Leading for Credit Union Success: The Roles of Personality and Practices in CEOs

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Overview

Having a top CEO can boost a credit union’s performance, and this report by Professor Murray Barrick reveals key traits the best CEOs exhibit. Some of the traits are surprising. For instance, the data show that CEO personality is more important than CEO ability.

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Research supports the idea that the right CEO can help increase the likelihood of organizational success. But how do we define what “right” means? Is it something unique to the person—their personality or skills? Is it their leadership style? Is it the work practices that get put into place during their tenure? Or, is it some combination of all the above? In short, with apologies to Tolstoy, are all successful CEOs alike, and can we create a formula to help us hire or develop better ones?

In these increasingly competitive times, credit unions need to have the best possible understanding of what a good CEO looks like and how to best develop a leadership approach. After all, the CEO serves as the credit union’s principal representative to a wide range of external stakeholders—suppliers, corporate partners, governmental agencies, and members—and is the key driver of strategic direction within the credit union. Understanding the key variables that separate good from not-so-good CEOs could make a difference across a wide spectrum of areas, including credit union performance.

While anything that involves the nuance and fallibility of human beings certainly can’t be forced into a prescribed formula, there are benefits to attempting to understand what combination of elements could make a difference to credit union success.

What Is the Research About?

Our desire to better understand the key elements of CEO selection and development led us to engage Murray Barrick. Barrick studied 94 credit union executive teams as part of a Filene project a decade ago. That study underscored the importance of top management team functioning and leadership to the implementation of organizational goals and objectives and, in turn, their effects on organizational success. Professor Barrick’s other research focus reveals the substantial impact individual attributes (e.g., personality, interests, and ability) of workers and managers have on performance. The stage was set for Filene research examining the effects the CEO has on credit union success.

Barrick used a cross section of employees—ranging from entry level to C-suite—at 84 credit unions across the United States and Canada. At each credit union, his team asked for insights from four senior management
team members, four middle managers, and four entry-level employees, plus the CEO. While most CEO-related research has focused on input from upper-level management, this approach relies on insights from a broad cross section of credit union staff.

Each survey participant evaluated the CEO’s personality, critical executive competencies, leadership behaviors, and performance. The non-CEO participants were also asked to rate their level of work engagement at their credit union. To determine credit union performance, the survey assessed the average of four bottom-line ratios as objective measures of organizational performance: return on assets, net worth to total assets, delinquent loans to total loans, and net charge-offs to average loans.

What Are the Credit Union Implications?

Just how important is the CEO to engaged employees and high performance? The results may surprise you:

→ **CEO personality matters (even more than ability).** The research looked at five personality elements—extraversion, conscientiousness, emotional stability, openness to new experiences, and agreeableness—and, pre-survey, posited that these were listed in order of importance to CEO success based on prior research on lower-level leaders. Perhaps not surprising to anyone who’s read Susan Cain’s *Quiet: The Power of Introverts*, extraversion, while important, is not the top indicator of CEO success. Another surprise is that agreeableness—or at least perceived agreeableness—is not just “nice to have” but vital. Nevertheless, the two traits that are the best indicators of both employee engagement and credit union success are CEO conscientiousness and emotional stability.

The study confirmed the hypothesis that when it comes to employee engagement and organizational performance, CEO personality is more important than CEO ability. Personality accounts for 47% of the variance in engagement versus 9% for abilities, and for 49% of the variance in firm performance versus 32% for abilities.

→ **Not all abilities are created equal.** The study examined three key CEO abilities: strategic change competence, the ability to accomplish tasks, and the capacity to build and nurture relationships. These are listed in order of expected importance, and, again, actual results don’t match up with the hypothesis. Although strategic change competence is the best way to predict a CEO’s ability to
be a transformative leader (22% variance vs. 17% for relationship building and 16% for task competency), relationship competence is a better indicator of organizational performance (with relationship competency accounting for 18% in variance vs. 5% for the ability to implement strategic change).

→ **Smarter hiring can make a difference.** Credit unions should recognize the importance of these personality traits and abilities when hiring and factor them into the recruiting process. Use reference checks to delve into the three most critical personality characteristics (agreeableness, conscientiousness, and emotional stability), and consider working with a human resources expert to develop effective processes in this area. Personality testing can also be a valuable resource.

→ **CEOs can change abilities and temper personality.** Although the research shows that it’s not possible to substantially change personality after the age of 25, once someone is aware of personality challenges, there are ways to counter its influence. For instance, a person who is often stressed out (i.e., not emotionally stable) may employ proper exercise, sleep, and other stress management techniques. Leaders can use other techniques to change ability. For example, those who aren’t efficient at task management could benefit from the help of an exceptional administrative assistant. CEOs should receive 360-degree feedback to determine areas of strength and weakness and receive the assistance they need to address problem areas.

→ **It’s important to engage employees—but more critical to have a good CEO.** Employee engagement is valuable and important, and it seems logical to assume that engaged employees lead to an improved bottom line. And while they do—and account for 13% of the variance in organizational performance—the truth is that their engagement isn’t as critical as having an exceptional CEO. Aggregate CEO personality accounts for 49% of bottom-line variance, and CEO skills account for 32% of bottom-line variance.

→ **High-performance work practices are not as important as you think.** Although high-performance work practices are the most critical predictor in the area of employee engagement (explaining 33% of variance in this area and narrowly edging out second-place CEO conscientiousness at 32%), they barely register when it comes to predicting organizational performance. Work practices account for just 1% of the variances in this area, while all factors relating to the individual CEO account for 81% of the variance.
Chapter 1

Strategic View of CEO Effectiveness

Although it's widely accepted that a CEO has a strong impact on an organization's success, researchers have rarely, if ever, examined the influence CEO abilities and traits have on CEO leadership behavior. Even less is known about how and why CEO personality, ability, and leadership simultaneously exert their influence on the success of the entire firm. In large part, because access to CEOs is very limited, research on CEO attributes has principally relied on demographic data from archival sources as proxies for the psychological characteristics of the top executive (Carpenter, Geletkanycz, and Sanders 2004).
This research is designed to address those challenges by doing the following:

→ Attempting to create an integrative theory of how CEO personality traits and abilities influence leadership behavior and to empirically determine how important the CEO’s skills and abilities, personality traits, and leadership behavior are to the credit union’s success.

→ Comprehensively testing the mechanisms that transform CEO personality traits and abilities into leadership by explicitly examining CEO leadership effects on the followers’ work engagement in the organization, which in turn explains why these predictors would affect organizational success.

→ Examining the influence of high-performance work practices (HPWPs), which are a set of separate managerial work practices (e.g., use of incentive pay or feedback) that, when aligned, create an organizational culture of employee engagement that in turn sustains organizational success.

Two fundamental assumptions guide this research:

→ The CEO’s own characteristics (personality and skills), leadership behaviors, and influence over the use of a bundle of HPWPs can collectively create meaningful and engaging work for employees.

→ Increased employee engagement leads to higher organizational effectiveness—and performance—because having talented, motivated workers who are empowered to resolve complex economic, technological, and social challenges is necessary to manage organizations effectively.

Before we delve into our hypotheses and the research findings, let’s take a minute to understand the various elements that were analyzed in the study and why we chose them.

**CEO Personality Traits**

In thinking about differences in the way leadership is exhibited across CEOs, the role of personality looms large. One leading management scholar, Don Hambrick (2007), proposes that CEO personality both affects the leadership behavior adopted by the CEO and shapes how the CEO interprets the environment. This study examines whether CEO personality, measured using the Big Five personality traits listed below, influences leadership behavior.
These personality traits depict five fundamental dimensions that describe how a person tends to think, feel, and act. These traits have been replicated in nearly all languages and cultures; hence, they are seen as universal traits. The Big Five personality traits are:

- Extraversion (assertive, ambitious, sociable).
- Conscientiousness (hardworking, achievement-oriented, detail-oriented, planful).
- Emotional stability (calm, confident, not prone to stress).
- Openness to new experiences (imaginative, curious, open-minded to different approaches).
- Agreeableness (cooperative, friendly, empathetic).

