PERSONALITY AND LEADERSHIP COMPOSITION IN TOP MANAGEMENT TEAMS: IMPLICATIONS FOR ORGANIZATIONAL EFFECTIVENESS

AMY E. COLBERT
University of Iowa

MURRAY R. BARRICK
Texas A&M University

BRET H. BRADLEY
University of Oklahoma

This study examines whether top management team (TMT) personality and leadership are associated with organizational effectiveness beyond the effects of CEO personality and leadership, as suggested by upper echelons theory. Using direct measures of personality and leadership, rather than proxy variables from archival sources or demographic data, we found that mean levels of conscientiousness among TMT members were related to lagged indicators of organizational performance, as were CEO conscientiousness and transformational leadership. Follower commitment to the organization was found to be associated with higher levels of transformational leadership from both the CEO and TMT. The results are consistent with the upper echelons perspective that organizational effectiveness is influenced not only by the CEO but also by a dominant coalition of leaders. Yet, the results also show that the CEO plays a distinct role in influencing organizational financial performance and collective organizational commitment. Theoretical and practical implications of these results are discussed.

Practitioners and scholars of management have long been captivated by the characteristics of the CEO as a crucial predictor of firm success (Katz & Kahn, 1978; Waldman & Yammarino, 1999). Yet, the complexity of creating and carrying out the strategic decisions of an entire organization demands more skill and effort than a single leader can effectively provide. Instead, it requires the collective ability and motivation of a dominant team of leaders within the firm (Cyert & March, 1963; Finkelstein & Hambrick, 1996; Hambrick & Mason, 1984). Consistent with this view, Hambrick noted, “leadership of a complex organization is...
a shared activity” (2007, p. 334). Thus, strategic leadership researchers have advocated examining the impact of a dominant coalition of leaders (Cyert & March, 1963), not just the CEO, on organizational effectiveness. Recognizing that the top management team (TMT) is charged with leading the organization, scholars have recently begun to consider the consequences of the psychological makeup or composition of the inner circle of executives for organizational effectiveness (Cannella & Monroe, 1997).

The upper echelons perspective proposes that the experiences, values, and personalities of the firm’s CEO and TMT members shape their interpretation of the environment, which in turn influences strategic choice and organizational effectiveness (Hambrick, 2007). However, because access to TMTs is limited, TMT research has primarily relied on demographic data from archival sources as proxies for team member psychological characteristics (Carpenter, Geletkanycz, & Sanders, 2004). The aim of this paper is to integrate personality and leadership theories with the upper echelons perspective in an effort to better understand how key characteristics of top executives influence organizational effectiveness and to test these proposed linkages using direct measures of executive personality and leadership. We propose the composition of executive personality and leadership within the TMT will be related to the success realized by the team of executives (Hollenbeck, DeRue, & Guzzo, 2004; Levine & Moreland, 1990; Stewart, 2006) and, consistent with upper echelons theory, that these effects will augment the effects of CEO personality and leadership on organizational effectiveness. We examine these relationships using two indicators of organizational effectiveness: firm financial performance, which is the most commonly used measure in the upper echelons literature, and aggregated employee organizational commitment. Collective organizational commitment is critical to the organization because it not only is related to retention within the firm but also to employee engagement (Cole, Walter, Bedeian, & O’Boyle, 2012; Griffeth, Hom, & Gaertner, 2000).

Our research makes four primary contributions to the literature. First, we consider how TMT personality composition and CEO personality jointly influence organizational effectiveness. A recent review of TMT research noted “personality variables have long been included in the parlance of the UE [upper echelons] literature but rarely incorporated specifically in studies” (Carpenter et al., 2004, p. 771). Prior research has shown personality composition influences the effectiveness of other work groups within organizations (Bell, 2007; Mount, Barrick, & Stewart, 1998; Stewart, 2006). In this study, we draw from that research and consider the unique nature of TMTs as we build theoretical links between TMT personality composition and organizational effectiveness. Recognizing that
CEOs hold a unique position within TMTs (Finkelstein & Hambrick, 1996), we model the effects of CEO personality separately from the effects of TMT personality composition to fully understand the impact of top executives’ personality on organizational effectiveness.

