Lloyd Ray entitled "Development of an Organizational Hardiness construct: Examining configurations of Sensemaking, Organizational Identity, and Enactment.." I have examined the final electronic copy of this dissertation for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Doctor of Philosophy, with a major in Business Administration.

Donde A. Plowman, Major Professor

We have read this dissertation and recommend its acceptance:

Anne D. Smith, Stephanie Bohon, T. Russell Crook

Accepted for the Council:

Carolyn R. Hodges

Vice Provost and Dean of the Graduate School

(Original signatures are on file with official student records.)

Development of an Organizational Hardiness construct: Examining configurations of

Sensemaking, Organizational Identity, and Enactment.

A Dissertation

Presented for the

Doctor of Philosophy Degree

The University of Tennessee, Knoxville

Joshua Lloyd Ray

December 2011

DEDICATION

I dedicate this dissertation to my father James, who taught me the value of hard work; my mother

Jill, who taught me the value of patience; my wife Kim, who taught me the value of kindness;

my daughters Kathryn and Lauryn who taught me that love is endless; and to my brother Jason,

who taught me to enjoy each and every day. I love you all. Thank You.

ACKNOWLEDGEMENTS

First, I would like to thank my dissertation chair, advisor, and mentor, Donde Ashmos Plowman, for her leadership, motivation, and patience throughout my years of graduate school. Thank you for your help and guidance that has resulted in an enriched and enjoyable experience. Second, I would like to thank Anne D. Smith whose mentorship contributed greatly to the dissertation process as well as my overall education. Thank you for introducing me to a broader world of research. Finally, I would like to thank Stephanie Bohon and T. Russell Crook for their generosity of time and their insightful comments that inevitably led to a better result. You all have my gratitude.

Beyond my committee, several people have made profound contributions to the richness of my graduate experience: Elizabeth McGee, Adam Smith, Lisa Delise, Abby Mello, Nancy Scott, Melissa Staniewicz, Cheryl Barksdale, Taylor Poling, John Meriac, Josh Bazzy, C. Allen Gorman, Wes Davenport, Joanna Pimentel and Matt Fleisher. These colleagues have all contributed to my education and helped me maintain my sanity during crucial times. Last, but certainly not least, Jeannie Goodman, Glenda Hurst, and Michelle Molter, have facilitated the journey, opened the doors, and kept me on track. Thank you all. You have my appreciation.

Finally, I must thank my family and friends for their support throughout the entire ordeal. The unconditional love and support I have received have made any success I can claim possible. It has not been easy but it has been worth it. Thank you all.

ABSTRACT

The purpose of this study is to develop the construct of organizational hardiness which is thought to distinguish organizations that thrive under conditions of turbulence and uncertainty from organizations that whither under these same conditions. This new construct is based on individual hardiness which is a constellation of personality dispositions that a large body of empirical work has suggested supports individual performance under conditions of turbulence and uncertainty. Paralleling the individual hardiness dispositions of challenge, commitment, and control, organizational hardiness is posited to consist of the organizational level constructs of sensemaking, organizational identification, and enactment. The development of organizational hardiness is supported by literature reviews of individual hardiness, organizational stress, sensemaking, organizational identification, and enactment.

To support the theoretical development of this construct, this study includes a content analysis of the CEO letters to shareholders for the 20 largest commercial banks in the United States during the years 2000-2009. Using generalized least squares estimation techniques, the current study demonstrates a positive relationship between organizational hardiness, sensemaking, organizational identification, and enactment and multiple measures of organizational performance. Furthermore, organizations demonstrating higher levels of organizational hardiness demonstrate higher levels of organizational performance on three out of four measures. The study concludes with a discussion of theoretical and managerial implications concerning the development of this new construct.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

CHAPTER 1

Introduction

It would be profoundly reassuring to view the current economic crisis as simply another rough spell that we need to get through. Unfortunately, though, today's mix of urgency, high stakes, and uncertainty will continue as the norm even after the recession ends. Economies cannot erect a firewall against intensifying global competition, energy constraints, climate change, and political instability. The immediate crisis—which we will get through, with the help of policy makers' expert technical adjustments—merely sets the stage for a sustained or even permanent crisis of serious and unfamiliar challenges.

-Heifetz, Grashow, & Linsky (Harvard Business Review 2009)

Many, but not all, small businesses fail and all organizations experience setbacks when faced with unanticipated and deleterious events. Yet, in spite of hardships and unexpected setbacks, some small businesses succeed and many larger organizations prosper, demonstrating a kind of 'hardiness' that enables them to weather the storms. Just as some individuals are hardier than others (Kobasa, 1979); it appears that organizations may also be distinguishable by a similar capacity. The purpose of this research is to better understand the features that distinguish organizations which prosper rather than wither in the face of environmental stress.

Understanding how organizations successfully navigate stressful environmental conditions is important for many reasons. First, the impact of organizational decline and failure has far reaching effects on the economy. In the United States, the Small Business Administration reports that only seven out of ten small businesses make it to year two and the mortality rate jumps to 50% by year five (Small Business Administration, 2010). Recent economic conditions have shown that even the largest organizations are fragile. Firms such as Lehman Brothers, Merrill Lynch, and others succumbed to economic pressure and poor managerial control by either filing for bankruptcy or being acquired by other organizations due to global economic meltdown. Clearly, organizations of all sizes face the threats of decline and failure and as the comments in the epigraph suggest, conducting business in the future will likely be characterized

1

by increasing turbulence and unpredictability. Thus, it is all the more important that we understand the characteristics that enable some firms to prosper and survive while others wither and fail.

A second reason it is important to know more about how some firms succeed while others decline is because of the considerable effects that organizational failures could have for the range of organizational stakeholders. Employees of organizations facing failure and/or performance downturns will suffer initially from loss of employment resulting in lost wages, insurance, etc. More generally, consumers could be faced with the difficulty of finding alternative products and services as well as inflationary pressures due to reduced competition. Other organizations will be faced with increased turbulence and uncertainty as competitors vie for market share and revenues abandoned by failing firms. These are just two examples that highlight the extreme importance associated with organizational decline and failure. Accordingly, both organizational researchers and practitioners have a keen interest in examining the causes of, and possible means of protecting against, negative organizational performance and failure.

Three streams of literature that address the issue of organizational performance and, ultimately, survival and failure are: the population ecology of organizations (e.g. Hannan & Freeman, 1989); evolutionary economics (e.g., Nelson & Winter, 1982); and dynamic capabilities/resource based view (e.g., Eisenhardt & Martin, 2000; Pfeffer & Salancik, 1978; Teece, Pisano, & Shuen, 1997). Based on Darwinian theories of biological systems, organizational ecology examines populations of organizations and explains the survival and failure of organizations as a result of achieving fit with the environment (Hannan & Freeman, 1989). From this perspective organizations that fail to achieve proper fit are selected out while

the remaining organizations persist so long as organizational and environmental characteristics remain in sync. A limitation of population ecology for explaining organizational survival is its failure to consider organizational adaptation. Although early theory concerning organizational ecology did not explicitly prohibit organizational change, it suggested that shifts in organizational form were primarily the result of entry and exit rates (Scott, 2002). Subsequent theorists of this tradition incorporated theories of organizational change noting, however, that organizational inertia, which provides legitimacy through reliability, also makes organizational change difficult and slow (Amburgey & Rao, 1996). Hence, intra-organizational processes continue to be subordinate to environmental conditions.

A second literature that addresses survival comes from evolutionary economics and draws heavily from Schumpeterian views, advocating that performance and survival occur as a result of the market supporting those firms whose routines are highly productive. From this perspective those firms with less productive routines can improve performance and their chances of survival by either imitating more productive routines or by introducing innovations into the market (Nelson & Winter, 1982). In addition, this theory advocates that organizational performance and survival is based on innovation capabilities and the receptiveness of the industry to those innovations. Those organizations that are to prosper must be able to innovate and failure to do so results in organizational decline and death. While evolutionary economics places more emphasis on the firm than does population ecology, this perspective still retains the environment as the major deciding force in survival. In addition, although it requires that organizations must have value laden routines, imitate value laden routines, or innovate, it does not specify the mechanisms by which these organizations develop or attain these capabilities.

3

Furthermore, it does not speak to how an organization might sustain itself during the development or acquisition of these capabilities.

Finally, the resource based view and dynamic capabilities view of the organization explain survival as a result of any particular organization developing unique resources, capabilities, and relationships which give it a competitive advantage over its competitors. Performance under these views is the result of strategic action (e.g., resource acquisition, relationship development) putting the impetus on the organization. A limitation of this perspective is that, while it does consider managerial choice more so than the other two perspectives, critics argue that the RBV/dynamic capabilities perspective applies to firms in predictable environments, follows a path dependence paradigm, and does not fully appreciate the role of organizational members (Kraaijenbrink, Spender, & Groen, 2010). Moreover, this perspective does not provide for inter-organizational comparisons because if the capabilities developed by these organizations are truly unique then, by definition, they are idiosyncratic.

While the explanations for organizational survival offered in the population ecology, evolutionary economics, and the resource based/dynamic capabilities literature have merit, a theoretical framework that considers survival at the firm level and accounts for managerial choice in the context of environmental turbulence, warrants consideration. In that vein this research focuses on organizational level processes that, together, characterize an organization's 'hardiness' and may explain organizational performance and survival.

In this research we draw on clinical psychological research dealing with how individuals deal with stress and use it to develop a theory of organizational hardiness. Psychological hardiness is the term used to describe those individuals who are able to overcome stressful

conditions without experiencing ill effects (Kobasa, 1979). These individuals tend to perceive change and turbulence as the natural order of things and typically label unpredictable and uncertain conditions as challenges rather than threats. They show extraordinary commitment to their activities which leads to persistence in the face of adversity. Supporting these interpretations and commitment is their consistent belief that they have control over their environments rather than a feeling of helplessness. Empirical evidence suggests that individuals who display these three dispositions, typically labeled *challenge, commitment, and control*, often are able to withstand stressful events while avoiding negative physiological (e.g., hypertension) and psychological (e.g., burnout) consequences. Furthermore, empirical evidence is accumulating that suggests that these individuals tend to maintain performance across a myriad of occupations (e.g., military special forces, professional sports, business) characterized by high stress.

Much like an individual, an organization must interpret and label events, commit to certain values and beliefs, and act to affect its environment. As such, all organizations must engage in sensemaking, develop an organizational identity, and enact their environment to some degree. These activities parallel the attributes of hardy individuals – challenge, commitment, control. In this research I explore the question: Do organizations that withstand difficult situations demonstrate a particular constellation of these processes that helps them persist and distinguishes them from organizations that do not? More specifically, do "hardy" organizations, characterized by: (1) sensemaking processes that generate positive interpretations, (2) a strong organizational identity, and (3) an intentional approach to enacting their environment tend to outperform those that are less hardy in the face of turbulent and unpredictable environments?

The purpose of this dissertation is to develop a theory of organizational hardiness and examine the effect of hardiness on organizational performance. More specifically, in this research I will examine whether a set of organizational characteristics - that constitute organizational hardiness - can be delineated and used to distinguish those organizations which thrive under adverse conditions from those that do not. By examining common organizational processes and structures (i.e. sensemaking, organizational identity, and enactment) I hope to develop a framework that will be related to organizational performance but enables comparability across organizations. Furthermore, I examine the degree to which these phenomena relate to organizational performance both independently and in combination with one another. Hence, I address the following research questions:

1. *How is positive organizational sensemaking related to organizational performance?*

2. *How is organizational identity related to organizational performance?*

3. *How is environmental enactment related to organizational performance?*

4. *How does the combination of sensemaking, organizational identity, and environmental enactment relate to organizational performance?*

To facilitate the exploration of these questions, I begin by reviewing the relevant literature concerning individual hardiness, with particular attention to the conceptual bases of the construct and its effects. I then review the literature that suggests environmental turbulence and uncertainty is experienced at the organizational level as well as the individual level. Based on this collective experience of stress, I argue that the individual hardiness construct can be theoretically extended to the organizational level. Next I review the literature concerning sensemaking, organizational identity, and environmental enactment highlighting their unique effects on organizational

functioning and their parallels with the dispositions of the individual hardiness construct (i.e.

challenge, commitment, and control). I then argue that the organizational level phenomenon of

sensemaking, organizational identity, and enactment function in much the same manner as the

corresponding individual level dispositions in promoting organizational resistance to

environmental uncertainty and unpredictability and generate hypotheses commensurate with this

idea. Next, I empirically test these hypotheses by employing content analysis of public

documents (i.e. letters to shareholders) for a sample of financial institutions. Finally, I discuss

the results of this analysis and the implications for both research and practice.

CHAPTER 2

Conceptual Foundation and Background

The purpose of this chapter is to identify and discuss the theoretical constructs that contribute to the development and framing of the research problem addressed in this study. First, I present the concept of individual hardiness as a construct differentiating individuals who flourish under stress from those who are incapacitated by it. Second, I discuss organizational stress as it has appeared in the organizational science literature, the sources of organizational stress, and expected responses to stress. Third, I present the notion of organizational hardiness as a construct differentiating organizations that flourish under stress from those that are incapacitated by it. I suggest that organizational hardiness is composed of three organizational level processes – sensemaking, organizational identity, and enactment – and present their hypothesized relationship to organizational performance.

Individual Hardiness

Definition

The construct of hardiness was developed as a means of explaining why, in the face of stressful events, some individuals become incapacitated while others flourish (Kobasa, 1979; Kobasa, Maddi, & Kahn, 1982). Originally defined as "a constellation of personality characteristics that function as a resistance in the encounter of stressful live events" (Kobasa et al., 1982; 169), hardiness is the term used to describe and explain individual differences in stress reactions. Rooted in existential psychology, which suggests that individuals create meaning (Maddi, 2002), hardiness provides a framework that explains how and why certain individuals

maintain viability under conditions of uncertainty and unpredictability. Hardy individuals

experience stressful events in the same way as non-hardy individuals (Maddi, Harvey, Khoshaba,

Lu, Perisco, & Brow, 2006) but, because of differences in perception, they are able to

incorporate turbulent conditions into their experience without adverse effects. These differences

in perception often buffer the individual from the harmful physiological (e.g., hypertension,

fatigue) and psychological (e.g., panic, depression) effects of stress which can then result in

performance differences (e.g., Bartone, Roland, Picano, & Williams, 2008; Garrosa, Moreno-

Jimenez, Liang, & Gonzalez, 2008; Golby & Sheard, 2004). Scholars in psychology refer to

hardiness as a 'constellation' composed of the three interrelated personality dispositions of

challenge, control, and *commitment.*

Conceptualization

   Challenge, is typically contrasted with a sense of security and refers to the tendency to

interpret unexpected and/or ambiguous events as a natural part of life and necessary for growth

(Cole, Bruch, & Vogel., 2006; Wiebe, 1991). Hardy individuals embrace change as a vehicle for

learning and an opportunity for personal development (Sheard, 2009). Moreover, research

suggests that hardy individuals embrace change to the extent they seek out change when

conditions become routine and fail to provide adequate stimulation (Rush, Schoel, & Barnard,

1995).

   Commitment is typically contrasted with alienation and refers to the tendency of

individuals to involve themselves in their activities and to find meaning in their work. Hardy

individuals find meaning in their work and activities, identify with their work and activities, and

use their belief in what they are doing to define "a sense of purpose" (Kobasa et al., 1982).

Maintaining involvement with people, activities, and contexts and the resultant sense of purpose and identity provides a measure of stability that allows these individuals to persist in their activities amidst chaotic conditions.

Finally, control is typically contrasted with a sense of helplessness and refers to the tendency to feel influential. Hardy individuals understand that they have an effect on their situations and their environment regardless of whether their results are predictable. This does not imply that the individual can completely dictate events, rather suggests that the individual is not helpless (i.e. that many consequences are the result of the choices the individual makes; Kobasa et al., 1982).

These three dispositions, while unique, work in concert to provide the hardy individual with an interpretation scheme and coping capabilities to face adversity or ambiguity. Hence, according to psychological theory, an individual must be high in all three dispositions to realize the benefits of hardiness (Maddi, 2004). For example, an individual high in control could understand their affect on a situation but a lack of meaning (low commitment) and/or uninterest in the situation (lack of challenge) could result in abandonment of activity in the face of adversity or ambiguity. Similarly, a person engaged in work that is challenging and for which s/he is committed might abandon this activity if they felt their continued effort was for naught (no control). Unlike these situations, in the presence of all three dispositions 'hardy' people derive meaning in their work, expect and seek out novelty, and realize they possess a measure of control in their environment. According to Maddi (2002, 2004), the culmination of these dispositions results in existential courage whereby the hardy individual chooses to embrace the unknowable future instead of relying on past behaviors and courses of action that are known but do not provide opportunities for self development.

Considerable empirical evidence has demonstrated the beneficial effects of hardiness. Originally, Kobasa (1979) discovered hardiness while examining stress responses among a sample of top and middle executives. She found that executives experiencing the fewest number of detrimental health symptoms (e.g., anxiety, depression, hypertension) displayed the characteristics associated with hardiness. Since then, other studies have replicated the findings of the relationship between hardiness and physical health (e.g., Ghorbani, Watson, & Morris, 2000; Kobasa, Maddi, & Kahn, 1982; Kobasa, Maddi, Pucetti, & Zola, 1985; Wiebe, 1991).

These findings have spurred researchers to examine hardiness in relation to established psychological measures and constructs of interest. For instance, Maddi, Khoshaba, Perisco, Lu, Harvey, and Bleecker (2002) related measures of hardiness to the Millon Clinical Multiaxial Inventory, the Minnesota Multiphasic Personality Inventory, and the NEO Five Factor Inventory. They found that hardiness demonstrated "a pervasive pattern of negative relationship between hardiness and measures of emotional and personality disorders" (p. 81). Subsequent work has found negative relationships with repression and authoritarianism and positive relationships with innovativeness (Maddi et al., 2006) further validating the conceptual accuracy of the hardiness construct.

Other researchers have been interested in the affects of hardiness on different types of performance. For example, Bartone and colleagues (e.g., Bartone, 2006; Bartone, Johnsen, Eid, Brun, & Laberg, 2002; Bartone, Roland, Picano, & Williams, 2008) found that hardiness successfully distinguishes between elite and average soldiers across service types (e.g., Army, Navy). In particular, Bartone et al. (2008) examined 1138 Army Special Forces candidates and

found that measures of hardiness demonstrated a positive relationship with successful completion of Special Forces course graduation. Likewise, Bartone et al. (2002) found that hardiness was positively related to unit cohesion in a sample of Norwegian Naval Officers and recommended that the characteristics of hardiness (e.g., emphasizing the positive effects of challenging tasks) should be encouraged in military settings to promote beneficial unit outcomes. Conditions found in military training, routine military operations, and theatres of war provide an obvious context necessitating the ability to cope with stressful situations that have the potential for catastrophic failure including loss of life (cf. Bartone, 2006). However, the military context is not unique in its need for individuals with the ability to deal with stress.

Golby and Sheard (2004) examined the relationship of mental toughness and personality with success in a professional rugby league. They found that those individuals who performed the best at the highest levels of international play consistently demonstrated higher scores across all hardiness subscales (i.e. challenge, commitment, and control). Studies have shown similar results in other sports (e.g., basketball: Maddi & Hess, 1992). Moving to the classroom, hardiness also predicts academic success. Sheard (2009) examined the relationship between hardiness and GPA and dissertation evaluations and found that hardiness successfully predicted success. Similarly, Chan (2000) found that hardiness distinguished coping styles of students with individuals low in hardiness demonstrating greater use of passive and avoidant coping strategies as compared with individuals high in hardiness.

Although not as extensive, some research has examined the relationship between hardiness and performance in organizational contexts finding similar results. Rush et al. (1995) tested relationships between employee hardiness and behavior in a sample of not-for-profit managers finding negative relationships with intentions to withdraw. Other scholars found

12

similar relationships between hardiness and a myriad of job stressors (e.g., workload, conflict interaction, role ambiguity) adverse work outcomes (e.g., emotional exhaustion, depersonalization, lack of personal accomplishment; Garrosa, Moreno-Jimenez, Liang, & Gonzalez, 2008) as well as work-family conflict (Bernas & Major, 2000) and employee cynicism (Cole, Bruch, & Vogel, 2006).

In sum, mounting empirical evidence suggests that individual hardiness is an important resource for those individuals innately disposed to its constellation of personality dispositions. These effects have been demonstrated over a wide array of contexts from sports to business to military operations. Furthermore, these results demonstrate cultural and gender invariance as similar results have been found for men (e.g., Kobasa, 1979) and women (e.g., Bernas & Major, 2000) and across multiple ethnicities (e.g., Bartone et al., 2002; Chan, 2000; Garrosa et al., 2008; Ghorbani, Watson, & Morris, 2000; Liat, 2009; Zakin, Solomon, & Neria, 2003). In addition, evidence suggests that these characteristics are trainable (Maddi, 2002; 2004) and, as a result, some researchers are advocating testing for (e.g., Sheard, 2009) and training in hardiness (e.g., Lambert, Lambert, &Yamase, 2002).

In light of these findings, some initial explorations have attempted to extend the principles and concepts of individual hardiness to the group and organizational levels (Atella, 1999; Maddi, Khoshaba, & Pammenter, 1999). In general these attempts assume that the presence of higher numbers of hardy individuals result in hardy groups or organizations. These efforts generally involve micro level interventions with the hope that the effects of the resulting aggregation of hardy individuals would result in an organizational level phenomenon (Atella, 1999). Specifically, attempts at extending hardiness to the organizational level have revolved around consulting efforts aimed at training individuals to be hardy. In this line of research, as

individuals receive training and become more hardy, their resulting behavior becomes institutionalized in the form of an organizational culture and climate consistent with and isomorphic to the principles of individual hardiness.