These traits have been replicated in nearly all languages and cultures; hence, they are seen as universal traits.

**Key CEO Competencies**

It is widely held that to be successful, a CEO should possess skills in the following areas:

- Relationship building (also called concern for people; one key aspect revolves around building and maintaining a team, particularly a team of leaders).
- Task orientation (concern for production or getting things done; relates to steps taken to retain a focus on doing work and fulfilling objectives).
- Strategic change (planning and implementing change, particularly change tied to a strategic vision).

**Transformational Leadership**

One of our assumptions going into the project was that there is not a direct link between a CEO’s personality traits and skills and employee engagement—that there has to be a mediating element that drives this engagement. Our mediating factor: transformational leadership.

What is defined as transformational leadership for the purpose of this research project was developed in large part by Burns (1978), Bass (1985), and Barling, Christie, and Hoption (2011) and includes the following four behaviors:

- A leader with *idealized influence* is driven by integrity and a moral commitment to do what is strategically optimal for the long-term good of the organization and its members, rather than focus on short-term or self-interested goals (Barling, Christie, and Hoption 2011). Leaders who exhibit idealized influence act as role models and
exhibit behaviors that followers admire and frequently seek to emulate (Judge and Piccolo 2004).

→ **Inspirational motivation** focuses on a leader’s ability to develop and articulate a strong strategic, organizational vision founded on appealing values and ideals (Bono and Judge 2004). Furthermore, these leaders use symbolic actions and persuasive language to stimulate enthusiasm, build confidence, and encourage followers to set and achieve goals that go above and beyond what they thought was possible (Barling, Christie, and Hoption 2011).

→ Leaders who display **intellectual stimulation** motivate employees to participate in solving personal and organizational problems. Moreover, they encourage employees to challenge personal and organizational norms in order to cultivate divergent thinking and innovative strategies, which enhances the employees’ skills and engenders more confidence in their ability to solve job-related or personal challenges (Barling, Christie, and Hoption 2011; Judge and Piccolo 2004).

→ Those who exhibit **individual consideration** behaviors recognize their followers’ needs for achievement and development (Bono and Judge 2004). After recognizing the potential of their employees, these leaders act as coaches or mentors in developing their employees’ skills and abilities (Barling, Christie, and Hoption 2011; Judge and Piccolo 2004). By attending to the needs of followers, transformational leaders engender feelings of trust and satisfaction in their subordinates (Podsakoff et al. 1990).

**HPWPs**

HPWPs refer to a collection of distinct yet related human resource practices that are designed to enhance organizational performance (Combs et al. 2006). Researchers have linked HPWPs to several individual- and firm-level outcomes such as increased job satisfaction, lower turnover, higher productivity, and improved organizational performance (Becker et al. 1997; Combs et al. 2006; Jiang et al. 2013). As this research stream has continued to develop, scholars have argued that the outcomes don’t result from the work systems themselves but from gains in motivation that result from applying such systems (Barney and Wright 1998; Lado and Wilson 1994; Messersmith, Patel, and Lepak 2011; Teece, Pisano, and Shuen 1997).

The following motivation-enhancing HPWPs were examined in this study:

→ Contingent/incentive pay to reward merit.

→ Performance appraisals to deliver coaching/feedback and clarify goals and expectations.
Internal/external equity in compensation practices.

Employee involvement to solve quality/quantity challenges, enhance efficiency, and achieve higher firm performance.

**Employee Engagement**

It seems logical to assume that successful credit unions are filled with motivated and highly engaged employees—and considerable research has illustrated that increases at the individual level in employee engagement influence the productive potential of the firm’s employees (Christian, Garza, and Slaughter 2011; Humphrey, Nahrgang, and Morgeson 2007; Rich, LePine, and Crawford 2010).

This study takes such evidence and generalizes it to the organization level, by assuming that when a firm experiences increased levels of employee engagement on average across all of its employees, it is likely to achieve superior firm performance.

Interestingly, two recent studies show the validity of this assumption (Harter, Schmidt, and Hayes 2002; Harter et al. 2010), demonstrating that higher aggregated employee engagement increases the productive potential of the employees, which then predicts higher customer satisfaction, productivity, and profit across business units.

For the purpose of this research, engagement is a broad construct that captures motivation that arises from within the individual and is driven by a consuming interest, passion, and joy in performing the work. It is more than pleasure, though, as it is enjoyment directed toward meaningfulness and impact. High scores in this area depict an individual who is willing to invest considerable effort in work and is resilient and persistent in pursuing that work, even in the face of difficulties. People will experience a sense of significance, enthusiasm, inspiration, and pride and will be deeply engrossed in their work. For all of these reasons, people who are fully engaged at work can often sustain that motivation for long periods of time.

One way that engagement differs from many attitudes is that it is closely aligned with task-specific motivation, which helps explain why it is linked to organizational performance.

One way that engagement differs from many attitudes is that it is closely aligned with task-specific motivation, which helps explain why it is linked to organizational performance. In essence, when employees receive effective leadership and work in a setting with many HPWPs, they are likely to be more connected with and engaged in their work, which in turn results in greater performance for themselves and the firm itself.
Please note that while this research focuses on individual engagement across a broad cross section of the workforce, more recent research by Barrick et al. (2013) illustrates that one can just focus directly on collective engagement. That is, instead of averaging each individual’s own engagement to form an indicator of work engagement, one can straightforwardly assess how engaged employees in the work unit are as a group, thereby focusing directly on the unit’s collective engagement. The relationships found with collective engagement were similar to those noted in this study using individual work engagement averaged over all respondents, although the relationship with credit union performance was a bit stronger (a correlation of 0.33 instead of 0.22) when using collective engagement. This and the fact that one can effectively judge the work unit’s collective engagement suggest practitioners can simply track typical engagement levels within a group rather than attempt to aggregate judgments of each member’s work engagement.

**Organizational Performance**

Although performance can be defined in myriad ways, this study focuses on four bottom-line ratios that were previously identified in a survey of credit union CEOs as objective measures of organizational performance in the credit union system:

- Net worth to total assets—evaluates the capital adequacy of an organization.
- Delinquent loans to total loans—assesses an organization’s asset quality.
- Net charge-offs to average loans—another measure of the credit union’s asset quality.
- Return on assets (ROA)—measures the credit union’s earnings.

These ratios are necessarily general to allow for comparison across credit union types and sizes. They have the dual advantages of being well-understood financial measures and also being wholly independent of the softer leadership factors we seek to understand in this study. When measuring the impact of the various predictors reviewed above on objective firm performance, we controlled for credit union size (measured by number of members and number of employees). Since neither control variable significantly affected any of the regression analyses described next, they were excluded from further analyses.
Study Hypotheses

Our goal in conducting this research was to answer two overarching questions:

→ Which characteristics of the CEO and practices of the organization predict higher levels of employee engagement and, ultimately, subsequent firm performance?

→ What is the relative magnitude of effects across CEO characteristics or HPWPs—that is, which CEO characteristics or organizational practices matter more when predicting engagement and firm effectiveness?

The conceptual model tested in our research examined six hypotheses, which are presented in Figure 1.
Hypothesis 1

CEO personality is positively related to CEO transformational leadership.

This hypothesis is driven by earlier research conducted in the area of personality and leadership. That research focused on lower-level leaders, rather than on CEOs, and found that the Big Five personality traits were important predictors of leadership—both the likelihood that a person would emerge as a leader and the likelihood that the person would be more effective as a leader—in the order listed below:

→ Extraversion.
→ Conscientiousness.
→ Emotional stability.
→ Openness to new experiences.
→ Agreeableness.