Second, because TMTs are charged with leading organizations, we expect that the leadership exhibited by top executives is also related to organizational effectiveness. Past research has highlighted the relationship of the CEO’s leadership style with organizational outcomes (e.g., Colbert, Kristof-Brown, Bradley, & Barrick, 2008; Ling, Simsek, Lubatkin, & Veiga, 2008; Waldman & Yammarino, 1999). However, drawing on upper echelons theory, for the first time we test whether firm performance and employee commitment to the organization are also related to the leadership composition of the TMT. Based on suggestions that transformational leadership theories may provide insight into the processes by which TMTs make and implement strategic decisions (Boal & Hooijberg, 2001; Cannella & Monroe, 1997), we focus on the relationships of TMT transformational leadership composition and CEO transformational leadership with organizational effectiveness.

Third, we explicitly examine the proposition from upper echelons theory that executives’ personality traits influence leader behaviors. In doing this, we develop a theoretical model that provides insight into the ways in which executive characteristics are interrelated. Two particularly compelling pieces of evidence support the view that executive personality causes leadership behaviors. First, research has shown that personality is partially heritable and relatively stable during adulthood (Roberts & DelVecchio, 2000). Thus, it is unlikely that leadership behavior shapes personality. Further, longitudinal analyses have shown that personality assessed in childhood predicts performance over 50 years later (Judge, Higgins, Thoresen, & Barrick, 1999). The existence of significant effects of personality on performance through proximal task-specific motivational processes across numerous and varied situations over 50 years is convincing evidence that personality causes behavior. Based on this reasoning, in this study we examine transformational leadership as a potential mediator of the link between executive personality and organizational effectiveness.

Fourth, rather than infer TMT member and CEO personality and leadership from proxy variables, we used direct assessments that are more precise empirical indicators of the psychological constructs and behavioral tendencies that are theorized in our model to influence organizational effectiveness. Although team composition is at the core of much TMT theory (Carpenter et al., 2004), nearly all prior empirical research has relied on demographic data from archival sources to assess TMT composition effects (e.g., Bantel & Jackson, 1989; Cannella, Park, & Lee, 2008; Wiersema & Bantel, 1992). However, demographic variables
are, at best, proxies of the underlying psychological characteristics and behavioral tendencies that actually influence TMT functioning (Carpenter et al., 2004; Priem, Lyon, & Dess, 1999). In response to these concerns, our research directly assesses the psychological makeup and leadership attributes of the executives in TMTs (Cannella & Monroe, 1997; Edmondson, Roberto, & Watkins, 2003; Lawrence, 1997; Pettigrew, 1992). These individual-level characteristics have been overlooked by researchers, even though they are expected to be important to the team’s functioning, leaving critical gaps in what we know about TMTs.

Hypothesis Development

In this study, we examined the CEO’s impact on organizational effectiveness separate from that of the TMT. Given the power and status differences between the CEO and the rest of the TMT, we modeled the effects of the personality and leadership characteristics of the CEO separately from the personality and leadership composition of the TMT to better understand the unique effects of each. Because past research has focused on the impact of CEO personality and leadership on organizational effectiveness, this strategy allows us to examine the unique effects of TMT personality and leadership beyond the effects of the CEO that have been established in previous research. In the following section, we begin by developing theoretical support for the hypotheses that CEO and TMT member personality traits and leadership behaviors are related to organizational effectiveness. We then propose linkages between these executive characteristics, suggesting that the transformational leadership exhibited by the CEO and TMT is a critical mediator that can help explain the link of top executives’ personality with organizational effectiveness (Carpenter et al., 2004; Hambrick, 2007). The hypothesized model is shown in Figure 1.

We assess organizational effectiveness in two ways, based on financial indicators of objective organizational performance and on collective organizational commitment. Consistent with Gardner, Wright, and Moynihan (2011), we conceptualize collective organizational commitment as a shared unit property (Kozlowski & Klein, 2000). Organizational commitment originates as an individual-level perception of the psychological bond between an employee and the organization (Meyer & Allen, 1997). These individual perceptions of commitment may be influenced by organization-level practices and leadership from the TMT (Mathieu & Zajac, 1990). Consistent with composition or direct consensus models of emergence, individuals within the organization interact with each other, sharing their perceptions of the organization’s practices and the
Figure 1: Hypothesized Model of the Relationships of TMT and CEO Composition With Organizational Effectiveness.