Maddi et al. (1999) assert that the individual level dimensions of commitment, control, and challenge relate to the group phenomenon of cooperation, credibility, and creativity. Specifically they state:

> When individuals with a strong sense of commitment interact, that effort goes in the direction of valuing cooperation as that which expresses their group involvement. If the individuals are also control oriented, as a group they value being credible, as that signifies taking responsibility for their actions. And if the individuals are also challenge oriented, as a group they value creativity, as an expression of the search for innovative problem solutions learned from past experience. (Maddi et al., 1999: pp 119-120)

Maddi et al. suggests that the '3Cs' of individual hardiness and the '3Cs' of group hardiness are synergistic with elements at these distinct levels amplifying one another. The resulting HardiOrganization can successfully navigate the perils of a dynamic and unpredictable economic environment. Maddi et al conceptualize a hardy organization to be made up of hardy individuals and hardy groups as per the description above. However, an empirical base supporting this contention has yet to be developed.

Purposes of This Study

The individual hardiness construct has applications at the organizational level and has the potential for explaining the viability and success of organizations. The organizational literature provides theoretical constructs that can extend the idea of individual hardiness to the

14

organizational level and potentially explain organizational responses to stress. While Maddi et al (1999) suggest that cooperation, credibility, and creativity parallel, at the group level, the three C's of individual hardiness (commitment, control, and challenge), they do not describe the same dimensions. Rather cooperation, credibility, and creativity may be outcomes experienced by groups consisting of hardy individuals, but they do not capture at a group level the notion of a particular interpretation of the world (challenge), identifying with meaning and purpose (commitment), and the ability to influence the world (control). Furthermore, the conceptualization of a hardy group or organization as the result of the aggregation of hardy individuals ignores the accrued understanding of how organizational phenomena exist outside of and influence individuals who enter an organization (e.g., March 1991). For example, a simple aggregation of hardy individuals fails to take into account the systematic features of organizations whereby the organization is greater than the sum of its parts. Although individuals are clearly important to organizational functioning, organizations can, and often do, survive as individuals enter and exit the organization.

Approaching the understanding of organizational hardiness from a perspective outside of clinical psychology offers a potentially more accurate and relevant understanding of organizational phenomena that promotes organizational viability and profitability in the face of organizational stress. To that end, I now briefly review the literature concerning organizational stress. I then turn to a discussion of organizational hardiness as composed of the organizational level phenomena of sensemaking, organizational identity, and enactment. This research provides a theoretical framework that extends the individual hardy dispositions of challenge, commitment, and control to organizational level processes which form a constellation of organizational level

properties which I term organizational hardiness. I then use this organizational level

constellation to examine differences in organizational performance.

Organizational Stress

Compared with the body of research on organizational stress at the individual level, there

is a paucity of work concerning collective stress in organizations. Furthermore, much of what has

been done is conceptual in nature (e.g., Lengnick-Hall & Beck, 2005; Staw, Sandelands, &

Dutton, 1981). However, some empirical work has attempted to address the manifestation of

stress at the organizational level (Lansisalmi, Peiro, & Kivimaki, 2000) and more recent

conceptualizations of how organizations function (e.g., Anderson, 1999; Pascale, Milleman, &

Gioja, 2000) acknowledge the likely affects of stress at the organizational level. In this next

section I describe some of the existing conceptual and empirical work on organizational stress

and introduce some more recent conceptualizations of organizational structure and functioning

that imply a more concerted effort for dealing with stress at the organizational level.

Conceptualization

Just as individuals experience stress and demonstrate common responses, organizational

researchers have identified how organizations experience stress and what responses these

experiences generate. Early attempts at examining organizational stress benefitted from

biological research concerning stress on individuals and biological systems (e.g., Hall &

Mansfield, 1971; Selye, 1956). Hall and Mansfield (1971) argued that as external conditions

fluctuate, these forces exert stress on the organizational system. Initially, the system responds by

becoming alarmed with accompanying changes (i.e. conservation of resources, constriction of

communication and decision making control). After the initial shock, the organizational

response is to resist or cope with the strain from actions that may or may not be adaptive. Over time, continued interactions between environmental stressors and organizational reactions are thought to provide the organization with greater and greater capacity to resist stressful events (Hall & Mansfield, 1971; cf. Lengnick-Hall & Beck, 2005).

One of the most influential works addressing organizational response to stress is Staw, Sandelands, and Dutton's (1981) treatise on threat-rigidity. They explored the effects of stress at the individual, group, and organizational levels. Their review of the literature identified common effects of the experience of stress at these various levels. With particular regard to the organization, they found that stressful events and issues typically led to restriction in information processing; constriction of organizational control; and conservation of resources. Information processing becomes restricted because of overloaded communication channels, reduced communication complexity, and over reliance on previous knowledge. Organizational decision making becomes more centralized and formal leading to a constriction of control. Finally, Staw et al. suggest that a preoccupation with increased efficiency leads to a conservation of resources.

This amalgam of responses leads to a type of organizational paralysis which Staw et al. (1981) termed threat rigidity. These distinct effects and the resultant organizational state are typically associated with maladaptive responses because they curtail information flow, exploration and innovation, and organizational learning (Cannon & Edmondson, 2005; Choi, Dooley, & Rungtusanatham, 2001; Weick & Sutcliffe, 2001).

Finally, one of the more recent conceptualizations of the organization returns to the metaphor of organizations as biological systems. Drawing from work on biological and chemical systems, complexity science posits that organizations are more accurately described as

17

complex adaptive systems. Complex adaptive systems are "neural-like networks of interacting, interdependent agents who are bonded in a cooperative dynamic by common goal, outlook, need, etc. . . . They are changeable structures with multiple, overlapping hierarchies, and like the individuals that comprise them, CAS are linked with one another in a dynamic, interactive network" (Uhl-Bien, Marion, & McKelvey, 2007: 299). In complex adaptive systems interdependent agents use other agents' behavior as feedback in order to adapt, resulting in self-organizing patterns that emerge in the larger network and in the absence of central coordination (Plowman, Baker, Beck, Solansky, Kulkarni, & Travis, 2007; Chiles, Meyer, & Hench, 2004).

One of the main characteristics of complex adaptive systems thought to encourage self-organizing adaptation and renewal is a posture far from equilibrium. Prigogine and colleagues (Nicolis & Prigogine, 1989; Prigogine & Stengers, 1984) have shown that a position far from equilibrium promotes change in chemical systems. Some scholars (e.g., Kauffman, 1995) argue that this position facilitates injection of energy and information into a system resulting in both orderly and chaotic patterns. As the system is pulled in different directions it encounters increased levels of complexity and stress (Maguire & McKelvey, 1999; Stacey, 1992; 1995). Many scholars (e.g., Anderson, 1999; McKelvey, 1999; Nonaka, 1988; Wheatley, 1999) argue that this position far from equilibrium is necessary for an organization to continually renew itself and thus facilitates adaptation and innovation. However, it is likely that the constant turmoil of such a position is stressful for both individuals as well as the larger system (i.e. organization; Pascale et al., 2000).

Empirical Support

18

Although many studies in the organizational literature note the importance of environmental turbulence, uncertainty, unpredictability, etc. (e.g., Brown & Eisenhardt, 1997; Gersick, 1991; Meyer, 1982; Romanelli & Tushman, 1994; Santos & Eisenhardt, 2005; Sigglekow & Rivkin, 2005), only a few have addressed the experience of collective stress in organizations empirically. As noted above, Hall and Mansfield (1971) conducted a longitudinal study of three separate research and design organizations. They examined both individual and organizational responses to environmental stressors. Specifically, with regard to organizational stress, they state:

> In all the organizations the responses were decided upon largely by top management. Not only was there little or no consultation with the researchers before the decisions were made, but there seemed to be little communication to them of the reasoning behind the changes or even in some cases of the details of the changes. These reflected increased organizational structure and control . . . there was also a general sense of tightening up through reducing costs and improved methods. (p. 540)

Clearly, the Hall and Mansfield study supports the later work Staw et al. (1981) indicating the threat rigidity responses of constriction of control, decreased information processing, and conservation of resources. Subsequent work has likewise supported the threat rigidity hypothesis (e.g., D'Aunno & Sutton, 1992).

Although well received in the literature and bolstered with some empirical support, the threat-rigidity hypothesis has not been questioned. To point, Shimizu (2007) examined a sample of U.S. based firms involved in acquisition and divestiture activity over a 10 year period. He found that organizational decisions were affected by individual and contextual factors at multiple

19

levels. Unit performance, individual decision making processes and environmental ambiguity interacted and displayed non-linear relationships with organizational level decisions and behavior. Based on these findings, Shimizu suggests that neither the threat-rigidity hypothesis nor the predictions of prospect theory (Kahneman & Tversky, 1979) were robust in predicting organizational decisions. Instead, Shimizu argued that to accurately predict organizational action required a synthesis of threat-rigidity, prospect theory, and behavioral theory (Cyert & March, 1963). These findings suggest not only variance across organizations in their response to stress but also qualitative differences in the experience of and responses to stress at the individual and organizational levels. These findings are also consistent with prior research that indicates variance in collective experiences of stress and idiosyncratic organizational responses (Lansisalmi, Peiro, & Kivimaki, 2000).

Conclusions

Although sparse, both the conceptual and empirical research pertaining to the experience of stress at the organizational level suggests that environmental stress is experienced at the organizational (or collective) level. Furthermore, the experience of stress at the organizational level is somewhat different from the experience at the individual level. This implies that although stress research at the individual level can speak to some aspects of organizational stress, a more fruitful approach would be to address organizational level stress using organizational level constructs. Finally, the current body of research suggests that organizations vary in their responses to stress. Hence, it should be possible for organizational researchers to identify different responses to environmental stress and the implications of these responses.

Current Study

Organizations face uncertainty, environmental turbulence, complexity and unpredictability, all of which create stress for organizations. Yet, we have little understanding of the factors that enable some organizations to flourish under such conditions, while others have difficulty adapting. The limited research concerning organizational stress reveals a gap in the literature regarding how organizations successfully mitigate stressful conditions. Building on the research concerning individual stress reactions, specifically individual hardiness, I argue that organizations likely respond to stressful conditions in a parallel fashion. Corresponding to the individual hardiness disposition of challenge (interpret change positively), commitment (identify with meaning and purpose), and control (take action), hardy organizations likewise interpret events, find meaning in their work, and act to influence the environment. To that end, I believe that the organizational phenomena of sensemaking, organizational identity, and enactment parallel the individual dispositions of challenge, commitment, and control, respectively.

In the following sections I review the literature on sensemaking, organizational identity, and enactment in turn and build a case that they serve many of the purposes at the organizational level that the dispositions of challenge, commitment, and control do at the individual level. I argue that, although parallel in content to the individual hardiness dispositions, sensemaking, organizational identity, and enactment involve processes that are inherently social and therefore more appropriately applied at the organizational level. I further argue that organizations which differ in their content and effectiveness of sensemaking, espousing an organizational identity, and enacting their environment will differ in how they perform under stressful conditions. I then examine a subset of organizations from the financial industry in an attempt to discern differences in these phenomena and the resulting effects on performance. I conclude this examination with a discussion of the findings and posit implications for both managers and researchers.

Sensemaking

Definition

Corresponding to the disposition of *challenge* (interpreting change positively) at the individual level, sensemaking is the ongoing process in which organizations engage in detecting events in the environment, interpreting events, and acting (Thomas, Clark, & Gioia, 1993; Weick, 1979; 1995). Sensemaking "occurs in organizations when members confront, events, issues, and actions that are somehow surprising or confusing" (Maitlis, 2005: 21). Sensemaking is the general term for a social process of interpretation (Maitlis, 2005) which is composed of the related subprocesses of sensegiving and sensemaking (Gioia & Chittipeddi, 1991). In the sensemaking process an individual or group brings attention to, and offers an interpretation of, an event in the environment in order to influence its meaning for others. If others find this interpretation plausible they will accept it and base subsequent action on it. If they find it insufficient they will engage in sensegiving as to influence others to change their interpretations. These processes are facilitated by constantly scanning the environment both within and external to the organization in order to identify changing events and emerging issues; working to interpret what is found in the scanning process so as to imbue it with meaning; and acting on this information as it unfolds (Thomas et al., 1993).

Conceptualization

Dougherty et al. describe sensemaking as the process in "which various information, insight, and ideas coalesce into something useful, or 'stick' together in a meaningful way" (Dougherty, Borrelli, Munir, & O'Sullivan, 2000: 322). Weick, Sutcliffe, and Obstfeld (2005) clarify that sensemaking "is not about truth and getting it right. Instead, it is about continued

22

redrafting of an emerging story so that it becomes more comprehensive, incorporates more of the observed data" (p. 415). Scholars view sensemaking as critical for dealing with the uncertain and unpredictable organizational landscape and does not involve the impossible tasks of collecting perfect information and/or accurately predicting future events. Rather, sensemaking is provoked by uncertainty and unpredictability and is the organizational response to "being thrown into an ongoing, unknowable, unpredictable streaming of experience in search of answers to the question, 'what's the story'?" (Weick et al., 2005: 410). Weick et al. (2005) argue that sensemaking focuses on plausible rather than accurate stories that explain ambiguous events. By focusing on the development of plausible meanings, sensemaking provides a mechanism through which organizations can incorporate turbulent conditions while maintaining activity (Neill, McKee, & Rose, 2007). Furthermore, by continually engaging in processes that implicitly recognize constant flux reduces uncertainty and its associated stress by characterizing the change as natural and expected as well as being a source of growth.

Empirical Support

A growing body of literature supports the notion that sensemaking is a critical aspect of organizational functioning (e.g., Grant, Dutton, & Rosso, 2008; Neill, McKee, & Rose, 2007; Thomas, Sussman, & Henderson, 2001; Wagner & Gooding, 1997; Weick, 1995; 2001). The meanings that organizations develop concerning changing conditions affects how they will respond, which contributes to how conditions change, which, in turn, affects their further interpretations (Gioia & Thomas, 1996; Thomas et al., 1993; Weick, Sutcliffe, & Obstfeld, 2005; Staw et al., 1981). For example, Thomas et al. surveyed organizational decision makers from a number of hospitals and found that sensemaking processes were related to future organizational action and performance. Gioia and Chittipeddi (1991) examined sensemaking and sensegiving

23

related to the strategic change efforts in a large, public university. They found that invoking a sensemaking and sensegiving framework was the most appropriate means of describing how strategic change efforts manifested. Finally, Weick (1993) provides a poignant description of how the collapse of sensemaking contributed to the Mann Gulch disaster which resulted in the death of 13 firefighters. Weick's reexamination of the disaster demonstrates how important meaning, and conversely the loss of meaning, can be for an organization. He describes how the firefighters' reliance on faulty information, loss of identity, and, ultimately, loss of structure resulted in an inability to develop plausible meanings of the events that unfolded. As their shared meaning deteriorated, the result was further loss of identity and structure which resulted in further loss of meaning. This process continued to spiral out of control until the loss of meaning escalated into a loss of coordination and an inability to act which eventually resulted in the deaths of several people. Clearly, the loss of life is the most extreme consequence of faulty organizational sensemaking but Weick's example underscores the importance that the loss of meaning can have for an organization.

The preceding examples provide a small sampling of the empirical work emphasizing the importance of sensemaking. However, the prominent role of sensemaking in organizational functioning does not imply that all organizations are equally preoccupied with sensemaking nor does it imply that all organizations are equally effective at it. In fact, Weick et al. (2005) argue that "the emerging picture is one as sensemaking as a process that is ongoing, instrumental, subtle, swift, social, and *easily taken for granted*" (p. 409; emphasis added). Empirical evidence has substantiated this claim by closely examining how different organizations engage in the sensemaking process. Maitlis (2005) conducted a longitudinal investigation of three British orchestras and delineated four distinct sensemaking processes framed by the amount of control

exerted by leaders and the involvement of stakeholders in the sensemaking process. *Guided* sensemaking is characterized by organizational members being highly engaged in the sensemaking process and in which the organizational leaders exercise considerable control over the sensemaking process. The result is a rich, coherent account of events and issues and an emergent series of consistent actions. *Fragmented* sensemaking involves high sensegiving from stakeholders and low sensegiving from leaders and results in multiple, narrow accounts of events and issues and inconsistent action. *Restricted* sensemaking is dominated by leader sensegiving and results in a unitary account without the benefit of incorporating multiple perspectives and one time action or an inconsistent set of actions. Finally, *Minimal* sensemaking is characterized by low involvement of leaders and stakeholders and results in a nominal account of events and issues and, at best, one time action based on compromise. Her study demonstrated that the process of organizational sensemaking can vary and that different types of sensemaking can have different outcomes.

From a process perspective, the Maitlis study provides valuable insight in how sensemaking can vary both within and across organizations. In addition, a considerable body of work concerning strategic issue interpretation speaks to the effects that the content of the sensemaking process can have on organizational functioning.

The role of Interpretation in Sensemaking

Just as sensemaking plays a central role in organizational functioning, the interpretation process is the central activity of sensemaking (Thomas et al., 2001; Wagner & Gooding, 1997). This argument coincides with previous assertions that organizations function as interpretation systems (e.g., Daft & Weick, 1984; Thomas et al. 1993). In fact, Daft and Weick (1984) go so

far as to argue that "Interpretation is a critical element that distinguishes human organizations from lower level systems" (p. 285). Interpretation is described as involving "the development and application of ways of comprehending the meaning of information; it entails the fitting of information into some structure for understanding and action" (Thomas et al. 1993: p. 241). As such, the main purpose of sensemaking (i.e. creating meaning) revolves around the interpretations generated by the organization. Subsequent researchers (e.g., Thomas et al. 1993) have echoed this reasoning supporting the importance of interpretations and linked it to the changing organizational landscape by arguing that key organizational members play their most critical role in contributing to the interpretation of organizationally relevant events and issues under conditions of uncertainty. As sensemaking is critical to the decision making processes of the organization, the interpretations and labels ascribed to strategic issues and the resulting behaviors that they generate are directly related to organizational performance and, in some instances, organizational survival (Dutton & Duncan, 1987).

With the understanding of the importance of interpretations in hand, organizational scholars have sought to understand the particular dynamics of interpretations through investigations of particular label. Specifically, organizational scholars have examined the effects of particular ways of labeling ambiguous events and the organizational outcomes that result. The labeling of events as either opportunities or threats has been the most widely discussed element of strategic issue interpretation (e.g., Anderson & Nichols, 2007; Barr & Glynn, 2004; Dutton & Jackson, 1987).

Conceptualization of Interpretation

Many scholars acknowledge that strategic issues and events do not have inherent meanings (e.g., Barr & Glynn, 2004; Dutton & Jackson, 1987; Jackson & Dutton, 1988; Smircich & Stubbart, 1985). Rather, the organization's internal environment influences the interpretation of events which accounts for organizational differences of interpretation when applied to a common focal event. One of the most common ways that scholars have conceptualized interpretation is based on whether decision makers interpret events as either opportunities or threats (Anderson & Nichols, 2007; Bar & Glynn, 2004; Dutton & Jackson, 1987; Plambeck & Weber, 2009). Dutton and Jackson (1987) describe opportunities as positive, gain-oriented, and controllable whereas threats are negative, loss-oriented and uncontrollable. Scholars argue that because organizational action follows from these interpretations, interpretation differences can account for differential responses to strategic events. Events and issues labeled as opportunities are often viewed as priming proactive, exploratory behaviors whereas events and issues labeled as threats prime defensive, restricted behaviors (e.g., Staw, Sandelands, & Dutton, 1981).

Empirical Support of Interpretation

A considerable body of literature demonstrates the link between interpretations and action (e.g., Anderson & Nichols, 2007; Barr, 1998; Chattopadhyay, Glick, & Huber, 2001; Fiol, 1995; Plambeck & Weber, 2009; Sharma, 2000; Thomas et al., 1993). Scholars have shown that labeling issues as opportunities is associated with adoption of new technologies (Ginsberg & Venkatraman, 1992); changes in product and service offerings (Thomas et al., 1993); voluntary adoption of environmental initiatives (Sharma, 2000). However, in general, scholars have observed stronger effects for threat labels and little or no effects for opportunity labels. For example, Thomas et al (1993) found no effect of positive/gain interpretations on admissions and

occupancy and a negative effect on profit in a sample of hospital administrators. Chattopadhyay et al. (2001), likewise found no effects of opportunity interpretations in their exploration of top manager's interpretations. However, study designs give reason for pause with regard to these conclusions. Thomas et al. (1993) used interpretations of hypothetical scenarios to determine CEO interpretation processes and linked them with actual hospital performance. Chattopadhyay et al. (2001) coded descriptions of strategic events and issues instead of measuring interpretations directly. In neither case were the studies designed to directly measure interpretations of actual strategic issues and events. Overall, the body of literature supports a strong link between strategic issue interpretation and subsequent strategic action. In particular, evidence of differential relationships between threat and opportunity interpretations and strategic action is generally supported.