Hypothesis 2

CEO ability is positively related to CEO transformational leadership.

The literature proposes that the top three skills deemed to contribute to CEO leadership are as follows (in descending order):

→ The ability to plan and implement strategic change.
→ The ability to focus on tasks/efficiency.
→ The ability to build and maintain effective relationships and teams.

Hypothesis 3

CEO transformational leadership behavior has a positive relationship to employees’ level of engagement at work. CEO personality and ability will positively relate to employee engagement through CEO transformational leadership behavior rather than directly to employee engagement.

Research suggests that those who work for transformational CEOs are more likely to have a clear understanding of the credit union's goals because transformational leaders clearly convey their organizational visions and objectives (Bass 1985). Transformational CEOs
focus on individual development and consideration for their employees, which should enhance self-confidence and facilitate trust (Kirkpatrick and Locke 1996; Podsakoff, MacKenzie, and Bommer 1996). Finally, because transformational CEOs focus on an inspirational vision and communicate a compelling future, followers will be more willing to change and adopt the overall strategy of the credit union (Hambrick 2007). Hypothesis 3 proposes that CEOs’ transformational leadership will have direct effects on the level of their workers’ overall engagement at work.

Across these two sets of individual differences, CEO personality will contribute more to transformational leadership and employee engagement than will CEO ability. Nevertheless, both sets of attributes will be positively related to CEO transformational leadership, consistent with hypotheses 1 and 2.

**Hypothesis 4**

*CEO transformational leadership behavior is positively associated with greater adoption of HPWPs.*

Effective CEOs are able to get their firms to design and manage a few key HPWPs in order to sustain high performance. Research has shown that adopting a proven bundle of practices acts to improve the engagement and empowerment of the workforce, which in turn results in superior firm performance.

The assumption advanced in this study is that CEO leadership is necessary to get the firm to adopt and continue to use these best practices. Despite considerable recently accumulated empirical evidence demonstrating that adopting such practices is linked to strong firm performance, less than one-fourth of organizations use these best practices to any great extent. When they are systematically applied it is almost always due to leadership from the top.

**Hypothesis 5**

*The use of more HPWPs has a positive relationship on employees’ level of overall engagement at work. CEO transformational leadership behavior will also partially influence employee engagement through the HPWPs the firm adopts, in addition to directly affecting engagement.*

Although there is considerable debate in the leadership literature of how this operates in practice, in this study we propose that CEO leadership and HPWPs affect employee engagement first, which then leads to improved organizational performance. In other words,
leadership and HPWPs are important, but they affect organizational performance only indirectly: through their effect on increasing employee engagement.

We expect that transformational CEO behavior will have greater effects on engagement than HPWPs, because leadership is the critical mechanism that clarifies what objectives are key to the success of the firm. Without transformational leadership exhibited by the CEO, the set of interrelated HPWPs cannot converge in a coherent way to send consistent messages and cues that reinforce what the firm is striving to accomplish.

**Hypothesis 6**

The overall level of employee engagement has a quantifiable positive relationship on organizational performance. CEO transformational leadership behavior and the HPWPs the firm adopts will positively relate to organizational performance through employee engagement.

This study proposes that credit unions that take a strategic view of employee engagement will achieve superior organizational performance. We believe that employees who experience more absorption, greater vigor, and enhanced commitment when doing their work—i.e., experience greater levels of overall employee engagement—will achieve higher organizational performance.

Across these two predictors, we believe that CEO transformational leadership behavior will contribute more variance to the prediction of overall employee engagement and organizational performance than will the use of HPWPs, though both sets of attributes will be positively related to employee engagement (consistent with hypotheses 3 and 5).

**CHAPTER 3**

**Research and Results**

**The Data**

The primary source of data was a cross section of staff at 84 credit unions, ranging from the CEO to entry-level employees. We began by sending an initial survey to the CEO of each credit union and asked for a list of four senior management team members, four middle managers, and four entry-level employees.
The CEO’s followers (i.e., staff members) provided evaluations of the following:

- The CEO’s ability or competence focused on getting tasks done.
- The relationship with the subordinate.
- Implementation of organizational strategies through change.
- Ratings of the CEO’s habitual way of thinking, feeling, and acting (i.e., personality traits) and transformational leadership behaviors.
- Use of various HPWPs.

Finally, all but the CEO provided a rating of their level of engagement when doing their work, which was aggregated to reflect a strategic view of employee engagement. Appendix 3 provides information on the survey questionnaire items.

**Analysis and Results**

Throughout the research, our goal was to determine which specific variables (personality traits, abilities, and HPWPs) led to one of the desired results—transformational leadership behavior, employee engagement, or organizational performance—either on their own or in combination.

**Assumptions**

Per our six hypotheses, we made the following assumptions going into the research:

- CEO extraversion and conscientiousness would be most important to transformational leadership.
- The ability to formulate and drive strategic change would be more important than the CEO’s ability to manage tasks and relationships.
- Personality would be more important than ability (i.e., except for agreeableness, personality was more important than ability in three desired outcomes) when predicting engagement.
- CEO transformational leadership would be more important than work practices.
- Employee engagement would be more important to success than anything else—but engagement would be linked to transformational leadership and HPWPs.

The next section discusses what we learned.
Important Correlations

During the initial analysis, we looked at the direct relationships between two different variables, without considering the impact of any other variable. For the purposes of this study, any time there was a correlation of at least 0.20, this was considered “large enough” to include in a regression analysis—that is, large enough to establish that there was a pattern between the variables.

The complete list of correlations can be found in Figure 6 in Appendix 5; here are the highlights:

→ All five personality traits (extraversion, conscientiousness, emotional stability, openness to new experiences, and agreeableness) show a significant correlation to CEO transformational leadership behavior (ranging from 0.24 to 0.51).
→ The three competencies (relationship building, task orientation, ability to plan and implement strategic change) also show significant correlation to leadership (from 0.59 to 0.61).
→ There is a strong correlation between leadership and collective employee engagement, and between HPWPs and collective employee engagement (0.36 and 0.44, respectively).
→ CEO leadership behavior is linked to the use of HPWPs (0.20).
→ There is a substantial relationship between engagement and organizational performance (0.22).

Or, in short, all of the variables included in this study are predictive of at least one of the three outcomes when considered in isolation.

Joint Relationships

Next, we conducted a relative importance analysis in order to look at how the variables functioned in conjunction with one another when multiple predictors were examined at the same time. This took the research past the traditional approach—multiple regression analyses—and allowed us to shine a light on the relative predictive validity of each explanatory variable when we analyzed both its unique contribution and the contribution it made in the presence of other variables.

The complete findings for this can be found in Figure 8 in Appendix 5. Highlights are as follows:

→ When taken together, the tested personality traits and competencies are important. The combination of all CEO personality traits and competencies shows a model
R-square of 0.67 when predicting transformational leadership behavior—a very significant correlation.

CEO conscientiousness and the use of HPWPs are the most significant predictors of employee engagement individually (at 0.42 and 0.39, respectively) and have a model R-square of 0.46, again, a strong correlation.

When predicting organizational performance, the combination of all CEO attributes (personality, ability, leadership behavior), HPWPs, and overall engagement explain 33% of the variance.

Emotional stability, extraversion, and relationship competency are most strongly related to organizational performance (at 0.40, 0.20, and 0.43, respectively), instead of transformational leadership or HPWPs as hypothesized. This shows that a CEO’s individual attributes have a direct—and much stronger than expected—link to engagement and performance.

Agreeableness tends not to get the credit it deserves. Because agreeableness overlaps so strongly with other variables, it is seldom given its full due. By performing more comprehensive analyses that allowed us to examine agreeableness in isolation from all other predictors, we were able to prove its true importance.

