

THE RELATIONSHIP BETWEEN LEADERSHIP COMPETENCE AND
EMPLOYEE ENGAGEMENT
A DISSERTATION
SUBMITTED TO THE FACULTY
OF
THE GRADUATE SCHOOL OF APPLIED & PROFESSIONAL PSYCHOLOGY
OF
RUTGERS
THE STATE UNIVERSITY OF NEW JERSEY
BY
ROBERT N. STROUD
IN PARTIAL FULFILLMENT OF THE
REQUIREMENTS FOR THE DEGREE
OF
DOCTOR OF PSYCHOLOGY

NEW BRUNSWICK, NEW JERSEY

MAY 2009

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ABSTRACT

Employee engagement has been shown to lead to a number of meaningful business benefits, including increased productivity, improved individual and organizational performance, and heightened organizational commitment. Although considerable research has demonstrated the influence of line managers on the engagement of their direct reports, Harter, Schmidt, and Hayes (2002) suggest that companies could learn much about the management practices that drive business outcomes by studying their own highly engaged organizational units. The present study utilized a Fortune 500 multinational corporation's leadership competency model multi-rater feedback and employee engagement instruments to explore the relationship between the leadership competencies of senior organizational leaders ($N=163$) and the engagement of employees in their organizational units. The overall model of leadership competence predicted a significant proportion of variance in engagement when utilizing either the direct report or combined rater source scores. In addition, results indicate that Integrity and Collaboration and Teaming are two specific competencies among senior leaders that appear to have meaningful positive relationships with employee engagement. Contrary to expectations, the bivariate correlation between the Self-Awareness and Adaptability competency of senior leaders and employee engagement was not significant. More surprisingly, when the other competencies were controlled statistically, the relation was negative. Finally, the direct report rater source provided competency scores that were the best predictors of employee engagement. This raises a possible concern that the relation is partly due to engaged workers providing more positive ratings and, similarly, that less engaged workers provide more negative ratings of their leaders. Results are interpreted in the

context of three theoretical perspectives on employee engagement. Limitations, implications for practice, and directions for future research are also discussed.

ACKNOWLEDGEMENTS

As I pause to reflect on the journey of my doctoral training, one that culminates with the work of this dissertation, I am humbled by the many people who have touched my life along the way.

First, I am thankful to the GSAPP faculty who were willing to give a shot to a kid who applied to this school as a junior in college. I am especially grateful to those who have contributed to the organizational psychology program over the years, including Drs. Clay Alderfer, Cary Cherniss, Ruth Orenstein, Kathy Cavallo, and many others. You made this graduate experience one that was so much more to me than an education. I thank you for the many ways that you have helped me grow these past six years – intellectually, emotionally, personally and professionally.

I would also like to acknowledge Kathy McLean and Sylvia Krieger, without whom I am certain that I would have lost my way along time ago in navigating this graduate experience. Your patience and support helped me get to this moment, and for that I thank you.

I wish to thank my committee for sticking with me across four semesters and, at times, through extreme ambiguity as to whether or not this project would ever be realized. You have been remarkable teachers to me. To Cary Cherniss, I thank you for your gentle guidance throughout this process, and for the deep insights you provided as I explored this topic. And to my chair, Nancy Fagley, I am deeply thankful to you for your mentorship and collaboration. I thank you for the countless hours you so graciously put in with me in the data analysis phase of this work, and for working with me through your

sabbatical, which is something you did not have to do. It is an absolute fact that I would not be here if not for your support.

To my cohort group – Drs. Harry Dellane, Corey Fenstermacher, Tovah Stroud, Renee Vieira, and Svetlana Yedreshteyn – I simply cannot imagine what this graduate experience would have been without you. It was a privilege to learn every day from each of you. And as our careers now take us wherever they will, I am forever grateful for the handprints you have left on my heart and mind. I am bolstered by the strength that each of you has given me.

I thank the members of the focal organization of this research who helped to make this study possible. You opened doors that many thought could not be opened. And, several times, when it appeared those doors had again been shut, you persevered to open them once more. I am grateful for your encouragement of and commitment to this research.

And to my family and friends, I thank you for being my bedrock, for providing me love and support of whatever variety I needed at whichever particular point in this journey I needed it. Mom, Dad, and my dear sister Tara, every ounce of inner resource that I possess comes from you. I thank you for giving me the space to be me, for encouraging me to pursue this path, for being mad at this work when I was mad at it, and for being proud of it now that it is done. To my in-laws, Lois and Larry, I thank you for your love and support, and for being invested in my accomplishment of this work as if I were your own son.

Finally, I thank the one, who, over the course of these past six years, started out as a stranger to me, but then became a classmate, a friend, a girlfriend, a fiancé, and now,

my wife – Tovah Stroud. You bless my life every day with your grace, beauty and brilliance. I could not have gotten through this dissertation without your constant source of love and support. Although no words can sufficiently express the effect you have had on all aspects of my life, in relation to this work, I say simply, truly, from the bottom of my heart...thank you.

DEDICATION

To my father, Craig Elliott Stroud, who once said...

“You’ve gotta get through the hard stuff to get to the good stuff.”

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CHAPTER I

INTRODUCTION

“It is about a search, too, for daily meaning as well as daily bread, for recognition as well as cash, for astonishment rather than torpor; in short, for a sort of life rather than a Monday through Friday sort of dying.”

-- Studs Terkel

Background

The past two decades have witnessed extraordinary transformations in the nature of work and organization. Globalization and heightened international competition have spurred a marked increase in mergers and acquisitions, as organizations position themselves to perform in the 21st Century world economy. The modern workplace has experienced a sustained period of delayering management structures, downsizing, and “offshoring,” as organizations strive to contain costs and achieve more with fewer resources (Cartwright & Holmes, 2006). Additionally, organizations have enlisted the massive advances in communications and information technology that have emerged during the last twenty years to streamline planning and decision-making processes, eliminate redundancy of effort, and enhance productivity (Miles, 2001).

Such technologies have enabled collaboration in ways never before seen, which has led to an increase in the ability of organizations to compete globally via virtual teaming, but also to a decline in face-to-face or “real-time” interaction between employees. These advances have triggered subsequent rounds of outsourcing, as well, which began with manufacturing operations, but now increasingly include the once

considered “safe” jobs of white collar, professional knowledge work (Burke & Ng, 2006).

To complicate matters further, major demographic and social shifts associated with the global workforce, the rise in dual income couples, the aging of the Baby Boomers and the convergence of four generations in today’s workplace have introduced additional complexities and challenges into how organizations manage their people. While organizations have benefited from this period of change by way of increased productivity and profitability, there have also been negative impacts on the psyche of the workforce. Job loss, questions about job security, increased anxiety and continued exposure to ambiguity are only some of the many effects that comprise the shadow of this era (Cartwright & Holmes, 2006).

When considered holistically, these changes have resulted in a drastic redefining of the fundamental relationship between employer and employee, characterized as the “psychological contract.” Early work by Argyris (1960), Levinson et al. (1962), Schein (1965) and Kotter (1973) conceptualized the psychological contract in terms of the mutuality of subjective expectations (which are often tacit or unspoken agreements) held by employer and employee that govern the employment relationship. Rousseau (1989) developed the concept further in her seminal work, refining the definition of the psychological contract as the set of beliefs held by an individual about the terms of a reciprocal exchange agreement between the employee and her or his organization. Unlike formal contracts, the psychological contract is by its nature perceptual, and as such, parties in the exchange may have varying interpretations of the obligations that comprise the agreement (McLean Parks & Schmedemann, 1994; Rousseau, 1995, 1998).

For decades, employers provided the promise of lifetime employment, consistent and predictable benefits, and advancement opportunities to competent workers in exchange for their hard work, loyalty and commitment (Bates, 2004; Welbourne, 2007). But during the past twenty years, as organizations laid off droves of employees, as jobs and functions were outsourced to countries with lower wages, and as management ranks were reduced to make organizations more lean and agile – all while technological advances heightened expectations around employee productivity and responsiveness – organizations altered the terms of the contract.

The “new” psychological contract is considerably looser in terms of the amount of reciprocal commitment promised by organizations and their members alike. Employees are expected to take on increased amounts of work, be more flexible, work longer hours and sustain performance through virtually continual states of ambiguity and change. Instead of job security, employees can expect from their organization opportunities to develop “employability security” through skills development and lateral movements across functions and operating entities. In return for fulfilling their end of the new contract, employees also expect increased pay, performance-based rewards, and the ability to move to new roles inside and outside the organization when it makes sense for them to do so in order to manage their own careers (Lester, Clare, & Kickul, 2001; Tsui & Wu, 2005).

During this period of transition to the new employment relationship, some have argued that employee cynicism has emerged in response to perceived “breaches” in the traditional psychological contract (Andersson, 1996; Andersson & Bateman, 1997; Feldman, 2000). Dean et al. (1998) define organizational cynicism as,

A negative attitude toward one's employing organization, comprising three dimensions: (1) a belief that the organization lacks integrity; (2) negative affect toward the organization; and (3) tendencies to disparaging and critical behaviors toward the organization that are consistent with these beliefs and affect. (pp. 345)

Although seldom has empirical work examined the outcomes of employee cynicism (Dean et al, 1998), an insightful study by Andersson and Bateman (1997) found a significant relationship between organizational cynicism and increased fulfillment of unethical requests, as well as decreased organizational citizenship behavior.

Perhaps to counter the tumult associated with the vast changes that have taken place in the nature of work and organization over the past two decades, a recent trend has emerged that shifts focus away from deficiencies (like organizational cynicism) and onto strengths and strengths-based management. Seligman and Csikszentmihalyi (2000) first described what is now considered the positive psychology “movement” in an effort to pay more attention to the study of optimal functioning. Among many streams of new or renewed research that have come forth via positive psychology, *employee engagement* is an area of study and practice that addresses the nature of discretionary, “above-and-beyond” activity in the workplace. As employees and their employers negotiate the terms of the new psychological contract, both parties have shared, complementary interests in re-defining what it means to be “engaged” at work.

Introducing Employee Engagement

Employee engagement has been called the most useful idea for human resources practitioners in the 21st Century (McBain, 2006), and the “ultimate prize” for employers (Towers Perrin, 2003). It has also been argued that employee engagement is not a new concept, but rather is a new framing of the issues that surround the phenomenon (Corace, 2007). Regardless of where one falls on this continuum of perspectives, the topic has

gained considerable attention in the industry and practitioner communities.

Organizational research and consulting firms, industry associations, and academia have dedicated resources to examining the nature and definition of employee engagement, identifying its drivers, exploring demographic comparisons of employee engagement levels, and linking employee engagement to individual and business outcomes. In addition, the effects of both first-line and senior leadership on employee engagement have been investigated. Each of these areas will be reviewed in an effort to bring together what is known about employee engagement.

Defining Employee Engagement

In Chapter 2, employee engagement will be defined in the context of each of the three main theoretical viewpoints on the phenomenon. However, given that there is not a single, universally-agreed upon definition of employee engagement, a number of alternative theoretical definitions have also been presented that are worthy of consideration.

For example, the Corporate Leadership Council (2004) defines employee engagement as “the extent to which employees commit to something or someone in their organization, how hard they work, and how long they stay as a result of that commitment” (pp. 5). In a report developed by the Conference Board, Gibbons (2006) develops a composite definition of engagement in which the phenomenon is conceptualized as:

A heightened emotional and intellectual connection that an employee has for his/her job, organization, manager, or co-workers that, in turn, influences him/her to apply additional discretionary effort to his/her work. (pp. 5)

The Society for Human Resource Management (2006) asserts that several key themes connect the multiple definitions of employee engagement that exist in the field, including:

- (1) Employees' satisfaction with their work and pride in their employer,
- (2) The extent to which people enjoy and believe in what they do for work, and
- (3) The perception that their employer values what they bring to the table.

These represent only a small proportion of the many definitions of employee engagement that exist in the field. Given the amount of popular attention that has been drawn by the concept, numerous industry associations, organizational research firms and consultancies have developed their own definitions of the construct as a means of differentiation.

Despite the lack of overall consensus, what is shared in these definitions is the understanding that employee engagement has cognitive, affective, and behavioral components.

Drivers of Employee Engagement

In a study that spanned 400 organizations and over 80,000 managers, Buckingham and Coffman (1999) found that engagement is cultivated by managers who articulate clearly the expectations set for their employees, who provide them with the resources needed to succeed at their work, and who demonstrably value their employees' development. The Corporate Leadership Council (2004) conducted a global engagement study with over 50,000 employees to investigate the drivers of engagement. The research indicates that the most important driver of engagement is the ability of an employee to see the relationship between her or his work and the broader organizational strategy. Among other findings, the study also revealed that emotional engagement is four times

more influential than rational engagement in driving the discretionary effort of employees. Emotional engagement was defined as the extent to which employees derive pride, enjoyment, inspiration or meaning from someone or something in their organization. Rational commitment was described as the extent to which employees feel that someone or something within their organizations provides financial, developmental, or professional rewards that are in their best interests.

In a meta-analysis of major research initiatives on the topic, Gibbons (2006) presents eight factors that drive engagement. These factors include trust and integrity, the nature of the job, an employee's line of sight to how her or his contributions relate to company performance, opportunities for career growth, company pride, relations among co-workers, employee development, and the manager-employee relationship.

Demographic Comparisons of Employee Engagement Levels

According to Gallup (2006), a huge engagement gap exists in the American workforce. Based on five years of research with the Gallup Q12 employee engagement instrument, the Gallup Organization concluded that roughly 27% of the United States workforce is engaged, while 59% is not engaged and 14% is actively disengaged. Raters were asked to rate a total of 13 items, including the following samples: "At work, my opinion seems to count," or "The mission/purpose of my company makes me feel my job is important." "Engaged" employees were those who selected 1=*Strongly Agree* on the items in the instrument; "Not Engaged" employees selected 2=*Agree* or 3=*Neutral* on the items in the instrument; "Actively Disengaged" employees were those who selected 4=*Disagree* or 5=*Strongly Disagree* on the items in the instrument. Based on research with more than 85,000 employees in 16 countries, Towers Perrin (2005) found similarly

that only 20% of workers in the United States are fully engaged (defined as those who gave the highest scores on all the engagement factors studied). At the global level, this number drops to approximately 14%. On the international front, Towers Perrin concluded that the four countries with the highest employee engagement are Mexico, Brazil, the United States, and Belgium.

Outcomes of Employee Engagement

Gibbons (2006) suggests that there is ample evidence that employee engagement has important relationships with a number of individual and organizational outcomes. Some of these outcomes include recruiting, retention, turnover, customer service, customer loyalty, employee productivity, growth in operating margins, increased profit margins and heightened revenue growth rates. In their seminal work with the Gallup Organization, Buckingham and Coffman (1999) found that organizations that received positive responses on the Gallup Q12 measure of employee engagement achieved superior profits, increased productivity, higher retention rates, and better customer satisfaction than average organizations. Branham (2005) estimates that employee disengagement costs American employers between \$200 and \$400 billion a year in lost productivity. The Corporate Leadership Council (2004) also found that highly engaged employees receive performance ratings that are 20 percentage points more favorable than their colleagues with average levels of engagement.

Leadership and Employee Engagement

Considering the financial implications of employee engagement, attention has been paid to the role that leaders play in fostering engagement in the workplace. Gibbons (2006) states that there is general agreement among researchers that first-line supervisors

are key influencers of employee engagement. In terms of executive level leadership, Morrison (2006) claims that the single most sought-after competency in emerging senior leaders is the ability to motivate and engage employees. In her work with the Institute for Corporate Productivity, she also cites a study by the firm, Melcrum, which found that 28% of respondents to their 2005 survey believed senior leaders to be the most important driver of employee engagement.

Statement of the Problem

While significant attention has been paid to the concept of employee engagement by consulting firms, industry associations, and the popular media, it has been argued that there is a dearth of research on employee engagement within the academic literature (Robinson et al., 2004). However, there appear to be at least three schools of thought in terms of how to conceptualize employee engagement, including both individual and systemic perspectives on the phenomenon. Furthermore, while both practitioner and academic literature have acknowledged that organizational leaders play a role in influencing the engagement of their employees, very little work has been done to identify specifically the leadership competencies that are most predictive of employee engagement. As such, the purpose of this study is to address the following question:

In what ways, if any, are the leadership competencies of senior leaders related to the engagement of employees in their organizational units?

The next chapter will explore the theoretical points of view on employee engagement that can be found in the academic literature. First, I will explore the body of work on the relationship between burnout and engagement. Next, the contributions of social exchange theory to our understanding of employee engagement will be discussed.

Finally, a review of Kahn's (1990) psychological conditions of personal engagement and disengagement at work will be presented. Following this, a synthesis of these theoretical perspectives will be provided, which emphasizes the influence of leadership on employee engagement. The chapter concludes with a discussion of the overarching research question and related hypotheses of this study.

CHAPTER II

THEORETICAL PERSPECTIVES

“There is nothing so practical as a good theory.”

-- Kurt Lewin

Perspectives on Employee Engagement

Burnout and Engagement

Employee engagement has been conceptualized in relation to the phenomenon of burnout. Burnout is defined as a prolonged response to chronic emotional and interpersonal stressors on the job, and is defined by three dimensions – exhaustion, cynicism, and inefficacy (Maslach, Schaufeli, & Leiter, 2001). *Exhaustion* refers to the individual stress component of burnout, and is considered the most central quality of the syndrome. It includes feelings of overextension and is characterized by the experience of being drained of one’s physical and emotional resources. *Cynicism*, or what is sometimes referred to as depersonalization, reflects an interpersonal component of burnout. This dimension characterizes a sense of generalized negativity and the distancing of one’s self from others and various aspects of the job. The third dimension, *inefficacy*, reflects the self-evaluative component of burnout. Inefficacy refers to feelings of incompetence, a lack of achievement and diminished productivity.