Hypothesis

To the extent that differences in interpreting strategic issues and events lead to differences in strategic action, organizational sensemaking parallels the content of the challenge disposition of individual hardiness. As mentioned above, hardy individuals tend to interpret events and issues as challenges and opportunities for learning and growth. Empirical evidence suggests that organizations differ in their interpretations of strategic issues and events. Furthermore, evidence also suggests that organizations that label issues and events as opportunities engage in more proactive and exploratory strategic actions, many of which could lead to organizational learning, adaptation, action and, ultimately, performance (cf. Cannon & Edmonsdon, 2005; Wilkinson & Mellahi, 2005; Weick & Sutcliffe, 2001). For example, Cannon and Edmondson (2005) argue that organizations generally do not engage in deliberate experimentation due to the propensity for monetary loss and perceived detriment to

28

organizational esteem or reputation even though conventional wisdom and espoused values typically call for such experimentation. They point out that many 'innovative' firms are innovative precisely because they value experimentation and embrace failure as a learning experience rather than avoiding it at all costs. Likewise, evidence suggests that many truly novel strategies emerge in industries when competitors either are unaware of common industry norms and expectations or directly oppose them (Smircich & Stubbart, 1985). To the extent that organizational interpretations of opportunity support experimentation, learning from failures, and leveraging novel strategies, they should positively influence organizational performance. Hence the following:

Hypothesis 1: Positive organizational sensemaking involving positive strategic issue interpretations is positively related to organizational performance.

Organizational Identity

Definition of Organizational Identity

Corresponding to the disposition of *commitment* at the individual level, organizational identity refers to those central, enduring, and distinctive characteristics of an organization (e.g., Albert, Ashforth, & Dutton, 2000; Albert & Whetten, 1985; Ashforth, Harrison, & Corley, 2008; Whetten, 2006). The organizational identity is self-referential and describes the answer to the question 'who are we' that is shared among the members of an organization (Ashforth, Harrison, & Corley, 2008). Organizational identity is composed of elements that are enduring in that they are tied to the organization's history and thus not vulnerable to relatively subjective fads that oscillate over time (Gioia, Schultz, & Corley, 2000). Elements of organizational identity are central in that they represent the values, beliefs, and attitudes that are shared among

29

organizational members. Finally, organizational identity comprises elements that are distinctive

in that they can be used to distinguish the patterns of interaction among organizational members

from other groups and individuals that are not members of the organization.

Conceptualization

Corley et al. describe organizational identity as

> "the property of the organization as an entity or 'social actor' that can be discerned only
>
> by the patterns of that organization's entity-level commitments, obligations, and actions .
>
> . . The questions 'Who am I' and 'Who are we' capture the essence of identity at different
>
> levels of analysis, highlighting that identity is about an entity's attempts to define itself.
>
> At the organizational level, identity is about capturing that which provides meaning
>
> where the self is the collective. (Corley, Harquail, Pratt, Glynn, Fiol, & Hatch, 2006: 87)

Implied in the answer to the 'who are we' question are elements concerning what are the

preferred end states of the organization (i.e. values), the shared evaluations of objects, people,

and events (i.e. attitudes), and the shared perceptions of what is true about the organization and

its environment (i.e. beliefs). When organizational members refer to their organization as

'customer-focused', 'innovative', etc. they are typically describing attributes that they feel are

central and enduring (Albert & Whetten, 1985). Furthermore, these labels often support

individual organizational member needs for prestige, attractiveness, and belonging (Ashforth &

Mael, 1989; Dutton & Dukerich, 1991; Fiol, 2002; Hogg & Terry, 2000).

Organizational identity fulfills individual organizational member needs by providing a

referent for the identification process (Ashforth, Harrison, & Corley, 2008). With roots in social

identity theory (Ashforth & Mael, 1989; Tajfel, 1974), organizational identification refers to the

30

incorporation of the organizational identity into the self-concept of the individual organizational member. Ashforth et al. (2008) describe identification as "viewing a collective's or role's defining essence as self-defining" (p. 329) wherein the attitudes, values, beliefs, goals, etc. of the organization become the attitudes, values, beliefs, and goals of the individual (cf. van Knippenberg & Sleebos, 2006).

To the extent that an organizational member finds the organizational identity attributes attractive and integrates these different elements into their self-concept they will tend to behave in ways consistent with these attributes (Ashforth et al., 2008; Ashforth & Mael, 1989; Dutton, Dukerich, & Harquail, 1994: Hogg & Terry, 2000). Hence, the organizational member draws meaning from the organizational identity and behaves accordingly based on the ideals that are espoused in the organizational identity. Furthermore, the organizational member is committed to the attitudes, values, and beliefs of the organization because behaving in a manner consistent with these elements reinforces and accentuates positive aspects of the member's self-concept (Ashforth et al., 2008; Hogg & Terry, 2000).

In a similar manner, organizational identity helps reduce uncertainty for organizational members by providing clear values and goals and also helps motivate members' behaviors. By providing attitudinal and behavioral referents, organizational identity helps reduce uncertainty for individuals by providing direction with regard to subjectively important matters (Hogg & Terry, 2000). Through the identification process, the organizational identity provides the referents which "describes and prescribes perceptions, attitudes, feelings, and behaviors" (Hogg & Terry, 2000: 124). Ellemers, Gilder, & Haslam (2004) posit that "workers who identify with the group in question should be energized to act in terms of their group membership" (p. 470). In other words, organizational members would be inclined to engage in activities that are not

31

only consistent with the organizational identity but would also be motivated to behave in a manner such that the organizational identity is enhanced.

Empirical Support

Empirical evidence supports these propositions as a considerable amount of research has examined the relationships between organizational identity and a host of organizationally relevant constructs (e.g., leadership, decision making; see Ashforth et al., 2008 for review). Those individuals that behave in a manner consistent with the organizational identity are often seen as a 'proto-type' or 'role-model' organizational members and are often afforded a measure of prestige and respect resulting in the conference of leadership status (Ashforth et al., 2008; Ellemers, de Gilder, & Haslam, 2004; Hogg & Terry, 2000). In addition, organizational identity can have direct effects on strategic decision making as it influences key organizational decision makers such as board members (Golden-Biddle & Rao, 1997) and provides referents for appropriate organizational actions (Corley et al., 2006). The resulting body of work has resulted in the classification of organizational identity as a "root construct" (Albert, Ashforth, & Dutton, 2000: 13) having implications for both the organization and organizational members (Ashforth, Harrison, & Corley, 2008).

A significant body of literature has also linked organizational identification to cognitive states and performance (e.g., Ashforth et al., 2008; Cole & Bruch, 2006; Olkkonen & Lipponen, 2006; van Dick, Wagner, Stellmacher, & Christ, 2004; van Knippenberg & van Schie, 2000;). For example, van Knippenberg and Sleebos (2006) surveyed faculty members at a Dutch university. They found positive relationships between organizational identification and commitment and job satisfaction and a negative relationship with turnover intentions. In a recent

meta-analysis, Riketta (2005) combined the results of 20 years worth of quantitative studies. He

found negative relationships between organizational identification and intentions to leave and

absenteeism but found positive relationships with both in-role and extra-role (e.g., organizational

citizenship behavior) performance.

Taken together, the body of empirical evidence tends to support propositions extolling

the positive aspects of organizational identity and identification processes at the individual level.

More importantly, perhaps, these results suggest the importance of organizational identity at the

organizational level. Results regarding negative relationships with absenteeism and turnover

intentions suggest the potential for cost savings wherein organizations with well articulated

identities would avoid costs associated with selecting and training new employees. Furthermore,

positive relationships with commitment, job satisfaction, and in-role and extra-role behavior

suggest the possibility of more productive employees and avoidance of issues regarding stress

tolerance and burnout. However, the question remains if these individual level effects are

substantial enough to affect organizational level outcomes. To that end, researchers have also

examined identity at the organizational level.

A great deal of the empirical work on identity at the organizational level involves

qualitative studies of organizational processes. In one of the first explorations of the effects of

organizational identity, Dutton and Dukerich's (1991) examination of the New York port

authority demonstrated the importance organizational members place on the organization's

identity especially as it is portrayed to external entities. They found that unfavorable

characterizations of the organization led to significant efforts by organizational members to alter

perceptions of the organization, thus enhancing the organization's identity. Gioia and Thomas'

(1996) exploration of executives in U. S. colleges and universities demonstrated the importance

of organizational identity to strategic sensemaking. They found that when undergoing organizational change top management team members' perspectives concerning future organizational identity was instrumental in shaping organizational members' interpretation of issues. Glynn (2000) explored the relationship between organizational identity and the development of strategic resources and capabilities. She found that individuals' efforts to bolster their professional identities resulted in articulating and emphasizing organizational attributes drawing attention and resources to these elements. This resulted in the development of organizational attributes and leveraging them as competitive advantages.

Additional studies of organizational identity have also provided insight into the development of organizational function and form. Golden-Biddle and Rao's (1997) in-depth study of a non-profit found that organizational identity had profound effect on board functioning. Evidence from this study suggests that the behavior of groups (e.g., board of directors) can be directly linked to the organizational identity and that behavioral deviations can be construed as an attack on the organizational identity. These findings have substantial implications for the study of identity in organizations. First, it suggests that organizational identity threats do not always have to originate external to the organization (cf. Dutton & Dukerich, 1991; Elsbach & Kramer, 1996). Second, it bolsters evidence suggesting that both organizational interpretation and action are, at least in part, dependent on the organizational identity. Finally, these findings suggest an important intermediate application between individual identity and organizational identity. By noting the effects of organizational identity on subgroups in the organization, Golden-Biddle and Rao (1997) demonstrate another avenue of influence for organizational identity to affect organizational phenomenon.

Hypothesis

Corresponding to the hardiness disposition of commitment at the individual level, organizational identity provides parallel benefits at the organizational level. Much like commitment to one's work at the individual level, a strong organizational identity provides a mechanism for generating meaning and motivation for the organization as a whole. Clearly, a significant body of evidence suggests how important organizational identity is to the form and functioning of organizations at multiple levels. Empirical support has demonstrated that organizational identity is important for individual organizational members as it promotes uncertainty reduction and motivation along with a host of more precise organizational behaviors (e.g., reduced absenteeism and turnover, increased commitment). Furthermore, organizational identity has been related to organizational functioning through group functioning (e.g., board of directors) in that it dictates what constitutes appropriate behavior and what functions the group is to serve. Ultimately, these effects culminate as significant referents and motivators driving the collective efforts of organizational members and resulting in organizational level phenomena.

The evidence of the importance of cultivating and maintaining an organizational identity logically implies that all organizations would be equally interested in the phenomena. However, Albert and Whetten (1985) suggested otherwise:

When the question of identity is raised, we propose that an organization will form a statement that is minimally sufficient for purpose at hand. It does so, we speculate, because the issue of identity is a profound and consequential one, and at the same time, so difficult, that it is best avoided. Consequently, under ordinary circumstances, that answer to the identity question is taken for granted. (p. 265)

This implies variance in the extent to which organizations manage their organizational identity on two fronts. First, some organizations may simply avoid actively engaging in identity related discourse because it is difficult or because it is not clearly understood how important it is. Furthermore, involvement in crafting organizational identity may vary because a particular organization's members are more or less skilled in clearly identifying and articulating those organizational attributes that are central, distinct, and enduring.

For those organizations proactively cultivating the organizational identity, and thus providing the referents associated with the central, enduring, and distinctive characteristics of the organization, there could be significant benefits. As mentioned (e.g., Riketta, 2005), those individuals who identify with the organization have been shown to demonstrate less absenteeism and turnover which would reduce costs associated with selecting and training new employees. In addition, these same individuals have been shown to have improved in-role and extra-role job performance. Again, this would lead to positive benefits such improved efficiency and productivity. However, as these are all results of the identification process wherein the individual incorporates the organizational identity into their self-concept, a necessary first step is for the organizational identity to be espoused. Only then can individual organizational members use it as the focal point of the identification and realize the uncertainty reduction and motivation associated with it. Understanding the importance of organizational identity to organizational functioning and to the extent that the articulation and maintenance of organizational identity varies, suggests that organizational identity would demonstrate a relationship with organizational performance.

More specifically, under conditions of uncertainty, it is likely that those organizations with a stronger organizational identity would reap the associated benefits. Namely, the

organizational identity could serve as an overarching referent helping to mitigate uncertainty and providing a source of motivation for organizational members. Hence,

Hypothesis 2: Organizational identity is positively associated with organizational performance.

Enactment

Definition

Corresponding to the disposition of control at the individual level, enactment refers to the processes through which the organization shapes and responds to its environment (e.g., Porac, Thomas, & Baden-Fuller, 1989; Smircich & Stubbart, 1985; Weick, 1979; 1988). Enactment is defined "as the process in which organization members create a stream of events that they pay attention to" (Orton, 2000: 231). Weick (1988) describes enactment as "a social process by which a material and symbolic record of action is laid down" (p. 307). The process of enactment details the interactions that individuals inside and outside an organization have that distinguish the 'organization' from the 'environment' and how the two correspond. Smircich and Stubbart (1985) argue that traditional conceptions of organizational boundaries are neither fixed nor readily apparent. Instead, ideas of organizations and boundaries are subjective labels for the patterns of action that people engage in. This is important because as Daft and Weick (1984) argue, those organizations that actively try to influence and control their environment will develop different interpretations of events from those who view the environment as wholly external and immutable.

Conceptualization

Enactment processes are typically contrasted with more traditional views on the relationship between organization and environment proffered by ecological theories (e.g. Hannan & Freeman, 1989) and strategic choice (e.g., Child, 1972; 1997). For example, population ecology contends that the survival of an organization is largely the result of forces emanating from a separate, external environment (Hannan & Freeman, 1989; Scott, 2002). Organizations that do not achieve proper fit with the environment are selected out. The strategic choice perspective, on the other hand, acknowledges that particular elements of the environment can be mitigated and/or avoided. Organizations accomplish this by taking deliberate action concerning what industries to enter, which organizations they compete with, and which organizations to partner with, etc. These strategic choices provide a measure of insulation from at least some environmental forces. Although population ecology and the strategic choice perspective differ in the amount of influence they allot to the organization, they are similar in that both perspectives retain the idea of a wholly separate, objective environment in which the organization is situated (cf. Smircich & Stubbart, 1985). These two perspectives stand in stark contrast to the enactment perspective, which acknowledges the subjective nature of organizational realities (Smircich & Stubbart, 1985; Weick, 1979). In one of the earliest renderings of organizational enactment, Weick (1979) states:

> The reciprocal linkage between ecological change and enactment in the organizing model is intended to depict the subjective origin of organizational realities. People in organizations repeatedly impose that which they later claim imposes on them. (p. 153)

From this perspective, the environment does not represent a wholly distinct context apart from the organization. Instead, the environment exists as "an ambiguous field of experience" (Smircich & Stubbart, 1985: 726). Within this field relationships with other entities are

determined by the actions taken by the organization and its members (Danneels, 2003). As the

organization acts, other elements in the field react, providing feedback. This feedback is then

interpreted and used to guide further organizational action with the resulting patterns of activity

dictating those elements that are considered part of the organization from those that are not

(Smircich & Stubbart, 1985). As Weick (1979) suggests, it is through this process that

conditions constrain or promote further organizational action and the imposition of an external

environment manifests. Hence, in the absence of an objective reality, an organization creates an

environment to which it must respond.

 Empirical Support

Although there has not been a great deal of empirical work with regards to enactment,

organizational researchers have employed the enactment concept to explain market conditions

and organizational actions (e.g., Daneels, 2003; Orton, 2000) and other work implies enactment

processes (e.g., Chen, 1996; Ferrier, Smith, & Grimmm, 1999). For example, Porac, Thomas,

and Baden-Fuller's (1989) examination of the Scottish knitwear industry suggests that the

competitive environment of the industry was largely determined by enactment processes based

on the "beliefs about the identity of the firm, its competitors, suppliers and customers, and causal

beliefs about what it takes to compete successfully within the environment which has been

identified." (p. 399). They argue that the mental models of top executives in these organizations

concerning competitive boundaries and appropriate strategic actions shaped the interactions of

competitors in the absence of any empirical evidence of an objective environment. They suggest

that competitive boundaries and appropriate strategic behavior are somewhat "arbitrary" to the

extent that "despite sophisticated methods for analyzing and determining competitive

boundaries, these decisions ultimately rest upon the intuition and common sense of managers"
(Porac et al., 1989: 406).

Subsequent work on competitor analysis and interfirm rivalry supports a more subjective
view of the environment as well. Chen (1996) posits that the best way to explain and predict
competitive behavior between firms is to examine the extent to which they compete with each
other and the extent to which they have similar resources available. Much like Porac et al.'s
(1989) work, this framework goes beyond more traditional theories which typically had lumped
together every firm that entered a particular market. Chen (1996) suggests that there are three
drivers to competitive behavior: awareness, motivation, and capability. Firms must be aware of
one another to be engaging in actions that are considered competitive, they must feel a need,
threat, or opportunity to act against another firm, and they must have the resources to affect a
particular action. Said differently, Chen (1996) argues that for firms to compete, or at least take
competitive actions, they must be aware of the situation in which they can compete, interpret
another firm as a competitor, and they must feel like they have some control in either taking
action or responding to action.

As stated, Chen's (1996) study does not approach competitor analysis and interfirm
rivalry explicitly from an enactment perspective. However, the findings from his study imply
enactment processes and provide an important organizational parallel for the control disposition
of individual hardiness. Hardy individuals persist in their work because they feel their actions
will have some influence on their situation regardless of the level of uncertainty and
unpredictability (Maddi, et. al., 1982) Likewise, Chen's findings suggest that competitive
dynamics are the result of enacting an environment (e.g., recognizing another organization as a
competitor and taking competitive action) and the perception that the organization has the ability

to compete (i.e., the organization has resources that will make it successful in competing with another organization). As such, there is an aspect of control for the organization both real (e.g., taking competitive action) and perceived (e.g., assuming adequate resources necessary for competition) which promote organizational action.

More recent work has directly supported the assertions of Porac et al (1989) and Chen (1996) regarding the role of enactment in organizational success. Specifically, Osborne, Stubbart, and Ramaprasad (2001) content analyzed over 400 shareholder letters from 22 pharmaceutical companies searching for themes related to industry mechanics. Their findings suggest that top executive mental models, as expressed through shareholder letters, converged with performance based measures of industry structure supporting a substantive link between mental models and performance based configurations of strategic groups (cf. Chen, 1996). Santos and Eisenhardt (2009) implicitly support the notion of enactment through their exploration of the development of organizational boundaries. They argue that nascent markets suffer from uncertainty and ambiguity due to their "undefined or fleeting industry structure, unclear or missing product definitions, and a lack of dominant logic to guide actions" (p. 644). Under these conditions organizational decision makers have relatively little choice in that they must enact an environment because they quite literally face an ambiguous field of experience (Smircich & Stubbart, 1985). Findings from a longitudinal study of five entrepreneurial ventures suggests that not only were enactment processes necessary because of the void of environmental structure but that those organizations that were proactive in enacting their environment typically enjoyed monopolistic positions and became the referent entities for other organizations. These findings suggest that it is the actions and perceptions of organizations that dictate industry

structure rather than purely external elements that exist outside of the organization. This further suggests the influence an organization has in affecting its environment.

Taken together, these studies support Weick's (1979) contention that environmental conditions and constraints are at least partially due to the collective actions and cognitions of the organization. As organizations take action, they provoke reactions from other organizations with the resulting feedback loops leading to somewhat stable patterns of behavior which are then interpreted as 'the environment' (Weick, 1979). Additional research suggests that enactment processes play a prominent role in determining interactions with organizational stakeholders beyond competitors (i.e. organizational members and customers). For example, Daneels (2003) describes how retailers enact a customer orientation based on the marketing mix that they produce. The enactment of the marketing mix evokes a reaction from customers which provides feedback for the retailer to make further adjustments so on and so forth. Through this iterative process the retailer creates its customer orientation and thus constrains subsequent behavior based its own actions rather than any pre-established environmental characteristics. Daneels (2003) suggests that this enactment process is a probable mechanism for organizational learning but cautions that limiting attention based on enacting with only certain elements could be self limiting.

As a final example, findings from Orton's (2000) examination of the 1976 reorganizational of the United States intelligence community support the idea that organizations and organizational members create their environment to a greater or lesser extent. In an examination of archival accounts of the U.S. intelligence communities' difficulties during and immediately following the resignation of President Nixon. Orton (2000) found that traditional assumptions of dominant environmental variables, objective causal logic, and executive dictates

as the main elements of organizational redesign failed to accurately describe the processes present during the reorganization. Rather, he found that enactment, sensemaking, and organizational decision making processes more accurately characterized how the reorganization took place. Orton (2000) suggests that the impetus for the reorganization was the result of actions of the intelligence community (e.g., studies undertaken, interviews granted, information disseminated) not external events. In other words, the intelligence community enacted events that it had to then respond to. Based on these findings, Orton (2000) suggests that "managers should create a wide variety of enactments and maintain a diverse repertoire of folk theories in order to manufacture optimal decisions" (p. 231).

To summarize, empirical findings concerning enactment processes, as well as research implying organizational influence on competitive dynamics, support the notion that organizations play a considerable role in creating their environments. These findings have also begun to influence other perspectives. For example, more recent explications of the strategic choice perspective (Child, 1997) suggest the environment provides fodder for both pro-active and re-active decision-making. In addition, conceptions of environmental enactment are addressed clarifying the point that there exists an objective component to the environment. However, boundaries are fuzzy because of the relationships that can exist between organizational actors across organizations. Implicit is the fact that agents can enact certain aspects but they must also respond to aspects.