Based on the various analyses, our research conclusions are presented in the next section.

**CEO Attributes Are More Important Than Expected**

Although we anticipated the importance of CEO attributes, we were surprised by two things: (1) just how important they are and (2) which traits and abilities matter most.

**Which Personality Traits Matter Most?**

Personality is a key predictor of all three outcomes and accounts for:

- 45% of the variance in transformational leadership style (Figure 2).
- 47% of the variance in how engaged employees are (Figure 3).
- 49% of the variance in organizational performance (Figure 4).
Although the research strongly confirmed the significance of personality traits, there were a few surprises in terms of which individual traits are most important:

- **Extraversion is much less important than expected.** Contrary to prior research and hypothesis 1, CEOs who are more extraverted (prefer to lead others, are
ambitious and outgoing, and embrace excitement and stimulation) are not as likely to be seen as transformative leaders (Figure 2). Nor are they more able to increase their employees’ engagement at work (Figure 3). Consequently, this personality trait has only a modest impact on organizational performance (Figure 4). Although the natural propensity of extraverted leaders to try negotiating and influencing others was expected to be the best personality predictor of leadership and employee engagement, it is actually the weakest personality predictor for CEOs. Nevertheless, it should be noted that increases in CEO extraversion still lead to slight gains—not actual decreases—in each of the studied outcomes.

CEO conscientiousness is the top trait when predicting employee engagement. As expected, the more conscientious the CEO (achievement-oriented, responsible, and determined), the more transformative the CEO’s leadership style (Figure 2), the more engaged the employees are at work, and the higher the organization’s performance (Figure 4). High scorers in conscientiousness have a strong sense of purpose and a sense of urgency that lead them to achieve organizational objectives. While this gets reflected in their leadership behavior, the results show this one trait has a remarkably large effect on overall employee engagement (Figure 3). A hardworking, organized, and persistent CEO serves as a powerful role model and effectively inspires the organization’s employees to even greater levels of engagement.

Emotional stability and agreeableness are more important than expected. Surprisingly, two other personality traits, emotional stability and agreeableness, were also found to be important predictors of CEO leadership and organizational performance. In fact, emotional stability is the best predictor of organizational performance (Figure 4), while agreeableness is the best personality predictor of CEO transformational leadership (Figure 2). Thus, CEOs who tend to be calm, hardy, secure, and confident (emotionally stable) are linked to more effective leadership and higher organizational performance. The attributes of stability contribute to forming and implementing goals and to being more effective interpersonally. Although not expected, being more agreeable, likeable, and empathic toward others is strongly linked to being a transformational leader and also increases overall employee engagement, even organizational performance. These findings demonstrate that while agreeableness was not found to be a relevant predictor of success among lower-level leaders in prior research, it is important to CEOs. We also hypothesize that credit union employees might value agreeableness more highly than those in for-profit industries.

Openness to experience lines up with expectations of low-to-moderate importance. This trait accounts for 8% of leadership variance, 5% of employee engagement variance, and just 2% of organizational performance variance.
CEOs who tend to be calm, hardy, secure, and confident (emotionally stable) are linked to more effective leadership and higher organizational performance.

To understand what makes a CEO successful (or not) in this industry, one must understand how emotionally stable and conscientious the CEO is. It’s also helpful if the CEO is higher in agreeableness, as well as somewhat higher in openness to experience and even extraversion. But across all three outcomes, the key traits are emotional stability and conscientiousness, two personality traits that have been found to be “universal predictors” of job performance (Barrick, Mount, and Judge 2001).

How Did Abilities Stack Up?

Here’s what we found when investigating CEO ability:

- **Successful CEOs do a better job of maintaining relationships, and this is important to transformational leadership.** Relationship competence is linked to higher transformational leadership behavior, as projected in hypothesis 2, explaining 17% of the variance in CEO leadership behavior and 18% of the variance in firm performance (see Figures 2 and 4, respectively). Thus, CEOs who tend to be skilled at building and maintaining relationships (relationship competence) are linked to more effective leadership and higher organizational performance. However, contrary to our expectations, rather than indirectly affecting credit union performance through employee engagement, relationship competence was shown to directly affect performance.

- **Strategic change competence is not uniformly valuable.** As proposed in hypothesis 2, the leader’s ability to formulate and implement strategic change is the most important contributor relative to all CEO individual differences when predicting CEO leadership (explaining 22% of its variance). However, it is less important than the CEO’s task competence when predicting firm performance (explaining a modest 5% of its variance while task skill explains 9%).

Personality versus Abilities

As expected, CEO ability across tasks, relationships, and strategic change is substantially less important than CEO personality when predicting overall employee engagement (explaining just 9% of the variance vis-à-vis 47% by traits) and somewhat less important in explaining variance in firm performance (explaining 32% of the variance vis-à-vis 49% by traits). In contrast to hypothesis 3, however, the cumulative contribution of CEO competencies is surprisingly large relative to the five personality traits when predicting CEO transformational leadership (explaining 55% of the variance vis-à-vis 45% by traits).
Therefore, one must conclude that the extent to which the CEO possesses higher skills and abilities matters, whether it is through the leadership behavior exhibited by the CEO or the performance of the entire organization.

A Closer Look at Transformational Leadership

The findings regarding the importance of the CEO’s transformational leadership behaviors relative to the firm’s use of HPWPs are more nuanced, contrary to the clear expectations that CEO leadership would uniformly matter more. Thus, organizational performance is affected by both what the CEO does and how effectively management engages in high involvement work practices. Specifically,

- **HPWPs as a set have a significantly more important role than CEO leadership.** When predicting aggregated employee engagement, HPWPs explain 33% of the variance, while CEO leadership behavior explains only 12% (see Figure 3).

- **CEO personality and traits trump all.** Neither CEO leadership nor the credit union’s use of HPWPs matter as much as the CEO’s personality or skills when predicting organizational performance. Together, leadership and HPWPs explain only 8% of the variance in performance, while the CEO’s standing on the individual differences explains an astonishingly hefty 81% of the variance (see Figure 4).

Overall Engagement Is Associated with Higher Organizational Performance

There is strong evidence that increasing overall employee engagement is associated with higher organizational performance. Consequently, there is considerable value in taking a strategic view of employee engagement to realize a sustainable competitive advantage. The impact of employee engagement on firm performance also underscores the utility of CEO conscientiousness, CEO leadership, and the HPWPs pursued by the firm, as these three predictors were found to have the largest effect on employee engagement, which in turn significantly increased organizational performance.

CEO Personality Can Directly Improve Employee Engagement and Credit Union Performance

A central belief going into the research was that CEO personality has to be mediated through transformational leadership behavior in order to improve employee engagement or organizational performance. Our results show that CEO personality traits could directly impact all outcomes.
This was somewhat unexpected and underscores the importance of CEO personality. We found that the leader’s personality not only drives leadership behavior—explaining 45% of the variance in transformational leadership style (see Figure 2)—but also accounts for 47% of the variance in how engaged employees are at work (see Figure 3). The leader’s personality also accounts for 49% of all the variance in the organization’s performance (see Figure 4) six months after considering the joint and unique effects from other CEO personality traits, CEO ability, and CEO leadership behavior, as well as the use of a set of HPWPs and overall employee engagement. These results convincingly reveal substantial effects due to the CEO’s personality, even after accounting for all other predictors.

CHAPTER 4

What Should Credit Unions and CEOs Take Away from the Research?

These findings clearly demonstrate the benefits organizations can achieve by improving their executive selection and development practices. Here are some things to consider when doing so.