Outcomes of burnout. Research has demonstrated the link between burnout and a multitude of important performance-related outcomes. Burnout has been associated with

absenteeism, intent to leave the organization, and actualized turnover. Burnout is also related to decreased productivity, job satisfaction and commitment to one's job and organization. Those suffering from burnout can also be disruptive to other members of the organization and have been shown to cause increased interpersonal conflict (Maslach, Schaufeli, & Leiter, 2001).

Organizational context of burnout. While a number of individual and organizational factors have been associated with burnout, for the purposes of this dissertation, the organizational context in which burnout occurs is most relevant to review. Maslach and Leiter (1997) present a model that addresses the fit between the individual and six domains in the organizational environment, including (1) workload, (2) control, (3) reward, (4) community, (5) fairness, and (6) values. Burnout occurs when there is a persistent mismatch between individuals and one or more of these organizational factors (Maslach, Schaufeli, & Leiter, 2001).

With respect to workload, the mismatch usually refers to excessive overload of work. Such an overload can demand too much individual energy and deny the possibility of recovery. A workload mismatch may also refer to a lack of fit between an individual's skill set and the work required. Workload mismatches are considered most closely related to the exhaustion dimension of burnout.

Mismatches in the control domain refer to insufficient control over resources needed to accomplish the work or authority to carry out the work. A lack of fit in this area is associated with the inefficacy dimension of burnout in that control mismatches can lead to feelings of reduced personal accomplishment.

A lack of appropriate rewards represents a third type of mismatch between the individual and organizational context. Both extrinsic (i.e. financial) and intrinsic (i.e. appreciation and recognition) rewards are considered relevant within this framework. Insufficient rewards are considered most closely related to feelings of inefficacy.

The community mismatch refers to a loss of favorable connection with others in the organization. Sharing in community affords individuals a sense of commonality around values and organizational membership. Lack of community denies individuals social support, which is considered a critical antidote to burnout (Cherniss, 1995). Continual and unresolved conflict also leads to breakdowns in community and produces feelings of hostility and frustration.

Perceived fairness is another important burnout-related domain of organizational life. Inequity of workload and pay, inappropriate handling of promotion and performance appraisal, and ineffective dispute resolution are some examples of occurrences of unfairness. Mismatches on the fairness domain can lead to emotional exhaustion and cynicism about the organization.

Lastly, conflict between values represents the sixth type of mismatch. When job demands pressure individuals to act unethically, conflicts of values can arise. Conflicts between espoused organizational values and actual organizational practices also reflect this type of mismatch. Further, a lack of fit between career aspirations and organizational values represents another example of mismatch along this domain.

Relationship between burnout and engagement. Over the past decade, two schools of thought have emerged with respect to the relationship between burnout and engagement. Both viewpoints argue that engagement is distinct from other related

constructs, such as organizational commitment, job satisfaction, or job involvement (Maslach, Schaufeli, & Leiter, 2001). Organizational commitment is understood as the allegiance of an employee to her or his organization. Engagement goes beyond organizational commitment by focusing also on one's relationship to the work itself. Job satisfaction addresses need fulfillment or contentment, but again does not shed light on the relationship between the individual and the work. Lastly, it is argued that job involvement represents the antipode of the cynicism component of burnout, but does not address other aspects of the burnout-engagement continuum. The debate over the relationship between burnout and engagement is centered on whether or not engagement is the exact positive antithesis of burnout, and therefore is perfectly complementary to and mutually exclusive of burnout.

According to Maslach & Leiter (1997), burnout is conceptualized as the erosion of engagement on the job. According to this perspective, what was once relevant, meaningful and challenging work regresses to unpleasant, unfulfilling and meaningless work (Maslach, Schaufeli, & Leiter, 2001). Recalling the three dimensions of burnout – exhaustion, cynicism, and inefficacy – engagement is characterized by their opposites: energy, involvement and efficacy. From this standpoint, engaged employees experience a positive fit along the six dimensions of the organizational environment discussed previously. In order to measure engagement, the authors suggest utilizing the Maslach Burnout Inventory (MBI) and looking for the opposite pattern of scores along the three dimensions that would be found in a burnout profile.

By contrast, another perspective considers engagement as a separate but related phenomenon to burnout. Schaufeli, Salanova, Gonzalez-Roma, & Bakker (2002) define

engagement as a positive, fulfilling, work-related state of mind that is characterized by vigor, dedication, and absorption (also, see Schaufeli & Bakker, 2004). *Vigor* refers to high levels of energy and mental resilience while working, the willingness to expend effort in one's work, and persistence in the midst of obstacles. *Dedication* reflects a sense of significance, enthusiasm, inspiration, pride and challenge. *Absorption* refers to being fully concentrated and happily involved in one's work, such that time passes quickly and one has difficulty detaching from the work. Although absorption is operationalized as a more persistent state of mind, it is conceptually similar to the short-term, peak performance state of optimal experience described by Csikszentmihalyi (1990) as 'flow.'

In this formulation, Schaufeli, Salanova, González-Roma, & Bakker (2002) cite work done by Schaufeli & Bakker (2001) to identify two bipolar, underlying dimensions of work-related well-being, including (1) activation (or, energy) – ranging from vigor to exhaustion, and (2) identification – ranging from dedication (or involvement) to cynicism. Efficacy and absorption are not considered opposites and are not considered endpoints on a continuum. Gonzalez-Roma, Schaufeli, Bakker & Lloret (2006) found empirical support for the conceptualization of the core burnout and engagement dimensions as opposites that define two distinct bipolar dimensions of energy (or activation) and identification. In further differentiating burnout from engagement, Schaufeli & Bakker (2004) found that while burnout and engagement are negatively related, burnout is predicted by job demands and lack of job resources, whereas engagement is only predicted by the availability of job resources. Also, burnout is related to health problems and intent to leave an organization, but engagement is related only to

turnover intention. In terms of mediation, burnout was found to mediate the relationship between job demands and health problems, while engagement mediated the relationship between job resources and intent to leave.

In summary, as the influence of positive psychology has shifted attention from the traditional focus on weaknesses to the study of strengths and optimal functioning (Seligman & Csikszentmihalyi, 2000), burnout researchers have utilized nearly three decades of knowledge about this negative emotional response to work stressors to shed light on its conceptualized opposite, known as engagement. Interestingly, just as the concept of burnout began as a “pop psychology” term used by the public media before becoming a legitimate academic construct, so too has employee engagement enjoyed more popular attention than that paid by the academic community. Although there are arguments about whether or not burnout and engagement are independent factors or opposite poles, it is clear that burnout researchers understand engagement as the conceptual antithesis of burnout.

Social Exchange Theory and Engagement

According to social exchange theory, relationships evolve over time into trusting, loyal and mutual commitments so long as both parties abide by certain rules of exchange (Cropanzano & Mitchell, 2005). These rules serve as the guidelines of exchange processes. Although exchange rules can take several forms, the most commonly cited are reciprocity or repayment rules. When parties are in a state of interdependence, obligations are generated according to reciprocity rules such that actions taken by one party must be repaid in kind by the other. Economic and socioemotional resources are the types of resources most often exchanged in such processes. For example, when

employees perceive strong organizational support, they feel obligated to repay the organization in a variety of ways.

An SET interpretation of employee engagement. Employee engagement is one manner in which employees repay their organizations. According to Saks (2006), employees respond to the resources they receive from their organization with their level of engagement. Manipulating one's level of engagement can serve as a profound way to repay an organization based on its actions, and is also safer than altering one's level of performance, which is more easily measured and used for compensation and other meaningful employment decisions.

Saks (2006) conducted one of the first empirical tests of the antecedents and consequences of employee engagement. Antecedents of employee engagement included job characteristics, rewards and recognition, perceived organizational and supervisor support, and distributive and procedural justice. Consequences of employee engagement included job satisfaction, organizational commitment, organizational citizenship behavior, and reduced intent to quit.

The study produced a number of important findings. First, the research found meaningful differences between job and organization engagement, which were considered related but separate constructs. Perceived organizational support was the only antecedent that predicted both job and organization engagement, suggesting that employees are more likely to repay their organization with high engagement in both the job and the organization when they perceive strong organizational support. Job characteristics (i.e. skill variety, task identity, task significance, autonomy, and feedback; see Hackman & Oldham, 1980) predicted job engagement. An SET interpretation of this

finding is that employees feel obliged to repay their organizations with higher levels of engagement when they have enriched and challenging jobs. Procedural justice predicted organization engagement. An SET interpretation of this finding is that employees feel obligated to engage in their organizations when they perceive fairness in the quantity and distribution of organizational resources. Notably, both job and organization engagement mediated the relationships between the antecedents and job satisfaction, organizational commitment, intent to quit, and organizational citizenship behavior.

Psychological Conditions of Engagement and Disengagement

A third view of employee engagement is provided by Kahn (1990) in his elucidation of the psychological conditions of personal engagement and disengagement at work. These terms are used to describe the behaviors by which people either enlist or withhold their personal selves during work performances. This conceptualization is based on the premises that (1) the psychological experience of one's work drives attitudes and behaviors (Hackman & Oldham, 1980), and that (2) multi-level, systemic factors associated with intrapersonal, interpersonal, group, intergroup and organizational variables concurrently influence these experiences (Alderfer, 1985).

Kahn (1990) operationalizes engagement and disengagement in the development of this theoretical framework. He defines personal engagement as "the harnessing of organization members' selves to their work roles; in engagement, people employ and express themselves physically, cognitively, and emotionally during role performances" (pp. 694). When an individual is personally engaged, she or he is able to keep their preferred self within role, thereby driving personal energy into role behaviors and expressing the self through role performance. Kahn argues that engaged people become

cognitively vigilant, physically involved, and empathically connected to others when what they are doing displays their creativity, values, beliefs and feelings. By contrast, personal disengagement is described as “the uncoupling of selves from work roles; in disengagement, people withdraw and defend themselves physically, cognitively, or emotionally during role performances” (p. 694). When an individual is personally disengaged, she or he withdraws and defends the self through behaviors that block connections, physical, cognitive and emotional presence, and generate incomplete role performances. Disengaged people tease apart the self from role, exhibit behaviors that suppress the expression of self in role, and carry out role performances in a more externally scripted fashion (versus internally, self-interpreted).

Three psychological conditions – meaningfulness, safety, and availability – comprise the framework generated by Kahn (1990). Meaningfulness refers to those elements of work life that generate incentives or disincentives to engage. The condition of safety characterizes the components of social systems that produce variable levels of threat, consistency and predictability in the work environment in which individuals choose to engage. Availability is associated with individual distractions that require the attention of people and leave them with more or fewer resources with which to engage in role activities. Each of these conditions consists also of a number of related sub-dimensions (see Table 1).

Table 1
Dimensions of Psychological Conditions

Dimensions	Meaningfulness	Safety	Availability
Definition	Sense of return on investment of self in role performances	Sense of being able to show and employ self without fear of negative consequences to self-image, status, or career	Sense of possessing the physical, emotional, and psychological resources necessary for investing self in role performances
Experiential components	Feel worthwhile, valued, valuable; feel able to give to and receive from work and others in course of work	Feel situations are trustworthy, secure, predictable, and clear in terms of behavioral consequences	Feel capable of driving physical, intellectual, and emotional energies into role performances
Types of influence	Work elements that create incentives or disincentives for investments of self	Elements of social systems that create situations that are more or less predictable, consistent, and nonthreatening	Individual distractions that are more or less preoccupying in role performance situations
Influences	<p>Tasks: Jobs involving more or less challenge, variety, creativity, autonomy, and clear delineation of procedures and goals</p> <p>Roles: Formal positions that offer more or less attractive identities, through fit with a preferred self-image, and status and influence</p> <p>Work interactions: Interpersonal interactions with more or less promotion of dignity, self-appreciation, sense of value, and the inclusion of personal, as well as professional elements</p>	<p>Interpersonal relationships: Ongoing relationships that offer more or less support, trust, openness, flexibility, and lack of threat</p> <p>Group and intergroup dynamics: Informal, often unconscious roles that leave more or less room to safely express various parts of self; shaped by dynamics within and between groups in organizations</p> <p>Management style and process: Leader behaviors that show more or less support, resilience, consistency, trust, and competence</p> <p>Organizational norms: Shared system expectations about member behaviors and emotions that leave more or less room for investments of self during role performances</p>	<p>Physical energies: Existing levels of physical resources available for investment into role performances</p> <p>Emotional energies: Existing levels of emotional resources available for investment into role performances</p> <p>Insecurity: Levels of confidence in own abilities and status, self-consciousness, and ambivalence about fit with social systems that leave more or less room for investments of self in role performances</p> <p>Outside life: Issues in people's outside lives that leave them more or less available for investments of self during role performances</p>

Originally published in Kahn, W.A. (1990). Psychological conditions of personal engagement and disengagement at work. *Academy of Management Journal*, 33(4), 692-724.

Meaningfulness

Kahn (1990) suggests that psychological meaningfulness is experienced when individuals feel that they are receiving reciprocity for the physical, cognitive and emotional investments they make in role performances. Feeling valued, agentic, useful and worthwhile leads to the experience of meaningfulness. Meaningfulness is derived from three elements of work life, including task characteristics, role characteristics and work interactions.

Task characteristics. Psychological meaningfulness is experienced when job tasks are varied, challenging, clearly defined, allow for creativity, and provide an appropriate level of autonomy. Both competence and growth are fostered by meaningful tasks in that the characteristics of such tasks require routine and new skills of employees. Meaningful tasks are characterized by clearly articulated goals and objectives, which enable individuals to be successful in the execution of role performances. Lastly, meaningful tasks allow individuals to perceive some sense of ownership over the work and results.

Role characteristics. By contrast to task characteristics, role characteristics describe the social component of an individual's place in the organization. The experience of psychological meaningfulness is affected by the implicit identities and requirements of organizational roles. The relative congruence or incongruence between these requirements and how one sees her or his preferred self affects the extent to which one will engage at work. Organizational roles are accompanied by varying degrees of status or influence in social systems. Psychological meaningfulness is experienced when people have a sense that they are able to shape the external world through role

performances. Individuals occupying roles that are perceived as unimportant or devalued by the organization are likely to personally disengage.

Work interactions. Lastly, work interactions affect the experience of psychological meaningfulness at work. When task performances involve rewarding interpersonal relations with work colleagues and clients, individuals are likely to personally engage. Dignity, self-appreciation and a sense of being worthwhile are some of the outcomes of interacting with others in meaningful ways. Such work interactions produce simultaneously feelings of being valuable and valued in the organization.

Safety

Kahn (1990) describes the experience of psychological safety as feelings of being able to safely engage one's self without fear of repercussions to career, status or self image. Kahn states, "situations promoting trust were predictable, consistent, clear, and nonthreatening; people were able to understand the boundaries between what was allowed and disallowed and the potential consequences of their behaviors" (p. 708). Four dimensions comprise psychological safety, including interpersonal relationships, group and intergroup dynamics, management style, and organizational norms.

Interpersonal relationships. Psychological safety is driven in part by interpersonal relationships that are trusting and supportive. These relationships are consistent, sustainable and characterized by reciprocal openness and flexibility. Interpersonal relationships that promote safety also make it safe for individuals to share ideas and opinions without fear of adverse consequences.

Group and intergroup dynamics. Group and intergroup dynamics also influence the individual experience of psychological safety. As such dynamics emerge, individuals

are cast into conscious and unconscious roles that have specific meaning to organizational members and provide more or less psychological safety than others. These roles are shaped by the interplay of functional and identity group memberships, which hold varying degrees of power in the social system. These dynamics affect the amount of self that one feels safe to enlist in role performances.

Management style. The behavior of organizational leaders has important implications for the individual experience of psychological safety. Leaders are in the position to translate system demands into actionable accountabilities for their employees. In doing so, leaders create environments that are characterized by more or less support and openness. Safety is increased when management is supportive, models and cultivates resilience, and clarifies role performance expectations. Providing appropriate and optimal autonomy to employees is also critical to fostering psychological safety. Lastly, employees are more likely to experience safety when they perceive that their leaders are competent and have adequately articulated the vision of the work such that it becomes possible for subordinates to understand how their role performances align to this vision.

Organizational norms. When role performances are executed within the bounds of organizational norms, individuals are likely to experience heightened psychological safety. Conducting role performances outside of these shared behavioral expectations results in diminished psychological safety. Importantly, organizational norms can leave varying amounts of room for individuals to engage their preferred selves in role performances based on the degree of fit between such norms and the composition of the self. For example, if organizational norms require behaviors that are counter to an individual's self, then she or he is less likely to personally engage in role performances.

Availability

The third condition of engagement, psychological availability, is perhaps the least systemic and most individually-focused component of Kahn's (1990) framework.

Availability refers to the individual experience of having the physical, cognitive and emotional resources required to invest one's self in role performances. Availability relates to an individual's level of readiness to engage, and is influenced primarily by the distractions associated with operating as a member of social systems. The four sub-dimensions of psychological availability are physical energy, emotional energy, insecurity, and outside lives.

Physical energy. Personal engagement is influenced by the level of physical energy that one has available to deploy in role performances. To engage requires energy, strength, and other forms of physical capacity. Being without physical energy makes it difficult to personally engage in role performances.