Hypothesis

Organizations will vary in the degree to which they proactively enact their environment. Specifically, some organizations will be more engaged than others in shaping their environments

through competitive actions, lobbying law makers, etc. In this way, enactment will function much like the disposition of control for a hardy individual. A hardy individual is predisposed to feel that they have some control over outcomes in their life. They tend toward affecting outcomes instead of succumbing to feelings of helplessness. Hardy individuals tend to focus on elements that can be controlled in order to leverage these elements in beneficial ways.

Likewise, an enacting organization would be active in affecting the environment by intentionally manipulating relationships, experimenting, and learning (Daft & Weick, 1984). By engaging in enactment processes to a greater extent an organization should be able to reap benefits such as gaining (Santos & Eisenhardt, 2009) and protecting (Ferrier et al., 1999) market share. Additionally, enactment processes affect sensemaking and decision making by highlighting particular events and issues in the environment (Orton, 2000) and influencing interpretations of these events and issues (Daft & Weick, 1984), which then affect the choices and actions of organizations. Furthermore, organizational enactment should lead to more productive stakeholder relationships (Daneels, 2003) and avoidance of detrimental competitive dynamics (Chen, 1996). Hence:

Hypothesis 3: Enactment is positively related to organizational performance

Constellation of Organizational Hardiness

Summary of Individual Hardiness

The three hardy dispositions of challenge, commitment, and control have unique qualities providing an individual with a perspective that allows for functioning in spite of uncertainty and unpredictability. An individual possessing a high challenge disposition interprets changing conditions and unpredictability as the natural state of affairs. They find that constant flux

44

provides opportunities for growth and should be embraced, not as a threat that should be avoided or dampened. An individual possessing a high commitment disposition finds meaning in their work which they use as a referent for how to act and react in uncertain situations. When faced with unfamiliar conditions, the hardy individual persists in their activities by acting in a way that reinforces their values and promotes their purpose for engaging in the activities in the first place. Finally, an individual possessing a high control disposition understands that they have the ability to affect their situation in some way. The hardy individual has a realistic view of the degree of control they can have over their environment. That is, hardy individuals understand that they can make the best out of a bad situation and can take action to direct situations into more favorable outcomes. Each of these dispositions provides a hardy individual with a perspective that allows for performance under stressful conditions marked by uncertainty and unpredictability.

Although each of these dispositions provides a unique contribution for a hardy individual, it is the constellation of hardiness (i.e., high challenge, high commitment, and high control) that psychologists have deemed necessary for an individual to be considered 'hardy' (Maddi, 2004). Possessing only one or two of the hardy dispositions does not provide the same protection and does not offer the same benefits as having all three. For example, a person high in the challenge disposition could embrace change as the appropriate state of affairs. However, without high commitment the individual would not be able to discern meaning from their activities and would therefore not have stable referents with which to adjust their activities as conditions change. Furthermore, if the same individual felt helpless (i.e., low control) they would be less likely to act to change their situation. This is only one example of how the absence of the hardy dispositions could adversely affect an individual. However, similar arguments can be made where there is an absence of one or two of the dispositions. The point is that the culmination of

the three dispositions results in an individual being hardy and the absence of any disposition leaves a person vulnerable.

Development of Organizational Hardiness

In this paper I argue that the organizational level phenomenon of sensemaking, organizational identity, and enactment parallel the content of the individual dispositions of challenge, commitment, and control, respectively. Parallel to the disposition of challenge, certain organizations engage in sensemaking processes resulting in interpretations of vague and unpredictable events as opportunities rather than threats. These interpretations result in unique organizational actions (e.g., Barr & Glynn, 2004; Thomas et al., 1993) that can enable adaptation (e.g., organizational learning, innovation; cf. Staw et al., 1981). Parallel to the disposition of commitment, certain organizations develop and articulate strong organizational identities. Elements of the organizational identity then serve as focal referents for the identification processes of organizational members (Ashforth et al., 2005). As such, the organizational identity provides meaning for the collective activities of the organization generally serving to reduce uncertainty and provide motivation (Hogg & Terry, 2000). Finally, parallel to the disposition of control, certain organizations engage in enactment processes that result in proactive shaping of organizational boundaries and significant influences of environmental conditions (e.g., Porac et al., 1989; Smircich & Stubbart, 1985). In doing so, the organization exerts a measure of control often resulting in beneficial relationships (Daneels, 2003), acquisition of market share (Santos & Eisenhardt, 2009), and avoidance of detrimental competition (Chen, 1996).

Taken separately, each of the organizational phenomena described above potentially lead to favorable organization outcomes and, in some cases, empirical evidence has supported this

46

claim. However, much like individual hardiness, there is reason to believe that certain

constellations of these phenomena would lead to better performance than others. In fact, both

conceptual evidence and empirical evidence suggest that these phenomena are related. For

example, Smircich and Stubbart (1985) posit that

> In an enacted environment model the world is essentially an ambiguous field of
> experience. *There are not threats or opportunities out there in an environment*, just
> material and symbolic records of action. But a strategist—determined to find meaning—
> makes relationships by bringing connections and patterns to the action (p. 726: emphasis
> added)

According to their perspective, organizations have to engage in sensemaking processes, thus

interpreting events and actions, because labels such as threat and/or opportunity do not exist

otherwise. Furthermore, continued organizational enactment will be based on these

interpretations creating a feedback loop that dictates organizational action. Hence, enactment

and sensemaking are related.

Porac et al., (1989) expand inputs of the enactment process based on their finding that

the enacted environment is constructed

> Through processes of induction, problem-solving, and reasoning, decision-makers
> construct a mental model of the competitive environment which consists minimally of
> two types of beliefs: *beliefs about the identity of the firm,* its competitors, suppliers, and
> customers, and causal beliefs about what it takes to compete successfully within the
> environment which has been identified (p. 399: emphasis added)

47

The argument here is that the identity of the firm is paramount in juxtaposing the elements that constitute the organization from the environment. In large part due to this juxtaposition, elements are identified which must then be interpreted. Said differently, the identity of the organization dictates what elements are parts of the organization and what elements are not. Once these distinctions are made, the organization must then engage in the task of interpreting events by relating them back to the identity. Those environmental elements that are germane to the organization can then be interpreted and those that are not can be ignored. Hence, enactment and organizational identity are related.

Finally, Gioia and Thomas (1996) supply the final piece of the puzzle in relating organizational identity and sensemaking. Evidence from their examination executives in academia suggest

> . . . image and identity not only directly affected issue interpretation, but they also served as influential linkages between the organizational sensemaking context and issue interpretation (p. 396)

Organizational identity affects how organizational roles are defined and what constitutes appropriate behavior (Golden-Biddle & Rao, 1997). By extension, organizational identity influences how information is gathered, how it is filtered, and whose interpretations dominate as the interpretations are shared and elevated to the point they become held organization-wide. Hence, organizational identity and sensemaking are related.

In so far as these elements are related to each other, it is reasonable to expect these phenomena to fluctuate together. Much like the constellation at the individual level, an organization that interprets change as natural and a source of opportunities, leverages the

organizational identity as a source of meaning, and understands its ability to manipulate the environment should be positioned to thrive in industries fraught with uncertainty. Organizational sensemaking processes resulting in interpretations of opportunity should encourage exploration and experimentation thus avoiding maladaptive responses related to threat rigidity (Staw et al., 1981). The developing and espousing a strong organizational identity would provide the appropriate referents for engaging and interacting with the environment such that uncertainty is reduced and motivation is maintained. Finally, these two elements would support enactment processes such that organization should be more adept at influencing and controlling its environment to the extent possible. The resulting constellation of organizational phenomena would describe an organization as hardy. As such, those organizations demonstrating these particular characteristics are expected to outperform organizations that demonstrate only one or two of these characteristics. Hence:

Hypothesis 4: Organizations demonstrating characteristics consistent with high levels of organizational hardiness will outperform organizations demonstrating characteristics of lower levels of organizational hardiness.

In summary, the hypotheses to be tested in this research are listed below:

1. Positive organizational sensemaking involving positive strategic issue interpretations is positively related to organizational performance.

2. Organizational identity is positively related to organizational performance.

3. Enactment is positively related to organizational performance

4. Organizations demonstrating characteristics consistent with high levels of organizational hardiness will outperform organizations demonstrating characteristics of lower levels of organizational hardiness.

CHAPTER 3

Methods

Overview

In order to detect differences among firms with respect to the three components of

organizational hardiness – sensemaking, identity, and enactment – I designed a longitudinal,

archival study of large commercial banks. Using content analysis I examined the narrative text

available in the CEO letters to shareholders available through the company annual reports to

measure the relevant theoretical constructs. In order to test my hypotheses I analyzed the

relationships between the components of organizational hardiness and firm performance, the

aggregated construct of organizational hardiness and performance, and finally between high and

low levels of organizational hardiness and firm performance.

Sample

The sample for this study includes the 20 largest commercial banks, as determined by a

triangulation method based on the *Fortune* list of largest commercial banks in the United States.

To be included, the bank must have appeared in the *Fortune 25* list of largest commercial banks

in the United States sometime during the period 2000-2009. Furthermore, the bank must list

commercial banking as its primary line of business. Those organizations that were engaged in

commercial banking but were primarily engaged in other types of financial service (e.g.,

investment, mortgages) were excluded. In addition, because organizational hardiness – as

conceptualized in this study - involves organizational identity, banks were excluded if they were

subsidiaries or divisions of larger organizations. This approach helped assure that the measure of

identity would be capturing the identity of the bank and not the larger corporation. This decision

rule supports the study pragmatically in that subsidiaries or divisions would not have independent annual reports and thus independent CEO letters to shareholders.

Given the extensive coding requirements necessary for content analyzing the annual reports and CEO letters to shareholders over multiple years, the sample size had to be restricted to a manageable number of firms. This approach is consistent with that of similar studies in which content analysis of text is used (e.g., Osborne et al., 2001; Barr, 1998). As well, restricting the sample to this upper echelon of commercial banks provided a measure of homogeneity among the banks. All banks included in the sample were similar in size (e.g., assets) and operated at the regional level or above limiting the effects of state to state differences in operations.

I focused on a single industry because this type of sample is particularly useful for the early stages of theory development (Eisenhardt, 1989; Short & Palmer, 2003). The banking industry has a longstanding reputation of environmental turbulence and uncertainty due to its sensitivity to changes in economic conditions, technology, and legislation (e.g., Bantel & Osborne, 1995; Deephouse, 1999; Desarbo, Grewal, & Wang, 2009; Marquis & Lounsbury, 2007; Reger & Huff, 1993; Weigelt, 2009; Zaheer, 1995), making it likely that all banks experience similar levels of organizational stress. Furthermore, this level of stress is likely higher than in other more stable industries, making it more likely that organizational hardiness would be detectable. Focusing on a single industry also enabled unconfounded comparisons for those constructs under investigation because firms from a single industry likely have experienced similar industry shocks and changes (Barr & Huff, 1997). Additionally, studying a single industry negates the need to control for between industry variance (Short & Palmer, 2003). Finally, the banking industry represents a considerable sector in the United States economy

responsible for the movement of trillions of dollars and having far reaching effects at all levels of the economy from the individual to other organizations.

I collected annual reports from bank websites and the EDGAR database through *Thomson Research*. When available, I downloaded annual reports directly from bank websites. When annual reports were not available from bank websites, I searched websites using the *Thomson Research* web based database that contains content from the EDGAR service provided by the Securities and Exchange Commission (SEC). I chose the period from 2000 to 2009 to facilitate collection of shareholder letters for two reasons. First, this period provides for observation of organizational behavior in the midst of multiple economic downturns (e.g., 2001; 2007-2009) and multiple enactments of new legislation (e.g., International Money Laundering Abatement and Financial Anti-Terrorism Act of 2001; Sarbanes-Oxley Act of 2002; Fair and Accurate Credit Transactions Act of 2003). The inclusion of these types of environmental turbulence suggest the likely experience of organizational stress for these organizations thus facilitating the relationship of organizational hardiness and organizational performance under conditions related to organizational stress. The second reason for using the period 2000-2009 is because prior to this time the use of internet for disseminating this type of information was not widespread. All CEO letters to shareholders were obtained for the banks identified and for the entire period resulting in 200 letters in total.

Procedure

Content Analysis and CEOs' Letters to Shareholders

I used thematic computer aided content analysis of CEOs' letters to shareholders to collect the data for the measures of sensemaking, organizational identity, and enactment. In

general, content analysis describes a set of techniques that elicit valid inferences from text including inferences concerning the sender(s) of the text, the message of the text, and the audience of the text (Krippendorf, 2004; Weber, 1985). In particular, thematic content analysis involves examination of the occurrence of themes (i.e. concepts) found in text that point to the beliefs, values, and ideologies described in the text (Roberts, 1997; Weber, 1985). Thematic content analysis has been employed across various disciplines in the social sciences (e.g., linguistics, anthropology, marketing, clinical psychology) and has generally demonstrated robust applications for both top-down and grounded theory approaches for examining social phenomenon (Stone, 1997). Thematic content analysis is advantageous for organizational research (Phillips, 1994; Weber, 1985) because it is less obtrusive than other forms of data collection such as interviews (Short & Palmer, 2003). Also, it can be used to gather difficult to obtain information (see also Osborne et al., 2001), it avoids contaminates such as recall bias, and it provides for high reliability and replicability.

CEOs' letters to shareholders have been used to study a wide arrange of organizational phenomena from individual level cognitions (e.g., Fiol, 1995) to industry level configurations (e.g., Short & Palmer, 2003). Segars and Kohut (2001) argue for the importance of CEOs' letters and cite that "the CEO's letter provides an important cue to employees and prospective investors for the formation of cognitive impressions regarding the 'personality' of the enterprise" (p. 536). Although sometimes used to examine top managers' cognitions (e.g., Barr, 1998), CEOs' letters are also an appropriate means of measuring organizational phenomenon as top managers' cognitions are often the most influential in determining organizational form and function (Hambrick & Mason, 1984). Use of the CEOs' letters as a proxy for organizational level phenomenon is further bolstered for several reasons. First, as shareholder letters are

54

typically made public, they are subject to scrutiny by a wide variety of organizational

stakeholders including employees, investors, regulatory agents, and the media (Marcel, Barr, &

Duhaime, 2010). As such, there is a greater likelihood that any incorrect information will be

brought to the attention of the public. Second, the Public Company Accounting Reform and

Investor Protection Act (commonly referred to as the Sarbanes-Oxley Act) of 2002 was enacted

in response to several high profile corporate scandals in the United States. This act requires

greater transparency of financial actions as well as increased responsibility for top managers with

regards to disseminating corporate information. This provides an added measure of verifiability

that these documents accurately reflect organizational elements. Finally, Osborne et al. (2001)

point out that "Whether the author is an individual president or a collective of functional area

experts, these letters are official documents that discuss themes important to the firm" (p. 440)

directly implying that the content of CEOs' letters to shareholders represents organizational level

phenomena. For these reasons, analysis of CEOs' letters to shareholders is an appropriate proxy

for organizational phenomenon.

Content Analysis

Computer aided content analysis differs from traditional content analysis in that, as the

name would imply, the analysis is carried out by a software program. This has both reliability

and replicability benefits in that the computer program will analyze all materials in exactly the

same manner (Short & Palmer, 2008). However, this process is only as good as the dictionaries

that are used to by the program to analyze the materials.

Typically, computer aided content analysis involves either the use of pre-assembled

dictionaries that come with a particular software package or researcher generated dictionaries,

which are then used to examine the content of interest. Based on these dictionaries, the software provides results (typically in the form of word or phrase frequencies) that can be used for further analysis. For this study, I generated dictionaries following both deductive and inductive methods (e.g., Short, Broberg, Cogliser, & Brigham, 2010) as well as leveraging some of the built-in features of the platforms in order to search for words associated with the constructs of interest. Following the suggestion of Short et al. (2010), I began with the deductive approach by creating dictionaries using terms derived from the existing literature. This was followed by an inductive procedure whereby the texts themselves were examined to identify any significant terms not captured by the deductive procedure. The application of both procedures was to insure that both the constructs of interest as well as any other major themes were captured. In addition, the use of both procedures is thought to facilitate future attempts at knowledge transfer from the theoretical domain to practical application (Short et al., 2010).

I used Provalis software (www.provalisresearch.com) including QDA Miner and Wordstat for the creation of content specific dictionaries and for the inductive coding of the CEO letters. For the deductive portion I generated dictionaries composed of words related to a particular construct (i.e. sensemaking, organizational identity, and enactment) *a priori* based on my review of the literature (see below). Using terms that are related to a particular construct (e.g., opportunity), I generated word lists with equivalent and approximately equivalent meanings (e.g., positive, hopeful, gains, fortunate, fortuitous, lucky, opening) by using thesauri (Tuggle, Schnatterly, & Johnson, 2010). These word lists were then read into the software package *QDA Miner,* which created dictionaries to be used in the content analysis of the documents.

Once I had created the dictionaries, the CEO letters were read into the programs and analyzed resulting in word frequencies related to the dictionaries. Because of the volume of words found in the annual reports some restrictions were included to make the analyses tractable. To that end, I excluded the use of proper nouns and articles of language (e.g., prepositions). In addition, I excluded terms if they did not appear in at least 10% of cases. This decision rule is similar to decision rules found in other content analyses (e.g., Nag, Hambrick, & Chen, 2007) and is intended to make sure that they analyses capture significant themes within the documents. The word frequencies returned were then combined (see below) to generate variables used for analysis (Sonpar & Golden-Biddle, 2008).

For the inductive portion of the analysis, I analyzed words not captured in the original dictionaries. I began by visually inspecting words not captured in the variable dictionaries. These words were sorted by case occurrence and I applied the same decision rules as described above (i.e. omission of proper nouns, words must occur in at least 10% of cases). From these results I compiled a list of words indicating additional themes found in the documents and examined the words in context. I then categorized the words based on their usage and created labels for the categories. The words were then sorted by six raters familiar with the field of strategy but unfamiliar with the purposes of coding. The raters were asked to work independently and to sort the words into one of the three categories that I had developed (i.e. internal focus, external focus, and general strategy). Interrater agreement was calculated using *Krippendorf's alpha* (Krippendorff, 2004). Krippendorff's alpha was chosen because of its traditional use in content analysis studies, its ability to "handle multiple coders; nominal, ordinal, interval, ratio, and other metrics; missing data; and small sample sizes" (Krippendorff, 2004: 428). Krippendorff's alpha

ranges from 0 to 1 with 0.667 being the lower bound for agreement and follows the form

(Krippendorff, 2007; http://www.asc.upenn.edu/usr/krippendorff/dogs.html):

$$\alpha = 1 - \frac{D_o}{D_e}$$

where D_o is the observed disagreement:

$$D_o = \frac{1}{n} \sum_c \sum_k o_{ck \ metric} \delta_{ck}^2$$

and D_e is the disagreement one would expect when the coding of units is attributable to chance

rather than to the properties of these units:

$$D_e = \frac{1}{n(n-1)} \sum_c \sum_k n_c \cdot n_{k \ metric} \delta_{ck}^2$$

The results of the calculations for the six raters was an alpha = 0.751 suggesting a reasonable

level of agreement. Therefore, these additional variables were included in the analyses and are

described below.

Variables

Independent Variables

Sensemaking. Acknowledging that interpretation is the 'core phenomenon' related to

action oriented sensemaking (Weick, Sutcliffe, & Obstfeld, 2005), I measured the interpretation

of events following Thomas and McDaniel (1990) and Dutton and Dukerich 1991), and others

by observing the interpretive labels of threat or opportunity. Specifically, I created two

dictionaries, one each for terms related to opportunities (e.g., opportunity, opportune, auspicious,

favorable) and terms related to threat (e.g., threat, threatening, menacing, unfavorable) and used

use them to determine the frequency of the terms used in each letter to the shareholders (Sonpar

& Golden-Biddle, 2008). I then combined the resulting frequencies from these two dictionaries

by subtracting the frequency of words from the threat dictionary from the frequency of words

from the opportunity dictionary forming a single sensemaking variable. For this sensemaking variable positive values demonstrate a greater use of opportunity terms and negative values demonstrate a greater use of threat terms.

Organizational Identity. Based on the conceptualization of organizational identity as those elements of the organization that are central, distinctive, and enduring (Albert & Whetten, 1985), self-referential, and comparative (Cornelissen, Haslam, & Blamer, 2007), I developed several dictionaries and also employed several predetermined dictionaries from the DICTION platform. The developed dictionaries were based on my literature review and included content pertaining to self-reference (e.g., us, we, our) and the distinctive core elements of the organization (e.g., climate, culture, beliefs, attitudes, values). The values from these dictionaries were summed to create a single organizational identity variable whereby higher values are interpreted as indications of a greater emphasis of the organizational identity. This variable was used in analysis with the understanding that documents where these elements were more 'densely articulated' demonstrate a stronger organizational identity (Ashforth, Harrison, & Corley, 2008).

Enactment. I followed the suggestion that "enactment implies a combination of *attention and action* on the part of organizational members" (Smircich & Stubbart, 1985: 726) and measured the organization's actions or attempts to act.   I developed a dictionary involving terms related to organizational actions with the intent of affecting the environment (e.g., mergers and acquisitions, lobbying, litigation, divestiture). As with sensemaking and organizational identity, a higher frequency of these terms in the letters to the shareholders will be interpreted as involving more environmental enactment.