Note. TMT = top management team.

desirability of those practices (Chan, 1998; Kozlowski & Klein, 2000; Morgeson & Hofmann, 1999), yielding some convergence of individual perceptions of commitment. Those who have stronger and more defined commitment to the organization may influence those whose commitment is ambivalent (Gardner et al., 2011; Ostroff, 1992). In addition, because organizational commitment includes an affective component, emotional contagion also may result in the emergence of a more homogenous level of collective organizational commitment (Barsade, 2002). Thus, consistent with Gardner et al. (2011, p. 318), we define collective organizational commitment as an organization-level concept that represents “a shared mindset and a shared psychological state among a delimited collective of individuals” that characterizes the bond between the collection of employees and the organization.

Personality Composition and Organizational Effectiveness

Personality traits influence how we habitually think, feel, and act (Saucier & Goldberg, 2003). Within the workplace, personality has been shown to influence leadership (Judge, Bono, Ilies, & Gerhardt, 2002), employee attitudes (Judge, Heller, & Mount, 2002), and job performance (Barrick, Mount, & Judge, 2001). Similarly, at the team level, personality composition has been shown to influence team functioning,
satisfaction, and performance (Bell, 2007; Mount et al., 1998). Upper echelons theory suggests that these effects extend into the top levels of organizations, proposing that personality traits of executives may influence their interpretation of the environment, their strategic choices, and ultimately firm effectiveness (Hambrick, 2007). Although little empirical research has directly assessed the personality traits of the CEO, Peterson, Smith, Martorana, and Owens (2003) used archival sources to rate the personality of 17 CEOs. Ratings of CEO conscientiousness, emotional stability, openness to experience, extraversion, and agreeableness were positively related to the functioning of the TMT, which in turn, related to organizational performance. Resick, Whitman, Weingarden, and Hiller (2009) used a similar approach to assess core self-evaluations and narcissism of CEOs in Major League Baseball. They found that CEO core self-evaluations were indirectly related to organizational performance through positive effects on transformational leadership behaviors, and CEO narcissism was indirectly related to organizational performance through its negative effect on contingent reward leadership behaviors.

In this study, we propose that CEO personality as rated by the CEOs themselves, rather than as coded from archival sources, is likely to be related to organizational effectiveness. However, we extend these arguments to suggest that the personality traits possessed by TMT members may also be related to the success of the organization. The complexity of creating and carrying out the strategic decisions of an entire organization demands more skill and effort than a single leader can effectively provide. Instead, it requires the collective ability and motivation of a dominant team of leaders within the firm (Cyert & March, 1963; Hambrick & Mason, 1984). TMT members work together to craft the organization’s strategic direction, and then each member of the TMT is given a specific role to play—implementing the organization’s strategic direction in his or her functional area. In the implementation process, TMT members enact policies consistent with the strategic direction of the organization that may impact organizational performance. They also build relationships with employees, influencing individual employee organizational commitment and ultimately the shared level of commitment across the organization. Because the success of TMTs is dependent on each of its members, we believe that the composition of personality and leadership within the TMT is best captured through mean levels of these characteristics. This choice is consistent with meta-analytic studies of team composition in other types of work teams, which have shown that mean levels of personality are related to team effectiveness (e.g., Bell, 2007). However, because we are treating TMT personality as a configural unit property that does not necessarily converge within teams (Kozlowski & Klein, 2000), it is possible that the TMT member with the highest or lowest levels of a trait may
disproportionately influence the team’s outcomes or that the variability of a trait across team members may impact team functioning. We return to that possibility in the results section.

We used the five broad personality traits reflected in the five-factor model (FFM) of personality (conscientiousness, emotional stability, openness to experience, extraversion, and agreeableness) to comprehensively describe the sphere of normal personality (Barrick & Mount, 1991). The personality traits of leaders are often seen as either task-oriented (conscientiousness, emotional stability, and openness to experience) or interpersonally oriented (extraversion and agreeableness; DeRue, Wellman, Nahrgang, & Humphrey, 2011). Because a critical task of senior executives is to direct and channel employees toward goal attainment, task-oriented traits may be especially relevant in the TMT. The task-oriented traits of conscientiousness, emotional stability, and openness to experience have been shown to be important predictors of leader emergence (conscientiousness: $\rho = .33$; emotional stability: $\rho = .24$; openness to experience: $\rho = .24$) and leader effectiveness (conscientiousness: $\rho = .16$; emotional stability: $\rho = .22$; openness to experience: $\rho = .24$; Judge, Bono et al., 2002).