Emotional energy. Possessing sufficient emotional energy also has implications for engagement. To invest one's self emotionally in role performances requires the availability of more emotional energy than does a disengaged execution of one's role. Without the emotional reserves to draw upon during role performances, individuals are likely to withdraw into disengagement.

Insecurity. Psychological availability is affected by an individual's level of security in terms of status and work quality. Insecurity uses energy that would otherwise be distributed to role performances, thereby leaving less available to engage in work. Self-consciousness over how one is perceived by others in the social system is another way in which insecurity has a depletory effect on availability. In addition, individuals are

less available to engage in role performances when they question the extent to which they “fit” with a group or organization.

Outside lives. Lastly, personal lives outside of the workplace can affect the degree to which individuals are psychologically available for engaged role performances. Matters of outside life can preoccupy and redirect individual energy away from work. When employees are distracted by such matters, they have less psychological availability for role engagements. However, outside life can also have the effect of “charging up” individuals and thereby increasing one’s experience of psychological availability.

Empirical Validation of the Meaningfulness, Safety, and Availability Conditions

May et al. (2004) explored the conditions of meaningfulness, safety and availability in a field study to test Kahn’s (1990) framework. This research, which utilized a 13-item scale developed by the authors to measure Kahn’s model, found significant positive relationships between each of the psychological conditions and engagement. Meaningfulness was found to have the strongest relationship with engagement ($r = .63, p < .05$). The study also examined elements within the three conditions, and found that role fit and job enrichment were the strongest predictors of meaningfulness, rewarding relations with supervisors and colleagues were the strongest predictors of safety, and available resources was the strongest predictor of psychological availability.

Summary

While employee engagement has received much popular attention, it is a common misperception that the phenomenon only recently has become a significant research focus for the academic community. At least three theoretical points of view on the

phenomenon exist in the literature, including those who emphasize the relationship between engagement and burnout (Maslach & Leiter, 1997), those who understand engagement as a currency of social exchange (Saks, 2006), and those who conceptualize engagement in the broader, multidimensional context of person-in-role (Kahn, 1990; Kahn, 1992). Each perspective offers unique insights into what it means to be engaged at work and with one's organization, as well as how and why people vary in the degree to which they engage in role performances. Given the multiplicity of perspectives on the topic, and considering that perhaps none of them sufficiently addresses all aspects of the phenomenon, a theory of employee engagement is clearly in what Kuhn (1996) would consider a pre-paradigmatic state.

Interestingly, one manner in which the three theoretical perspectives on engagement come together is around the influence of organizational leadership. Though not always explicitly stated, leaders (especially senior leaders) have an effect on employee engagement variables postulated by each theory. For example, if one believes that engagement is the positive antithesis of burnout, then, according to Maslach and Leiter (1997), employees are likely to exhibit engagement when there is an optimal degree of fit in such systemic factors as workload, control, reward, community, fairness, and values. Senior leaders, by virtue of their formal authority, directly influence organizational structural components like the allocation of work, the degree to which employees have autonomy, and the systems and processes that govern reward and recognition. In addition, as a consequence of their power and influence in the social system, leaders can cultivate more or less communal environments, can model displays of

fairness, and can influence organizational culture, values, and other less explicit aspects of organizational life.

In terms of social exchange theory, Saks (2006) asserts that the antecedents of employee engagement include job characteristics, rewards and recognition, perceived organizational and supervisor support, and distributive and procedural justice. If one believes employees are likely to repay their organizations in the form of their engagement based on the relative presence or absence of these antecedents, then clearly, senior organizational leaders have a role to play in attending to them in the workplaces they manage.

Finally, according to Kahn (1990), the psychological conditions of meaningfulness, safety, and availability are predictors of personal engagement and disengagement at work. Many of the sub-dimensions of meaningfulness and safety can be effectively manipulated by senior leaders. For example, leaders have some control over the nature of work and role characteristics as described by Kahn. Senior leaders also model the tenor of acceptable and unacceptable work interactions, both between colleagues and across levels of a system hierarchy. Leaders may play an even more influential role in the sub-dimensions of safety, given that they have direct control over their management style and can heavily influence organizational norms.

Research Question and Hypotheses

Clearly, there is evidence to warrant belief that senior organizational leaders can affect the engagement of their employees in a variety of ways. However, to date there has been very little systematic research that has investigated this issue. How do leaders “show up” in organizations that are ripe with high employee engagement? What do they

do? How do they act? Answers to questions such as these have immense instrumental value to today's organizations. Given the established relationship between employee engagement and business results, organizations that understand the leadership competencies required to cultivate employee engagement can enlist such knowledge in the recruitment, selection and development of their leaders, among other possible uses. As such, the purpose of this study is to answer the following research question: *In what ways, if any, are the leadership competencies of senior leaders related to the engagement of employees in their organizational units?*

To do so, it is important first to define the term "competency" and to discuss how competency models are used in today's organizations. In the three decades since McClelland (1973) introduced the notion of focusing on competence rather than on intelligence, organizational theorists and practitioners have spent a great deal of effort trying to understand competence in the workplace, as well as how to successfully implement models of competence to build individual and organizational effectiveness. Spencer, McClelland, & Spencer (1994) define competency as an amalgam of motives, attitudes or values, traits, self-concepts, knowledge, cognitive skills, and other individual characteristics that can be measured and that distinguish superior from average performance. Among many purposes, competencies are used in today's organizations for talent recruitment, selection, performance management and development, compensation and succession planning (Spencer & Spencer, 1993). Organizations create competency "models" to describe the output from competency analyses that differentiate their high performers from average performers (Mirabile 1997).

One type of model commonly found in organizations is the leadership competency model (Briscoe & Hall, 1999; Hollenbeck, McCall & Silzer, 2006). While such models are widespread in practice, perspectives on their efficacy in relation to developing leaders and contributing to organizational effectiveness are mixed. It has been argued that leadership competency models are reductive in that they limit the many routes to managerial effectiveness to a single set of competencies, that competency models are too static to effectively keep up with the dynamics of organizational leadership demands, and that the uncritical acceptance of competency modeling runs the risk of conjuring up the “great person” view of leadership, thereby distracting the field from a focus on “great results” (Hollenbeck & McCall, 1997; Hollenbeck, McCall, & Silzer, 2006). On the other hand, Russell (2001) found a positive relationship between managerial competencies and business-unit level performance in an organization that used competencies to screen candidates for general management positions. In addition, in a study of first- and mid-level managers, Levenson, Van der Stede, and Cohen (2006) found a positive relationship between higher competency levels and individual performance, as well as a positive relationship between aggregated managerial competencies and unit-level performance, but only for medium and large sized organizations in their study.

Given the established link between employee engagement and business outcomes, perhaps it is through the promotion of employee engagement that certain leadership competencies of senior management relate to organizational performance. It may be that one way in which leadership competency models can predict organizational performance is when the competencies within the model comprise leader behaviors that cultivate

engagement in the organization. Heightened employee engagement then, in turn, improves organizational performance. Behind this backdrop, this study will utilize the leadership competency model of a Fortune 500 multinational corporation to investigate the relationship between a set of leadership competencies in senior managers and employee engagement at the organizational unit-level of analysis.

Maslach and Leiter (1997) assert that employees are likely to exhibit engagement when there is an optimal degree of fit in such systemic factors as *workload, control, reward, community, fairness* and *values*. In order for employees to perceive fairness in the organization, leaders must not only be able to effectively manage aspects of organizational life such as workload and pay, the handling of promotion and performance appraisal, and the resolution of disputes, but they must be able to do so in a manner that is transparent, motivating and trust-building. In addition, in the face of business and job demands that all too often pressure individuals to act unethically or in ways that are in conflict with their own values, senior managers who lead with integrity set the tone for values-based organizational cultures that are more likely to be aligned with those of their employees. As such, the author expects:

Hypothesis 1: The leadership competency, Integrity, will be positively correlated with employee engagement.

In a global engagement study with over 50,000 employees, the Corporate Leadership Council (2004) found that the single most important driver of engagement is the ability of an employee to see the relationship between her or his work and the broader

organizational strategy. Kahn (1990) asserts that employees are more likely to experience *safety* when they perceive that their leaders are competent and have adequately articulated the vision of the work such that it becomes possible for subordinates to understand how their role performances align to this vision. Schaufeli, Salanova, Gonzalez-Roma, and Bakker (2002) propose a complementary construct, *dedication*, as one of three components in their model of engagement as the opposite of burnout. Dedication refers to a sense of significance, inspiration and challenge in one's work. In order for roles and responsibilities to be clearly linked to organizational strategy, which presumably instills "dedication" and fosters "safety," leaders at the top of the organization must themselves be skilled at thinking strategically about how to create growth and value, how to prioritize strategic initiatives and how to keep others focused on related goals and objectives. As such, the author expects:

Hypothesis 2: The leadership competency, Strategic Thinking, will be positively correlated with employee engagement.

In the first study of the antecedents and consequences of engagement, Saks (2006) found that job characteristics and perceived organizational support are antecedents of employee engagement. Relatedly, Maslach, Schaufeli, and Leiter (2001) assert that sense of community is an important organizational contextual factor in employee burnout. Kahn (1990) found that within the condition of *safety*, interpersonal relationships and management style influence individual engagement. Senior leaders can affect employee engagement through their influence in these areas by establishing organizational and

management practices that motivate and empower others to take action, that “stretch” the development of employees through job assignments, and that foster environments in which talent can flourish, new ideas can be introduced, and partnership synergies can be established. As such, the author expects:

Hypothesis 3: The leadership competency, Organization and Talent Development, will be positively correlated with employee engagement.

Hypothesis 4: The leadership competency, Collaboration and Teaming, will be positively correlated with employee engagement.

In order for senior leaders to affect many of the engagement factors listed above, they must first have a sufficient level of self-knowledge. Leaders who demonstrate self-insight, who refine their approaches based on the ideas of others, and who have an awareness of how their actions affect others are likely better equipped with the skills and abilities to cultivate a sense of fairness in the organization (Maslach & Leiter, 1997), portray procedural justice to employees (Saks, 2006), and model healthy work interactions, interpersonal relationships and management styles (Kahn, 1990). As such, the author expects:

Hypothesis 5: The leadership competency, Self-Awareness and Adaptability, will be positively correlated with employee engagement.

The leadership competency model utilized in the study is a multi-rater assessment instrument, and in addition to self-ratings, includes ratings from supervisors, peers, and direct reports. Given that direct reports are closer in the hierarchy to the rest of the organization, one might suspect that their views of senior leadership competence are reflective of and/or related to those held by the rest of the organization. To the extent that these direct reports “represent” the perspective of the organizational units in which they are embedded, the author expects:

Hypothesis 6: Direct reports’ ratings of leadership competence will account for the most variance (in terms of Adjusted R²) in employee engagement.

In the next chapter, I will describe the manner in which the research question and associated hypotheses will be addressed.

CHAPTER III

METHODOLOGY

Participants

A total of 163 employees of a large, Fortune 500 multinational corporation participated in the study. Target subjects were all leaders of the corporation at or above the management board hierarchical level who participated in the Leadership Competency Model 360 between the years 2005 and 2007. To ensure that the employee engagement data for the participants' organizations corresponded with their leadership tenure, only managers who had occupied their role for a minimum of eighteen months (as of December 31st of the year in which they participated in the LCM 360) were included in the study.

Instruments

Independent variables

The corporation's leadership competency model, called the LCM, measured leadership competence. The LCM is a 360-degree, multi-rater feedback instrument that, in addition to self-ratings, includes ratings from supervisors, direct reports, and peers or others on 10 leadership competencies. The corporation describes the LCM 360 as a process by which individuals collect input on their leadership effectiveness from others with knowledge of their work behaviors. The intent of the LCM 360 is to assist individuals in identifying areas of leadership strength as well as areas for improvement, and it is not used to allocate raises or promotions. These individuals are often at key

career or job transitions, have been identified as high potentials in their organization, or are participating in an organizational initiative around leadership development. The competencies that comprise the LCM are considered requisite for all employees of the corporation, regardless of one's level in the organization. These leadership competencies include (1) Integrity, (2) Strategic Thinking, (3) Big Picture Orientation, (4) Organization and Talent Development, (5) Intellectual Curiosity, (6) Collaboration and Teaming, (7) Sense of Urgency, (8) Prudent Risk-Taking, (9) Self-Awareness and Adaptability, and (10) Results and Performance Driven.

The Leadership Competency Model and related instrument were developed in 2004 by a team of internal specialists and external psychometrics consultants, originally for the purpose of enhancing the succession planning process for senior leaders in the corporation. Individual interviews were conducted with members of the corporation's executive committee to identify the most critical competencies for leadership success in the corporation. Based on the content analysis of these interviews, and the results of internal and external benchmarking research on leadership competency models, a total of 10 leadership competencies were identified and operationalized. To create the multi-rater instrument, items were developed based on behavioral descriptions of each of the components of the model.

The LCM 360 is composed of a total of 49 items, with 11 subscales of 4-8 items each, corresponding to the 10 leadership competencies. The corporation was also interested in using this instrument to measure other behaviors not associated with leadership competencies. Eight additional items were included in the instrument to this end (note that since these items were not measuring leadership competence, they have

been excluded from this study). Respondents were asked to rate all items on the 10 leadership competency subscales using a five-point Likert scale ranging from (1) *Strongly Disagree* to (5) *Strongly Agree*. Descriptions of the leadership competencies that comprise the LCM 360, along with sample items, are found in Table 2.

Table 2
Leadership Competencies, Key Examples, and Sample Items

Leadership Competency	Key Examples	Sample Item
Integrity	Living by the corporation's values and motivating others to do so as well, maintaining high ethical standards, building the trust of others, being transparent when dealing with problems, always telling the truth, and demonstrating a genuine caring for others.	"Always tells the truth, even when the message is difficult to hear; doesn't hold back anything that needs to be said."
Strategic Thinking	Thinking strategically to create company growth, improve financial performance and gain global competitive advantage, challenging the status quo to foster innovation, anticipating, initiating and driving the execution of change, setting strategic priorities and keeping others focused on related goals and objectives.	"Sets priorities and keeps others focused on the most critical goals and objectives."
Big Picture Orientation	Balancing the need to deliver short-term results with what is best for the business in the long run, considering the systemic implications of business decisions, and understanding how individual business units or functional areas interact with the total organization.	"Considers the impact of decisions on both local and global operations and initiatives."
Organization and Talent Development	Identifying talent and potential in others, motivating and empowering others to take desired action, actively supporting the development of others, and creating an inclusive environment in which diverse styles, ideas and talents are sought and cultivated.	"Demonstrates the ability to inspire and motivate others."

Table 2 - continued
Leadership Competencies, Key Examples, and Sample Items

Intellectual Curiosity	Trying out new ideas to better position the organization in the industry, proactively and continuously learning about trends in the industry, among competitors and in the marketplace, and fostering an environment in which new ideas are embraced.	“Tracks worldwide industry trends, with a focus on key competitors, understanding their impact on, and relevance to, the business.”
Collaboration and Teaming	Cultivating strategic working relationships within the organization and rewarding direct reports for doing so as well, utilizing the best talent across the organization to achieve desired goals and enhance global competitiveness, inspiring productive followership, and gaining synergies through effective partnerships that enable the accomplishment of more than what could have been done by individuals or a single team.	“Works to help others build strong, productive relationships across the organization.”
Sense of Urgency	Quickly absorbing new information, identifying and seizing emergent business opportunities, establishing priorities according to their urgency and impact on the local and global organization, and displaying a bias for action and follow-through to the completion of projects and initiatives.	“Able to quickly assimilate and digest information.”
Prudent Risk Taking	Demonstrating the courage to stand alone on ideas and opinions that differ from others, taking risks to drive business innovation and global expansion, and creating an environment that is safe for others to welcome risky situations.	“Makes it safe for others to try new ideas/take appropriate risks; treats mistakes as learning experiences.”
Self-Awareness and Adaptability	Developing a keen awareness of one’s strengths, weaknesses and development opportunities, understanding how one’s actions impact others, learning from disappointments and mistakes, modeling self-insight, actively seeking feedback, and refining approaches based on the ideas of others.	“Demonstrates awareness of how his/her actions or interactions impact others.”
Results and Performance Driven	Assuming personal ownership and accountability for results, consistently delivering solutions that meet or exceed expectations, setting and accepting “stretch” goals for oneself and one’s organization, and managing time to achieve long- and short-term objectives.	“Takes action and makes decisions that successfully build customer value.”

Dependent variable

A subset of items within the corporation's annually-administered employee survey was used to measure employee engagement. This employee survey has been administered in the corporation and iteratively improved for nearly two-and-a-half decades. The Employee Engagement Composite, which represents one of many indices within the survey, was created in 2005 based on collaboration between internal specialists and external psychometrics consultants. Based on an analysis of the employee survey, items were identified that were similar to those found in the Gallup Q12 and other employee engagement instruments. The organization reports that there is approximately 85% similarity between the items that make up the EEC and those found in the Gallup Q12 instrument.

The EEC is composed of 15 items that measure the extent to which employees are engaged in their work and organization. Sample items include, "How satisfied are you with your involvement in decisions that affect your work?" or "My work gives me a feeling of personal accomplishment." Three variations of a five-point scale were used based on the sentence structure of the items. The ranges of these scales were (1) *Strongly Disagree* to (5) *Strongly Agree*, (1) *Very Dissatisfied* to (5) *Very Satisfied*, and (1) *Very Poor* to (5) *Very Good*. Scores on the 15 items were combined and averaged into an overall EEC score for the organization managed by the target subjects.