Hire New CEOs with Strengths in the Three Most Critical Personality Traits

The three most critical personality traits—agreeableness, conscientiousness, and emotional stability—link closely to transformational leadership behavior and increase both employee engagement and credit union performance. Our findings indicate that decision makers should be more confident in the predictive value of their own judgments about candidate strengths in these three areas; recent evidence strongly demonstrates that observers can assess these attributes, and they can do so even in a 30-minute interview (Oh, Wang, and Mount 2011). Credit unions might also consider administering a 30-minute test to assess these traits; examples of such tests include the CentACS WorkPlace Big Five Profile, the Wonderlic Five-Factor Personality Profile, and the Hogan Personality Inventory.
Encourage Current CEOs to Build Strengths across These Three Traits

Although it’s nearly impossible to change personality as an adult, it is possible to improve the behaviors captured by these traits.

For example, conscientious CEOs are more planful, persistent, and organized, which allows them to accomplish more and be more decisive. CEOs who struggle in this area can try to:

→ Set and publicly commit to fewer but more important goals.
→ Structure work (and the home environment) to support order.
→ Maintain a to-do list to further enhance discipline.
→ Use self-rewards when improvements are made.

A skilled and highly conscientious administrative assistant can make a critical difference in this area.

More emotionally stable CEOs are better able to cope with stress, manage disruptive impulses, and maintain an optimistic perspective. To improve in this area, the executive should strive to gain better control over emotions, or at least minimize emotional displays.

The following steps can help:

→ Manage stress levels through diet, exercise, and relaxation and visualization techniques.
→ Improve communication skills.
→ Get adequate sleep.
→ Identify sources of socio-emotional support.

Successful CEOs have a natural predisposition toward agreeableness: They elicit positive reactions from others, effectively interact with others, and even anticipate others’ needs and desires. What the results from this study show is that it is particularly critical that others at work view the CEO as highly agreeable—being courteous and good-natured, flexible and tolerant, trusting and supportive, collaborative and generous—even if the CEO doesn’t see their own tendencies or habits that way.

To increase agreeableness:

→ Strive to recognize times of disagreement with others and work toward cooperation rather than competition.
Rely on inquiry, not just advocacy, and work to identify more effective ways to give feedback to others.

Consider ways to agree in principle (if not in specifics) or to agree with the person’s motives.

**Strengthen Leadership Development Efforts**

Although it’s uncommon to think of “training” CEOs, efforts to improve the three core skill areas—planning and defining task roles and maintaining focus of others on task-oriented behaviors, supporting others to encourage followers to focus on the welfare of the group, and planning and implementing strategic change—can help drive improved results.

Consider implementing the following:

- **Comprehensive 360-degree feedback procedures.** Use these approximately every 18 months to give executives a clear sense of how skilled they’ve become at these three key behaviors.

- **Executive coaching programs.** In their book *Coaching for Leadership: Writings on Leadership from the World’s Greatest Coaches*, Goldsmith, Lyons, and McArthur (2012) illustrate the impact top executive coaches can have on executive success (examples include Marshall Goldsmith, Paul Hersey, and David Ulrich).

**Follow Recognized HPWPs**

Our research shows that HPWPs meaningfully increase the motivation or overall engagement of the firm’s employees (accounting for 33% of the variance in engagement), which in turn increases organizational performance.

To the extent the credit union treats employees fairly, keeps them informed about things they are doing well, provides performance-based rewards and recognition, and involves them in solving problems and improving service, the study indicates that the credit union will have more engaged employees and, not surprisingly, better firm performance.

Our research analyzed the following HPWPs:

- **Internal/external equity in compensation practices.** Ascertain that compensation is “fair” in comparison to the pay other firms’ employees receive for similar work and that differences in pay between people in your company are primarily due to greater skill, responsibility, or performance.

- **Contingent/incentive pay to reward merit.** The use of incentive pay is a controversial and complex issue researchers have long and passionately debated. In
essence, the issue boils down to “control”: Is it a “controlling” external inducement used by supervisors to prevail upon the employee to exert ever-greater effort (Barnard 1938; Deci 1971; Deci and Ryan 1985; Pfeffer 1998), thereby undermining the employee’s own intrinsic interest in doing the task? Or, alternatively, is pay, particularly pay for performance, a way to provide feedback that acts as an “informational signal” about a worker’s accomplishments, operating similarly to cues from more traditional approaches to provide performance feedback (Rynes, Gerhart, and Parks 2005; Gerhart, Rynes, and Fulmer 2009)? Recent scholars have evaluated the empirical evidence amassed to date and have concluded that, if done well, pay can function as an effective incentive at work (Rynes, Gerhart, and Parks 2005; Gerhart, Rynes, and Fulmer 2009) that gives employees a feeling of greater control of their own work.

→ **Performance appraisal mechanisms.** Formal performance appraisals provide direct information and feedback to employees regarding their performance, further motivating them (Renn and Vandenberg 1995). Pay policies that are tied to performance or merit can act as a signal to employees, giving them feedback about how they are doing.

→ **Employee problem solving.** Make sure all managers know that solutions can and should arise from your workforce. Effective customer service requires that those providing the services be actively involved in improving the quality and quantity of interactions with all customers. When employees are more engaged, they are willing to generate and share suggested improvements to do the work more efficiently or do higher-quality work in order to help the organization succeed.

### Conclusion

Do CEOs matter? You bet. While this study shouldn’t be used to justify some of the well-known excesses of corporate CEOs (the infamous $35,000 commode comes to mind)—or to minimize the importance of employee engagement—credit unions would do well to follow the mandates of these findings. Among them: Hire CEOs wisely and invest in their ongoing training. Keeping the focus on the CEO, while at first glance counterintuitive to our member-first mantra, will deliver exceptional dividends in the long run.
APPENDIX 1

Survey Sample

We surveyed members of the top management teams of credit unions across the United States and Canada. Eighty-five credit unions initially expressed interest in participating in the study; respondents from 84 credit unions returned completed surveys. The CEO of each credit union was asked to participate, along with four of each of the following: senior managers, middle-level managers, and entry-level employees (all employees were selected by the CEO). On average, 10.5 of the 12 non-CEO members responded (all CEOs responded), or about 3.6 from each of the three employee groups. Of the 1,008 employees at the 84 credit unions, usable responses were received from 903 team members, yielding a response rate of 90%.

Of the 903 members responding, 51% were male and 85% were Caucasian. Fifty-two percent of the sample held a bachelor’s or graduate degree. The employees had been with the credit union for an average of 9.5 years, and the average age was 38.

APPENDIX 2

Data Collection

Initial Confirmation—The CEO

Data were collected at four points in time. An initial confirmation that a credit union would participate in the study was sent to the CEO of each credit union. The CEO was asked to provide a written list of four senior managers, four middle-level managers, and four entry-level employees, who then provided 360-degree ratings for the CEO, plus additional information relevant to them or their work situation.

First Survey—CEO and All Other Members Nominated by the CEO

Approximately four months after the initial e-mail confirmation, the CEO and the participants completed surveys electronically and provided the following information:
All raters evaluated the CEO’s personality, critical executive competencies, leadership behaviors, and performance. They also rated the firm’s use of a number of HPWPs, including pay for performance and other incentive pay; the level of compensation, including internal and external equity; the use of employee involvement programs or employee participation in solving quality or quantity challenges at work; and various training programs and development opportunities.

Non-CEO participants provided ratings of their own levels of engagement at work and the motivational potential of their job, based on the expanded job characteristics model, job satisfaction, intent to quit, and commitment to the firm.

In a separate survey, the nominated worker’s supervisor rated the performance of that worker.2

Second Survey—CEO and All Other Members Nominated by the CEO

All participants were invited to complete a personality questionnaire, thereby providing a self-report of their personality.

Organizational performance was assessed as the average of return on assets (ROA), net worth to total assets, delinquent loans to total loans, and net charge-offs to average loans. All data were collected from the National Credit Union Administration’s website (ncua.gov).