Organizational Hardiness. Organizational hardiness is operationalized as the linear sum of the individual components of sensemaking, organizational identity, and enactment. As the hypotheses suggest, I expect the individual components of organizational hardiness to have significant individual effects on organizational performance. Furthermore, although I expect some of the variance attributed to these constructs to overlap, I also expect that idiosyncratic variance attributable to these constructs will likewise contribute to organizational performance (Motowidlo, 2000). Hence, I conceptualized organizational hardiness as an aggregate construct in contrast to a latent construct (Edwards, 2001). Therefore, I created a variable of organizational hardiness by combining the scores on the sensemaking, organizational identity, and enactment variables (Law, Wong, & Mobley, 1998). Higher overall frequencies of these combined terms suggest higher organizational hardiness.

I included three other variables in *post hoc* analyses, one variable generated by the DICTION platform and two stemming from the inductive investigation of terms not captured in the dictionaries for sensemaking, organizational identity, and enactment. Although the main focus of this project was to examine the main effects of organizational hardiness and its components on organizational performance, I chose to conduct these post hoc analyses to examine how other significant themes present in the letters might affect these relationships.

The DICTION platform generates a standardized *Complexity Score* based on the average number of characters per word in the document with the implication that larger values of this score are associated with less clarity. The inductive investigation revealed additional categories that were included in the analyses. The first category included was labeled focus and is the combination of two dictionaries: internal focus and external *focus*. Internal focus contained words describing internal features of the organization (e.g., employees) while the external focus

dictionary contained words related to elements outside the organization (e.g., the economy). The internal focus dictionary was subtracted from the external focus dictionary resulting in a single variable. Positive variables suggest a greater focus on external elements while negative values suggest an internal orientation. Finally, the inductive investigation led to another category of terms labeled *strategy*. The terms in this category refer to elements related to the organization's business strategy. These terms are very broad and general mentions of strategy and/or its effects. Higher values in this category suggest more focus on strategy and its implications.

Dependent Variables

I collected data from the Compustat database to measure three aspects of organizational performance - financial performance, market performance, and shareholder return. *Return on Assets* (ROA), defined as the ratio of net operating profit to the firm's start-of-year assets recorded on its balance sheet, represents firm *financial* performance. *Earnings-per-share* (EPS), defined as the net operating profit minus dividends paid to preference shares divided by the number of common stocks issued and *market value*, (the share price multiplied by the number of shares outstanding at the end of each calendar year), represents firm *market* performance. And, finally, *Total shareholder return* (TSR), defined as the sum of the change in stock price during the year plus any dividends paid out (expressed as a percentage of the opening value of the stock), represents *shareholder* return.

These measures are intended to capture multiple dimensions of organizational performance and their use is well grounded in the literature (e.g. Deephouse, 1999; Richard, Devinney, Yip, & Johnson, 2009; Short & Palmer, 2003). Although current best practices (See

Richard et al., 2009) suggest incorporating broader organizational outcomes under the rubric of organizational effectiveness (e.g., innovation, corporate social responsibility), the use of archival data makes collection of such data prohibitive and would likely lead to a further reduction of the sample due to unavailability of the data. The use of multiple and varied organizational performance measures ameliorates some of the concern associated with using a single organizational performance measure since organizational performance is multifaceted construct (Richard et al., 2009).

Analysis

To address hypotheses 1-3 which examine the relationship between the individual components of organizational hardiness and the measures of organizational performance, I conducted generalized least squares (GLS) multiple regressions. Because the study is a simple time series design, ordinary least squares regression would not yield interpretable coefficients because of the correlation of disturbance terms (i.e. autocorrelation; Rabe-Hesketh & Skrondal, 2008). To that end, I used the xtgls command in STATA to analyze the data. This command uses generalized least square regressions methods to improve the robustness of the standard errors providing for a more efficient estimation of the regression coefficients. Furthermore, this command provides an option whereby specific modes of autocorrelation can be specified. For the current study, analyses involved specification such that within panel autocorrelation was allowed because of the likelihood of autocorrelation within panel due to the time series structure of the data but autocorrelation was not expected across panels. Separate regressions were conducted for each dependent variable.

Unlike ordinary least squares regression, the GLS procedure does not provide the typical F statistic for the omnibus test. Instead, the GLS procedure employs the Wald statistic for the model which tests the null hypothesis that all of the coefficients in the model are zero. The Wald statistic is distributed as a chi square with df = to the number of coefficients to be estimated. Additionally, unlike ordinary least squares regression, the GLS procedure does not produce an R^2 value. Hence, hierarchical regression procedures which typically are conducted by introducing variables one at a time and then examining both the statistical significance of the coefficients as well as the change in the R^2 value were not possible. However, as a check on any possible ordering effects I conducted separate regressions whereby each dependent variable was introduced separately and in different orders. The pattern of results was the same across procedures and, therefore, the final presentation of the results involved loading all independent variables in one block and is discussed below.

To test Hypothesis 4 I began by arraying the banks based on their overall value of organizational hardiness. I then partitioned the group based on a median split of this value. I created an additional variable, which I designated as a hardiness factor having values of 0 and 1. Banks with lower levels of hardiness based on the median split were assigned a score of 0 and banks with higher levels were assigned a score of 1. This variable was used as the between-subjects factor for the analysis. I then conducted a repeated measures Analysis of Variance (ANOVA) with within- and between-subjects factors for each dependent variable using the *wsanova* command in STATA. This command generates ANOVA tables for designs with one within-subjects factor and one or more between subjects factors (Gleason, 1999). Output for this procedure requires specific naming of the between-subjects factor and provides the customary F statistic and accompanying probabilities.

63

For the post hoc analyses I examined the extent to which the variables discovered through the inductive investigation moderated the relationships between organizational hardiness and the dependent variables. All variables were mean centered before the interaction terms were created in order to control for multicollinearity (Cohen, Cohen, Aiken, & West, 2003). As mentioned, the lack of a traditional R^2 value prevented the traditional inspection of moderation that involves hierarchical regression whereby the mean-centered independent variable and moderator are loaded in the first block followed by the inclusion of the interaction term and inspection of the subsequent change in R^2. However, as a check, the variables were entered in this hierarchical manner as well as simultaneously where the independent, moderator, and interaction terms were entered in the same block. There was no difference in the pattern of results. Evidence of moderation was suggested by a significant coefficient for the interaction term and subsequent plotting of the unstandardized regression coefficients.

CHAPTER 4

Results

Table A-1 lists the mean, standard deviation, minimum, and maximum values for the variables and Table A-2 lists the correlations. Table A-3 presents the results of the GLS multiple regressions for each of the dependent variables on the individual components of sensemaking, organizational identity, and enactment. Table A-4 presents the results of the GLS multiple regressions for each of the dependent variables and the combined organization hardiness score. Table A-5 presents the results of the ANOVA comparing the mean scores for high and low organizational hardiness relating to the individual dependent variables.

Hypothesis 1 suggests that positive organizational sensemaking is positively associated with organizational performance. Separate GLS regressions were conducted for each dependent variable. Results are presented in Table A-3. As expected, the coefficient for regressing total shareholder return on sensemaking was significant (B=9.37), Z=4.54, p<.001 suggesting that an increase in positive sensemaking results in an increase in total shareholder return. The coefficient for regressing basic earnings per share on sensemaking was significant (B=48.40), Z=4.41, p<.001 suggesting that an increase in positive sensemaking results in an increase in basic earnings per share. The coefficient for regressing return on assets on sensemaking was significant (B=0.30), Z=5.40, p<.001 suggesting an increase in positive sensemaking results in an increase in return on assets. The coefficient for regressing market value on sensemaking was significant (B=7.87), Z=3.49, p=.02 suggesting an increase in positive sensemaking results in an increase in market value. Taken together, these results provide strong support for Hypothesis 1.

Hypothesis 2 suggests that organizational identity is positively associated with organizational performance. The coefficients for total shareholder return, basic earnings per share, and return on assets were not significant suggesting no relationship with organizational identity. However, the coefficient for regressing market value on organizational identity was significant (B=5.12), Z=2.06, p=.039 suggesting that stronger organizational identity results in an increase in market value. Taken together, these results provide partial support for Hypothesis 2.

Hypothesis 3 suggests that enactment is positively associated with organizational performance. The coefficients for regressing total shareholder return and market value were not significant suggesting no relationship with enactment. However, the coefficient for regressing basic earnings per share on enactment was significant (B=45.69), Z=2.54, p=.011 suggesting that enactment is related to an increase in basic earnings per share. Likewise, the coefficient for regressing return on assets on enactment was significant (B=0.27), Z=3.86, P<.001 suggesting an increase in enactment is related to an increase in return on assets. Taken together, these results support Hypothesis 3.

Next I combined the sensemaking, organizational identity, and enactment in a linear, additive fashion to create an overall measure of organizational hardiness. I then conducted individual regressions for each of the dependent variables. The results are presented in Table A-4. The coefficient for regressing total shareholder return on organizational hardiness was significant (B=3.13), Z=3.53, p<.001 suggesting an increase in organizational hardiness is related to an increase in total shareholder return. The coefficient for regressing basic earnings per share on organizational hardiness was significant (B=26.18), Z=4.63, p<.001 suggesting an change in organizational hardiness is related to an increase in basic earnings per share. The

coefficient for regressing return on assets on organizational hardiness was significant (B=0.09), Z=3.53, p<.001 suggesting an increase in organizational hardiness is related to an increase in return on assets. Finally, the coefficient for regressing market value on organizational hardiness was significant (B=6.54), Z=3.67, p<.001 suggesting an increase in organizational hardiness is related to a increase in market value. Taken together, these results suggest a robust relationship between organizational hardiness and organizational performance.

Hypothesis 4 states that organizations with higher organizational hardiness scores should perform better than organizations with lower organizational hardiness scores. To test this hypothesis I conducted separate repeated measures ANOVAs with a between subjects factor based on a median split of the organizational hardiness scores for each dependent variable. The results of these tests are presented in Table A-5. The repeated measures ANOVA indicated that total shareholder return varied across levels of organizational hardiness F(1,18)=7.74, p=.01 whereby total shareholder return for high organizational hardiness (M=0.02) was higher than total shareholder return for low organizational hardiness (M=-0.05). The next repeated measures ANOVA indicated that return on assets varied across levels of organizational hardiness F(1,18)=13.39, p<.001 whereby return on assets for high organizational hardiness (M=0.016) was higher than return on assets for low organizational hardiness (M=0.009). Likewise, a repeated measures ANOVA indicated that market value varied across levels of organizational hardiness F(1,18)=5.27, p=.03 whereby market share for high organizational hardiness (M=13.47) was higher than market value for low organizational hardiness (M=12.32). The repeated measures ANOVA for basic earnings per share was not significant F(1,18), p=.17 indicating no difference for basic earnings per share across levels of organizational hardiness. Taken together, these results support Hypothesis 4 suggesting that organizations with higher

levels of organizational hardiness outperform organizations with lower levels of organizational hardiness.

Post Hoc Analysis. Post Hoc analyses were conducted based on both the methodology used and the inductive identification of additional themes within the CEO letters to shareholders. The methodological analysis was based on the complexity score calculated by the DICTION platform which is a standardized measure based on the number of characters per word in a document. Higher complexity scores are associated with convoluted and/or ambiguous meaning. Hence, I investigated whether or not the complexity of the message moderated the relationships between organizational hardiness and the dependent variables. The results are presented in Table A-6. Independent multiple regressions were conducted for each dependent variable. Both the predictor and moderator variables were mean-centered before creating the interaction term (Cohen et al., 2003). None of the interaction terms were significant across the regressions for the dependent variables suggesting that the relationship between organizational hardiness and organizational performance does not vary across levels of complexity.

I also conducted moderation tests for two themes that were elicited from the inductive investigation of the CEO letters to shareholders. The first theme that emerged involved terms related to general strategy. As such, I examined whether the relationship between organizational hardiness and organizational performance was more a matter of general strategic thinking rather than any unique aspects of organizational hardiness. For these analyses the strategic focus of CEO letters was examined as a possible moderator of the relationship between organizational hardiness and organizational performance. The procedure was the same as above and the results are presented in Table A-7. Again, none of the interaction terms were significant across the

regressions for the dependent variables suggesting that the relationship between organizational hardiness and organizational performance does not vary across levels of strategy.

Finally, I conducted moderation tests for the focus variable to examine whether the relationship between organizational hardiness and organizational performance was different based on whether the organization was more externally or internally oriented. The results are presented in Table A-8. The interaction of organizational hardiness and focus was not significant for total shareholder return suggesting that the relationship between organizational hardiness and organizational performance did not change across levels of focus. However, the interaction of organizational hardiness and focus was significant for basic earnings per share (B=30.64), Z=2.90, p=.004 suggesting that the relationship between organizational hardiness and basic earnings per share changes across levels of focus. Investigation of the simple slopes (Figure 1) suggests that for externally oriented organizations the relationship between organizational hardiness and basic earnings per share is positive. The slope for more internally oriented organizations suggests no relationship between organizational hardiness and basic earnings per share. Likewise, the interaction of organizational hardiness and focus was significant for return on assets (B=0.15), Z=3.29, p=.001 suggesting that the relationship between organizational hardiness and return on assets changes across levels of focus. Investigation of the simple slopes (Figure 2) suggests that for externally oriented organizations the relationship between organizational hardiness and return on assets is positive. The slope for more internally oriented organizations suggests no relationship between organizational hardiness and return on assets. Finally, the interaction of organizational hardiness and focus was significant for market value (B=6.36), Z=2.69, p=.007 suggesting that the relationship between organizational hardiness and market value changes across levels of focus. Investigation of the simple slopes (Figure 3)

suggests that for externally oriented organizations the relationship between organizational

hardiness and market value is positive. The slope for more internally oriented organizations

suggests no relationship between organizational hardiness and market value.

CHAPTER 5

Discussion

This study presents a new theoretical construct – *organizational hardiness* – which represents an organization's ability to perform under conditions of stress and turbulence. Paralleling the individual-level construct of hardiness developed by psychologists, organizational hardiness has three components: organizational sensemaking, organizational identity, and organizational enactment. I used content analysis of CEO letters shareholders to examine the impact of organizational hardiness on organizational performance. I assessed the unique effects of organizational sensemaking, organizational identity, and organizational enactment with organizational performance as well as the combined effects – called hardiness – on organizational performance. The findings indicate the organizational hardiness, as conceptualized in this study, is positively related to organizational performance. The findings also show that sensemaking in the form of positive strategic issue interpretation, an emphasis on organizational identity, and active organizational enactment each relate positively to measures of organizational performance. Thus, when combined, these strategic processes result in organizational hardiness, or the ability of an organization to perform under conditions of environmental turbulence and uncertainty.

This work is significant, first, for the presentation of a new theoretical construct that helps explain how organizations manage turbulence and also predicts organizational performance. The findings bolster previous research on sensemaking underscoring its importance in organizational functioning. These findings also extend the sensemaking literature by demonstrating a positive relationship with organizational performance as measured over an extended period of time. Additionally, this study represents one of the initial explorations

explicitly linking organizational identity and organizational enactment with organizational performance. The positive relationship between organizational identity and organizational performance supports previous research that suggests organizational identity plays an important role in mitigating external threats to the organization. The findings extend organizational identity research by demonstrating that the importance of identity manifests at the organizational level as well as the individual level. The positive relationship between organizational enactment and organizational performance suggests that actions aimed at defining and manipulating the environment can be linked to organizational performance. This suggests that future explorations of organizational enactment are warranted. Finally, this study examines how multiple strategic processes can combine to contribute to organizational performance. The findings suggest that future research exploring constellations of strategic processes might be beneficial to the understanding of how organizations cope with difficult environmental conditions.

Implications for Research

The results from this study have substantial implications for empirical research as well as theory building about organizational processes and their impact on organizational performance. This study introduces the construct of organizational hardiness which contributes to our understanding of how organizations function under conditions of turbulence and uncertainty. Additionally, this study represents one of the few quantitative, empirical studies of organizational sensemaking, organizational identity, and organizational enactment.

Organizational Hardiness. The current study lays the foundation for the exploration of a new construct: organizational hardiness. This construct is the organizational analog of the individual hardiness construct, which psychologists conceptualize as a constellation of

personality dispositions that provides individuals the capability to survive, and often thrive, under stressful conditions (e.g., Bartone et al., 2008; Cole et al., 2006; Kobasa et al., 1982; Rush et al., 1995; Sheard, 2009). At an individual level hardiness is comprised of the three interrelated components of challenge, commitment, and control. Importantly, research in this area has shown that the combination of the three elements results in a range of physiological, psychological, and performance benefits because each element contributes in a related but unique way (Chan, 2000; Golby & Sheard, 2004; Kobasa, 1979; Maddi, 2004). For these reasons I conceptualized organizational hardiness as a constellation of organizational dispositions, and hypothesized a relationship with organizational performance.

The current study examined three constructs thought to parallel the individual hardy dispositions at the organizational level with sensemaking corresponding with challenge, organizational identity corresponding with commitment, and enactment corresponding with control. As described above, current findings provide evidence that these organizational level constructs individually contribute positively to organizational performance. Also, as hypothesized, results suggest that the combination of these three organizational level constructs contribute positively to performance and did so for every dependent variable studied. These findings suggest that organizational hardiness is a viable constellation at the organizational level contributing to performance and worthy of further exploration. Furthermore, results suggest that organizations with higher organizational hardiness scores outperform those organizations with lower organizational hardiness scores. These results suggest that the cultivation of organizational hardiness could be an important strategic initiative for organizations over time.

The current study of organizational hardiness contributes to the understanding of organizational performance and addresses important gaps in the various streams of

73

organizational literature. The findings from this study challenge the organizational ecology view which predicts the viability of organizations based on an ecological model of "survival of the fittest" (e.g., Hannan & Freeman, 1989). Rather than organizational performance being explained by environmental conditions, the results from this study show something quite different. The observance of organizational hardiness, however, suggests that organizations must not only respond to elements in the environment but also play a large role in creating the environment through various acts concerning their interpretation of events, defending the organizational identity, and delineating organizational boundaries. The results of the current study suggest that those organizations that actively manage these processes can enjoy positive effects on performance without an over-reliance on maintaining fit with more objective elements in the environment.

Evolutionary economics (e.g., Nelson & Winter, 1982) suggests that for an organization to be successful it must create or imitate routines that provide value in the form of products or services and which the market is receptive. This perspective is less explicitly dependent on the environment as the population ecology view and puts some emphasis on the organization's capabilities. Organizational hardiness can be viewed as an organizational capability and in this way specifies three processes – or routines - that help optimize organizational performance – identity, sensemaking, and enactment. Clearly, the concept of organizational hardiness is predicated on the belief that the organization is at least somewhat malleable as well as being influential with respect to the environment. It follows logically that organizations of this type would be able to not only recognize opportunities for the creation of value-laden routines but might also be more adept at creating opportunities for such routines. Future studies could

examine the extent to which organizational hardiness relates to the development of new routines, organizational re-structuring, product introduction, alliance formations, etc.

Finally, the resource based view (e.g., Wernerfelt, 1984) of the firm argues that organizational performance is subject to the possession of unique resources and capabilities. This perspective places the most emphasis on the organization's attributes suggesting the importance of strategic choice. However, by definition, if an organization's resources and capabilities are truly unique, comparison across organizations becomes difficult if not impossible. In contrast, the components of organizational hardiness (i.e. sensemaking, organizational identity, and enactment) can be seen as ubiquitous in that every organization should demonstrate some measure of each these attributes and should vary in the effectiveness in which they engage in these processes. Hence, organizational hardiness represents a set of common strategic processes by which organization's can be compared. This fact, coupled with the current study's findings that organizational hardiness is positively related to performance and that high hardy organizations outperform lower hardy organizations, could provide a valuable mechanism for organizational comparisons.

The current study offers a conceptual and methodological framework that builds on the individual hardiness construct popular in the psychology literature (Atella, 1999; Maddi et al., 1999). Earlier attempts at expanding the individual hardiness construct focused on training individuals to be hardy with the resulting aggregation of these individuals resulting in a measure of organizational hardiness manifesting in a particular organizational culture (Atella, 1999). From this perspective the individual attributes of hardiness (i.e. challenge, commitment, and control) manifest at the group level as cooperation, credibility, and creativity (Maddi et al., 1999). These different conceptualizations, though logically consistent, are still rooted at the

75

individual level. In contrast, the current study provides a conceptualization of organizational hardiness parallel to the individual construct but firmly situated at the organizational level. As such, it is not dependent on the hardiness of individual organizational members and could be cultivated and instilled as organizational structures that would be resistant to the entry and exit of organizational members in the same vain as other types of organizational phenomena (e.g., organizational learning; March, 1991). However, that is not to say that the interplay between organizational structures and individual dispositions is not important. In fact, future studies could examine how hardiness at different levels affect one another or how likely and by what mechanisms hardiness at one level can lead to hardiness at other levels.

Moderation. In this study I explored the possible contribution of three moderating variables for the organizational hardiness/organizational performance relationship. Further investigation of these moderators suggested that two of them (i.e. message complexity and strategy) were not statistically significantly and therefore the relationship between organizational hardiness and organizational performance did not change across levels of these phenomena. The third construct identified, focus, which was the degree that shareholder letter content focused on external versus internal organizational issues, was significant. For three out of the four dependent variables studied, focus moderated the organizational hardiness/organizational performance relationship such that the more an organization focused on issues external to the organization the more positive was the relationship between organizational hardiness and organizational performance. For those organizations that were more internally oriented there was no relationship between organizational hardiness and organizational performance. This result is not altogether surprising. For example, D'Aveni and MacMillan (1990) found that among a sample of large organizations surviving firms tended to focus more on external factors (e.g., customers)

76

whereas bankrupt firms tended to focus more on internal factors (e.g., inputs). Perhaps, in the case of hardy organizations, that are more apt to try to engage the environment, they are able to identify existing opportunities or to create opportunities that ultimately hedge against adverse conditions and/or lead to positive organizational performance. The main implication of this finding is that the organizational hardiness/organizational performance relationship could benefit from future studies from different perspectives (e.g., normative strategy; D'Aveni & MacMillan, 1990) and would also benefit from a search for additional moderators.