Control variables

Control variables, including operating entity within the corporation, business function, geographic region, organizational unit size and time in position (job tenure) were obtained from the corporation's archival sources.

Procedure

The research was conducted with a large, Fortune 500 multinational corporation utilizing pre-existing, archival data sets associated with the Leadership Competency Model 360 and the Employee Engagement Composite instruments. The corporation was interested in understanding the relationship between leaders' scores on the LCM 360 and the engagement of employees in their organizational units. Given that this study was conducted using only archival data, the researcher had no direct contact with participants and was not involved in administering either the LCM 360 or the EEC to the organizations managed by the participants.

Participants completed the LCM 360 voluntarily for the purposes of individual leadership development. The participants were nominated to take the LCM 360 by designators within the Human Resources function. Participants collaborated with their managers to identify raters in addition to themselves (manager, direct report, peers or others) who could provide meaningful feedback through the LCM 360 process. Targets and their raters completed the assessment through an online, web-based application. Typically, after taking the assessment, targets receive a confidential report of the results and have a facilitated feedback session with a company-certified facilitator. Targets and their direct supervisors then integrate the feedback into learning objectives and action plans for developmental purposes.

The EEC is a component of an annually administered employee survey that is used for the purpose of assessing the "health" of the corporate culture. Participation in the survey was voluntary and confidential, and was open to all full- and part-time employees of the corporation (excluding interns, contractors and temporary employees).

Employees completed the survey electronically through a web-based application. Typically, reports are generated based on the results of the survey, and leaders are expected to develop action plans to address areas for improvement that are identified by the assessment.

Statistical Analysis

Statistical analyses were conducted in two phases to investigate the relationship between the leadership competence of senior leaders and the engagement of employees in their organizational units.

Phase 1

In Phase 1, bivariate correlations were computed between the LCM 360 competency scores from each rater source and employee engagement ratings to test the significance of relationships between each leadership competency and employee engagement. Controlling for year in which participants completed the LCM 360, the corresponding Employee Engagement Composite score for each target's organizational unit was used (i.e. if the target participant completed the LCM 360 in 2005, then their organizational unit's Employee Engagement Composite score from 2005 was used). Intercorrelations among the 10 leadership competencies were calculated separately for each rater source in order to investigate the presence of multicollinearity between the independent variables.

Phase 2

In Phase 2, a series of multiple regression analyses were performed for each rater source. The Employee Engagement Composite scores were regressed on the 10 leadership competencies to identify the total variance associated with the leadership

competencies. These analyses also identified any unique variance contributed by the leadership competencies to employee engagement. Results of the multiple regression analyses were also compared to assess which rater source of the LCM 360 (i.e. self, manager, direct report, peer or other, combined raters) provided competency ratings that were the strongest predictors of variance in engagement.

Lastly, a series of supplementary multiple regression analyses were conducted for the self, direct report, and combined rater sources to explore the relationship between employee engagement and each of the items measuring Self Awareness and Adaptability in order to determine the element(s) within this competency that are most related to engagement.

CHAPTER IV

RESULTS

“However beautiful the strategy, you should occasionally look at the results.”

-- Winston Churchill

Results of statistical analyses will be presented in five sections. In section one, descriptive statistics are provided for the employee engagement composite and LCM leadership competencies by rater source (self, manager, direct report, peer or other, combined rater sources). In section two, reliability estimates for the employee engagement composite and leadership competencies by rater source are displayed. Next, in section three, the results of bivariate correlation analyses are included, which indicate the relationships between employee engagement and each of ten leadership competency scores, plus an overall leadership competence score, which is the average of the ten competencies. This section also includes a presentation of the intercorrelations among the ten leadership competencies and overall leadership competence score by rater source. Section four addresses the results of the multiple regression analyses, which were performed on each rater source of the LCM. Lastly, in section five, the findings of a series of supplementary multiple regression analyses are provided to elucidate further the relationship between employee engagement and leader self-awareness and adaptability, as rated by self, direct reports, and combined rater sources.

Descriptive Statistics

Employee Engagement Composite

Table 3 displays descriptive statistics for the engagement scores of the organizational units managed by the subjects. As indicated earlier, employees responded to 15 items assessing engagement in their organizational unit. Based on a 1-5 scale used by employees to rate their organization, lower scores represent lower employee engagement in the organizational unit, while higher scores represent higher engagement. The average engagement score of the organizational units included in the study is 3.82. Note that the 163 subjects in the study managed a total of 127 organizational units, indicating that some organizations were managed by multiple subjects. This is understandable given the matrix structure of the focal organization of the study.

Table 3
Descriptive Statistics for Employee Engagement Composite
 (N=127; N represents number of organizational units managed by subjects)

Engagement Measure	Min	Max	Mean	SD	Skewness Statistic	Skewness Std. Error	Kurtosis Statistic	Kurtosis Std. Error
Employee Engagement Composite	2.92	4.59	3.82	0.28	-0.24	0.22	0.98	0.43

Self Rater Source LCM Competencies and Overall Leadership Competence Score

Table 4 provides descriptive data for the ten leadership competencies and overall leadership competence score as rated by the target subjects (i.e. – self rater source). LCM competency scores range from 1-5, with low scores representing lower competency, and high scores representing higher competency. Mean competency scores from self-raters range from 3.83 to 4.82, with an overall leadership competence mean of 4.11.

Table 4
Descriptive Statistics for Self Rater Source LCM Leadership Competencies and Overall Leadership Competence Score

Competency	<i>N</i>	Min	Max	Mean	<i>SD</i>	Skewness Statistic	Skewness Std. Error	Kurtosis Statistic	Kurtosis Std. Error
Integrity	163	3.50	5.00	4.42	0.35	0.11	0.19	-0.90	0.38
Results & Performance Driven	163	2.80	5.00	4.24	0.39	-0.33	0.19	0.31	0.38
Sense of Urgency	163	2.50	5.00	4.17	0.39	-0.33	0.19	1.33	0.38
Strategic Thinking	163	2.75	5.00	4.12	0.45	0.11	0.19	-0.10	0.38
Big Picture Orientation	163	2.50	5.00	3.98	0.42	-0.33	0.19	0.91	0.38
Intellectual Curiosity	163	2.25	5.00	3.83	0.54	-0.26	0.19	0.13	0.38
Prudent Risk Taking	163	2.75	5.00	4.15	0.47	-0.42	0.19	0.21	0.38
Organization & Talent Development	163	2.80	5.00	4.07	0.43	-0.12	0.19	0.06	0.38
Collaboration & Teaming	163	2.60	5.00	4.03	0.46	-0.34	0.19	0.19	0.38
Self Awareness & Adaptability	163	2.80	5.00	4.06	0.44	-0.13	0.19	-0.11	0.38
Overall Leadership Competence	163	3.27	4.98	4.11	0.32	0.10	0.19	-0.15	0.38

Manager Rater Source LCM Competencies and Overall Leadership Competence Score

Table 5 provides descriptive statistics for the ten leadership competencies and overall leadership competence score as rated by managers of the target subjects (i.e. – manager rater source). The 2006 and 2007 versions of the LCM instrument divided the “manager” rater source into two types – “approval manager” and “other manager” – to separate ratings from “direct” and “dotted line” managers. In order to unify the data sets associated with target subjects who participated in the LCM 360 process in 2005 (which included only one option, “manager,” to account for both manager types) with 2006 and 2007 target subjects, for the purposes of this study “approval” and “other” managers were averaged to create a comparable “manager” rater source across target subjects. Mean competency scores from managers range from 3.91 to 4.39, with an overall leadership competence mean of 4.06.

Table 5
Descriptive Statistics for Manager Rater Source LCM Leadership Competencies and Overall Leadership Competence Score

Competency	<i>N</i>	Min	Max	Mean	<i>SD</i>	Skewness Statistic	Skewness Std. Error	Kurtosis Statistic	Kurtosis Std. Error
Integrity	162	2.75	5.00	4.39	0.47	-0.72	0.19	0.59	0.38
Results & Performance Driven	163	2.70	5.00	4.23	0.47	-0.71	0.19	0.64	0.38
Sense of Urgency	162	2.42	5.00	4.17	0.48	-0.58	0.19	0.80	0.38
Strategic Thinking	162	2.00	5.00	3.99	0.58	-0.43	0.19	0.18	0.38
Big Picture Orientation	162	2.50	5.00	3.95	0.45	-0.26	0.19	0.73	0.38
Intellectual Curiosity	162	2.00	5.00	3.84	0.59	-0.59	0.19	0.66	0.38
Prudent Risk Taking	163	2.50	5.00	4.07	0.53	-0.22	0.19	-0.40	0.38
Organization & Talent Development	162	2.50	5.00	3.91	0.54	-0.20	0.19	-0.11	0.38
Collaboration & Teaming	163	2.40	5.00	4.00	0.54	-0.20	0.19	-0.23	0.38
Self Awareness & Adaptability	163	2.40	5.00	4.04	0.55	-0.33	0.19	0.24	0.38
Overall Leadership Competence	161	2.80	4.96	4.06	0.41	-0.18	0.19	-0.07	0.38

Direct Report Rater Source LCM Competencies and Overall Leadership Competence Score

Table 6 provides descriptive statistics for the ten leadership competencies and overall leadership competence score as rated by direct reports of the target subjects (i.e. – direct report rater source). Mean competency scores from direct reports range from 3.97 to 4.27, with an overall leadership competence mean of 4.11.

Table 6
Descriptive Statistics for Direct Report Rater Source LCM Leadership Competencies and Overall Leadership Competence Score

Competency	<i>N</i>	Min	Max	Mean	<i>SD</i>	Skewness Statistic	Skewness Std. Error	Kurtosis Statistic	Kurtosis Std. Error
Integrity	163	2.75	5.00	4.27	0.50	-0.98	0.19	0.86	0.38
Results & Performance Driven	163	2.80	5.00	4.22	0.41	-0.84	0.19	1.20	0.38
Sense of Urgency	163	2.42	5.00	4.23	0.43	-1.15	0.19	2.08	0.38
Strategic Thinking	163	2.50	5.00	4.16	0.46	-0.91	0.19	1.15	0.38
Big Picture Orientation	163	2.75	5.00	4.10	0.39	-0.49	0.19	0.14	0.38
Intellectual Curiosity	163	2.00	5.00	4.05	0.44	-0.91	0.19	2.45	0.38
Prudent Risk Taking	163	3.00	5.00	4.11	0.43	-0.43	0.19	-0.03	0.38
Organization & Talent Development	163	2.17	5.00	3.97	0.51	-0.89	0.19	0.98	0.38
Collaboration & Teaming	163	2.60	5.00	4.03	0.48	-0.70	0.19	0.46	0.38
Self Awareness & Adaptability	163	2.47	5.00	3.99	0.48	-0.94	0.19	1.42	0.38
Overall Leadership Competence	163	2.75	5.00	4.11	0.39	-0.87	0.19	0.97	0.38

Peer Or Other Rater Source LCM Competencies and Overall Leadership Competence Score

Table 7 provides descriptive statistics for the ten leadership competencies and overall leadership competence score as scored by peers or other raters of the target subjects (i.e. – peer or other rater source). The 2006 and 2007 versions of the LCM instrument divided the “peer or other” rater source into three types – “peer,” “business partner,” and “other.” In order to unify the data sets associated with target subjects who participated in the LCM 360 process in 2005 (which included only one option, “peer or other,” to account for all types of peers or others) with 2006 and 2007 target subjects, for the purposes of this study “peers,” “business partners,” and “others” were averaged to create a comparable “peer or other” rater source across target subjects. Mean competency scores from peers or others range from 3.89 to 4.30, with an overall leadership competence mean of 4.06.

Table 7
Descriptive Statistics for Peer Or Other Rater Source LCM Leadership Competencies and Overall Leadership Competence Score

Competency	<i>N</i>	Min	Max	Mean	<i>SD</i>	Skewness Statistic	Skewness Std. Error	Kurtosis Statistic	Kurtosis Std. Error
Integrity	163	2.86	5.00	4.30	0.38	-0.71	0.19	1.08	0.38
Results & Performance Driven	163	3.24	5.00	4.19	0.30	-0.25	0.19	0.48	0.38
Sense of Urgency	163	2.97	4.83	4.16	0.30	-0.59	0.19	1.02	0.38
Strategic Thinking	163	2.50	5.00	4.09	0.36	-0.39	0.19	1.76	0.38
Big Picture Orientation	163	3.09	4.62	4.00	0.31	-0.35	0.19	0.05	0.38
Intellectual Curiosity	163	2.81	4.88	3.95	0.35	-0.12	0.19	0.73	0.38
Prudent Risk Taking	163	2.85	4.88	4.05	0.32	-0.51	0.19	1.06	0.38
Organization & Talent Development	163	2.42	5.00	3.89	0.39	-0.66	0.19	1.50	0.38
Collaboration & Teaming	163	2.73	4.90	3.99	0.37	-0.42	0.19	0.38	0.38
Self Awareness & Adaptability	163	3.00	4.80	4.02	0.36	-0.31	0.19	-0.06	0.38
Overall Leadership Competence	163	2.93	4.74	4.06	0.28	-0.60	0.19	1.36	0.38

Combined Rater Source LCM Competencies and Overall Leadership Competence Score

Table 8 provides descriptive statistics for the ten leadership competencies and overall leadership competence score using the target subjects' averaged manager, direct report, and peer or other rater source scores (i.e. – combined rater source). Mean competency scores from combined raters range from 3.92 to 4.32, with an overall leadership competence mean of 4.08.

Table 8
Descriptive Statistics for Combined Rater Source LCM Leadership Competencies and Overall Leadership Competence Score

Competency	<i>N</i>	Min	Max	Mean	<i>SD</i>	Skewness Statistic	Skewness Std. Error	Kurtosis Statistic	Kurtosis Std. Error
Integrity	163	3.38	4.97	4.32	0.33	-0.70	0.19	0.32	0.38
Results & Performance Driven	163	3.26	4.77	4.21	0.29	-0.85	0.19	0.96	0.38
Sense of Urgency	163	3.13	4.74	4.18	0.29	-0.84	0.19	0.75	0.38
Strategic Thinking	163	3.00	4.71	4.08	0.34	-0.47	0.19	0.27	0.38
Big Picture Orientation	163	3.29	4.60	4.02	0.26	-0.32	0.19	-0.07	0.38
Intellectual Curiosity	163	2.96	4.79	3.95	0.31	-0.52	0.19	0.18	0.38
Prudent Risk Taking	163	3.26	4.82	4.08	0.29	-0.23	0.19	0.28	0.38
Organization & Talent Development	163	2.78	4.71	3.92	0.35	-0.61	0.19	0.54	0.38
Collaboration & Teaming	163	2.70	4.64	4.01	0.34	-0.60	0.19	0.68	0.38
Self Awareness & Adaptability	163	2.74	4.77	4.02	0.30	-0.72	0.19	1.38	0.38
Overall Leadership Competence	163	3.17	4.62	4.08	0.26	-0.69	0.19	0.86	0.38

Reliability Estimates

Employee Engagement Composite

The Cronbach's Alpha reliability estimate for the 15-item employee engagement composite is .97, which exceeds the generally accepted minimum of .80. Note that of the 127 organizational units managed by the target subjects, two units did not have complete engagement data sets, and consequently these two units were excluded from the reliability assessment (thus leading to an *N* of 125 organizational units in the reliability estimate).

LCM Leadership Competency Reliability Estimates

Tables 9-10 present the Cronbach's Alpha reliability estimates by LCM rater source. Table 9 displays the reliability estimates for the seven competencies that were measured consistently across target subject years. Reliability estimates for the competencies range from .63 to .88. Of the 35 reliability estimates included in this table (7 competencies x 5 rater sources), nineteen are above .80 and sixteen are below .80 (ranging from .63 to .79). The lowest reliability estimates were obtained from the self rater source, regardless of the competency being rated.

Table 9
LCM Leadership Competency Reliabilities for each Rater Source as indicated by Cronbach's Alpha (For Seven Competencies with Consistent Scales Across Years)
 (N=163 unless otherwise indicated)

Competency	# of Items	Self Rater Source	Manager Rater Source	Direct Report Rater Source	Peer Or Other Rater Source	Combined Rater Source ^a
Results & Performance Driven	5	0.63	0.76 ^d	0.87 ^k	0.76	0.84
Sense of Urgency	6	0.69	0.80 ^e	0.88 ^l	0.83	0.86
Strategic Thinking	4	0.68	0.80 ^f	0.84 ^m	0.83	0.85
Big Picture Orientation	4	0.64 ^b	0.64 ^g	0.83 ⁿ	0.76 ^t	0.75
Prudent Risk Taking	4	0.66	0.76 ^h	0.79 ^o	0.68 ^s	0.73
Collaboration & Teaming	5	0.74 ^c	0.81 ⁱ	0.88 ^p	0.83 ^t	0.87
Self Awareness & Adaptability	5	0.70	0.83 ^j	0.87 ^q	0.85	0.86

^a The combined rater source is the average of manager, direct reports, and peer/other rater sources. ^bN=156, ^cN=161, ^dN=160, ^eN=158, ^fN=158, ^gN=152, ^hN=156, ⁱN=149, ^jN=156, ^kN=162, ^lN=161, ^mN=161, ⁿN=161, ^oN=161, ^pN=160, ^qN=162, ^rN=162, ^sN=162, ^tN=162

As indicated earlier, there were changes to some items measuring Integrity, Intellectual Curiosity, and Organization and Talent Development in the 2005 vs. 2006/2007 versions of the LCM instrument. Consequently, reliability was estimated separately for these years, and Table 10 provides these reliability estimates. Reliability estimates for these competencies range from .39 to .92. Of the 30 reliability estimates included in this table (3 competencies x 2 subject years x 5 rater sources), twenty are above .80 and fifteen are below .80 (ranging from .39 to .79). Again, the self rater source achieved the lowest reliability.