APPENDIX 3

Measures

In this section we describe the way in which the variables from the first set of surveys were measured.

CEO Personality

The five dimensions of personality traits were each measured with seven items from the International Pool of Personality Items (Goldberg 1999). Traits included conscientiousness (e.g., “My CEO is a very persistent worker”; α = 0.84), emotional stability (e.g., “My CEO tends to get impatient easily”; α = 0.72), extraversion (e.g., “My CEO is more reserved and less outspoken in large groups”; α = 0.76), agreeableness (e.g., “My CEO is usually
considerate of other people’s feelings”; \( \alpha = 0.78 \), and openness to experience (e.g., “My CEO tends to avoid complicated problems that call for creative solutions”; \( \alpha = 0.83 \)). Ratings were obtained from the non-CEO respondents. Observer ratings of personality have recently been found to have higher predictive validities than self-reports (Connelly and Ones 2010; Oh, Wang, and Mount 2011). These ratings are thought to better reflect the CEO’s reputation at work.

**CEO Abilities**

The three dimensions of ability were measured with three items apiece from the non-CEO (observer) survey responses. Sample items were “My CEO is able to develop and maintain comfortable working relationships with others and tends to be sensitive and empathic toward others” (relationship competence, \( \alpha = 0.78 \)), “My CEO delegates and assigns responsibilities, objectives, and performance expectations” (task competence, \( \alpha = 0.75 \)), and “My CEO explains why change is needed and empowers people to implement the change while also giving them individual attention and support” (strategic change competence, \( \alpha = 0.70 \)).

**Measuring Transformational Leadership Behaviors**

Each non-CEO participant rated the transformational leadership behaviors of their CEO using the Multifactor Leadership Questionnaire (MLQ Form 5X; Bass & Avolio 1995). The behavior of idealized influence\(^3\) was assessed with eight items (\( \alpha = 0.80 \)). The behaviors of inspirational motivation\(^4\) (\( \alpha = 0.85 \)), intellectual stimulation\(^5\) (\( \alpha = 0.81 \)), and individualized consideration\(^6\) (\( \alpha = 0.89 \)) were each assessed with four items. Respondents indicated the frequency with which each item described the CEO using a five-point Likert response scale (1 = not at all and 5 = frequently, if not always). An average of 10.5 top management team members, middle managers, and entry-level employees rated each CEO.

Because of high correlations between the components of transformational leadership, most researchers aggregate across dimensions to obtain an overall rating of transformational leadership (e.g., Judge and Bono 2000). Correlations among transformational leadership components ranged from 0.63 to 0.83 in this data set; therefore, we followed the common practice of aggregating across dimensions to obtain an overall rating of transformational leadership. Reliability of the transformational leadership scale was 0.92. Additionally, consistent with past research (e.g., Bono and Judge 2003), we averaged across raters to obtain a leadership rating for each leader. Aggregation was deemed acceptable based on examination of intraclass correlations (\( F = 2.41, p < 0.01 \); ICC(1) = 0.24; ICC(2) = 0.72).
HPWPs Used by the Credit Union

The four dimensions of HPWPs were each assessed by three items validated in prior work (Datta, Guthrie, and Wright 2005). On a five-point Likert response scale, where 1 was “strongly disagree” and 5 was “strongly agree,” respondents were asked to indicate the extent to which they agreed or disagreed that each practice was being utilized in the organization. Sample items were “Pay raises for employees in this firm are based on job performance” (pay for performance and other incentive compensation, \( \alpha = 0.76 \)), “Total pay for the typical job in this firm matches the ‘market wage’ for the type of work in the area” (compensation level, \( \alpha = 0.76 \)), “Employees in this firm are allowed to make important work-related decisions such as how the work is done or to implement new ideas” (participation and information sharing, \( \alpha = 0.71 \)), and “At least once a year employees receive a formal evaluation of their performance” (performance appraisal, \( \alpha = 0.69 \)). These scores were summed once aggregation was supported, based on support from the intraclass correlations (\( F = 4.34, p < 0.01; ICC(1) = 0.22; ICC(2) = 0.81 \)), particularly ICC(2), where coefficients above 0.70 show there is agreement on the score for the attribute within the organization.

Employee Engagement

All non-CEO participants also completed 24 items that assessed their engagement with work. Work engagement is a multidimensional construct defined as a positive, fulfilling, and work-related state of mind that is characterized by vigor, dedication, and absorption (Sonnentag 2003). Vigor reflects physical engagement and is characterized by high levels of energy and mental resilience while working, the willingness to invest effort in one’s work, and persistence in the face of difficulties. Dedication represents emotional engagement and is characterized by a sense of significance, enthusiasm, inspiration, pride, and challenge. Absorption depicts mental engagement and is characterized by fully concentrating on and being deeply engrossed in one’s work, where time passes quickly and one has difficulty detaching oneself from work. These items were taken from the Rich, LePine, and Crawford (2010) and Christian, Garza, and Slaughter (2011) papers. Participants responded using a five-point Likert scale (1 = strongly disagree and 5 = strongly agree). This scale exhibited acceptable reliability (\( \alpha = 0.92 \)).

Organizational Performance

In a survey of credit union CEOs, the following were identified as the most commonly used measures of organizational performance in the credit union system: return on average assets, net worth to total assets, delinquent loans to total loans, and net charge-offs to average loans. We collected archival measures of these four indicators from the National Credit Union Administration’s website (ncua.gov) approximately six months after the initial survey was distributed. Each variable was initially converted to a z-score, and then the z-scores across all variables were summed.
Control Variables

Credit union size was included as a control variable when predicting organizational performance. Credit union size was measured as the number of members of each credit union.

APPENDIX 4

Analysis

One of the key contributions of this study is the ability to simultaneously consider the joint relationships of many predictors for the first time, including CEO personality vis-à-vis CEO ability, CEO leadership behavior versus the firm’s HPWPs, and aggregated employee engagement vis-à-vis either CEO leadership or HPWPs. However, it is expected that many of these predictors will covary and in some cases will be strongly intercorrelated, thereby making multicollinearity a known problem. To systematically account for these issues, the analyses relied on three different statistical approaches.

First, the zero-order correlation was relied on to establish that the predictor had a meaningful (statistically significant) relationship to the criterion or outcome of interest when considered in isolation from other predictors. When the correlation coefficient is not statistically different from zero, it means the strength of the bivariate relationship does not differ significantly from chance or no (zero) relationship. Thus, finding that a predictor-criterion correlation does not meaningfully differ from zero indicates the exploratory variable is likely to be irrelevant to the prediction model and should be excluded from the multiple regression analysis.

The second analytic approach relied on in this study was to determine the importance of a set of predictors. Multiple regression analyses provide an indication of the total amount of variance that can be predicted in the criterion, given the use of multiple predictor variables (i.e., reporting model R²). In this study, this enabled the simultaneous examination of the predictive power arising from multiple personality traits and CEO abilities, as well as other relevant measures including CEO transformational behavior and employee engagement. When a standardized regression coefficient for a predictor was found to be nonzero, it indicated the predictor had a “unique” or incremental contribution to our understanding of the criterion. However, multicollinearity has been found to have pernicious effects. How pernicious you might ask? As you may know, standardized regression coefficients can range from −1.0 to 0.0 to +1.0. However, the existence of multicollinearity between predictors can
“arbitrarily” change the direction of a standardized regression coefficient or even make it greater than 1.0, which is not technically possible (e.g., $\beta = -1.23, p < 0.01$). Furthermore, it is not possible to determine when a regression coefficient represents an accurate estimation, an underestimation, or an overestimation of the predictor variables’ true contribution to our understanding of the criterion (e.g., as illustrated below, when using regression, loan officer service was found to explain only 0.005% of the variance in customer satisfaction, which is contradicted by the finding that the squared zero-order correlation [note: $r^2 = 0.12$, based on a correlation of 0.35] explains substantially more of the variance in the customer satisfaction score).