In summary, the findings from this study suggest that the construct of organizational hardiness contributes to our understanding of organizational performance. First, it suggests proactive means for understanding the interaction of the organization and the environment. Second, organizational hardiness has the potential to address issues concerning the development of value-laden organizational routines. Third, it provides a set of common metrics by which organizations can be compared and which relate to performance under tumultuous environmental conditions. Finally, the presence of a focus oriented moderator of the organizational hardiness/organizational performance relationship suggests that organizational hardiness can be very important under specific conditions and that future studies should work to identify those situations where the cultivation of organizational hardiness would not only be advisable but, perhaps, necessary.

Organizational Sensemaking. The current study contributes both theoretically and methodologically to the study of sensemaking. As noted earlier, sensemaking corresponds to the individual level disposition of *challenge* in hardiness terms. Challenge describes the tendency of hardy individuals to accept novel and/or unexpected situations as a natural part of life (Cole et al., 2006; Wiebe, 1991). Instead of viewing these types of events as threats to their security they

embrace them as opportunities for personal growth (Sheard, 2009). In a similar manner, organizational sensemaking occurs when organizational members are faced with events that are novel or ambiguous (Maitlis, 2005). As such, organizational researchers (e.g., Dutton & Jackson, 1987) have examined how interpretations of strategic issues as opportunities or threats affect organizational performance. The results from the current study suggest that, over time, a tendency towards interpreting strategic issues and events as opportunities is positively related to organizational performance. This finding is consistent with previous research that has demonstrated that positive interpretations of strategic events are linked to organizational action (e.g., Ginsberg & Venkatraman, 1992; Thomas et al, 1993; Sharma, 2000). Many of these studies have demonstrated a relationship between opportunity interpretations and the adoption of strategic initiatives thought to be beneficial to the organization (e.g., adoption of new technologies, new product/service offerings, environmental policies) without explicitly and rigorously examining effects on organizational performance. The current findings establish strong empirical support for a relationship between positive sensemaking and organizational performance. These results also suggest that additional work concerning the content of organizational sensemaking is needed. Much work on sensemaking has focused on the sensegiving/sensemaking processes that occur among individual organizational members (e.g., Gioia & Chittipeddi, 1991; Maitlis, 2005). The current findings provide evidence that the results of the processes as manifested at the organizational level are important for organizational performance.

Additionally, the findings from the current study are inconsistent with previous work that has demonstrated either no relationship between opportunity interpretations and organizational performance (Thomas et al., 1993) or positive relationships between threat interpretations and

organizational performance (Chattopadhyay et al., 2001). However, as mentioned, an examination of the methodologies involved in strategic issue interpretation might explain the discrepancy in these findings. Previous studies have examined the relationship between interpretations of hypothetical situations and actual organizational performance (Thomas et al., 1993), coded interviews of past events (Chattopadhyay et al., 2001), and cross-sectional surveys (Sharma, 2000), to name a few. The current study represents one of the few longitudinal designs linking actual strategic issue interpretation and organizational performance.

The design of this study provides several advantages to the study of organizational sensemaking. First, the use of CEO letters to shareholders provides interpretations of actual issues and events that the organization faced during the year as well as expectations for issues and events that could manifest in the near future. Combined with actual performance data, this design ameliorates some of the difficulties inherent in linking hypothetical scenarios with actual performance (e.g. face validity) and represents a more direct link between the two constructs than has previously been published. Second, the design should dampen the effects of recall bias by minimizing the temporal distance between issue or event occurrence and issue or event interpretation. Furthermore, Stahlberg, Eller, Maass, & Frey (1995) found that groups suffered less recall bias than individuals which is applicable to the current study because the generation of shareholder letters is often a collaborative effort whereby the CEO is dependent on a range of organizational members to provide information (Marcel, Barr, & Duhaime, 2011). Finally, the extent of the longitudinal design may have been instrumental in examining the effects of sensemaking on organizational performance. The use of CEO letters to shareholders provided the unique opportunity to generate a data set over an extended period of time (i.e. 10 years), spaced at equal intervals, and without any missing data points. This approach stands in contrast of other

investigations that relied on cross-sectional (e.g., Sharma, 2000) or short interval (e.g., 6 month intervals over 2-3 years; Chattopadhyay et al., 2001). The discrepancy in findings with regard to differences in research design suggests new areas for future study. These differences in research design suggest that issues like the realism of the issue to be interpreted, recall bias, and consistency of interpretation should be considered when designing future studies.

Organizational Identity. The current study extends the research concerning organizational identity by examining the phenomena at the organizational level and relating it to organizational performance. Organizational identity parallels the hardiness disposition of *commitment.* Commitment is the tendency of hardy individuals to fully involve themselves in their work and to derive meaning from their activities (Kobasa et al., 1982). This engagement and sense of purpose is used as a source of stability for the hardy individual when confronted with chaotic and ambiguous events. In much the same way, organizational identity provides a measure of stability for organizational members to reference when environmental conditions become untenable. Organizational identity represents a "root construct" (Albert et al., 2000) that research has demonstrated relates to a myriad of organizational phenomena such as job and organizational satisfaction, job involvement, and in-role and extra-role behavior (Riketta, 2005). As is apparent, in contrast to the current study, traditional explorations of organizational identity and performance are situated at the individual level whereby organizational identity is the focal point for an individual's organizational *identification process* (Ashforth et al., 2008). The current findings suggest that the cultivation of a strong organizational identity is beneficial at the organizational level as well as the individual level. The findings demonstrate that focusing on, and relating to organizational members, the aspects of the organization that are considered *central, enduring, and distinctive* (Albert & Whetten, 1985) can manifest in positive

organizational performance. Perhaps the evidence of this positive relationship is the culmination of the individual level behaviors (e.g., job involvement, extra-role behavior, absenteeism, turnover intentions) which, when aggregated, manifest as positive organizational performance.

The current findings also extend qualitative explorations of organizational identity at the organizational level by linking examining patterns across a number of organizations instead of the usual single case study method (e.g., Dutton & Dukerich, 1991; Glynn, 2000). By examining the effects of organizational identity across a number of organizations the findings of this study suggest the potential for a greater degree of generalizability than previously speculated. The findings of the current study also suggest that organizations could benefit from being proactive in elaborating and maintaining the organizational identity. Several studies suggest that external attacks involving the organizational identity can motivate organizational responses in defense of the identity (Dutton & Dukerich, 1991; Elsbach & Kramer, 1996). The current study suggests that the cultivation of a stronger organizational identity can have beneficial effects in the absence of overt external attacks. An obvious avenue for future study would involve the nature of the relationship between organizational identity and organizational performance in the presence of direct attack on organizational identity. The current findings suggest that the continual espousal of an organizational identity could dampen or insulate the organization from identity attacks or might promote a quicker and/or more effective response.

The current findings suggest a number of other avenues for future exploration. First, the longitudinal nature of the current study provided an extended look at how an organizational identity can facilitate organizational performance. Although this significant period demonstrates the robustness of the organizational identity/organizational performance relationship it would be interesting to examine this relationship at various intervals. Perhaps shorter time periods are

81

appropriate for demonstrating changes in organizational behavior but not for demonstrating relationships with organizational performance. On the other hand, perhaps longer time periods could demonstrate a curvilinear relationship whereby adhering to a stable organizational identity prevents necessary adaptation to environmental conditions. Regardless of the period under study or the shape of the relationship, it would also be interesting to examine the ways in which organizational members determine, cultivate, and communicate an organizational identity. Clearly, it is logical to expect that organizations that are more effective at fostering the organization's identity would demonstrate superior performance. The question becomes what does "effective" look like? How do organizations effectively develop and communicate an organizational identity which organizational members will incorporate into their self concept (Ashforth et al., 2008) which they can use as a referent when the environment becomes tumultuous? Furthermore, how does the content of the organizational identity affect the organizational identity/organizational performance relationship? Albert and Whetten (1985) explicitly called for content specific investigations of organizational identity. Further study is needed to examine how particular aspects of the organizational identity (e.g., specificity, characterization) can influence its adoption, stability, and effects. Clearly, further investigation of these relationships is needed. However, the current study provides an interesting starting point for an examination of how organizational identity can be studied at the organizational level.

Enactment. The current study contributes to the understanding of the relationship between organizational enactment and organizational performance. Organizational enactment is akin to the hardy disposition of control and involves an individual's tendency to be proactive in their environment. Hardy individuals choose to interact with the environment rather than withdraw from it (Kobasa et al., 1982). The control disposition is often contrasted with

82

helplessness and suggests that hardy individuals' are inclined to feel powerful. This perspective, however, does not entail that hardy individuals feel they can dominate the environment (Kobasa et al., 1982). Rather, they choose to affect what elements they can in order to facilitate their goals.

In a similar manner, organizational enactment refers to the processes by which an organization defines and interacts with its environment (Orton, 2000; Porac et al., 1989; Smircich & Stubbart, 1985). Organizational enactment is a social process by which members of the organization interact in a manner which determines the boundaries of the organization and, by default, the environment. This perspective concerning organizational/environment distinctions differs from traditional perspectives that suggest the organization and the environment are objectively defined (Scott, 2002). To the extent that the organizational members can manipulate organizational boundaries through their interactions, it follows that they are at least partially responsible for determining the environment to which they must respond. Furthermore, it follows that organizations that recognize these effects and actively manage them could realize benefits in the form of organizational performance. The results of the current study suggest that organizational enactment processes are associated with positive organizational performance.

Previous research concerning enactment processes suggest that industry conditions are often directly related to organizational members', particularly top managers', mental models (Porac et al., 1989). The current findings suggest that active management of industry conditions by way of organizational enactment might provide an avenue by which organizations create opportunities instead of reacting to them. Additionally, examinations of competitor dynamics (e.g., Chen, 1996) and organizational boundary management (Santos & Eisenhardt, 2009) that imply enactment processes have suggested that enactment processes can result in beneficial

organizational outcomes, particularly in environments marked by uncertainty, turbulence, and hyper-competitiveness. For example, Santos & Eisenhardt (2009) suggest that in nascent markets where industry dynamics are not well-defined, new firms should position themselves by actively managing flexible and permeable organizational boundaries. The current study extends these notions and provides evidence that those organizations actively engaged with and working to shape the environment, both internally and externally, can realize performance benefits in addition to competitive positioning.

These findings provide an interesting foundation for further exploration. First, although the current findings support a positive link between organizational enactment and performance they do not specify in what ways organizations in the current sample engaged in enactment. Future studies could examine the different ways in which organizations can enact an environment and the resulting performance implications. Perhaps the manner of enactment can vary across industry, organizational characteristics, culture, etc. For example, Santos & Eisenhardt (2009) examine boundary creation in nascent markets, the current study examined enactment under a well-established market (i.e. banking), perhaps the effects of enactment will differ in markets located somewhere between these extremes. In addition, the effects of enactment might differ based on organizational characteristics such as size. Larger organizations would imply greater resources and, hence, greater ability to manipulate the environment. However, smaller organizations may be more nimble and therefore quicker in their ability to enact the environment. Additionally, smaller organizations might be able to engage in enactment processes without drawing the attention of larger competitors. This ability to engage in organizational enactment undetected by direct competitors might provide a measure of insulation while the smaller organization enacts environmental conditions more conducive to growing their

business. These are only a few suggestions as to how the understanding of organizational enactment could be broadened. Investigation of these ideas, as well as others, is justified by the current study and its demonstration of the enactment/performance relationship.

Managerial Implications

The understanding and investigation of an organizational hardiness construct, as a constellation of these individual processes, offers some practical benefits for managers. First, and perhaps foremost, the development of organizational hardiness should be compelling for managers because of its link with organizational performance. The current results suggest that managers willing to cultivate organizational hardiness should expect tangible financial benefits in the form of increased performance. Second, the cultivation of organizational hardiness provides a proactive mechanism for dealing with environmental turbulence and uncertainty. Unlike specific organizational routines (e.g., Nelson & Winter, 1982) which are developed based on forecasts or are a reaction to realized events, managers can begin to develop organizational hardiness before conditions deteriorate or catastrophic events take place. The general strategic processes associated with organizational hardiness are not dependent on a particular type of environmental turbulence or uncertainty and do not have to be in response to a particular event. Finally, unlike other types of organizational resources (Teece et al., 1997), the processes associated with organizational hardiness should be common to all organizations and, therefore, levers that all managers could employ. Furthermore, since these processes should be present to one degree another across organizations there should be no lag time for managers to begin implementing changes consistent with the development of organizational hardiness. Taken together, these attributes of organizational hardiness provide an attractive and available approach to strategic managers.

There are several managerial implications of the current study pertaining to sensemaking, organizational identity, and enactment as well as the development of organizational hardiness. First, the current study suggests that managers should, over time, maintain a positive position when discussing events and circumstances related to strategic issues. As mentioned, previous studies have provided mixed signals as to what position managers should take when communicating strategic interpretations to important stakeholders. However, the longitudinal nature of the study and the robust findings of the effects of positive sensemaking on organizational performance suggest that managers should strongly consider delivering interpretations of strategic events that accentuate the positive attributes of change and the opportunities for growth that they often represent. Second, the findings of the current study suggest that managers should regularly accentuate the organizational identity. In many cases, particularly in high velocity or turbulent environments, the most consistent information managers can convey involves the nature and direction of the organization. In times of uncertainty, when information can be unreliable or continuously obsolete, regular conversations concerning 'who we are' as an organization might provide a measure of stability that can enable organizational members to subsist until better, or at least more accurate, information becomes available. Finally, the current results suggest that managers should not only be active in shaping their environment, but that they should take time to discuss these types of initiatives with organizational members. This environmental enactment undertaken by managers could result in opportunities that do not currently exist or mitigate issues that do.

Limitations

All empirical studies are limited in some respect and the current investigation of the development of organizational hardiness is no exception. Although these limitations represent

the difficulties encountered and the choices made in the attempt to explore organizational

hardiness, they also represent opportunities for future research concerning these organizational

characteristics.

First, some have argued that the use of CEO letters to shareholders involves various types

of distortion (e.g., Fiol, 1995), because CEO letters are more representative of the CEO than the

organization. While not a perfect measure, CEO letters represent a viable source of

organizational information and have been used by other organizational scholars (e.g., D'Aveni &

MacMillan, 1990; Marcel, Barr, & Duhaime, 2010). In the case of distortion, evidence suggests

that while impression management attempts may be present in these communications, it is likely

that they represent true bias (Marcel, Barr, & Duhaime, 2010). Additionally, it is likely that the

presence of these biases is found across organizations and therefore not a significant source of

variance (Short & Palmer, 2003). As Marcel et al. (2010) point out, "The relevant issue is not

whether measures . . . extracted from shareholder letters include measurement error, but rather

whether this measurement error is great enough to prevent detection of relationships that are, in

fact, statistically significant" (p. 124). The number of significant results found in the current

study suggests that issues' concerning the use of CEO letters has been mitigated. Regardless,

these concerns suggest avenues for future research that might involve the use of other types of

communications (e.g., CEO speeches, internal organizational documents, press releases) as well

as the use of traditional quantitative measures (e.g., surveys). Similar results with the use of

additional types of media would be welcomed as verification of the nature and related outcomes

of organizational hardiness.

A second limitation relates to generalizability. Given the small number of firms sampled

from one industry. Ideally, empirical investigations benefit from large numbers in order to

minimize concerns with Type I error rates in regression based examinations (Maxwell & Delaney, 2004). However, the longitudinal design of the current study mitigates this concern by providing a larger number of observations (i.e. 200 instead of 20) than in cross-sectional designs. Furthermore, similar sample sizes have been used in similar studies (e.g., Marcel et al., 2010). These facts, along with the number of significant results obtained, suggest that the sample size was less of a problem. Sampling from a single industry is less than ideal. However, such studies are often necessary because of the need to control for between industry variations in environmental conditions, language used in the CEO letters, and overall economic impact (Short & Palmer, 2003). Finally, all of the firms in the study are large, publicly held banks with core lines of business in the commercial banking industry. Managers of these types of firms might differ qualitatively from managers of other types of organizations (i.e. smaller and privately held; Short & Palmer, 2003). However, although the similarity between the sample banks may impede generalizability to one degree or another, the similarity facilitates the examination of the key processes of interest (i.e. sensemaking, organizational identity, enactment, and organizational hardiness). Future studies might explore other organizational characteristics (e.g., size, age) that might moderate the organizational hardiness/organizational performance relationship.

A final limitation is the choice of financial indicators as the dependent variables. Undoubtedly there exist more indicators of organizational performance than usually can and should be used when exploring the effects of organizational phenomena (Richards et al., 2009). However, there are reasons why the particular set of organizational performance metrics was employed in this study. First, the longitudinal design prevented exploration of broader measures of organizational effectiveness (e.g., employee satisfaction) because these measures were not available through annual reports and could not be obtained through survey methods.

Additionally, the metrics that were chosen (e.g., return on assets, earnings per share) tended to be the metrics that were most interesting to important stakeholders (i.e. they were discussed extensively in the CEO letters across organizations). Thus the metrics used in this study have merit. However, the advancement of the organizational hardiness concept would be well served by future studies that explore a broader set of organizational performance criteria including, but not limited to, non-financial measures. Additionally, all of the organizations in the current study were solvent throughout the period observed. Future studies could also look at samples involving survivors and non-survivors to determine the effect of organizational hardiness has on determining the survival of an organization.

CHAPTER 6

Conclusion

For the foreseeable future the economic environment will be most accurately described as involving continuous change, unpredictable conditions, and ever increasing complexity (Heifetz, Grashow, & Linsky, 2009). As such, organizational scholars must come to some understanding about organizational characteristics that promote performance and which distinguish one organization from another. This study addresses the serious implications of environmental uncertainty and unpredictability by examining the characteristics of organizations that demonstrate a greater ability to withstand these conditions. Conducting a longitudinal study of the banking industry during the years 2000-2009 allowed for the unique opportunity of examining a generally turbulent and unpredictable industry under exacerbated conditions. Under the extraordinary conditions of a global economic downturn, the organizational hardiness construct delineated significant differences in performance between organizations.

Although previous examinations of organizational performance have provided valuable information regarding the external environment, the development of organizational routines, and idiosyncratic organizational characteristics, they have done so without integrating these elements. The development of organizational hardiness provides a construct that can explain the confluence of internal and external factors relating to organizational performance while simultaneously providing a mechanism for comparison across organizations. Moreover, this study provides an empirical foundation that suggests organizational hardiness has the ability to accomplish these goals. Hence, this study introduces a new construct that provides a fertile area of exploration for organizational scholars and a set of tangible and accessible tools for organizational decision-makers.

Beyond the contributions to organizational performance that the introduction of organizational hardiness is poised to make, this study speaks strongly to the individual literatures that converge in this new construct. The sensemaking literature has been plagued by mixed results. However, the research design (i.e. longitudinal) of this study provides results that suggest, over time, positive strategic interpretations are interpreted with positive organizational performance. For years scholars have demonstrated the positive results of organizational identification at the individual level. This study speaks to a vital, but often overlooked, aspect of the identification process. Namely, organizations must provide an identity for individual organizational members to identify with. Finally, this study promotes the notion that there is another evolution in the relationship between organization and environment. Specifically, scholars have moved from the organization as a closed system operating with little regard to the environment to the organization as an open system interacting with the environment. This study suggests that future studies must consider that the organization creates its environment and therefore is responsible for many of the conditions it must respond to.

The development of the organizational hardiness construct and the new insights for sensemaking, organizational identity, and enactment provide organizational scholars with conceptual, methodological, and operational fodder for future studies concerning organizational performance, and ultimately, survival.

REFERENCES

Albert, S. & Whetten, D. 1985. Organizational identity. In L.L. Cummings & B.M. Staw (Eds.), Research in organizational behavior, vol. 7: 263-295. Greenwich, CT: JAI Press.

Albert, S., Ashforth, B. E., & Dutton, J. E. 2000. Organizational Identity and Identification: charting new waters and building new bridges. *Academy of Management Review,* 25(1), 13-17.

Amburgey, T. L., & Rao, H. 1996. Organizational Ecology: Past, Present, and Future Directions. *Academy of Management Journal,* 39: 1265-1286.

Anderson, P. 1999. Complexity theory and organization science. *Organization Science*, 10(3): 216-232.

Anderson, M. H. & Nichols, M. L. 2007. Information Gathering and Changes in Threat and Opportunity Perceptions. *Journal of Management Studies,* 44(3), 367-387.

Ashforth, B.E., Harrison, S.H. & Corley, K.G. 2008. Identification in organizations: An examination of four fundamental questions. *Journal of Management*, 34(3): 325-374.

Ashforth, B. E., & Mael, F. 1989. Social Identity Theory and the Organization. *Academy of Management Review*, 14(1): 20-39.

Atella, M. D. 1999. Case studies in the Development of Organizational Hardiness: From theory to practice. *Consulting Psychology Journal: Practice and Research,* 51(2): 125-134.

Bantel, K. A. & Osborn, R. N. 1995. The Influence of Performance, Environment, and Size of the Identifiability of Firm Strategy. *British Journal of Management,* 6, 235-248.

Barr, P. S. 1998. Adapting to Unfamiliar Environmental Events: A look at the evolution of interpretation and its role in strategic change. *Organization Science,* 9(6), 644-669.