Table 10
LCM Leadership Competency Reliabilities for each Rater Source as indicated by Cronbach's Alpha (For Three Competencies with Varying Scales Across Years)
 (Subject Year 2005 $N=62$ unless otherwise indicated; Subject Year 2006/2007 $N=101$ unless otherwise indicated)

Competency	Subject Year	# of Items	Self Rater Source	Manager Rater Source	Direct Report Rater Source	Peer Or Other Rater Source	Combined Rater Source
Integrity	2005	4	0.39	0.79	0.87	0.86	0.86
	2006-2007	6	0.80	0.84 ^e	0.92	0.90	0.91
Intellectual Curiosity	2005	4	0.71 ^a	0.85 ^f	0.79 ^j	0.77	0.84
	2006-2007	4	0.76 ^b	0.76 ^g	0.83 ^k	0.81 ^m	0.80
Organization & Talent Development	2005	5	0.73 ^c	0.79 ^h	0.89	0.82	0.86
	2006-2007	6	0.73 ^d	0.82 ⁱ	0.91 ^l	0.90 ⁿ	0.90

^a $N=60$, ^b $N=100$, ^c $N=60$, ^d $N=100$, ^e $N=99$, ^f $N=57$, ^g $N=97$, ^h $N=49$, ⁱ $N=96$, ^j $N=59$, ^k $N=99$, ^l $N=99$, ^m $N=99$, ⁿ $N=98$

Correlational Analyses

Bivariate Correlations

Table 11 presents the bivariate correlations between the dependent variable (employee engagement composite) and the independent variables (ten leadership competencies plus overall leadership competence by rater source). None of the correlations with employee engagement are significant for the self rater source.

For the manager rater source, the correlation between employee engagement and the leadership competency, Organization and Talent Development, is .17, which is significant at the $\alpha .05$ level, suggesting that the higher a leader's competency in organization and talent development, the higher the engagement of her or his organization.

For the direct report rater source, three correlations are significant. First, the correlation between the leadership competency, Intellectual Curiosity and engagement

was $.21, p < .01$. Second, significant correlations exist between engagement and Big Picture Orientation ($r = .19, p < .05$), as well as between engagement and Collaboration and Teaming ($r = .16, p < .05$). These findings suggest that the greater a leader's competency in these areas, as reported by her or his direct reports, the greater the engagement of her or his organization.

For the peer or other rater source, a significant correlation exists between Collaboration and Teaming and engagement ($r = .16, p < .05$). Similar to one of the findings in the direct report rater source bivariate correlations, this finding indicates that the higher a leader's competency in teaming and collaboration, as reported by peers or others associated with the leader, the higher the engagement of employees in the leader's organization.

The combined rater source scores were computed for each competency by averaging the scores of all rater sources, excluding the self-ratings. The combined rater source provides the greatest number of significant correlations: a total of six – two at the $\alpha .01$ level, and four at the $\alpha .05$ level. First, at the $\alpha .01$ level, significant correlations exist between engagement and Intellectual Curiosity ($r = .21$), as well as between engagement and Collaboration and Teaming ($r = .21$). Second, at the $\alpha .05$ level, significant correlations exist between engagement and the following competencies: Integrity ($r = .17$), Big Picture Orientation ($r = .19$), Prudent Risk Taking ($r = .16$), and Overall Leadership Competence ($r = .17$). These findings suggest that, the greater a leader's competency in these areas, as determined by a combined average of all rater sources (excluding self), the greater the engagement of employees in her or his organization.

Across rater sources, none of the other bivariate correlations are statistically significant.

Table 11
Bivariate Correlations between Employee Engagement Composite Score (EEC) and LCM Leadership Competency Scores by Rater Source

Competency	Employee Engagement Composite with...				
	Self Rater Source	Manager Rater Source	Direct Report Rater Source	Peer Or Other Rater Source	Combined Rater Source
Integrity	.11	.15	.13	.09	.17*
Results & Performance Driven	.05	.08	.15	.02	.12
Sense of Urgency	-.02	.06	.10	.01	.08
Strategic Thinking	-.02	.05	.14	-.03	.08
Big Picture Orientation	-.02	.08	.19*	.10	.19*
Intellectual Curiosity	.01	.11	.21**	.13	.21**
Prudent Risk Taking	<.01	.14	.10	.07	.16*
Organization & Talent Development	-.06	.17*	.06	.08	.15
Collaboration & Teaming	.08	.14	.16*	.16*	.21**
Self Awareness & Adaptability	-.12	.06	-.01	.05	.05
Overall Leadership Competence	<.01	.13	.14	.09	.17*

N=139-163.

* $p < .05$ (2-tailed); ** $p < .01$ (2-tailed).

Intercorrelations among LCM Leadership Competencies

Tables 12-16 present the intercorrelations among the LCM competencies by rater source. As can be seen in these tables, correlations among all competencies for all rater sources are statistically significant at the $\alpha .01$ level. For the self rater source,

intercorrelations among the ten competencies and overall leadership competence score range from .29-.79. For the manager rater source, these intercorrelations range from .36-.85. For the direct report rater source, intercorrelations among the ten competencies and overall leadership competence score range from .48-.91. For the peer or other rater source, these intercorrelations range from .48-.85. Lastly, for the combined rater source, intercorrelations among the ten competencies and overall leadership competence score range from .46-.89. Given that the overall leadership competence score represents an average of the ten competency scores, it is understandable that, for each rater source, intercorrelations between the overall leadership competence score and many of the individual competencies are considerably high (in many cases between .70 and .91). The degree to which the competencies are intercorrelated suggests that, by rater source, there is a notable amount of redundancy among the competencies, and therefore, there may be little unique variance assessed by the individual competencies.

Table 12
Intercorrelations between Self Rater Source LCM Leadership Competency Scores

Competency	Results & Performance Driven	Sense of Urgency	Strategic Thinking	Big Picture Orientation	Intellectual Curiosity	Prudent Risk Taking	Organization & Talent Development	Collaboration & Teaming	Self Awareness & Adaptability	Overall Leadership Competence
Integrity	0.42**	0.35**	0.30**	0.30**	0.29**	0.34**	0.51**	0.38**	0.50**	0.57**
Results & Performance Driven	-----	0.68**	0.53**	0.40**	0.41**	0.54**	0.44**	0.55**	0.48**	0.73**
Sense of Urgency		-----	0.66**	0.60**	0.52**	0.52**	0.51**	0.58**	0.42**	0.79**
Strategic Thinking			-----	0.56**	0.58**	0.56**	0.54**	0.56**	0.47**	0.79**
Big Picture Orientation				-----	0.57**	0.36**	0.47**	0.52**	0.44**	0.71**
Intellectual Curiosity					-----	0.53**	0.51**	0.58**	0.41**	0.76**
Prudent Risk Taking						-----	0.53**	0.48**	0.50**	0.74**
Organization & Talent Development							-----	0.57**	0.59**	0.77**
Collaboration & Teaming								-----	0.42**	0.77**
Self Awareness & Adaptability									-----	0.71**

N=163

** $p < .01$ (2-tailed).

Table 13
Intercorrelations between Manager Rater Source LCM Leadership Competency Scores

Competency	Results & Performance Driven	Sense of Urgency	Strategic Thinking	Big Picture Orientation	Intellectual Curiosity	Prudent Risk Taking	Organization & Talent Development	Collaboration & Teaming	Self Awareness & Adaptability	Overall Leadership Competence
Integrity	0.36**	0.36**	0.42**	0.45**	0.37**	0.40**	0.55**	0.53**	0.55**	0.62**
Results & Performance Driven	-----	0.74**	0.68**	0.62**	0.53**	0.69**	0.53**	0.52**	0.49**	0.76**
Sense of Urgency		-----	0.77**	0.68**	0.61**	0.72**	0.58**	0.62**	0.66**	0.84**
Strategic Thinking			-----	0.70**	0.65**	0.73**	0.68**	0.69**	0.66**	0.87**
Big Picture Orientation				-----	0.67**	0.61**	0.61**	0.69**	0.62**	0.82**
Intellectual Curiosity					-----	0.55**	0.57**	0.64**	0.61**	0.78**
Prudent Risk Taking						-----	0.69**	0.64**	0.59**	0.82**
Organization & Talent Development							-----	0.75**	0.64**	0.82**
Collaboration & Teaming								-----	0.73**	0.85**
Self Awareness & Adaptability									-----	0.82**

N=161-163

** *p*<.01 (2-tailed).

Table 14
Intercorrelations between Direct Report Rater Source LCM Leadership Competency Scores

Competency	Results & Performance Driven	Sense of Urgency	Strategic Thinking	Big Picture Orientation	Intellectual Curiosity	Prudent Risk Taking	Organization & Talent Development	Collaboration & Teaming	Self Awareness & Adaptability	Overall Leadership Competence
Integrity	0.71**	0.66**	0.60**	0.68**	0.49**	0.66**	0.81**	0.76**	0.76**	0.84**
Results & Performance Driven	-----	0.82**	0.77**	0.75**	0.54**	0.76**	0.69**	0.77**	0.68**	0.87**
Sense of Urgency		-----	0.85**	0.78**	0.62**	0.77**	0.73**	0.75**	0.70**	0.89**
Strategic Thinking			-----	0.78**	0.64**	0.75**	0.71**	0.74**	0.65**	0.87**
Big Picture Orientation				-----	0.73**	0.68**	0.75**	0.77**	0.70**	0.88**
Intellectual Curiosity					-----	0.48**	0.52**	0.60**	0.49**	0.71**
Prudent Risk Taking						-----	0.72**	0.71**	0.67**	0.84**
Organization & Talent Development							-----	0.85**	0.86**	0.90**
Collaboration & Teaming								-----	0.83**	0.91**
Self Awareness & Adaptability									-----	0.86**

N=163

** $p < .01$ (2-tailed).

Table 15
Intercorrelations between Peer Or Other Rater Source LCM Leadership Competency Scores

Competency	Results & Performance Driven	Sense of Urgency	Strategic Thinking	Big Picture Orientation	Intellectual Curiosity	Prudent Risk Taking	Organization & Talent Development	Collaboration & Teaming	Self Awareness & Adaptability	Overall Leadership Competence
Integrity	0.57**	0.55**	0.52**	0.63**	0.48**	0.66**	0.69**	0.73**	0.71**	0.80**
Results & Performance Driven	-----	0.69**	0.73**	0.64**	0.59**	0.67**	0.56**	0.62**	0.60**	0.80**
Sense of Urgency		-----	0.77**	0.65**	0.62**	0.71**	0.61**	0.62**	0.66**	0.83**
Strategic Thinking			-----	0.64**	0.68**	0.74**	0.63**	0.60**	0.63**	0.84**
Big Picture Orientation				-----	0.64**	0.65**	0.66**	0.71**	0.63**	0.83**
Intellectual Curiosity					-----	0.60**	0.54**	0.56**	0.50**	0.75**
Prudent Risk Taking						-----	0.67**	0.65**	0.67**	0.85**
Organization & Talent Development							-----	0.77**	0.75**	0.85**
Collaboration & Teaming								-----	0.76**	0.86**
Self Awareness & Adaptability									-----	0.84**

N=163

** $p < .01$ (2-tailed).

Table 16
Intercorrelations between Combined Rater Source LCM Leadership Competency Scores

Competency	Results & Performance Driven	Sense of Urgency	Strategic Thinking	Big Picture Orientation	Intellectual Curiosity	Prudent Risk Taking	Organization & Talent Development	Collaboration & Teaming	Self Awareness & Adaptability	Overall Leadership Competence
Integrity	0.54**	0.51**	0.50**	0.61**	0.46**	0.54**	0.71**	0.72**	0.72**	0.76**
Results & Performance Driven	-----	0.80**	0.78**	0.72**	0.58**	0.74**	0.62**	0.66**	0.61**	0.84**
Sense of Urgency		-----	0.86**	0.75**	0.60**	0.77**	0.65**	0.68**	0.68**	0.87**
Strategic Thinking			-----	0.72**	0.64**	0.78**	0.70**	0.69**	0.65**	0.87**
Big Picture Orientation				-----	0.64**	0.66**	0.72**	0.77**	0.67**	0.86**
Intellectual Curiosity					-----	0.52**	0.53**	0.61**	0.52**	0.73**
Prudent Risk Taking						-----	0.70**	0.64**	0.63**	0.83**
Organization & Talent Development							-----	0.83**	0.76**	0.87**
Collaboration & Teaming								-----	0.79**	0.89**
Self Awareness & Adaptability									-----	0.84**

N=163

** $p < .01$ (2-tailed).

Primary Multiple Regression Analyses

Multiple regression analyses were conducted on the dependent variable (employee engagement composite score) by LCM rater source in order to elucidate the proportion of variance accounted for by the ten leadership competency scores. Tables are presented by rater source that include the overall proportion of variance predicted from the ten competency scores (i.e. adjusted R^2), the F-test statistic associated with its significance, whether any of the competency scores offer significant unique contributions, and the semi-partial r^2 values (sr^2) which represent the size of these contributions (i.e., the proportion of variance uniquely contributed by a variable).

Regression of Employee Engagement Scores onto the Self Rater Source LCM Competencies

Employee engagement scores of the organizational units were regressed on the ten LCM competency scores obtained from the self rater source. That is, I wanted to determine if one could predict the degree of engagement of the organizational unit from the ten LCM competency scores, obtained from the target subjects themselves. As seen in Table 17, Multiple R^2 was not significant. Among the ten leadership competencies regressed on the dependent variable, two – Integrity, and Self-Awareness and Adaptability – offer significant unique contributions on employee engagement. Integrity provides a significant, positive unique contribution, accounting for 3.1% of the variance in engagement (as defined by the semi-partial r^2). It is interesting to note that, although Self-Awareness and Adaptability also offers a significant unique contribution, accounting for 3.2% of the variance in engagement, the direction of the relationship is negative ($\beta = -.243$). This suggests that the higher an organizational leader's competence in the area of

self-awareness and adaptability, the lower the overall engagement of her or his organizational unit. Notably, although the directions of the correlations between these competencies and engagement were similar in the bivariate correlation analysis (e.g. Integrity was positive and Self-Awareness and Adaptability negative; see Table 11), neither bivariate relationship with engagement was significant. The multiple regression results suggest that, after controlling for the shared variance among the competencies (of which there is a considerable amount, given the size and significance of the intercorrelations in Table 12), significant unique variance in employee engagement is explainable by Integrity and Self-Awareness and Adaptability.

Table 17
Multiple Regression Results for Employee Engagement by Self Rater Source Competencies

Variables Entered	R squared	Adjusted R squared	F	p-value	LCM Competency	Unique Contribution?	β	T	p-value	sr squared
All 10 Competencies	0.07	0.006	F(10, 143)=1.09	0.374	Integrity	Yes	0.221	2.205	0.029	0.031
					Results & Performance Driven	No	0.084	0.697	0.487	0.003
					Sense of Urgency	No	-0.133	-1.001	0.318	0.006
					Strategic Thinking	No	0.047	0.393	0.695	0.001
					Big Picture Orientation	No	0.026	0.235	0.815	0.000
					Intellectual Curiosity	No	-0.052	-0.453	0.651	0.001
					Prudent Risk Taking	No	0.080	0.709	0.480	0.003
					Organization & Talent Development	No	-0.060	-0.497	0.620	0.002
					Collaboration & Teaming	No	0.104	0.903	0.368	0.005
					Self Awareness & Adaptability	Yes	-0.243	-2.216	0.028	0.032

Regression of Employee Engagement Scores onto the Manager Rater Source LCM Competencies

Table 18 displays the results of the multiple regression analysis using the LCM manager rater source competencies as the independent variables. As with the self rater source competencies, Multiple R² was not significant. In addition, none of the ten leadership competencies made significant unique contributions to employee engagement. It is interesting to note that, although the bivariate correlation analysis found a significant relationship between Organization and Talent Development and employee engagement (see Table 11), the multiple regression results suggest that, after controlling for the shared variance between this competency and the other nine, Organization and Talent Development no longer has any unique variance to contribute.