Conscientious executives are persistent, disciplined, and achievement-oriented individuals. Such traits are fundamentally related to performance outcomes in many, if not all, jobs (Barrick et al., 2001). Similarly, emotionally stable executives who are neither prone to insecurity nor overly anxious or distracted from their work are also better performers. The breadth of task-related behaviors that conscientiousness and emotional stability reflect explain why these traits are “universal predictors” of individual-level performance (Barrick et al., 2001) and are expected to relate to overall organizational effectiveness; that is, they are important predictors in all jobs including executive jobs. Because the job of executive includes both enhancing organizational financial performance and developing a committed workforce, we expect that conscientiousness and emotional stability among executives will help them achieve both of these goals and are likely to be related to both organizational performance and collective organizational commitment.

In addition to their impact on individual-level performance, prior research has also shown the behaviors and tendencies associated with conscientiousness and emotional stability to be related to team-level effectiveness in work contexts (Bell, 2007; Mount et al., 1998). Conscientious team members are disciplined, diligent, hardworking individuals. Two meta-analyses (Bell, 2007; Mount et al., 1998) found the higher the team’s mean level of conscientiousness, the higher the team’s success in organizational settings. The FFM trait of emotional stability (e.g., calm, steady, secure) reflects how an individual tends to think and react emotionally. Teams composed of more emotionally stable members are able
to deal with conflict more effectively and remain focused on the task itself (Barrick, Stewart, Neubert, & Mount, 1998). Not surprisingly, higher mean levels of emotional stability in teams have also been found to lead to higher team performance in work contexts.

The last task-oriented personality trait is openness to experience. Whereas openness to experience has not been found to predict individual performance in lower level jobs (Barrick & Mount, 1991), it has been significantly related to individual leadership effectiveness (Judge, Bono et al., 2002). Higher average team scores on openness to experience (e.g., original, daring, imaginative, broad-minded) have also been found to be related to team performance in meta-analyses of studies in organizational settings (Bell, 2007; Mount et al., 1998). Team members who are higher on openness to experience are posited to be better suited to adapt to the more dynamic environments typically found in team settings (LePine, 2003). Would these results also be expected to apply to TMTs using organizational performance and collective organizational commitment as the measures of team success? The firm’s executives are tasked with the responsibility of designing the firm’s strategy, implementing command and control to motivate other employees to strive toward the firm’s organizational performance objectives, and developing bonds with the organization’s workforce. Because of this, an executive’s job is likely to be infused with uncertainty (Edmondson et al., 2003). Individuals who are higher on openness to new experiences should be more flexible and adaptable as well as more creative and innovative (Barrick & Mount, 1991). Consequently, although prior research has revealed that this trait is important to leader effectiveness and team success in lower-level work teams (Bell, 2007; Mount et al., 1998), due to the increased uncertainty inherent in the work executives do and the relevance this trait has for executive leadership, openness to experience is expected to be even more critical in executive settings.

Theoretically, these findings suggest that TMTs and CEOs with higher levels of these three task-oriented traits are more likely to complete goals and effectively solve problems (Stewart, Fulmer, & Barrick, 2005), to organize and plan work (Marks, Mathieu, & Zaccaro, 2001), and to simultaneously be cooperative and better team players. Thus, employees who are higher on these three task-oriented traits should be more effective at work, thereby enabling them to achieve the dual goals of improved organizational performance and greater collective organizational commitment.

**Hypothesis 1:** The TMT’s mean level of conscientiousness is positively related to (a) organizational performance and (b) collective organizational commitment.
Hypothesis 2: The TMT’s mean level of emotional stability is positively related to (a) organizational performance and (b) collective organizational commitment.

Hypothesis 3: The TMT’s mean level of openness to experience is positively related to (a) organizational performance and (b) collective organizational commitment.

Hypothesis 4: The CEO’s conscientiousness is positively related to (a) organizational performance and (b) collective organizational commitment.

Hypothesis 5: The CEO’s emotional stability is positively related to (a) organizational performance and (b) collective organizational commitment.

Hypothesis 6: The CEO’s openness to experience is positively related to (a) organizational performance and (b) collective organizational commitment.