Thus, to accurately determine the relative importance of all these correlated predictors, calculating the epsilon statistic was the third (and most important) statistical procedure relied on in this study. This statistic has been found to be the best indicator for determining relative importance when the predictors are correlated (Johnson 2000; LeBreton, Ployhart, and Ladd 2004; LeBreton and Johnson 2004).

A short example may help explicate the problem for regression. You are interested in determining how each point of contact with a customer affects their overall judgment of customer satisfaction with your credit union. In essence, you are interested in the relative importance of each customer interaction point in contributing to the customer’s overall satisfaction evaluation. This situation screams that one conduct a regression analysis to understand the relative importance the customer places on (1) teller service, (2) the convenience of the business hours, (3) loan officer service, and (4) phone representative service. Prior research shows the zero-order correlation between the first two explanatory variables (predictors A and B, teller service and hours) and customer satisfaction is 0.40, while the correlation for the last two predictors (predictors C and D, service by a loan officer and a phone rep) is 0.35. Not surprisingly, these four predictors have moderately strong intercorrelations of 0.60 with each other (each pair of variables from the four predictors has $r = 0.60$). If you ran a regression of these four scores against the criterion (a rating of customer satisfaction), you would get the following regression coefficients: predictors A and B each have a $\beta = 0.20$, while predictors C and D each have a $\beta = 0.07$. If the standardized regression coefficients are squared, the relative importance of teller service and the convenience of hours (predictors A and B, $\beta^2 = 0.039$) is nearly eight times as important as loan officer service and phone representative service (predictors C and D, $\beta^2 = 0.005$). Yet, examination of the actual correlations demonstrates that the four predictors are nearly equal in relative importance when examined in isolation (either 0.40 for A and B or 0.35 for C and D). So which is it? Are the first two predictors substantially more important than the second two predictors (as suggested by the regression analysis results), or can we estimate customer satisfaction about equally with knowledge of any two of the predictors (based on the squared correlations)? Sadly, under moderate-to-high multicollinearity, neither zero-order correlations nor standardized regression coefficients can resolve the dilemma and
adequately answer the question about the relative importance of each predictor. Although zero-order correlations credit the shared criterion variance (from multicollinearity) to each individual predictor when correlations are computed, when linear regressions are conducted, whichever predictor has the largest zero-order correlation with the criterion when the regression coefficients are computed is uniquely allocated all of the shared variance. This over-attributes the importance of this variable (i.e., A and B in this example) and undercounts the importance of the other explanatory variable (i.e., C and D). To avoid this problem, in this study a relative importance analysis derived from the epsilon statistic was relied on to generate the most accurate estimate of the importance of a predictor.

As this example illustrates, one of the most vexing problems for practitioners and scholars is to establish the usefulness or importance of a variety of predictors, particularly when those variables are not independent. In this study we examined a number of potentially significant individual differences of the CEO (e.g., personality, ability, and leadership style), all of which correlate to one another to varying degrees. In addition, we want to establish how important these variables are compared to a set of HPWPs, in order to have a better understanding of how each of these CEO attributes contributes to overall employee engagement, and even organizational performance, relative to these other HPWPs. Armed with a better understanding of the relative contributions of these individual differences or HPWPs to these important outcomes, you the practitioner can make a more informed decision about which attributes to focus your attention on.

To establish each predictor’s relative importance, we utilized the epsilon statistic to simultaneously account for its unique contribution (as indicated by the zero-order correlation) and its contribution in the presence of other predictors (as indicated by the regression coefficient). Through the use of epsilon in conjunction with more traditional regression analysis, we are able to better establish the overall contribution each predictor makes to the prediction of overall employee engagement and organizational performance. Inclusion of the relative importance analyses will help identify those instances when predictors should emerge as more important predictors of one or more criteria than would result if one relied solely on multiple regression analysis. Again, this is most likely to occur when the predictor is correlated to some of the other predictors considered, which can mask the predictor’s actual contribution instead of focusing on the relative contribution that predictor makes to a regression model.

**Estimating the Model**

The analyses to illustrate the utility of each predictor for explaining CEO transformational leadership behavior, overall employee engagement, and organizational performance require multiple steps. First, the zero-order correlation between the predictor and these outcomes indicates the bivariate importance of these predictors. In cases where the
zero-order correlation is not statistically significant (i.e., not meaningfully different from zero), it makes little sense to include that predictor in the multiple regression. Second, multiple regression analysis was used to identify the optimal subset of predictors to include in a model to maximize the amount of variance explained in the outcome being examined, using all of the predictors available. This model reflects the subset of predictors that make the largest contribution to the prediction in criterion variance in the presence of the other predictors. This analysis is particularly good at identifying those predictor variables that are completely redundant with the remaining predictors (i.e., the predictor variable is so highly correlated to one or more of the other predictors that it provides no unique information about criterion variance). Third, to recognize when a predictor should not be excluded or discounted after a regression analysis, we used the epsilon statistic to estimate the relative importance of each predictor. We then used the epsilon statistic to demonstrate the relative importance of each of the predictors, incorporating results from both a linear regression analysis and a correlation matrix, to test the hypotheses when predicting (aggregated) employee engagement and organizational performance. The results from these analyses are reported in Figure 5 and Figure 8, based on the hypothesized model illustrated in Figure 1 in the main text.

FIGURE 5

EMPIRICAL RESULTS FOR HYPOTHESIZED RELATIONS
Interpretation of Results

Examination of Zero-Order Correlations

Figure 6 shows the correlations between all the variables. To make predictions about employee engagement and organizational performance, we need to establish that scores on CEO attributes (e.g., personality, ability, or leadership) and HPWPs covary with these outcomes. To fully understand these relationships, we also have to know how these variables

**FIGURE 6**

**MEANS, STANDARD DEVIATIONS, RELIABILITIES, AND CORRELATIONS**

<table>
<thead>
<tr>
<th>Predictor variable</th>
<th>Mean</th>
<th>SD</th>
<th>1</th>
<th>2</th>
<th>3</th>
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<th>11</th>
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<td>1. CEO conscientiousness</td>
<td>4.03</td>
<td>0.53</td>
<td>0.84</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
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<td></td>
<td></td>
<td></td>
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<tr>
<td>2. CEO emotional stability</td>
<td>3.73</td>
<td>0.56</td>
<td>0.34**</td>
<td>0.72</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>3. CEO extraversion</td>
<td>3.80</td>
<td>0.59</td>
<td>0.26**</td>
<td>0.27*</td>
<td>0.76</td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td>4. CEO agreeableness</td>
<td>3.63</td>
<td>0.62</td>
<td>0.24**</td>
<td>0.69**</td>
<td>0.26*</td>
<td>0.78</td>
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<tr>
<td>5. CEO openness to experience</td>
<td>3.89</td>
<td>0.58</td>
<td>0.46**</td>
<td>0.49**</td>
<td>0.53**</td>
<td>0.48**</td>
<td>0.83</td>
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<td>6. CEO relationship competency</td>
<td>3.79</td>
<td>0.89</td>
<td>0.30**</td>
<td>0.13**</td>
<td>0.07</td>
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<td>0.06</td>
<td>0.78</td>
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<td>7. CEO task competency</td>
<td>4.18</td>
<td>0.72</td>
<td>0.46**</td>
<td>0.04</td>
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<td>0.16</td>
<td>0.02</td>
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<td>8. CEO strategic change competency</td>
<td>4.03</td>
<td>0.62</td>
<td>0.21*</td>
<td>0.02</td>
<td>0.02</td>
<td>0.13</td>
<td>0.04</td>
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<td>0.74**</td>
<td>0.70</td>
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<tr>
<td>9. CEO transformational leadership</td>
<td>3.98</td>
<td>0.51</td>
<td>0.38**</td>
<td>0.44**</td>
<td>0.24*</td>
<td>0.51**</td>
<td>0.43**</td>
<td>0.61**</td>
<td>0.59**</td>
<td>0.61**</td>
<td>0.92</td>
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<td>10. HPWPs</td>
<td>3.84</td>
<td>0.40</td>
<td>0.19*</td>
<td>0.02</td>
<td>0.09</td>
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<td>0.10</td>
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<td>0.26*</td>
<td>0.19*</td>
<td>0.20*</td>
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<tr>
<td>11. Overall employee engagement</td>
<td>4.15</td>
<td>0.19</td>
<td>0.46**</td>
<td>0.25*</td>
<td>0.07</td>
<td>0.22*</td>
<td>0.12</td>
<td>0.25*</td>
<td>0.25*</td>
<td>0.19*</td>
<td>0.36**</td>
<td>0.44**</td>
<td>0.92</td>
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<tr>
<td>12. Organizational performance</td>
<td>0.01</td>
<td>0.52</td>
<td>0.18*</td>
<td>0.34**</td>
<td>0.17</td>
<td>0.20*</td>
<td>0.05</td>
<td>0.20*</td>
<td>0.02</td>
<td>0.08</td>
<td>0.13</td>
<td>0.05</td>
<td>0.22*</td>
</tr>
</tbody>
</table>