Table 18
Multiple Regression Results for Employee Engagement by Manager Rater Source Competencies

Variables Entered	R squared	Adjusted R squared	F	p-value	LCM Competency	Unique Contribution?	β	T	p-value	sr squared
All 10 Competencies	0.078	0.013	F(10, 140)=1.196	0.298	Integrity	No	0.118	1.127	0.262	0.008
					Results & Performance Driven	No	0.118	0.875	0.383	0.005
					Sense of Urgency	No	-0.079	-0.490	0.625	0.002
					Strategic Thinking	No	-0.178	-1.162	0.247	0.009
					Big Picture Orientation	No	-0.078	-0.576	0.565	0.002
					Intellectual Curiosity	No	0.061	0.506	0.614	0.002
					Prudent Risk Taking	No	0.127	0.912	0.363	0.005
					Organization & Talent Development	No	0.145	1.063	0.290	0.007
					Collaboration & Teaming	No	0.141	0.956	0.340	0.006
					Self Awareness & Adaptability	No	-0.154	-1.114	0.267	0.008

Regression of Employee Engagement Scores onto the Direct Report Rater Source LCM Competencies

Table 19 reports the findings of the multiple regression analysis using the direct report rater source competencies as the independent variables. Multiple R^2 was significant, suggesting that the ten competency scores from direct report raters account for significant variance in employee engagement. As defined by adjusted R^2 , the competencies account for 14% of the variance in engagement. Three of the ten competencies – Integrity, Collaboration and Teaming, and Self-Awareness and Adaptability – offer significant unique contributions to engagement. As reported for the self rater source competencies, Integrity provides a significant unique contribution to engagement, (accounting for 2.5% of the variance), and Self-Awareness and Adaptability offers a significant, negative unique contribution (accounting for 6.5% of the variance; $\beta = -.529$). In addition, Collaboration and Teaming offers a significant unique contribution to engagement, accounting for 3.3% of the variance. Of note, this competency was also found to have a significant relationship with engagement in the bivariate correlation analysis (see Table 11). The multiple regression results suggest that, even after controlling for the shared variance among all competencies in the model, Collaboration and Teaming makes a significant unique contribution to engagement. Although Self-Awareness and Adaptability was not significantly correlated with engagement in the bivariate correlation analysis, after the shared variance with the other competencies was removed from Self-Awareness and Adaptability, the remaining proportion of variance explained by the competency was significant. Also worthy of consideration, Big Picture Orientation and Intellectual Curiosity were significantly

correlated with engagement in the bivariate correlation analysis; however, the relationships were no longer significant after controlling for the shared variance among the competencies in the multiple regression.

Table 19
Multiple Regression Results for Employee Engagement by Direct Report Rater Source Competencies

Variables Entered	R squared	Adjusted R squared	F	p-value	LCM Competency	Unique Contribution?	β	T	p-value	sr squared
All 10 Competencies	0.197	0.14	F(10, 141)=3.478	<0.001	Integrity	Yes	0.287	2.089	0.038	0.025
					Results & Performance Driven	No	-0.046	-0.284	0.777	0.000
					Sense of Urgency	No	0.139	0.781	0.436	0.003
					Strategic Thinking	No	0.099	0.628	0.531	0.002
					Big Picture Orientation	No	0.161	0.991	0.323	0.006
					Intellectual Curiosity	No	0.015	0.128	0.899	0.000
					Prudent Risk Taking	No	-0.047	-0.346	0.730	0.001
					Organization & Talent Development	No	-0.246	-1.346	0.180	0.010
					Collaboration & Teaming	Yes	0.424	2.427	0.016	0.033
					Self Awareness & Adaptability	Yes	-0.529	-3.395	0.001	0.065

Regression of Employee Engagement Scores onto the Peer Or Other Rater Source LCM Competencies

Table 20 displays the results of the multiple regression analysis using the LCM peer or other rater source competencies as the independent variables. As with the self and manager rater source competencies, Multiple R^2 was not significant. Among the ten leadership competencies regressed on the dependent variable, Collaboration and Teaming offers a significant, positive unique contribution to employee engagement. As defined by sr^2 , Collaboration and Teaming accounts for 2.5% of the variance in engagement. Notably, consistent with the direct report rater source, this competency also had a significant relationship with engagement in the bivariate correlation analysis (see Table 11). The multiple regression results suggest that, even after controlling for the shared variance among all competencies in the model, Collaboration and Teaming still makes a significant unique contribution to engagement.

Table 20
Multiple Regression Results for Employee Engagement by Peer Or Other Rater Source Competencies

Variables Entered	R squared	Adjusted R squared	F	p-value	LCM Competency	Unique Contribution?	β	T	p-value	sr squared
All 10 Competencies	0.083	0.02	F(10, 144)=1.32	0.225						
					Integrity	No	-0.036	-0.271	0.787	0.000
					Results & Performance Driven	No	-0.045	-0.352	0.725	0.001
					Sense of Urgency	No	-0.061	-0.417	0.677	0.001
					Strategic Thinking	No	-0.279	-1.819	0.071	0.021
					Big Picture Orientation	No	0.020	0.151	0.880	0.000
					Intellectual Curiosity	No	0.206	1.735	0.085	0.019
					Prudent Risk Taking	No	0.103	0.738	0.462	0.003
					Organization & Talent Development	No	-0.030	-0.206	0.837	0.000
					Collaboration & Teaming	Yes	0.309	1.991	0.048	0.025
					Self Awareness & Adaptability	No	-0.081	-0.559	0.577	0.002

Regression of Employee Engagement Scores onto the Combined Rater Source LCM Competencies

Table 21 reports the findings of the multiple regression analysis using the combined rater source competencies as the independent variables. Multiple R^2 was significant, suggesting that the ten competency scores from combined raters account for significant variance in employee engagement. As defined by adjusted R^2 , the competencies account for 13.2% of the variance in engagement. Consistent with the direct report rater source, the same three of ten competencies – Integrity, Collaboration and Teaming, and Self-Awareness and Adaptability – offer significant unique contributions to engagement. Once again, Integrity provides a significant, positive unique contribution to engagement, (accounting for 2.3% of the variance). Self-Awareness and Adaptability offers a significant, negative unique contribution (accounting for 6.5% of the variance; $\beta = -.477$). Collaboration and Teaming offers a significant, positive unique contribution to engagement (accounting for 2.9% of the variance). Of note, Integrity and Collaboration and Teaming also had significant relationships with engagement in the bivariate correlation analysis (see Table 11). The multiple regression results suggest that, even after controlling for the shared variance among all competencies in the model, Integrity and Collaboration and Teaming still make significant unique contributions to engagement. Self-Awareness and Adaptability was not significantly correlated with engagement in the bivariate correlation analysis; however, after the shared variance with the other competencies was removed, Self-Awareness and Adaptability contributes a significant unique proportion of variance to engagement. Several other competencies – including Big Picture Orientation, Intellectual

Curiosity, and Prudent Risk-Taking – were significantly correlated with engagement in the bivariate correlation analysis. However, the multiple regression results suggest that, after controlling for the shared variance among the competencies, these specific competencies no longer have any unique variance to contribute.

Table 21
Multiple Regression Results for Employee Engagement by Combined Rater Source Competencies

Variables Entered	R squared	Adjusted R squared	F	p-value	LCM Competency	Unique Contribution?	β	T	p-value	sr squared
All 10 Competencies	0.189	0.132	F(10, 142)=3.333	0.001						
					Integrity	Yes	0.246	2.013	0.046	0.023
					Results & Performance Driven	No	0.037	0.270	0.788	0.000
					Sense of Urgency	No	0.142	0.806	0.421	0.004
					Strategic Thinking	No	-0.288	-1.703	0.091	0.016
					Big Picture Orientation	No	0.018	0.130	0.897	0.000
					Intellectual Curiosity	No	0.151	1.454	0.148	0.012
					Prudent Risk Taking	No	0.208	1.552	0.123	0.014
					Organization & Talent Development	No	-0.087	-0.580	0.563	0.002
					Collaboration & Teaming	Yes	0.372	2.265	0.025	0.029
					Self Awareness & Adaptability	Yes	-0.477	-3.392	0.001	0.065

Summary of Primary Multiple Regression Analyses

Leadership competency scores from two of five rater sources – direct report and combined raters – account for significant proportions of variance in employee engagement. No other rater sources provide significant multiple R^2 values. Yielded from several rater sources, three leadership competencies – Integrity (as rated by self, direct reports, and combined raters), Collaboration and Teaming (as rated by direct reports, peers or others, and combined raters), and Self-Awareness and Adaptability (as rated by self, direct reports, and combined raters) – consistently provided significant unique contributions to engagement. In all three cases in which Self-Awareness and Adaptability was significantly related to engagement, the direction of the relationship was negative. The unique contributions to engagement by all other competencies, across rater sources, were not statistically significant.

Supplementary Multiple Regression Analyses

A series of supplementary multiple regression analyses were conducted in order to explicate further the negative unique contribution of Self-Awareness and Adaptability to employee engagement. These additional analyses were performed using scores from the self, direct report, and combined rater sources (i.e. – the rater sources that yielded the significant unique contributions of Self-Awareness and Adaptability). However, instead of entering the Self-Awareness and Adaptability competency into the model, the five items that comprise this competency scale were included with the other nine competencies (for a total of 14 independent variables) in the multiple regressions. The central purpose of these analyses was to determine the nuances within the Self-Awareness and Adaptability competency, as measured by the particular scale in this

study, that drive the relationship with engagement. Uncovering one or more items that offer significant unique negative contributions would allow for a deeper understanding of the dynamics around leader self-awareness and adaptability behaviors and employee engagement.

Regression of Employee Engagement Scores onto the Self Rater Source 9 LCM Competencies and 5 Self-Awareness and Adaptability Items

As seen in Table 22, which presents the results of the multiple regression analysis using the LCM self rater source 9 competencies and 5 Self-Awareness and Adaptability items as the independent variables, Multiple R^2 was not significant. This finding is consistent with the primary multiple regression analysis conducted using the ten competency scores provided by self raters. Among the fourteen independent variables (competencies and items) onto which the dependent variable was regressed, one – Self Awareness and Adaptability Item Q180: “Actively seeks feedback” – offers a significant unique contribution to employee engagement. According to sr^2 , this item accounts for 2.9% of the variance in engagement. The remaining four items in the Self-Awareness and Adaptability scale did not offer statistically significant unique contributions to engagement; two of these items had positive relationships with engagement, while the other two items had negative relationships. Although Integrity provided a significant, positive unique contribution in the primary multiple regression analysis for self-raters (see Table 17), the p-value associated with sr^2 in this instance falls just below the α .05 level ($p = .059$).

Table 22

Multiple Regression Results for Employee Engagement by Self Rater Source Competencies and Self Awareness & Adaptability Items

Variables Entered	R squared	Adjusted R squared	F	p-value	LCM Competencies / Items	Unique Contribution?	β	T	p-value	sr squared
9 Competencies and 5 Self Awareness & Adaptability Items	0.091	<.001	F(14, 139)=.996	0.461	Integrity	No	0.195	1.900	0.059	0.023
					Results & Performance Driven	No	0.107	0.873	0.384	0.005
					Sense of Urgency	No	-0.159	-1.165	0.246	0.009
					Strategic Thinking	No	0.073	0.596	0.552	0.002
					Big Picture Orientation	No	-0.022	-0.189	0.850	0.000
					Intellectual Curiosity	No	-0.064	-0.553	0.581	0.002
					Prudent Risk Taking	No	0.079	0.697	0.487	0.003
					Organization & Talent Development	No	-0.064	-0.527	0.599	0.002
					Collaboration & Teaming	No	0.126	1.087	0.279	0.008
					Q180 - Actively seeks feedback	Yes	-0.220	-2.095	0.038	0.029
					Q181 - Appreciates constructive criticism	No	0.048	0.453	0.651	0.001
					Q182 - Bounces back quickly from disappointments and mistakes; learns and moves on quickly	No	-0.065	-0.646	0.519	0.003
					Q183 - Asserts personal ideas and opinions, using productive influence	No	-0.137	-1.377	0.171	0.012
Q184 - Demonstrates awareness of how his/her actions or interactions impact others	No	0.043	0.425	0.672	0.001					

Regression of Employee Engagement Scores onto the Direct Report Rater Source 9 LCM Competencies and 5 Self-Awareness and Adaptability Items

Table 23 displays the results of the multiple regression analysis using the LCM direct report rater source 9 competencies and 5 Self-Awareness and Adaptability items as the independent variables. Consistent with the primary multiple regression analysis conducted using the ten competency scores provided by direct report raters, Multiple R² was significant. According to adjusted R², the nine competencies and five Self-Awareness and Adaptability items account for 12.1% of the variance in employee engagement. Among the fourteen independent variables (competencies and items) onto which the engagement scores were regressed, two – Integrity and Collaboration and Teaming – offer significant unique contributions to employee engagement (accounting for 2.7% and 2.8% of the variance, respectively). These competencies were significantly related to engagement in the primary multiple regression analysis that used direct report scores, as well (see Table 19). However, dissimilar to the primary multiple regression analysis, in which the Self-Awareness and Adaptability competency offered a significant, negative unique contribution to engagement, none of the five items in the competency scale are significantly related to engagement. In all cases, the direction of the relationship between item scores and engagement is negative, but not statistically significant.

Table 23

Multiple Regression Results for Employee Engagement by Direct Report Rater Source Competencies and Self Awareness & Adaptability Items

Variables Entered	R squared	Adjusted R squared	F	p-value	LCM Competencies / Items	Unique Contribution?	β	T	p-value	sr squared
9 Competencies and 5 Self Awareness & Adaptability Items	0.203	0.121	F(14, 136)=2.491	0.004	Integrity	Yes	0.324	2.148	0.033	0.027
					Results & Performance Driven	No	-0.059	-0.346	0.730	0.001
					Sense of Urgency	No	0.085	0.446	0.656	0.001
					Strategic Thinking	No	0.128	0.779	0.438	0.003
					Big Picture Orientation	No	0.174	1.042	0.299	0.006
					Intellectual Curiosity	No	<.001	0.001	0.999	0.000
					Prudent Risk Taking	No	-0.052	-0.333	0.740	0.001
					Organization & Talent Development	No	-0.255	-1.390	0.167	0.011
					Collaboration & Teaming	Yes	0.403	2.201	0.029	0.028
					Q180 - Actively seeks feedback	No	-0.201	-1.600	0.112	0.015
					Q181 - Appreciates constructive criticism	No	-0.114	-0.796	0.427	0.004
					Q182 - Bounces back quickly from disappointments and mistakes; learns and moves on quickly	No	-0.061	-0.522	0.602	0.002
					Q183 - Asserts personal ideas and opinions, using productive influence	No	-0.043	-0.353	0.725	0.001
					Q184 - Demonstrates awareness of how his/her actions or interactions impact others	No	-0.186	-1.358	0.177	0.011

Regression of Employee Engagement Scores onto the Combined Rater Source 9 LCM Competencies and 5 Self-Awareness and Adaptability Items

As seen in Table 24, which presents the results of the multiple regression analysis using the LCM combined rater source 9 competencies and 5 Self-Awareness and Adaptability items as the independent variables, Multiple R^2 was significant. This finding is consistent with the primary multiple regression analysis conducted using the ten competency scores provided by combined raters. Also similar to the primary analysis, among the fourteen independent variables (competencies and items) onto which the engagement scores were regressed, three – Integrity, Collaboration and Teaming, and Self-Awareness and Adaptability Item Q180: “Actively seeks feedback” – offer significant unique contributions to employee engagement. According to sr^2 , these variables account for 2.4%, 2.6%, and 2.5% of the variance in engagement, respectively. As with the self rater source, Self-Awareness and Adaptability Item Q180 provides a significant negative unique contribution to engagement. The remaining four items in the Self-Awareness and Adaptability scale offered no statistically significant unique contributions to engagement; two of these items had positive relationships with engagement, while the other two items had negative relationships.

Table 24

Multiple Regression Results for Employee Engagement by Combined Rater Source Competencies and Self Awareness & Adaptability Items

Variables Entered	R squared	Adjusted R squared	F	p-value	LCM Competencies / Items	Unique Contribution?	β	T	p-value	sr squared
9 Competencies and 5 Self Awareness & Adaptability Items	0.211	0.132	F(14, 138)=2.658	0.002	Integrity	Yes	0.266	0.205	0.042	0.024
					Results & Performance Driven	No	-0.034	-0.231	0.818	0.000
					Sense of Urgency	No	0.094	0.507	0.613	0.001
					Strategic Thinking	No	-0.284	-1.601	0.112	0.015
					Big Picture Orientation	No	0.060	0.413	0.681	0.001
					Intellectual Curiosity	No	0.127	1.209	0.229	0.008
					Prudent Risk Taking	No	0.184	1.338	0.183	0.010
					Organization & Talent Development	No	-0.048	-0.315	0.753	0.001
					Collaboration & Teaming	Yes	0.357	2.135	0.035	0.026
					Q180 - Actively seeks feedback	Yes	-0.239	-2.112	0.037	0.025
					Q181 - Appreciates constructive criticism	No	-0.143	-1.208	0.229	0.008
					Q182 - Bounces back quickly from disappointments and mistakes; learns and moves on quickly	No	0.050	0.411	0.681	0.001
					Q183 - Asserts personal ideas and opinions, using productive influence	No	0.033	0.277	0.782	0.000
					Q184 - Demonstrates awareness of how his/her actions or interactions impact others	No	-0.228	-1.734	0.085	0.017

Summary of Supplementary Multiple Regression Analyses

For the most part, findings in the supplementary multiple regression analyses are consistent with and complementary to the primary analyses conducted. Leadership competency scores from the same two of five rater sources – direct report and combined raters – offer significant multiple R^2 values when using the nine competencies and five Self-Awareness and Adaptability items as predictor variables. Integrity is found to offer a significant unique contribution to engagement as rated by direct reports and combined raters (Note – self rater source Integrity was near but did not reach a statistically significant α .05 level). In addition, Collaboration and Teaming, as rated by direct report and combined rater sources, still offers significant unique contributions to engagement in the supplementary multiple regression models. Most notably, using self and combined rater sources, the Self-Awareness and Adaptability Item Q180: “Actively seeks feedback” makes a significant, negative unique contribution to engagement. This suggests that behavioral dynamics around this component of the Self-Awareness and Adaptability competency are particularly influential on employee engagement. Although the direction of the relationship between the remaining four Self-Awareness and Adaptability items is negative in eight of twelve cases, none of these unique contributions to engagement were statistically significant.