In addition to the task-oriented traits, two separate meta-analyses of team-level personality effects in the small groups’ literature (Bell, 2007; Mount et al., 1998) have shown the two interpersonally oriented personality traits of extraversion and agreeableness to be important in team settings. Extraversion (e.g., gregarious, dominant, ambitious) is the first interpersonally oriented trait. Extraverted team members are more outgoing, sociable, and talkative; thus, they prefer to work with others in a team rather than work alone. Higher levels of extraversion have been linked to attraction to the team (Kristof-Brown, Barrick, & Stevens, 2005), to backing up behaviors when others need it on the team (Porter, Hollenbeck, Ilgen, Ellis, & West, 2003), and to the desire to participate and engage members of the team (Barrick et al., 1998). Not surprisingly, prior meta-analyses (Bell, 2007; Mount et al., 1998) found higher average levels of member extraversion were associated with higher team performance. Both meta-analytic studies also reported that teams that have individuals with higher average scores on agreeableness (e.g., considerate, trusting, friendly) were found to have higher team performance in work contexts. Based on these findings, agreeableness has been viewed as a particularly important personality trait in team settings, primarily because the behaviors associated with this trait drive members to maintain social harmony and reduce within-group conflict (Graziano, Hair, & Finch, 1997; Mount et al., 1998). Based on the findings from the work groups literature, we might expect that higher mean levels of extraversion and agreeableness within TMTs are associated with higher organizational effectiveness.
In a team composed of top executives, however, the influence of these two interpersonally oriented personality traits may fundamentally differ from the findings for other work teams. Members of an executive team must first be leaders within the organization (Boeker, 1997), developing and implementing strategy and fostering organizational commitment among employees. Research findings on leaders show that extraversion is the single best personality predictor of leadership (Judge, Bono et al., 2002). Consequently, CEOs who exhibit more social influence and have greater energy are expected to be more influential, which should lead to higher levels of both organizational performance and organizational commitment. Similarly, because TMTs are responsible for communicating a strategic direction for the organization and influencing all their subordinates to coordinate their efforts in support of that direction, the communication and influence skills in teams with high mean levels of extraversion may be associated with higher levels of effectiveness. Taken together, this suggests having a predisposition to engage in influencing others, being sociable, and being ambitious (i.e., highly extraverted) should increase a member’s success as a leader of their business unit and their ability to participate effectively in the TMT.

In contrast, although being modest and having a need for affiliation (i.e., high in agreeableness) may be useful characteristics in some work teams, these traits have not been found to contribute to success as a leader. In fact, agreeableness is the only FFM trait that does not meaningfully relate to leader effectiveness (Judge, Bono et al., 2002). Furthermore, in a team composed of nothing but leaders, there is likely to be little gained from being modest or overly agreeable. More important, given the importance that creating and setting organizational strategies (i.e., making decisions) has to the TMT, it is critical that the team avoid groupthink (Janis, 1972). Consequently, there is a role for a devil’s advocate on the team. Thus, contrary to what research and theory in the small groups’ arena would suggest but consistent with findings in the leadership literature, we believe neither CEO nor TMT agreeableness will significantly influence firm effectiveness. Thus, for the interpersonally oriented traits, we expect only extraversion will be a driver of organizational effectiveness.

**Hypothesis 7**: The TMT’s mean level of extraversion is positively related to (a) organizational performance and (b) collective organizational commitment.

**Hypothesis 8**: The CEO’s extraversion is positively related to (a) organizational performance and (b) collective organizational commitment.
Leadership Composition and Organizational Effectiveness

Although the personality traits of top executives may influence organizational effectiveness, a growing body of research has also examined the impact of leadership behaviors exhibited at the top of the organization. Again, the majority of this research has focused on the leadership behaviors exhibited by the CEO not the entire TMT. Although the results of these studies are somewhat mixed, evidence suggests that CEO transformational leadership or CEO charisma (one dimension of transformational leadership) is positively related to objective measures of firm effectiveness, especially under conditions of environmental uncertainty (Waldman, Javidan, & Varella, 2004; Waldman, Ramirez, House, & Puranam, 2001). Further, the relationship between CEO transformational leadership and organizational effectiveness is stronger in small to medium-sized firms where CEOs have more managerial discretion and work in less complex contexts (Ling et al., 2008; Lubatkin, Simsek, Ling, & Veiga, 2006). Research has also linked the transformational leadership of a single leader to employees’ organizational commitment (Avolio, Zhu, Koh, & Bhatia, 2004; Bono & Judge, 2003).