Barr, P.S. & Huff, A.S. 1997. Seeing isn't believing: understanding diversity in the timing of strategic response. *Journal of Management Studies 34(3)*, 337–370.

Barr, P. S. & Glynn, M. A. 2004. Cultural variations in strategic issue interpretation: relating cultural uncertainty avoidance to controllability in discriminating threat and opportunity. *Strategic Management Journal,* 25, 59-67.

Bartone, P. T. 2006. Resilience under military operational stress: can leaders influence hardiness? *Military Psychology,* 18, S131-S148.

Bartone, P. T., Johnsen, B. H., Eid, J., Brun, W., & Laberg, J. C. 2002. Factors influencing small-unit cohesion in Norwegian Navy Officer cadets. *Military Psychology,* 14(1), 1-22.

Bartone, P. T., Roland, R. R., Picano, J. J., & Williams, T. 2008. Psychological hardiness predicts success in US Army Special Forces candidates. *International Journal of Selection and Assessment*, 16(1): 78-81.

Bernas, K. H. & Major, D. A. 2000. Contributors to stress resistance: testing a model of women's work-family conflict. *Psychology of Women Quarterly,* 24, 170-178.

Brown, S. L. and Eisenhardt, K. 1997. The Art of Continuous Change: Linking Complexity Theory and Time-paced Evolution in Relentlessly Shifting Organizations. *Administrative Science Quarterly*, 42: 1-34.

Cannon M. D. & Edmondson, A. C. 2005. Failing to learn and learning to fail (intelligently): How great organizations put failure to work to innovate and improve. *Long Range Planning,* 38, 299-319.

Chan, D. W. 2000. Dimensionality of hardiness and its role in the stress-distress relationship among Chinese adolescents in Hong Kong. *Journal of Youth and Adolescence,* 29(2), 147-161.

Chattopadhyay, P., Glick, W. H., & Huber, G. P. 2001. Organizational actions in response to threats and opportunities. *Academy of Management Journal,* 44(5): 937-955.

Chen, M.-J. 1996. Competitor Analysis and Interfirm Rivalry: Toward a Theoretical Integration. *Academy of Management Review*, 21(1): 100-134.

Child, J. 1972. Organizational Structure, Environment and Performance: The Role of Strategic Choice, *Sociology*, 6(1), 1-22.

Child, J. 1997. Strategic Choice in the Analysis of Action, Structure, Organizations and Environment: Retrospect and Prospect. *Organization Studies*, 18(1), 43-76.

Chiles, T. H., Meyer, A. D., & Hench, T. J. 2004. Organizational emergence: The origin and transformation of Branson, Missouri's musical theaters. *Organization Science*, 15(5): 499-519.

Choi, T.Y., Dooley, K.J. & Rungtusanatham, M. 2001. Supply networks and complex adaptive systems: Control versus emergence. *Journal of Operations Management*, 19: 351-366

Cohen, J., Cohen, P., West, S., & Aiken, L. S. 2003. Applied multiple regression/correlation analysis for the behavioral sciences. Lawrence Erlbaum Associates.

Cole, M. S., & Bruch, H. 2006. Organizational identity strength, identification, and commitment and their relationship to turnover intention: Does organizational hierarchy matter? *Journal of Organizational Behaviour,* 27, 585-605.

Cole, M. S., Bruch, H., & Vogel, B. 2006. Emotion as mediators of the relations between

  perceived supervisor support and psychological hardiness on employee cynicism. *Journal*

  of Organizational Behavior, 27(4): 463-484.

Corley, K. G., Harquail, C. V., Pratt, M. G., Glynn, M. A., Fiol, C. M., & Hatch, M. J. 2006.

  Guiding Organizational Identity Through Aged Adolescence. *Journal of Management*

  Inquiry, 15, 85-99.

Cornelissen, J. P., Haslam, S. A., & Balmer, J. M. T. 2007. Social Identity, Organizational

  Identity, and Corporate Identity: Towards an integrated understanding of processes,

  patternings, and products. *British Journal of Management,* 18, S1-S16.

Cyert, R. M. & March, J. G. 1963. *A behavioral theory of the firm.* Englewood Cliffs, NJ:

  Prentice-Hall.

D'Aunno, T. & Sutton, R. I. 1992. The responses of drug abuse treatment organizations to

  financial adversity: A partial test of the threat-rigidity thesis. *Journal of Management,*

  18, 117-131.

D'Aveni, R. A. & MacMillan, I. C. 1990. Crisis and the content of managerial communications:

  a study of the focus of attention of top managers in surviving and failing firms.

  Administrative Science Quarterly, 35, 634-657.

Daft, R. L., & Weick, K. E. 1984. Toward a model of organizations as interpretation systems.

  Academy of Management Review, 9(2): 284-295.

Daneels, E. 2003. Tight-loose coupling with customers: The enactment of customer

  orientation. *Strategic Management Journal,* 24(6), 559-576.

Deephouse, D. L. 1999. To be different or to be the same? It's a question (and theory) of

  strategic balance. *Strategic Management Journal, 20(2),* 147-166.

Desarbo, W.S., Grewal, R., & Wang, R. 2009. Dynamic Strategic Groups: deriving spatial

    evolutionary paths. *Strategic Management Journal,* 30, 1420-1439.

Dougherty, D., Borrelli, L., Munir, K., & O'Sullivan, A. 2000. Systems of organizational

    sensemaking for sustained product innovation. *Journal of Engineering and Technology*

    Management, 17: 321-355.

Dutton, J.E., & Duncan, R.B. 1987. The creation of momentum for change through the process

    of strategic issue diagnosis. *Strategic Management Journal*, *18*, 279-295.

Dutton, J. & Dukerich, J. 1991. Keeping an eye on the mirror: Image and identity in

    organizational adaptation. *Academy of Management Journal* 34 (3): 517-554.

Dutton, J.E., Dukerich, J.M. & Harquail, C.V. 1994. Organizational images and member

    identification. *Administrative Science Quarterly*, 39, 239-263.

Dutton, J. & Jackson, S. E. 1987. Categorizing Strategic Issues: Links to Organizational Action.

    Academy of Management Review, 12(1), 76-90.

Edwards, J. R. 2001. Multidimensional constructs in organizational behavior research: An

    integrative analytical framework. *Organizational Research Methods, 4,* 144-192.

Eisenhardt, K. M. 1989. Building theories from case study research. *Academy of Management*

    Review, 14, 532-550.

Eisenhardt, K. M. & Martin, J. A. 2000. Dynamic Capabilities: What are they? *Strategic*

    Management Journal, 21(10/11), 1105-1121.

Ellemers, N., de Gilder, D., & Haslam, S. A. 2004. Motivating individuals and groups at work:

    A social identity perspective on leadership and group performance. *Academy of*

    Management Review, 29, 459-478.

Elsbach, K. D., & Kramer, R. M. 1996. Members' Responses to Organizational Identity Threats: Encountering and countering the *Business Week* Rankings. *Administrative Science Quarterly,* 41, 442-476.

Ferrier, W. J., Smith, K. G., & Grimm, C. M. 1999. The Role of Competitive Action in Market Share Erosion and Industry Dethronement: A Study of Industry Leaders and Challengers. *Academy of Management Journal*, 42(4): 372-388.

Fiol, C. M. 1995. Corporate Communications: Comparing Executives' Private and Public Statements. *Academy of Management Journal,* 38(2), 522-536.

Fiol, C. M. 2002. Capitalizing on Paradox: the role of language in transforming organizational identities. *Organization Science,* 13(6), 653-666.

Garrosa, E., Moreno-Jimenez, B., Liang, Y., Gonzalez, J. L. 2008. The relationship between socio-demographic variables, job stressors, and hardy personality in nurses: an exploratory study. *International Journal of Nursing Studies,* 45, 418-427.

Gersick, C.J., 1991. Revolutionary change theories: A multilevel exploration of the punctuated equilibrium paradigm. *Academy of Management Review*, 16: 10-36.

Ghorbani, Nima, Watson, P. J., & Morris, R. J. 2000. Personality, stress, and mental health: Evidence of relationships in a sample of Iranian managers. *Personality and Individual Differences,* 28(4), 647-657.

Ginsberg, A. & Venkatraman, N. 1992. Institutional initiatives for technological change: from issue interpretation to strategic choice. *Organization Studies,* 16, 425-448.

Gioia, D. A., & Chittipeddi, K. 1991. Sensemaking and Sensegiving in Strategic Change Initiation. *Strategic Management Journal*, 12(6): 433-448.

Gioia, D. A., Schultz, M. & Corley, K. G. 2000. Organizational Identity, Image, and Adaptive Instability. *Academy of Management Review,* 25(1), 63-81.

Gioia, D. A., & Thomas, J. B. 1996. Identity, image, and issue interpretation: Sensemaking during strategic change in academia. *Administrative Science Quarterly*, 41(3): 370-403.

Gleason, J. R. 1999. Within subjects (repeated measures) ANOVA, including between subjects factors. *Stata Technical Bulleting, 8(47).*

Glynn, M. A. 2000. When Cymbals Become Symbols: conflict over organizational identity within a symphony orchestra. *Organization Science,* 11(3), 285-298.

Golby, J., & Sheard, M. 2004. Mental toughness and hardiness at different levels of rugby league. *Personality and Individual Differences*, 37(5): 933-942.

Golden-Biddle, K. & Rao, H. 1997. Breaches in the boardroom: Organizational identity and conflicts of commitment in a nonprofit organization. *Organization Science,* 8(6), 593-611.

Grant, A. M., Dutton, J. E., & Rosso, B. D. 2008. Giving commitment: Employee support programs and the prosocial sensemaking process. *Academy of Management Journal,* 51, 898-918.

Hall, D. T. & Mansfield, R. 1971. Organizational and Individual Response to External Stress. *Administrative Science Quarterly,* 16(4), 533-547.

Hambrick, D. C., & Mason, P. A. 1984. Upper Echelons: The Organization as a Reflection of Its Top Managers. *Academy of Management Review*, 9(2), 193-206.

Hannan, M.T. and J. Freeman. 1989. *Organizational Ecology.* Cambridge, MA: Harvard University Press.

Heifet*z*, Ronald, Grashow, Alexander, & Linsky, Marty. 2009. Leadership in a (Permanent) Crisis. *Harvard Business Review*, 87(7/8), p62-69

Hogg, M.A. & Terry, D.J. 2000. Social identity and self-categorization processes in organizational contexts. *Academy of Management Review*, Vol. 25, no. 1, 121-140.

Jackson, S., & Dutton, J. 1988. Discerning threats and opportunities. *Administrative Science Quarterly,* 33: 370-387.

Kaheman, D. & Tversky, A. 1979. Prospect theory: An analysis of decision under risk. *Econometrica*, 47(2), 263-291.

Kauffman, S.A. 1995. *At home in the universe: The search for the laws of self-organization and complexity*. New York: Oxford University Press.

Kobasa, S. C. 1979. Stressful life events, personality, and health—inquiry into hardiness. *Journal of Personality and Social Psychology*, 37(1): 1-11.

Kobasa, S. C., Maddi, S. R., & Kahn, S. 1982. Hardiness and health: a prospective study. *Journal of Personality and Social Psychology*, 42(1): 168-177.

Kobasa, S. C., Maddi, S. R., Puccetti, M. C., & Zola, M. A. 1985. Effectiveness of hardiness, exercise, and social support as resources against illness. *Journal of Psychosomatic Research,* 29(5), 525-533

Kraaijenbrink, J., Spender, J. C., & Groen, A. J. 2010. The Resource Based View: A Review and assessment of its critiques. *Journal of Management,* 36(1), 349-372.

Lambert, V. A., Lambert, C. E. & Yamase, H. 2003. Psychological hardiness, workplace stress and related stress reduction strategies. *Nursing and Health Sciences, 5,* 181-184.

Länsisalmi, H. Peiró, J. & Kivimäki, M. 2000. Collective stress and coping in the context of organizational culture. *European Journal of Work and Organizational Psychology*, 9 (4): 527-559.

Law, K.S., Wong, C., & Mobley, W. H. 1998. Toward a taxonomy of multidimensional constructs. *Academy of Management Journal, 23(4),* 741-755.

Lengnick-Hall, C. A., & Beck, T. E. 2005. Adaptive fit versus robust transformation: How organizations respond to environmental change. *Journal of Management*, 31(5): 738-757.

Liat, K. 2009. Burnout, perceived stress, and resources among educated, working Jews and Moslem Arabs in Israel: A cross-cultural perspective. *Journal of Cross-Cultural Psychology,* 40(5), 894-900.

Maddi, S. R. 2002. The story of hardiness: twenty years of theorizing, research, and practice. *Consulting Psychology Journal: Research and Practice,* 173-185.

Maddi, S. R. 2004. Hardiness: An operationalization of existential courage. *Journal of Humanistic Psychology*, 44(3): 279-298.

Maddi, S. R., Harvey, R. H., Khoshaba, D. M., Lu, J. L., Persico, M., & Brow, M. 2006. The personality construct of hardiness, III: Relationships with repression, innovativeness, authoritarianism, and performance. *Journal of Personality*, 74(2): 575-597.

Maddi, S. R., & Hess, M. J. 1992. Personality hardiness and success in basketball. *International Journal of Sport Psychology,* 23: 360-368.

Maddi, S. R., Khoshaba, D. M., & Pammenter, A. 1999. The Hardy Organization: Success by turning change to advantage. *Consulting Psychology Journal: Practice and Research,* 51(2): 117-124.

Maddi, S. R., Khoshaba, D. M., Perisco, M., Lu, J., Harvey, R., & Bleecker, F. 2002. The
Personality construct of Hardiness II: Relationships with Comprehensive tests of
personality and psychopathology. *Journal of Research in Personality,* 36, 72-85.

Maguire, S., & McKelvey, B. 1999. Complexity and management: Moving from fad to firm
foundations. *Emergence,* 1(2): 19-61.

Maitlis, S. 2005. The social processes of organizational sensemaking. *Academy of Management
Journal*, 48(1): 21-49.

March, J.G. 1991. Exploration and exploitation in organizational learning. *Organization Science*
2 (1): 71-87.

Marquis, C. & Lounsbury, M. 2007. Vive la resistance: competing logics and the consolidation
of U.S. community banking. *Academy of Management Journal,* 50(4), 799-820.

Maxwell, S. E., & Delaney, H. D. 2004. *Designing experiments and analyzing data: A model
comparison perspective* (2nd ed.). Mahwah, NJ: Lawrence Erlbaum Associates.

McKelvey, B. 1999. Avoiding complexity catastrophe in coevolutionary pockets: Strategies for
rugged landscapes. *Organization Science*, 10(3): 294-321.

Meyer, A.D. 1982. Adapting to environmental jolts. *Administrative Science Quarterly, 27*: 515-
537.

Motowidlo, S. J. 2000. Some basic issues related to contextual performance and organizational

citizenship behavior in human resource management. *Human Resource Management
Review, 10(1),* 115-126.

Nag, R., Hambrick, D.C., & Chen, M-J. 2007. "What is strategic management, really? Inductive
derivation of a consensus definition of the field", *Strategic Management Journal*, *28 (9)*,
935-955.

Neill, S., McKee, D. O., Rose, G. M. 2007. Developing the organization's sensemaking capability: precursor to an adaptive strategic response. *Industrial Marketing Management, 36*(6), 731-744.

Nelson, R. R. & Winter, S.G. 1982. An Evolutionary Theory of Economic Change. Harvard University Press.

Nicolis, G., & Prigogine, I. 1989. *Exploring complexity: an introduction.* New York: W. H. Freeman.

Nonaka, I. 1994. A dynamic theory of organizational knowledge creation. *Organization Science,* 5: 14-37.

Olkkonen, M. & Lipponen, J. 2006. Relationships between organizational justice, identification with organization and work unit, and group related outcomes. *Organizational Behavior & Human Decision Processes,* 100(2), 202-215.

Orton, J. D. 2000. Enactment, sensemaking, and decision making; redesign processes in the 1976 reorganization of US intelligence. *Journal of Management Studies,* 37(2): 213-234.

Osborne, J. D., Stubbart, C. I., & Ramaprasad, A. 2001. Strategic Groups and Competitive Enactment: A Study of Dynamic Relationships between Mental Models and Performance. *Strategic Management Journal,* 22(5), 435-454.

Pascale, R. T., Milleman, M., & Gioja, L. 2000. *Surfing the Edge of Chaos*. New York: Three Rivers Press.

Pfeffer, J. & Salancik, G.R. 1978. *The external control of organizations*. New York: Harper & Row.

Phillips, M. E. 1994. Industry Mindsets: Exploring the cultures of two macro-organizational settings. *Organizational Science,* 5, 384-402.

Plambeck, N. & Weber, K. 2009. CEO Ambivalence and Responses to Strategic Issues. *Organization Science,* 20(6), 993-1010.

Plowman, D. A, Baker, L. T., Beck, T.E., Kulkarni, J., Solansky, S. T., & Travis, D. V. 2007. Radical change accidentally: the emergence and amplification of small change. *Academy of Management Journal,* 50(3): 515-543.

Porac, J. F., Thomas, H., & Baden-Fuller, C. 1989. Competitive groups as cognitive communities: the case of Scottish Knitwear manufacturers. *Journal of Management Studies,* 26(4), 397-416.

Prigogine, I., & Stengers, I. 1984. *Order out of chaos: Man's new dialogue with nature.* Boulder, CO: New Science Library.

Rabe-Hesketh, S. & Skrondal, A. 2008. *Multilevel and Longitudinal Modeling Using Stata.* (Second Edition). College Station, TX: Stata Press.

Reger, R.K & Huff, A. S. 1993. Strategic Groups: a cognitive perspective. *Strategic Management Journal,* 14, 103-124.

Richard, P. J., Devinney, T. M., Yip, G. S., & Johnson, G. 2009. Measuring Organizational Performance: Towards Methodological Best Practice. *Journal of Management,* 35(3), 718-804.

Riketta, M. 2005. Organizational identification: A meta-analysis. *Journal of Vocational Behavior*, 66(2): 358-384.

Roberts, C. W. 1997. Introduction. In C.W. Roberts, *Text Analysis for the Social Sciences* (pp. 1-9). New Jersey: Lawrence Erlbaum Associates.

Romanelli, E. & Tushman, M. L. 1994. Organizational transformation as punctuated equilibrium: An empirical test. *Academy of Management Journal,* 37: 1141-1166.

Rush, M. C., Schoel, W. A., & Barnard, S. M. 1995. Psychological resiliency in the public

        sector—hardiness and pressure for change. *Journal of Vocational Behavior*, 46(1): 17-39.

Santos, F. M. & Eisenhardt, K. M. 2005. Organizational boundaries and theories of

        Organization. *Organization Science*, 16: 491-508.

Scott, W.R., 2002. *Organizations: Rational, Natural and Open Systems*, Englewood Cliffs,

        N.J.: Prentice Hall, 5th edition.

Segars, A. H. & Kohut, G. F. 2001. Strategic communication through the world wide web: an

        empirical model of effectiveness in the CEO's letter to shareholders. *Journal of*

        Management Studies, 38(4), 535-556.

Selye, H. 1956. *The Stress of Life.* New York: McGraw-Hill.

Sharma, S. 2000. Managerial interpretations and organizational context as predictors of

        corporate choice of environmental strategy. *Academy of Management Journal,* 43(4),

        681-697.

Sheard, M. 2009. Hardiness, commitment, gender, and age differentiate university academic

        performance. *British Journal of Educational Psychology,* 79(1), 189-204.

Shimuzu, K. 2007. Prospect theory, behavioral theory, and the threat-rigidity hypothesis:

        Combinative effects on organizational decisions to divest formerly acquired units.

        Academy of Management Journal, 50(6), 1495-1514.

Short, J. C. & Palmer, T. B. 2003. Organizational Performance Referents: an empirical

        examination of their content and influences. *Organizational Behavior and Human*

        Decision Processes, 90, 209-224.

Short, J. C. & Palmer, T. B. 2008. The Application of DICTION to Content Analysis Research

        in Strategic Management. *Organizational Research Methods,* 11(4), 727-752.

Siggelkow, N. & Rivkin, J. W. 2005. Speed and search: Designing organizations for turbulence and complexity. *Organization Science*, 16, 101-122.

Smircich, L., & Stubbart, C. 1985. Strategic management in an enacted world. *Academy of Management Review*, 10(4): 724-736.

Sonpar, K. & Golden-Biddle, K. 2008. Using content analysis to elaborate adolescent theories of organization. *Organizational Research Methods, 11(4),* 795-814.

Stacey, R. 1992. *Managing the unknowable.* San Francisco: Jossey-Bass.

Stacey, R. D. 1995. The science of complexity—an alternative perspective for strategic change processes. *Strategic Management Journal*, 16(6): 477-495.

Stahlberg, D., Eller, F., Maass, A., & Frey, D. 1995. We knew it all along—hindsight bias in groups. *Organizational Behavior and Human Decision Processes, 63(1),* 46-58.

Staw, B. M., Sandelands, L. E., & Dutton, J. E. 1981. Threat-rigidity effects in organizational behavior: A multilevel analysis. *Administrative Science Quarterly*, 26(4): 501-524.

Stone, P. J. 1997. Thematic Text Analysis: New agendas for analyzing text content. In C.W. Roberts, *Text Analysis for the Social Sciences* (pp. 35-54)*.* New Jersey: Lawrence Erlbaum Associates.

Tajfel, H. 1974. Social Identity and intergroup behavior. *Social Science Information,* 14, 65-93.