CHAPTER V

DISCUSSION

*“Where is the wisdom we have lost in knowledge?
Where is the knowledge we have lost in information?”*

-- T.S. Eliot

In this chapter, I will (1) posit interpretations of the key findings of the study, (2) discuss limitations, (3) summarize the major conclusions drawn, (4) explore implications for practice, and (5) identify directions for future research.

Interpretations of Key Findings

In pursuit of answers to the research question guiding this study, *“In what ways, if any, are the leadership competencies of senior leaders related to the engagement of employees in their organizational units?”*, the discussion of key findings will be organized around the hypotheses put forth earlier in this manuscript. Given that both the bivariate correlation and multiple regression analyses yielded statistically significant results, where applicable, two levels of support for hypotheses will be articulated. Hypotheses will be considered as having “strong support” in cases in which a competency (a) was significantly related to engagement in both the bivariate correlation and multiple regression analyses, and/or (b) offered significant unique contributions to engagement as rated by two or more rater sources in the multiple regression analyses. Hypotheses that received statistical support from bivariate correlation analyses only will be considered as having “moderate support.”

Before discussing each hypothesis, it is important to address briefly the significant relationship between the overall model of leadership competence and employee engagement. This finding indicates that the leadership competencies of senior leaders (from the perspectives of the direct report and combined rater sources) have important relationships with the engagement of employees. Most research on engagement has emphasized the influence of line managers on the engagement of their direct reports. However, less research has investigated the role played by senior leaders in the engagement of employees. Exciting new work by Gebauer and Lowman (2008) offer some of the first deep insights in this regard, having demonstrated that senior executives affect engagement through the demonstration of genuine caring for employees, their influence on organizational culture, their ability to create environments in which it is acceptable to take risks (and even fail), and their focus on development at all levels of the organization.

The findings of the present research complement, and perhaps even elucidate such conclusions by identifying a set of leadership competencies that, when taken collectively, predict engagement of employees at the organizational-unit level of analysis. Within this context, several competencies in particular – Integrity, Collaboration and Teaming, and Self-Awareness and Adaptability – appear to make unique contributions to employee engagement. Each of these relationships will be discussed in the context of the hypotheses of this study.

Hypothesis 1: The leadership competency, Integrity, will be positively correlated with employee engagement.

Findings from the bivariate correlation and multiple regression analyses provide strong support for this hypothesis. Senior leader Integrity was correlated with employee engagement when using the combined rater source scores of leadership competence in the bivariate correlation analysis. In addition, Integrity offered significant unique contributions to engagement when using the self, direct report, and combined rater sources in the multiple regression analyses.

The relationship between the integrity of senior organizational leaders and the engagement of employees validates and expands on previous research findings, and can be understood in the context of several theoretical lenses. In a meta-analysis of the literature on employee engagement, Gibbons (2006) concluded that ‘trust and integrity’ is one of eight key drivers of employee engagement. According to Gibbons, employees are engaged in their organization when they feel that members of senior management care about their general well being, demonstrably tell the truth, effectively communicate difficult messages, listen to employees, follow through with appropriate actions, and model organizational goals and values in their own conduct. Well aligned to this description, the behavioral definition of Integrity in the present study is:

Living by the corporation’s values and motivating others to do so as well, maintaining high ethical standards, building the trust of others, being transparent when dealing with problems, always telling the truth, and demonstrating a genuine caring for others (see Table 2).

In a world of work that has suffered pervasive abuses by senior executives over the past decade alone, it is no wonder that the leadership competency, integrity, is positively related to employee engagement. Given the most recent financial crises that have rippled through the world economy, topped off (perhaps) by the greed-driven Madoff ponzi scheme that is estimated to have resulted in more than 60 billion dollars in losses, one need not even look back to the Enron and WorldCom scandals that took place at the turn of the century to be reminded of the power abuses that occur in today's workplaces. Much has been made of the effects of these malpractices on the economy, the stock market, consumer confidence, and customer satisfaction. This research may offer insight into the ways in which these happenings affect the employee population, as well.

One interpretation is that employees now *need* to observe integrity in their senior leaders in order to feel confident that no abuses will be uncovered later. With such assurance, they may then feel freer to enlist their engagement. As argued by Kahn (1990), engagement requires substantial physical and emotional energy. Perhaps employees have become so affected by the widespread lack of integrity among senior leaders in today's organizations, and are consequently concerned with "wasting" their engagement, that engagement can only occur in contexts in which upper management excels at, and visibly models, the competency. This would certainly be consistent with the Saks (2006) assertion that engagement is a form of social currency "spent" by employees in exchange for employment and other forms of compensation from their organizations.

Relatedly, it is worth considering how changes in the psychological contract between employer and employee may interact with the turbulence of this era. Some theorists argue that organizational cynicism has emerged as a result of perceived breaches in the psychological contract that occurred as the nature and demands of employment evolved over the last two decades (e.g. Andersson, 1996; Andersson & Bateman, 1997; Feldman, 2000). According to Dean et al. (1998), one component of organizational cynicism is the belief that the organization lacks integrity. Organizational members often “see” their leaders as the embodiment of the organization-as-a-whole. So, as organizations demanded more of their employees while offering less job security and commitment to lifetime employment, employees repeatedly observed the very leaders representing those changes being found guilty of egregious malpractices, as well. One could argue that this dynamic, in concert with other forms of psychological contract violations experienced by employees over this same period of time, may have interacted to increase organizational cynicism and reduce employee engagement.

Still further, if one recalls the argument made by another group of theorists who claim that engagement is the positive complement to burnout (Maslach, Schaufeli, & Leiter, 2001), cynicism, or what is sometimes referred to as depersonalization, reflects the interpersonal component of burnout. This dimension is characterized by a sense of generalized negativity and the distancing of one’s self from others and various aspects of the job. With this as a definition of cynicism, it makes sense that employee engagement (burnout’s positive antipode) might be fostered by the demonstration of integrity at the senior-most levels of organizations, because such behavior by its very definition may prevent cynicism from emerging.

Another conceptualization is that the integrity of leaders is correlated with Maslach and Leiter's (1997) "fairness" and "values" dimensions of the organizational context of burnout. Considering engagement from this perspective, an interpretation of the positive relationship between integrity and employee engagement is that senior leaders who are high in integrity are also more likely to provide equity of workload and pay, model a sense of needed truth telling and transparency, demonstrate consistency between espoused and actualized organizational values, and make decisions that display superior ethics in the organization. The lack of integrity-based leadership described previously may even heighten the positive effect on employee engagement that is made by leaders who demonstrate this competency.

Lastly, one might interpret the significant relationship between integrity and employee engagement in relation to the "safety" dimension of Kahn's (1990) psychological conditions of personal engagement and disengagement at work. Organizational cultures guide member behavior through promulgating shared expectations about acceptable behavior, one component of which is how persons interact with one another. When one considers the profound influence of senior leaders on the culture of their organizations, perhaps leaders who visibly demonstrate integrity foster a sense of trust in the environment and its web of intergroup and interpersonal relationships that drives engagement. Modeling transparency and openness may enlist the sharing of ideas and opinions among employees and with their leaders. Freed from fear of negative repercussions for taking such risks, employees and their leaders may interact to create a dynamic in which employees experience integrity in their leaders and respond with engagement, which reinforces displays of integrity from leaders.

Hypothesis 2: The leadership competency, Strategic Thinking, will be positively correlated with employee engagement.

No statistical support was found for the hypothesized relationship between strategic thinking and employee engagement. Considerable research has demonstrated the importance of an employee's ability to see the connection between her or his individual job and the broader business strategy (Corporate Leadership Council, 2004). Consequently, it was anticipated that senior leaders would first need to possess a strong ability to think in ways that drive innovation and business growth, as well as the ability to set strategic priorities that would then guide the goals and objectives of groups and individuals, and hence drive employee engagement through that process of linking strategic direction to task roles.

Although no significant relationship was found between strategic thinking and employee engagement, this finding does not necessarily mean that strategic thinking has no influence on engagement. After all, senior management sets the strategic direction of the organization-as-a-whole. It seems plausible to presume that an ambiguous, unclear, or conflicting set of strategic priorities guiding organizational functioning and decision-making would create an environment in which it would be rather difficult for employees to engage. Without clarity on the business strategy, how would individuals ever be able to connect their day-to-day activities with the broader pursuits of the organization?

It may be that the underlying behaviors associated with thinking strategically are distinct from the ability to translate strategies into role descriptions and work assignments. Perhaps the strategic thinking of senior leaders would be found to offer a significant contribution to employee engagement with the support of some moderating

competency. For instance, competencies such as visionary leadership, communication, and/or developing others might interact with strategic thinking to influence employee engagement. In concert, these competencies might function to foster an environment in which both strategies are well-defined, and employees are able to draw inspiration and engagement from clear line of sight to how their work aligns to the execution of those strategies.

Another possibility is that the strategic thinking of direct supervisors, rather than senior leadership, positively influences employee engagement. It seems difficult to imagine how strategic thinking as a competency could cascade from senior leaders through the culture of an organization as effectively as other competencies that may influence the shared values, beliefs and behaviors of organizational members (such as integrity or collaboration and teaming). Senior leaders, by the very nature of their role in the hierarchy, are not involved in linking business strategies to the jobs of the larger employee population. It is plausible, however, to presume that they are responsible for translating strategic priorities into the goals and objectives of their immediate team(s), who then have accountability to do the same down through their teams of direct reports, and so on. Such a dynamic could explain why a significant relationship was not found between the strategic thinking of senior leaders and the engagement of employees in their overall organizational units.

Hypothesis 3: The leadership competency, Organization and Talent Development, will be positively correlated with employee engagement.

Moderate support was found for the hypothesized relationship between senior leader organization and talent development and employee engagement. The competency was positively correlated with employee engagement only when using the manager rater source scores of leadership competence in the bivariate correlation analyses. Conclusions about this relationship must be drawn with a degree of prudence, though, due to the fact that organization and talent development was not significantly related to engagement after the shared variance among the ten competencies was controlled for in the multiple regression analyses. Nonetheless, findings from previous research and several theoretical points of view offer insights into the nature of this relationship.

One interpretation is that senior leaders positively influence a number of engagement predictors when they foster an environment that motivates and empowers employees, supports their development, makes it safe for divergent perspectives to be offered, and values diversity of styles, ideas, backgrounds. For example, Gibbons (2006) concluded that ‘employee development’ is one of eight key drivers of employee engagement. This factor refers to the perception by employees that the organization and its leaders are committed to the ongoing development of their skills – a description that is consistent with the definition of organization and talent development in the present study (see Table 2 for more details). Saks (2006) found that perceived organizational support is an antecedent of employee engagement. Senior leaders who are high in the competency of organization and talent development likely cultivate a sense that the organization genuinely values the contributions of employees and cares about their well-being.

Relatedly, Kahn (1990) espouses that the condition of safety, driven in part by management style, predicts employee engagement. One might argue that senior leaders with strength in organization and talent development are likely to create the kind of open and supportive environment that fosters the sense of psychological safety described in this model.

Given the seemingly strong rationale for the predicted relationship between senior leader organization and talent development and employee engagement, it was surprising to find that it did not make a significant contribution in the multiple regression analyses. A possible reason for this is the high degree of intercorrelation among the competencies. Although the competency was significantly related to engagement in the bivariate correlation analysis, after the considerable amount of shared variance among the competencies was controlled, the unique contribution of organization and talent development to engagement was not significant. With more discrete measures of the competencies, perhaps a significant unique contribution would be discovered.

Hypothesis 4: The leadership competency, Collaboration and Teaming, will be positively correlated with employee engagement.

Findings from the bivariate correlation and multiple regression analyses provide strong support for this hypothesis. Senior leader collaboration and teaming was correlated with employee engagement when utilizing the direct report, peer or other, and combined rater source scores of leadership competence in the bivariate correlations analyses. In addition, collaboration and teaming offered significant unique contributions to engagement when using the self, direct report, and combined rater source scores in the multiple regression analyses.

Senior leaders who demonstrate strength in the collaboration and teaming competency tend to have heightened employee engagement in their organizational units. In a report on the drivers of employee engagement, Towers Perrin (2003, p. 9) found that a “collaborative work environment where people work well in teams” is among the ten most important factors in engagement. Similarly, Gibbons (2006) identified “co-workers / team members” as a key driver of engagement in a meta-analysis of research on the topic.

Therefore, one could argue that as collaborative leaders influence the culture of their organizations through the power dynamics of the social system, they likely affect a sense of teamwork in the environment that fosters the engagement of employees. Senior leaders play a major role in how work gets done in organizations. The extent to which people are reinforced for working together, cross-functional work groups are organized to optimize productivity and effectiveness, and performance management systems are aligned to promote and reward effective teaming are all influenced by the views and actions of senior management. One can imagine how leaders who demonstrate and place value on collaboration facilitate an environment in which employees are able to connect emotionally to their work and their co-workers, and are more willing to apply discretionary effort on the job.

In the process of instilling a teamwork orientation, collaborative senior leaders likely influence several components associated with employee engagement. First, one could argue that the organizational contextual factors of “workload” and “community” are affected positively by senior leaders who demonstrate competence at collaboration and teaming. When employees are encouraged to collaborate, they likely experience

their workloads as more manageable, thereby freeing up the necessary mental, emotional and physical energy to engage. In addition, as employees accomplish their work in a team environment, they likely experience a sense of togetherness, commonality, and social support that contributes to their engagement in the organization. Similarly, from the perspective of Kahn's (1990) model of engagement, the "work interactions" sub-category of *meaningfulness* is likely to be supported when senior leaders emphasize collaboration in the organization through their own behavior.

Hypothesis 5: The leadership competency, Self-Awareness and Adaptability, will be positively correlated with employee engagement.

No statistical support was found for a positive relationship between the self-awareness and adaptability of senior leaders and the engagement of employees in their organizational units. However, although none of the Pearson correlations was significant, the findings indicate that once one has controlled for the other competencies, a negative relationship exists between these variables. The self, direct report, and combined rater source ratings of Self-Awareness and Adaptability yielded significant negative unique contributions to engagement in the multiple regression analyses. This was a particularly surprising finding, as it seemed plausible to anticipate that senior leaders who demonstrate self-insight, who are willing to change their approaches based on the ideas of others, and who have a read on how their actions affect others would foster engagement in their organizational units. The fact that a negative relationship was found sparks a number of interesting potential interpretations.

For instance, one might wonder to what extent heightened self-awareness leads to a degree of hyper-sensitivity among senior leaders that drives them to micromanage their

direct reports. This could affect negatively the “control” contextual factor of burnout. The likelihood of burnout, or a loss of engagement, may be increased among these direct reports as a result of experiencing insufficient autonomy or control over their work. Were this true, one might also expect a sense of diminished efficacy among these individuals, which also predicts burnout. Within Kahn’s (1990) model of engagement, the *meaningfulness* condition, and in particular, the “task characteristics” sub-category, might also be adversely affected by this same proclivity toward micromanaging among highly self-aware senior leaders. The direct reports of these leaders could, as a result, become disengaged, which then might trickle down through the organization. Or, perhaps as a consequence of being micromanaged, middle managers in the organization continue a chain of being over-involved in their own direct reports’ work. As control and autonomy deteriorate through levels in the organization, employee engagement suffers correspondingly.

Another interpretation is that senior leaders who are highly self-aware actually focus too much of their energy inwardly. One could imagine how these leaders might attend so significantly to their own needs, development, and self-improvement that they do not work actively to foster the kind of environment in which engagement can occur. In fact, given that the item “Actively seeks feedback” within the self-awareness and adaptability competency offered a significant negative unique contribution to engagement, one might wonder to what extent members of the organization experience highly self-aware leaders as distastefully needing of attention, support, or reinforcement. Such rumination over one’s own behavior may cause the direct reports of senior leaders to disengage, which may then cascade down through the organization.

It could be that leaders who are highly self-aware also lack self-confidence, which in turn, relates to their leadership ability and employee engagement more broadly. One interpretation is that employees must perceive senior management as competent as an antecedent to engagement. And, as low self-confidence diminishes the leadership ability of these senior managers, employees consequently become disengaged. Alternatively, leaders who are low in self-confidence may need constant feedback, and as such, rate highly on the item around actively seeking feedback. Low self-confidence is likely related to the “insecurity” sub-category of Kahn’s (1990) psychological *availability* condition of personal engagement. It may be that senior leaders who are pre-occupied with how they are perceived by others in the social system have less energy available to engage in their own work. Morrison (2006) asserts that in order to engage employees, senior organizational leaders must first be engaged themselves. So, it may be that as senior leaders with low self-confidence experience a sense of insecurity that leads them to disengage, by the nature of their influence on the organization-as-a-whole, over time the result is diminished engagement throughout the system.

Hypothesis 6: Direct reports’ ratings of leadership competence will account for the most variance (in terms of Adjusted R²) in employee engagement.

Consistent with this hypothesis, the direct report rater source provides leadership competence ratings that are the strongest predictors of employee engagement. In fact, direct reports are the only raters whose ratings on the ten leadership competencies yielded a significant R² (not including the combined rater source). In addition, direct reports’ ratings of Integrity, Collaboration and Teaming, and Self-Awareness and Adaptability

provided the largest or second largest significant unique contributions to engagement of all rater sources (including the combined rater source).

An interpretation of this finding is that the direct reports of senior management “represent” the perspectives of the broader organization. Serving as “middles” in the organizational system, these individuals are tasked with the complexity of translating senior leadership’s directives down through the organization, while simultaneously providing a voice for the organizational “bottom” back to leadership (Ornstein, 2008; Oshry, 1994; Smith, 1982). It is plausible to conclude that, as a result of this middle position, direct reports’ views of senior leadership would be connected meaningfully to the engagement of employees in their organizational units. In fact, one might wonder to what extent the engagement of employees, including the direct reports themselves, actually influences the perceptions of leadership that prevail in the system.