However, research has not yet examined how the transformational leadership behaviors exhibited by TMT members are related to organizational effectiveness. Given that the TMT is responsible not only for setting the strategic direction of the organization but also for implementing the chosen strategy, creating structures and systems to ensure the effective functioning of the organization, and creating a bond between employees and the organization, leadership from all members of the TMT is needed to accomplish these broad objectives. Within the upper echelons and strategic leadership literatures, researchers have recently called for the integration of other leadership theories into TMT research to help explain how top executives influence organizational effectiveness. Specifically, both Boal and Hooijberg (2001) and Cannella and Monroe (1997) suggested that transformational and charismatic leadership theories might provide insight into the processes by which TMTs make and implement strategic decisions. Thus, we examine the role of TMT transformational leadership composition in influencing organizational performance and collective organizational commitment.

Transformational leaders motivate others to go beyond self-interest to work for the good of the group or organization (Bass, 1985). They do this by communicating a compelling vision of the future, serving as charismatic role models, encouraging others to challenge the status quo, and providing individualized support for others. Although a large body
of research has shown a consistent link between transformational leadership and follower attitudes and performance (Judge & Piccolo, 2004), the majority of this research has focused on close relationships between leaders and followers at lower levels of the organization. However, it has been suggested that transformational leadership is also likely a key to success at the top levels of organizations (e.g., Pawar & Eastman, 1997).

To fully model transformational leadership within the TMT, this study relies on the mean of individual scores to capture the aggregate pool of transformational behaviors across all TMT members. As with personality, we treat team-level transformational leadership as a configural unit property and make no assumptions that levels of transformational leadership converge within TMTs (Kozlowski & Klein, 2000). Instead, the mean level of transformational leadership captures the average transformational behaviors across team members. This operationalization assumes that more transformational leadership (collectively) has beneficial effects on organizational performance and collective organizational commitment, regardless of how it is distributed among team members. Just as prior research has revealed team member’s mean levels of cognitive ability and personality consistently relate to team effectiveness (Barrick et al., 1998; Stewart, 2006), we expect transformational leadership will also combine additively because all TMT members contribute to strategic decision making and implementation. To ensure that elevation of the behavior (i.e., mean) is the appropriate aggregation method, we will contrast this operationalization against methods assessing variability of the behavior (standard deviation, minimum, and maximum) in supplemental analyses.

TMT leadership is expected to influence organizational effectiveness through several mechanisms, including strategic decision making, implementation, the functioning of the TMT, and the creation of bonds between employees and the organization. First, high mean levels of transformational leadership within the TMT should facilitate the making and implementing of strategic decisions. The ultimate responsibility for this process is complex, given the need to coordinate the interests of diverse constituencies in and out of the organization, the need to adapt to changes in the external environment, and the need to implement the strategic direction, not just think and talk about it. By emphasizing a common purpose and encouraging concern for the needs of the organization, transformational leaders may be well suited to resolve differences among divergent interests. For example, when the interests of TMT members are not fully aligned, a high mean level of transformational leadership within the TMT may promote a collective identity necessary to encourage team members to adapt their goals and objectives from disparate departmental units to effectively carry out organizational initiatives (Hambrick & Mason, 1984;
In addition, environmental changes require innovative responses to maintain organizational effectiveness. Transformational leaders tend to challenge the status quo and encourage others to develop innovative solutions to existing problems (Bass, 1985). As a result, transformational team members should encourage innovative or adaptive climates within the team (Eisenbeiss, van Kneppenberg, & Boerner, 2008; Waldman & Yammarino, 1999).

In addition, and perhaps even more important, transformational leaders may be well suited to implement the strategic direction of the organization (Cannella & Monroe, 1997). Through communicating a compelling organizational vision and exhibiting symbolic behaviors that are consistent with the vision, transformational leaders impact constituents throughout the organization, inspiring distant followers to coordinate their efforts to achieve the organization’s vision (Waldman & Yammarino, 1999). Transformational leaders also emphasize the intrinsic value of achieving the vision and indicate how each employee contributes to achieving the vision (Shamir, House, & Arthur, 1993). As a result, employees feel more empowered and set individual goals that are self-concordant, creating a stronger bond between employees and the organization (e.g., Avolio, Zhu et al., 2004; Bono & Judge, 2003). These influences on individual-level organizational commitment are likely to be contagious throughout the organization as more employees take ownership of the vision. Thus, when TMTs have a high mean level of transformational leadership, they are better able to manage diverse interests, adapt to external events, and effectively execute the strategic efforts of the TMT, thereby enabling the organization to more effectively achieve its goals and motivating employees to more strongly identify with the organization as a whole.