Teece, D.J., Pisano, G., & Shuen, A. 1997. Dynamic capabilities and strategic management. *Strategic Management Journal,* 18(7), 509-533.

Thomas, J. B., Clark, S. M., & Gioia, D. A. 1993. Strategic sensemaking and organizational performance: linkages among scanning, interpretation, action, and outcomes. *Academy of Management Journal,* 36(2): 239-270.

Thomas, J. B., Sussman, S. W., & Henderson, J. C. 2001. Understanding "Strategic Learning": Linking Organizational Learning, Knowledge Management, and Sensemaking. *Organization Science,* 12(3), 331-345.

Tuggle, C. S., Schnatterly, K., & Johnson, R.A. 2010. Attention patterns in the boardroom: How board composition and processes affect discussion of entrepreneurial issues. *Academy of Management Journal, 53(3),* 550-571.

Uhl-Bien, M., Marion, R. & McKelvey, B. 2007. Complexity leadership: Shifting leadership from the industrial age to the knowledge era. *The Leadership Quarterly*, 18: 298-318.

Van Dick, R., Wagner, U., Stellmacher, J., & Christ, O. 2004. The utility of a broader conceptualization of organizational identification: which aspects really matter? *Journal of Occupational and Organizational Psychology,* 77: 171-191.

van Knippenberg, D. & van Schie, C. 2000. Foci and correlates of organizational identification. *Journal of Occupational and Organizational Psychology,* 73, 137-147.

van Knippenberg, D., & Sleebos, E. 2006. Organizational identification versus organizational commitment: Self-definition, social exchange, and job attitudes. *Journal of Organizational Behavior*, 27(5): 571-584.

Wagner, J. A. & Gooding, R. Z. 1997. Equivocal information and attribution: an investigation of patterns of managerial sensemaking. *Strategic Management Journal*, 18(4), 275-286.

Weber, R. P. 1985. *Basic Content Analysis.* Sage Publications: Beverly Hills.

Weick, K. 1979. The social psychology of organizing. New York: Random House.

Weick, K. E. 1988. Enacted sensemaking in crisis situations. *Journal of Management Studies*, 25(4): 305-317.

Weick, K. E. 1993. The collapse of sensemaking in organizations—the Mann Gulch disaster. *Administrative Science Quarterly*, 38(4): 628-652.

Weick, K. E. 1995. *Sensemaking in organizations.* Thousand Oaks, CA: Sage.

Weick, K.E., 1999. *Making Sense of the Organization.* Blackwell: Malden: MA.

Weick, K. E. & Sutcliffe, K. M. 2001. *Managing the Unexpected: Assuring High Performance in an Age of Complexity.* San Francisco : Jossey-Bass.

Weick, K. E., Sutcliffe, K. M., & Obstfeld, D. 2005. Organizing and the process of sensemaking. *Organization Science*, 16(4): 409-421.

Weigelt, C. 2009. The impact of outsourcing new technologies on integrative capabilities and performance. *Strategic Management Journal,* 30, 595-616.

Wernerfelt, B. 1984. A resource-based view of the firm. *Strategic Management Journal*, *5*, 171–180.

Wheatley, M. 1999. *Leadership in organizations.* Upper Saddle River, NJ: Pearson Prentice Hall.

Whetten, D. A. 2006. Albert and Whetten Revisited: Strengthening the Concept of Organizational Identity. *Journal of Management Inquiry,* 15, 219-234.

Wiebe, D. J. 1991. Hardiness and stress moderation: a test of proposed mechanisms. *Journal of Personality and Social Psychology*, 60(1): 89-99.

Wilkinson A. & Mellahi, K. 2005. Organizational Failure: Introduction to the Special Issue. *Long Range Planning,* 38, 233-238.

Zaheer, S. 1995. Overcoming the Liability of Foreignness. *Strategic Management Journal,* 38(2), 341-363.

Zakin, G., Solomon, Z., & Neria, Y. 2003. Hardiness, attachment style, and long term

psychological distress among Israeli POWs and combat veterans. *Personality &*

Individual Differences, 34(5), 819-829.

Appendices

Appendix A

Table A-1. Descriptive Statistics

Variable	Variable Name	Obs	Mean	Std Dev	Min	Max
Organizational Hardiness	Org Hard	200	0.15	0.02	0.08	0.20
Sensemaking	Sense	200	0.03	0.01	0.01	0.06
Enactment	Enact	200	0.02	0.01	0.01	0.04
Organizational Identity	Org ID	200	0.09	0.02	0.05	0.14
Total Shareholder Return	TSR	200	-0.02	0.30	-0.83	1.07
Basic Earnings Per Share	BEPS	200	2.48	2.54	-9.92	8.89
Return on Assets	ROA	200	0.01	0.01	-0.06	0.05
Market Value	MKT VAL	200	12.89	1.34	8.28	15.77
Complexity	COMPLEX	200	1.55	0.60	-0.18	3.49
Focus	FOCUS	200	0.49	0.82	-2.20	2.60
Strategy	STRATEGY	200	0.99	0.44	0.00	2.80

Table A-2. Correlations

	Org Hard	Sense	Enact	Org ID	TSR	BEPS	ROA	MKT VAL	COMPLEX	FOCUS	STRATEGY
Org Hard	1.00										
Sense	**0.63**	1.00									
Enact	**0.50**	**0.24**	1.00								
Org ID	**0.85**	**0.21**	**0.20**	1.00							
TSR	**0.23**	**0.32**	0.10	0.10	1.00						
BEPS	**0.23**	**0.24**	**0.17**	0.12	**0.39**	1.00					
ROA	**0.29**	**0.35**	**0.21**	0.13	**0.43**	**0.68**	1.00				
MKT VAL	**0.18**	0.05	-0.08	**0.25**	**0.20**	**0.43**	**0.35**	1.00			
COMPLEX	0.03	0.10	0.12	-0.06	0.00	0.12	0.08	**-0.33**	1.00		
FOCUS	0.05	**-0.14**	-0.05	**0.17**	**0.16**	0.02	0.06	**0.15**	-0.11	1.00	
STRATEGY	**0.33**	**0.31**	**0.17**	**0.22**	**0.15**	0.17	0.10	-0.07	**0.30**	0.01	1.00

Correlations in Bold Face are significant at the p<.05 level

Table A-3. GLS multiple regressions for Sensemaking, Organizational Identity, and Enactment

Dependent Variable	Independent Variable	B	Std. Error	Z (P>|Z|)	Wald χ^2 (P> $\chi^{2)}$
TSR					25.00 (0.000)
	Sensemaking	9.3716	2.0644	4.54 (0.000)	
	Org Identity	1.2031	1.1726	1.03 (0.305)	
	Enactment	1.8737	3.2080	0.58 (0.559)	
Basic EPS					34.46 (0.000)
	Sensemaking	48.3968	10.9864	4.41 (0.000)	
	Org Identity	10.7655	8.0712	1.34 (0.180)	
	Enactment	45.6947	18.0171	2.54 (0.011)	
ROA					46.97 (0.000)
	Sensemaking	0.2981	0.0552	5.40 (0.000)	
	Org Identity	0.0025	0.0308	0.08 (0.936)	
	Enactment	0.2748	0.0711	3.86 (0.000)	
Market Value					12.76 (0.005)
	Sensemaking	7.8676	3.4856	2.26 (0.024)	
	Org Identity	5.1192	5.1192	2.06 (0.039)	
	Enactment	8.1501	5.1510	1.58 (0.114)	

Table A-4. GLS bivariate regressions for Organizational Hardiness

Dependent Variable	Independent Variable	B	Std. Error	Z (P>|Z|)	Wald χ2 (P> χ2)
TSR					12.43 (0.000)
	Organizational Hardiness	3.1311	0.8882	3.53 (0.000)	
Basic EPS					21.41 (0.000)
	Organizational Hardiness	26.1848	5.6589	4.63 (0.000)	
ROA					12.45 (0.000)
	Organizational Hardiness	0.0882	0.0250	3.53 (0.000)	
Market Value					13.46 (0.000)
	Organizational Hardiness	6.5346	1.7815	3.67 (0.000)	

Table A-5. Within and Between Subjects ANOVA for High and Low Organizational Hardiness

Dependent Variable	df	F	Prob > F	Mean of High Org Hard	Mean of Low Org Hard
TSR	1,18	7.74	0.0123	0.0219	-0.0539
Basic EPS	1,18	2.00	0.1740	2.8541	2.1074
ROA	1,18	13.39	0.0018	0.0164	0.0086
Market Value	1,18	5.27	0.0339	13.4695	12.3159

Table A-6. Moderated multiple regressions for Organizational Hardiness and Complexity

Dependent Variable	Independent Variable	B	Std. Error	Z (P>|Z|)	Wald χ2 (P> χ2)
TSR					11.41 (0.010)
	Org Hardiness	3.02	0.90	3.33 (0.001)	
	Complexity	-0.01	0.03	-0.16 (0.869)	
	Org Hardiness X Complexity	-0.75	1.47	-0.51 (0.613)	
Basic EPS					22.00 (0.000)
	Org Hardiness	27.99	6.09	4.60 (0.0000	
	Complexity	-0.04	0.17	-0.25 (0.804)	
	Org Hardiness X Complexity	0.27	8.08	0.03 (0.973)	
ROA					16.40 (0.001)
	Org Hardiness	0.10	0.03	3.79 (0.000)	
	Complexity	0.00	0.00	0.53 (0.597)	
	Org Hardiness X Complexity	-0.06	0.03	-1.88 (0.060)	
Market Value					10.99 (0.012)
	Org Hardiness	5.75	1.91	3.02 (0.003)	
	Complexity	-0.07	0.05	-1.33 (0.185)	
	Org Hardiness X Complexity	-1.06	2.14	-0.50 (0.620)	

Table A-7. Moderated multiple regressions for Organizational Hardiness and Strategy

Dependent Variable	Independent Variable	B	Std. Error	Z (P>|Z|)	Wald χ2 (P> χ2)
TSR					18.32 (0.000)
	Org Hardiness	2.57	0.96	2.69 (0.007)	
	Strategy	0.57	0.28	2.03 (0.042)	
	Org Hardiness X Strategy	-3.29	1.79	-1.84 (0.066)	
Basic EPS					25.11 (0.000)
	Org Hardiness	27.83	6.18	4.51 (0.000)	
	Strategy	-0.30	1.66	-0.18 (0.857)	
	Org Hardiness X Strategy	3.95	10.97	0.36 (0.719)	
ROA					13.44 (0.004)
	Org Hardiness	0.09	0.02	3.47 (0.001)	
	Strategy	0.00	0.01	0.76 (0.450)	
	Org Hardiness X Strategy	-0.03	0.04	-0.69 (0.491)	
Market Value					20.32 (0.000)
	Org Hardiness	6.10	1.78	3.43 (0.001)	
	Strategy	0.93	0.44	2.09 (0.036)	
	Org Hardiness X Strategy	-5.30	2.90	-1.82 (0.068)	

Table A-8. Moderated multiple regressions for Organizational Hardiness and Focus

Dependent Variable	Independent Variable	B	Std. Error	Z (P>|Z|)	Wald χ2 (P> χ2)
TSR					13.63 (0.003)
	Org Hardiness	3.24	0.88	3.67 (0.000)	
	Focus	0.00	0.02	0.21 (0.834)	
	Org Hardiness X Focus	2.05	1.77	1.16 (0.247)	
Basic EPS					**37.85 (0.000)**
	Org Hardiness	**38.38**	**6.31**	**6.08 (0.000)**	
	Focus	**-0.03**	**0.12**	**-0.25 (0.800)**	
	Org Hardiness X Focus	**30.64**	**10.55**	**2.90 (0.004)**	
ROA					**25.81 (0.000)**
	Org Hardiness	**0.12**	**0.03**	**4.68 (0.000)**	
	Focus	**0.00**	**0.00**	**1.99 (0.047)**	
	Org Hardiness X Focus	**0.15**	**0.05**	**3.29 (0.001)**	
Market Value					**24.64 (0.000)**
	Org Hardiness	**7.74**	**1.75**	**4.41 (0.000)**	
	Focus	**-0.02**	**0.03**	**-0.84 (0.400)**	
	Org Hardiness X Focus	**6.36**	**2.36**	**2.69 (0.007)**	

Appendix B

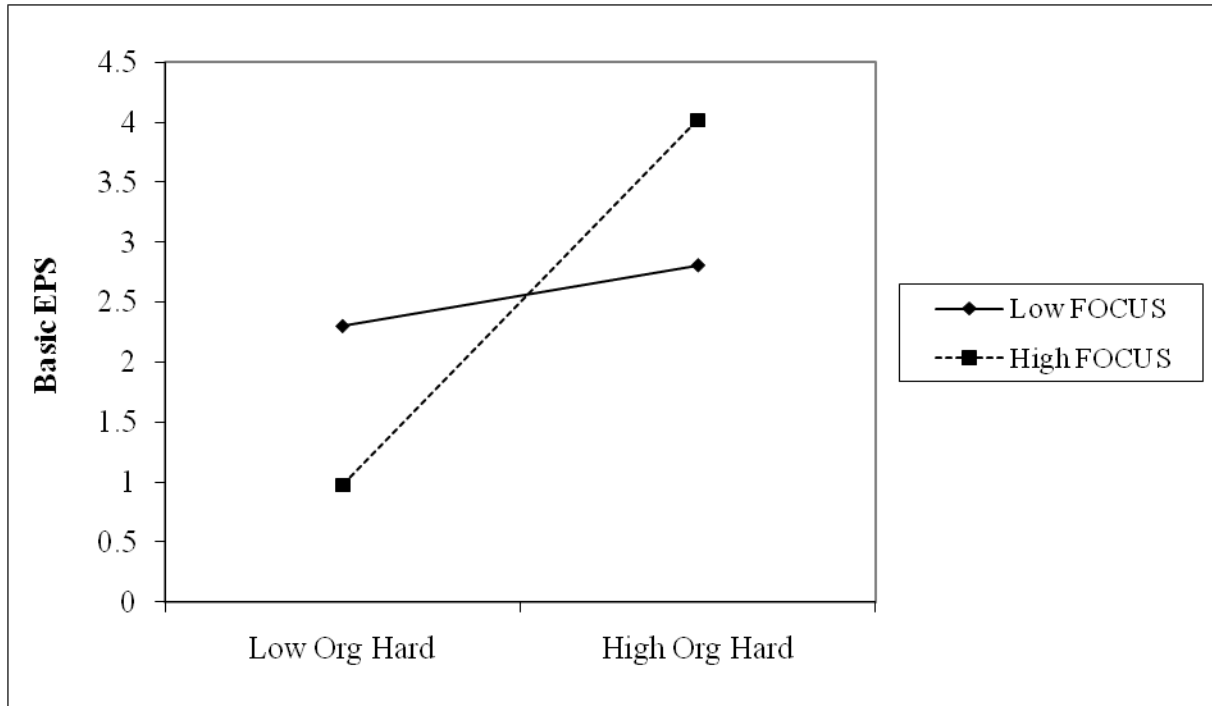Figure 1. Interaction of Organizational Hardiness and Focus for Basic EPS

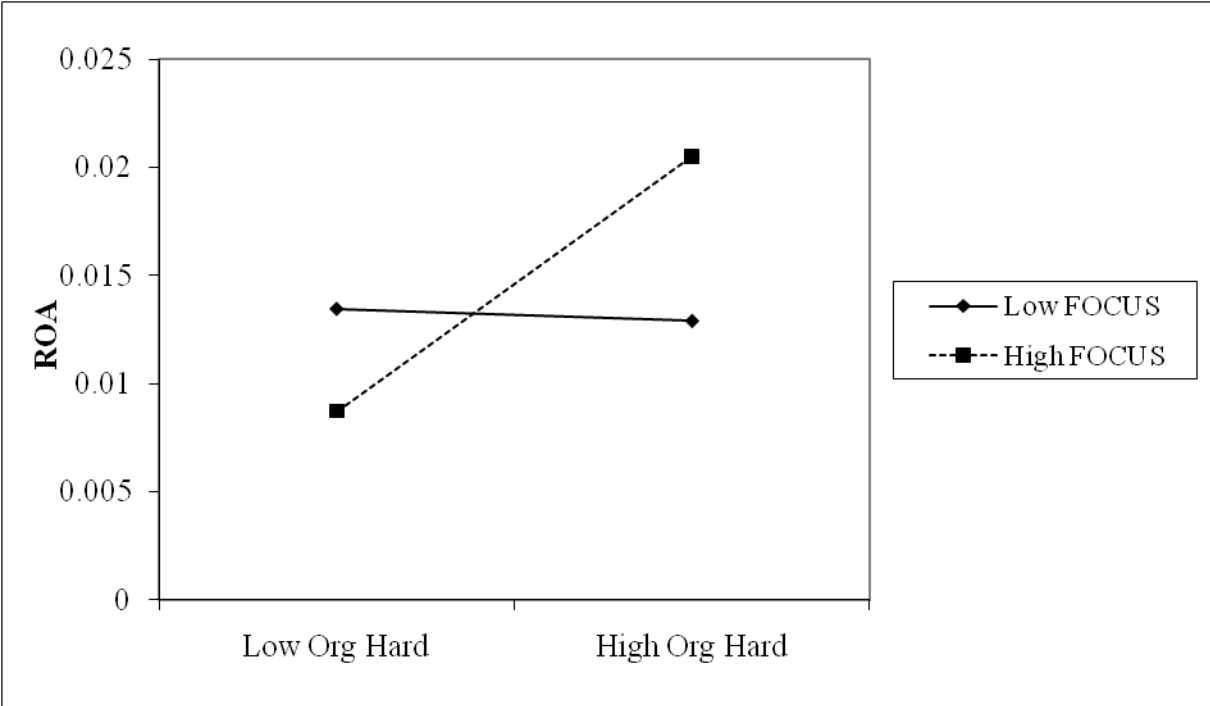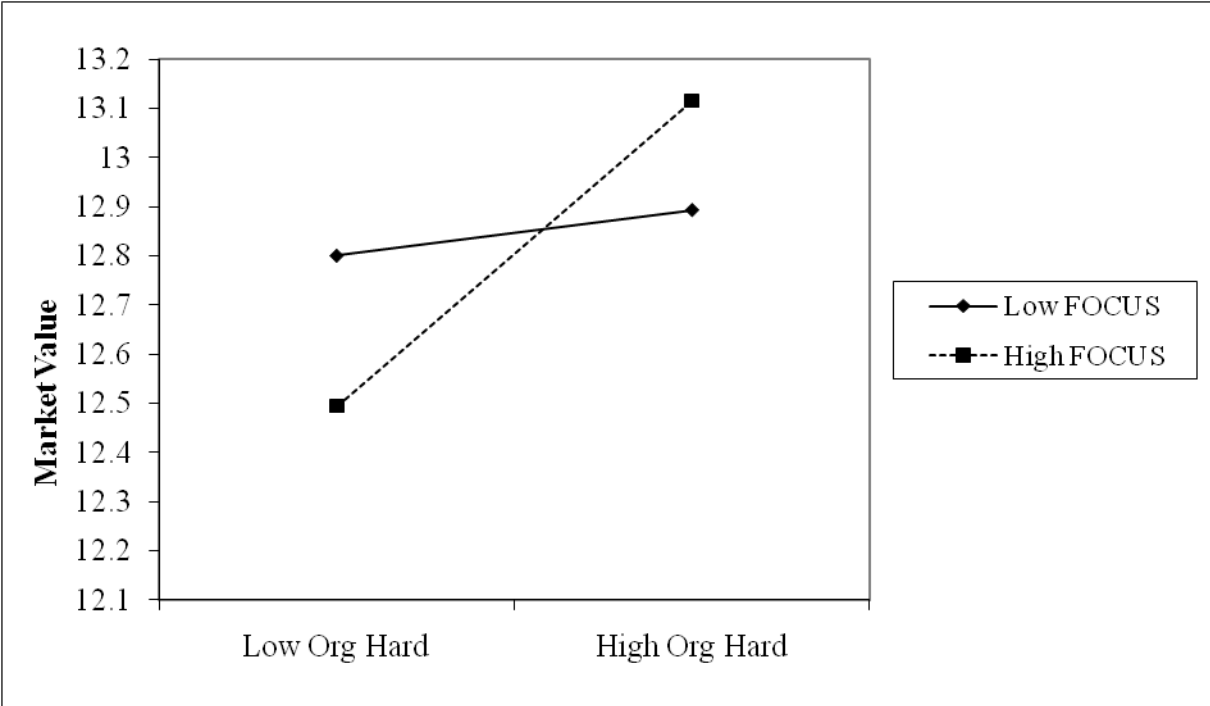Figure 2. Interaction of Organizational Hardiness and Focus for ROA

Figure 3. Interaction of Organizational Hardiness and Focus for Market Value

VITA

Joshua Lloyd Ray was born in Homestead, Florida. He grew in up Knoxville, Tennessee and graduated from Carter High School in 1996. He attended the University of Tennessee, Knoxville and graduated with a Bachelor of Arts degree in Economics with a Minor in Business Administration in 2001. He married Kimberly Ellen McGill in 2004 and they had two daughters: Kathryn born in 2007 and Lauryn born in 2010. His Doctor of Philosophy degree was conferred in the Fall of 2011. Josh has presented the results of his research at several academic meetings and in multiple book chapters and peer reviewed journals. He is pursuing a career in academia and consulting and is currently employed as a Post Doctoral Research Associate researching leadership, motivation, decision-making, innovation, culture, and performance in government and large organizations.