When considered holistically, a notable pattern emerges with respect to the type of competencies that were associated with engagement in this study. Direct reports’ ratings of Integrity, Collaboration and Teaming, and Self-Awareness and Adaptability, which one could argue are more social and emotional than others in the model, were better predictors of engagement than more cognitive competencies, such as Strategic Thinking or Big Picture Orientation. These competencies are certainly important success factors for a number of traditional leadership activities that drive business results, such as strategy development and deployment and portfolio management. Interestingly, however, given the links that previous research has demonstrated between employee engagement and numerous business-related outcomes, the findings of this study would

suggest that heightened attention might be paid to what are sometimes considered “soft skills” as a means of driving organizational performance, as well.

Also of note is the extent to which this finding has implications for the use of multi-rater feedback systems and the assumptions that are made about the usefulness of rater source perspectives to various outcomes. For example, in a study of the relationship between emotional competence and performance in corporate leaders, Vieira (2008) found that peer ratings of emotional competence were the best predictor of manager performance when performance ratings by their supervisors were used as the dependent variable. This may be understood in terms of the close experiential proximity that peers have to both the emotional competence and performance criteria used. She speculated, however, that different rater sources may be better predictors of other criteria. Consistent with her suggestion, the findings of the present study indicate that direct reports’ ratings are the best predictor when employee engagement is the criterion. Direct reports of the target subjects in this study are “closest” in vantage point to engagement (in fact, having likely contributed data to the subjects’ employee engagement composite scores), and so, provide competency ratings with the largest number of significant contributions to engagement.

Limitations of the Study

First, it is important to acknowledge that the present research was correlational. As such, it is impossible to know the exact nature of the causal links that have been inferred from these findings. In interpreting the results of the study, the author enlisted several theoretical lenses to conclude that the competencies of senior leaders – particularly integrity, collaboration and teaming, and self-awareness and adaptability –

influence the engagement of employees. However, it is possible that the direction of the relationship is reversed. One could argue that the engagement of employees likely affects their perceptions of senior leaders. The degree of employee engagement may, in fact, cause raters to rate their leaders as more or less competent. Or, as Luthans and Peterson (2001) postulate, it may be that engaged employees provide added stimuli to the environment that affects the psychological arousal of leaders, which, in turn, influences their self-efficacy. Continuing with this rationale, it may be that as senior managers feel more efficacious, they also demonstrate heightened leadership competence. Alternatively, it could be that some additional variable – for example, economic and market conditions – may affect organizational success, which then influences both employee engagement and leadership competency ratings.

The study included 163 senior leaders in a single global corporation. Consequently, the findings of this research may not be generalizable to other organizations and industries, or to other (more senior or more junior) levels of organizational leadership. It is possible that some bias may exist within the subject pool, as well, given that these leaders were invited to participate in the LCM 360 process (e.g. the measure of leadership competence) because they were (a) at or near key transitions to more senior roles in the organization, (b) had been identified as high potentials in their organization, or (c) were participating in an organization-wide initiative around leadership development. These reasons for participating in the LCM 360 process make this subject pool particularly unique and may have implications for both the leadership and engagement data. For example, any one of these factors could influence the ratings that these leaders made of their own leadership behaviors or the ratings given by those

whom they invited to provide feedback. In terms of engagement, perhaps the same underlying factors that led some of the organizations from which the subjects were drawn to conduct system-wide initiatives around leadership development also affected or were affected by the levels of engagement in those units.

In addition, the subject pool was limited to those leaders who had a minimum of 18 months in their role. Since this study utilized archival data, this constraint was implemented to ensure that the dependent variable, the engagement of employees in these leaders' organizational units, was collected during their tenure. A number of factors related to leadership tenure could confound both the leadership and engagement data utilized in this study. For example, perhaps top performing leaders, who exhibit leadership competencies that drive engagement in the organization, are promoted or transferred to new leadership roles in durations of time that are often less than 18 months. Or, on the other hand, it could be that leaders with very strong degrees of competence in the areas measured in this study are kept in role for long periods of time, thereby making the sample in this study quite non-representative of all senior organizational leaders. This research cannot account for such possible factors. In terms of engagement, perhaps leaders with shorter tenure in the organization have a greater impact on the engagement of their employees because they bring fresh thinking, new behaviors, different visions, and other stimuli into the environment. Or, perhaps leaders with 18 months or more tenure have had enough time to develop rapport with the employees in their organization, or have affected the culture of the environment such that they are more influential over the engagement of the organization through their leadership competence.

As mentioned previously, the fact that the subject pool was drawn from a single company may adversely affect the generalizability of the study. Both leadership and employee engagement are likely to be affected by the cultural dynamics of the social system, thereby making the findings of this research contingent upon the environment of the focal organization. One could argue that the very selection of competencies included in the focal organization's competency model (and, consequently, measured by the LCM 360 instrument) is an artifact of underlying cultural values. The contextual dynamics around effective leadership behavior limits the applicability to other organizations of these findings. In addition, as engagement has been considered in the context of organizational culture (Frank, et. al 2004), the underlying factors around why employees in the focal organization responded or did not respond to their senior leaders' competencies in the form of engagement are inherently present in the data utilized for this research.

Given the matrix structure of the focal organization, there are some cases in which the same organizational unit engagement data is associated with more than one target subject. As a result, for some subjects there were actually multiple leadership "forces" influencing the engagement data to which they were connected. Inherently, this makes it difficult to determine the direct nature of the relationship between their unique leadership competence and the engagement of their organization, as the methods employed in this study did not tease out what was one subject's influence on the engagement of an organization versus another's. However, one could argue that in today's workplace, the prevalence of matrix reporting lines and organizational structures suggests that it would

be at least as unusual as it would be usual to see, at the level of seniority on which this study was focused, a single leader assigned to an equally disparate organization.

The measure of employee engagement in this study was the Employee Engagement Composite (EEC). This measure represents a subscale of items within a broader instrument that the focal organization developed to assess the “health” of the organizational culture. The items that comprise the Employee Engagement Composite were developed prior to being re-classified by the organization as an index of engagement. As such, it is unclear to what extent the EEC actually measures the phenomenon of engagement. The focal organization reports that an internal assessment of the scale revealed that roughly 85% of the items that make up the measure are similar to those found in the Gallup Q12 instrument, which is a more robustly studied measure of engagement, and perhaps the benchmark in the field. Convergent validity studies of the EEC and Gallup Q12 might be conducted to clarify the relation between the EEC and employee engagement.

The measure of leadership competence in this study was the LCM 360, which was developed by the focal organization to assess leader behavior relative to their internal competency model. Although in some cases the leadership competencies included in this instrument are similar in definition to those measured by other, more comprehensively evaluated and psychometrically established competency instruments (i.e. the Emotional Competency Inventory), the construct validity of the measure utilized in this research has not been examined. By rater source, internal consistency estimates of the competency scales were at, or close to, sufficient levels as defined by Cronbach’s Alpha, providing some support for the instrument. Assessments of convergent validity utilizing the LCM

360 and other leadership competency instruments could provide additional support for the measure.

Lastly, it should be noted that the high intercorrelations among the leadership competencies, found for each rater source of the LCM 360, present additional limitations to the inferences that can be drawn from the findings of this study. These intercorrelations suggest that there may in fact be very little that distinguishes the competencies from one another, and that leadership competence is not as multi-faceted as suggested by the measure. Thusly, the construct validity of the ten leadership competencies is called into question. Additional investigations are needed to refine the scales measuring each competency so that the intercorrelations are no longer so high to provide additional confidence in the validity of the measure. One sign that suggests there are unique behavioral qualities associated with the competencies is the fact that significant unique contributions to engagement were found for several competencies, across four rater sources, in the multiple regression analyses.

Major Conclusions

Employee engagement, which has been shown to lead to a number of business benefits, including increased productivity, performance, and organizational commitment, is correlated with the leadership competence of senior organizational leaders. This study provides some of the first evidence that not only direct supervisors, but also senior leaders may play an important role in cultivating the engagement of employees. The overall model of leadership competence utilized in this study, which included ten competencies, predicted a significant proportion of variance in engagement when utilizing the direct report and combined rater source scores. Findings from the study

indicate that Integrity and Collaboration and Teaming are two specific competencies among senior leaders that appear to have meaningful positive relationships with employee engagement. Contrary to expectations, the Self-Awareness and Adaptability competency of senior leaders was shown to have a negative relationship with employee engagement when the other competencies were controlled statistically. The complexity of the dynamics around why employee engagement declines with increases in senior leader competence in this area warrants much additional investigation. Finally, direct report ratings of the competencies of senior leaders appear to be the best predictors of employee engagement. This raises a possible concern that the relation is partly due to engaged workers providing more positive ratings and, similarly, that less engaged workers provide more negative ratings of their leaders.

Implications for Practice

Although previous research has established an important connection between the leadership behavior of immediate supervisors and the engagement of their direct reports (Corporate Leadership Council, 2004), the findings of this study suggest that there is a relationship between the leadership competence of senior leaders and the engagement of employees in their broader organizational units, as well. This indicates that it may be useful for some attention to be paid by organizations to driving positive changes in employee engagement through leadership initiatives with the senior most layers of the hierarchy. Organizations commonly make the mistake of perceiving that senior leaders are “fully formed” and, consequently, do not invest as heavily in their ongoing performance appraisal and development. However, as implied by this research, a

systemic focus on leadership development “at the top” may have many benefits, one of which may be improvement in employee engagement in their organizations.

To the extent that the findings of this research can be extrapolated to other businesses or organizations, there are practical implications of the significant relationships between employee engagement and the leadership competencies of integrity and collaboration and teaming. Organizations might consider ways to integrate these findings into efforts around recruitment, selection, performance evaluation, high potential assessment, development, succession planning, and other processes. For example, systemic interventions could be made to modify reward structures to reinforce honest, ethical decision-making behavior, or to support teamwork and collaboration. Providing environmental supports for senior leader displays of integrity and collaboration and teaming could result in benefits to many aspects of organizational functioning through heightened employee engagement, such as improved commitment, higher retention rates among employees, enhanced innovation and greater employee productivity.

Given the prevalence in most large companies of internal measures of both leadership competence and employee engagement, other organizations could consider conducting similar applied research in order to uncover the relationships between the competencies that compose their leadership competency model and the engagement of their employees. Such internal investigation could have immense practical usefulness at a relatively low cost for organizations with pre-established measures of these phenomena, considering that such archival data may already exist within their proprietary databases. If historical data cannot be leveraged, organizations might consider synchronizing

subsequent administrations of their leadership and engagement assessments in advance of their implementation so as to enable such analyses in the future.

Relatedly, the findings of this research also suggest new synergies for consulting groups that bring expertise in both the measurement of, and intervention on, leadership and employee engagement. Such firms may find that they are able to deliver a stronger overall return on the investment of their clients by not only providing actionable insights around leadership competence or employee engagement as separate phenomena, but also as linked phenomena with potential for shared interventions to address opportunities for improvement in both arenas.

Directions for Future Research

The study utilized a competency model composed of ten leadership competencies to examine the relationship between the leadership competence of senior leaders and the engagement of employees in their organizational units. However, given that a universal definition of leadership competence has not been established, additional research is needed to investigate the relationships between other competencies of senior leaders not included in this study and employee engagement. For example, to what extent might emotional competencies found in the social awareness and relationship management clusters of Goleman's (2001) model of emotional intelligence (e.g. empathy, organizational awareness, building bonds, and visionary leadership) have systemic effects on employee engagement when high among the most senior management? Based on the findings of the present study, one might predict that employee engagement would be positively affected by senior leaders who model such competencies.

Deeper investigation is needed to understand more fully the negative relationship between engagement and senior leader self-awareness and adaptability that was found when the other competencies were controlled statistically. Improved measures of the competencies that are less intercorrelated may resolve this issue. The present research utilized a measure of self-awareness and adaptability as a single construct. Although there are overlapping elements of these two components, perhaps there is enough that distinguishes self-awareness and adaptability that warrants measuring them separately. In fact, other models have considered self-awareness and adaptability as distinct competencies (see Goleman, 2001). It would be worthwhile to investigate the direction of the relationship between engagement and each of these unique pieces.

An interesting line of research might look at the degree to which there are curvilinear relationships between employee engagement and various leadership competencies. For example, additional research into the nature of the relationship between engagement and self awareness and adaptability or strategic thinking might reveal that these competencies operate as threshold competencies. A certain amount of self awareness or strategic thinking is required for leaders to reach senior ranks. However, once some optimal level is surpassed, an over-reliance or over-use of the competency by a leader may have deleterious effects, perhaps even on the engagement of employees in her or his organization.

Further studies might also utilize other measures of leadership and employee engagement to expand on the relationships found in this research. For example, using the methodology that was employed in this study, it would be interesting to look at the relationship between employee engagement, as measured by the Gallup Q12, and the

social and emotional competencies measured by the Emotional Competence Inventory. Utilizing better-established instruments to assess the independent and dependent variables may provide additional clarity and new insights into the relationships between these constructs, especially if the competencies are measured more distinctly. Alternatively, given that one theoretical perspective on engagement conceptualizes the phenomenon as the opposite of burnout, additional research could leverage the Maslach Burnout Inventory (MBI) by considering the opposite pattern of scores that would typically be found in the three burnout dimensions as an index of engagement (Maslach, Schaufeli, & Leiter, 2001).

In terms of the leadership measure, additional studies might investigate the relationship between other formulations of leadership, such as leadership style, and employee engagement. An interesting study might look at differences in the engagement of employees in organizations with senior leaders of various dominant leadership styles depicted by Goleman, Boyatzis, and McKee (2002). Specifically, to what extent might visionary leadership behavior have a greater or lesser effect than coaching, affiliative, democratic, pacesetter, or commanding leadership on the overall engagement of employees in an organization? An answer to this question would certainly expand the field's understanding of the dynamics around leadership and employee engagement, and would also likely yield very practical, actionable findings for today's organizations.

Intriguing areas of research might study various mediator and moderator variables related to leadership and employee engagement. For example, one might argue that 'time in position' and 'organizational unit size' represent two variables that could moderate the relationship between leadership competence and employee engagement. But what would

the nature of such interactions look like? Are senior leaders who are new to role able to have a greater or lesser impact on the engagement of employees in their organization than those with long tenures? Similarly, are the competencies of senior leaders of smaller organizations more or less influential on the engagement of their employees than those of larger organizations?

Future studies might look into differences in the relationship between leadership and employee engagement in various organizational and identity groups, as well. For instance, are certain leadership competencies more related to employee engagement in the technology industry as compared to the services industry? Or, might there be certain competencies that drive engagement in a manufacturing environment but not in a sales environment? Still further, are there differential effects of leadership on engagement in non-profit organizations versus public sector organizations versus private corporations? Questions such as these provide interesting avenues for further inquiry given that supra-system and organizational dynamics are likely to vary according to these industry, functional, and sector contexts. In addition, how do the racial, gender, age and ethnicity group memberships of both organizational leaders and their employees interplay in the complexity of the dynamics around leadership and employee engagement? Some research has begun to investigate the dynamics around age groups and employee engagement (see Avery, McKay, & Wilson, 2007). With inter-generational dynamics burgeoning as a field of scientific inquiry and practical application, such research seems particularly timely and important.

Regarding mediation, researchers have had some difficulty establishing a predictive relationship between leadership competence and business unit performance

(see Levenson, Van der Stede, & Cohen, 2006). However, a link has been established previously between employee engagement and business unit performance (Harter, Schmidt, & Hayes, 2002). And, the current study has demonstrated a relationship between leadership competence and employee engagement. With this in mind, it stands to reason that employee engagement may in fact mediate the relationship between leadership competence and business unit performance. Perhaps leadership competence has an effect on employee engagement, which, in turn, has an effect on business unit performance. This rationale opens up exciting possibilities for future research on the relationships between these three variables.

Along the lines of research into the relationship between leadership style and employee engagement suggested previously, another investigation of mediation might look at the extent to which organizational climate mediates the relationship between these constructs. Goleman, Boyatzis, and McKee (2002) discuss the effects of leadership style on organizational climate. However, what appears unstudied at this point is the extent to which organizational climate affects employee engagement. This seems to offer interesting avenues for future research, as well.

Given that leadership has been conceptualized as both the cause and effect of the dynamics at play within the group (Alderfer, 1985), the notion that employee engagement has an effect on the leadership competence of organizational leaders is worthy of future research consideration. For example, one might wonder to what extent the engagement of employees influences their perceptions of organizational leaders, and, therefore, the ratings they give their leaders when invited to participate in multi-rater feedback processes such as the LCM 360. Research into the reverse direction of causality between

engagement and leadership competence from that investigated in the present study would address an important limitation of this work, and would also further the field's understanding of the complex relationship between these variables.

A final proposition when considering directions for future research relates to the penetration level of the effect of leadership competence on employee engagement. Much research has established the impact that direct supervisors have on the engagement of their direct reports. And, the current study represents one of the first to link the competencies of senior organizational leaders and the engagement of employees in their organizational units. However, what remains unanswered is the degree to which leaders have similar or differing effects on the engagement of their immediate team versus deeper levels of the organization. In other words, are senior leaders more, less, or equally influential on the engagement of their management teams as compared to the broader organizations they lead? The findings of research into this dynamic would have significant implications for performance management, leadership development, succession planning, and various other organizational effectiveness initiatives in today's organizations.

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