Note: n = 84. Coefficient alpha reliability estimates in blue on the diagonal.
* p < 0.05 (one-tailed test)
** p < 0.01
covary with one another. Thus, the initial step of this analysis was designed to expand our understanding of the magnitude of the relationship between pairwise combinations of all these variables. Figure 6 shows the means, standard deviations, reliabilities, and correlations for variables included in this analysis. This analysis shows that CEO transformational leadership has a positive relationship with employee engagement ($r = 0.36$) and is linked to the use of HPWPs ($r = 0.20$). However, leadership does not directly correlate with credit union performance. Additionally, the use of HPWPs is positively correlated with employee engagement ($r = 0.44$), but not directly with credit union performance. Finally, as hypothesized, the level of employee engagement significantly relates to organizational performance ($r = 0.22$).

What is surprising is how highly correlated many of the personality traits are with transformational leadership behavior ($r$ ranges from 0.24 to 0.51), with conscientiousness, emotional stability, and agreeableness associated with higher employee engagement ($r = 0.46, 0.25,$ and 0.22, respectively) and organizational performance ($r = 0.18, 0.34,$ and 0.20, respectively). Unexpectedly, neither CEO extraversion nor openness to experience significantly predicted either.

Turning to the three CEO skills, CEO conscientiousness correlates with all three ($r = 0.30, 0.46,$ and 0.21), which is somewhat unexpected, while the strongest correlation is with task competency ($r = 0.46$), a more expected outcome. Further, CEO agreeableness is significantly related to CEO relationship competency ($r = 0.25$), which again illustrates that relevant CEO personality traits are meaningfully related to the types of competencies a CEO is predisposed to develop. Interestingly, all three skills are strongly correlated to CEO transformational leadership behavior ($r = 0.59$ to 0.61). This helps show that having strong competencies in building relationships, focusing on tasks, and initiating and implementing strategic change facilitates leadership behavior. These skills were also found to relate to higher employee engagement ($r = 0.25, 0.25,$ and 0.19), which again illustrates how central the CEO is to employee motivation. Finally, CEO relationship skills are linked directly to higher organizational performance ($r = 0.20$), which underscores how important these attributes are to the CEO.

The magnitude of the relationship between the various predictors and the three key outcomes examined in this study are reported in Figure 7. As shown (and discussed above), the pattern of correlations with CEO leadership is quite strong, followed by employee engagement, and then by firm performance, which has the smallest correlations (except CEO emotional stability, employee engagement, CEO agreeableness, and CEO relationship skill). This makes sense, as firm performance is the most distal outcome, one determined by many, many factors including those external to the business (the rate of unemployment, for example).
Examination of the Influence of Multiple Predictors Simultaneously: Results from Regression and Relative Weights Analyses

Figure 8 reports results for three separate sets of regressions and relative weights (RW). As shown, relationship and strategic change competencies, along with openness to experience (β = 0.32, 0.34, and 0.28, respectively), significantly predict CEO transformational leadership behavior. However, the RW analysis demonstrates that more attributes than just these three actually influence CEO transformational leadership behavior, including all but extraversion (which explains only 4% of the regression model results). Surprisingly, CEO personality explains 45% of the regression results and CEO competencies explain 55%. The contributions from skill, which is larger than personality, are somewhat unexpected.

Turning to the regression predicting employee engagement, the use of HPWPs (β = 0.39) and CEO conscientiousness (β = 0.42) are particularly useful predictors of engagement. These results are further supported by considering the RW analysis, which shows that 33% and 32% of the variance in the entire regression model can be explained by these two attributes, respectively. The only other predictor that exceeded 5% is CEO transformational leadership behavior, which explains 12% of the variance.

Finally, the best predictor of organizational performance of those studied is clearly (and surprisingly) CEO emotional stability (β = 0.40), although CEO relationship skill also
matters ($\beta = 0.43$). Inspection of the RW analysis in the final column underscores the centrality of CEO emotional stability, as 30% of the full model $R^2$ is attributed to this one personality trait alone. The next best predictor, CEO relationship competency, explains only 18% of the variance in the full model, and overall employee engagement explains only 13%. Four other predictors explain more than 5% of the total variance, including CEO task competency (9%), CEO conscientiousness (7%), CEO transformational leadership behavior (7%), and CEO agreeableness (6%). The finding that of the various predictors examined, the five personality traits explain nearly half the variance in organizational performance (49%) was unexpected. Furthermore, that the three CEO competencies also explain more variance (32%) than CEO transformational leadership behavior, the use of HPWPs, and
overall employee engagement combined (all three account for about 20% of the variance) can only be explained as truly unexpected. In many ways, these results suggest that 80% of the CEO’s direct effect on organizational performance is attributed to personality and skill; and only 20% of what the CEO does, and what the firm does (leadership, HPWPs, even employee engagement—the engagement of all employees other than the CEO), contributes to the prediction of performance. This is a significant insight into what practitioners should focus on changing or improving to significantly impact firm success. To an extent not known before, that is who the CEO is.

In contrast, when just what the CEO does is considered, the firm’s adoption of a bundle of good people-management (high-performance) work practices matters nearly twice as much as does the CEO’s leadership behavior when predicting employee engagement. Interestingly, overall employee engagement carries nearly 80% of the influence on organizational performance, with the remaining variance explained through CEO transformational leadership. Thus, these results show that the use of HPWPs matters if one wants greater employee engagement, whereas CEO transformational leadership primarily influences business success. Furthermore, when just these three are considered as determinants of business success, the extent of employee engagement predicts performance. These results were expected; though again, the surprising finding is that leadership, HPWPs, and even average employee engagement do not influence firm performance as much as CEO personality and skill do. This warrants considerably more thought and research.
Endnotes

1 Details of the survey sample are provided in Appendix 1.

2 We also obtained performance ratings for just over 500 of the 903 original nominated workers.

3 This refers to CEOs serving as role models by demonstrating through their own behavior the characteristics they expect in their followers.

4 This refers to the CEO communicating a compelling vision of the future and emphasizing how the followers’ work contributes to the achievement of this vision.

5 This refers to the leader providing a safe environment in which others can suggest changes and stimulating employees intellectually by encouraging followers to think creatively and challenge the status quo.

6 This refers to treating employees as individuals and supporting their development.
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Importance of Predictors
Murray Barrick, PhD

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