As noted before, much research suggests that a transformational CEO may positively influence other TMT members as well as more distant followers throughout the organization (Waldman & Yammarino, 1999). Although we agree that CEOs are likely to have a substantial impact throughout the organization, we expand this perspective to suggest that TMTs with high mean levels of transformational leadership will similarly influence and motivate others to action that is consistent with the organization’s strategic direction and create conditions that encourage high levels of organizational commitment. Thus, we hypothesize the following, again separating the TMT from the CEO:

**Hypothesis 9:** The TMT’s mean level of transformational leadership is positively related to (a) organizational performance and (b) collective organizational commitment.
Hypothesis 10: The CEO’s transformational leadership is positively related to (a) organizational performance and (b) collective organizational commitment.

Transformational Leadership Mediating the Relationship Between Executive Personality and Organizational Effectiveness

Although we propose that both TMT and CEO personality and transformational leadership influence organizational effectiveness, it is likely that transformational leadership behavior at least partially mediates the relationships of personality traits with organizational commitment and firm performance. At the individual leader level, personality has been found to be related to who emerges as a leader and who is an effective leader (Judge, Bono et al., 2002). In addition, personality influences the specific leadership behaviors exhibited by leaders. With regard to transformational leadership, a recent meta-analysis (Bono & Judge, 2004) showed that the highest relationship between personality and transformational leadership at the individual level was with extraversion. Perhaps unsurprisingly, leaders who are dominant and sociable with higher levels of positive affect are more likely to communicate a compelling vision and motivate others to work toward that vision. In addition, conscientiousness was also found to have a small positive relationship with transformational leadership, perhaps because leaders who are goal oriented are more likely to attend to putting a system of goals in place that enable employees to see how their efforts contribute to the achievement of the firm’s vision. Further, leaders who are more emotionally stable and score higher in openness to experience are also more likely to be transformational leaders. Emotionally stable executives view the world through a positive lens and are confident and resilient, which helps them to posit a positive, compelling vision of the future and to model behaviors that are necessary to reach this vision. Finally, leaders high on openness to experience are creative, visionary, and even open to new ways of doing things, tendencies that enable them to craft a new direction for the organization and to encourage their employees to challenge the status quo.

Thus, at the level of the individual leader, personality—especially extraversion, conscientiousness, emotional stability, and openness to experience—has been found to be related to transformational leadership behaviors. Although evidence supports these relationships at the individual level, we propose that these relationships will also hold at the team level. Specifically, TMTs with higher mean levels of extraversion, conscientiousness, emotional stability, and openness are likely to exhibit higher mean levels of transformational leadership. The composition of
both the team member’s personality and transformational leadership relies on mean configural scores. Thus, when teams have higher mean levels of extraversion, there are more individuals on the team who have the tendency to be dominant with high levels of positive affect, resulting in higher levels of transformational leadership within the team. The same logic should apply to teams with higher mean levels of conscientiousness, emotional stability, and openness. Thus, we propose that TMT mean transformational leadership mediates the relationships of TMT mean personality with organizational performance and collective organizational commitment. However, it is likely that CEO and TMT personality also influence organizational effectiveness through other mechanisms, such as the choice of strategic direction and the management of external relationships. Thus, based on the conceptual and empirical evidence reviewed above, we posit:

**Hypothesis 11:** The TMT’s mean level of transformational leadership partially mediates the relationships of the TMT’s mean level of conscientiousness, emotional stability, openness to experience, and extraversion with (a) organizational performance and (b) collective organizational commitment.

**Hypothesis 12:** The CEO’s transformational leadership partially mediates the relationships of the CEO’s level of conscientiousness, emotional stability, openness to experience, and extraversion with (a) organizational performance and (b) collective organizational commitment.

**Method**

**Participants and Procedure**

The data for this study were provided by CEOs, vice presidents and other senior executives (TMT members), and direct reports of these executives from 96 credit unions across the United States. We also collected indicators of organizational performance from the National Credit Union Administration, a federal agency that oversees credit unions. We removed two credit unions from the data set because fewer than three TMT members responded, resulting in a final sample of 94 credit unions. TMT size ranged from 4 to 14 members, with an average size of 6.4 \((SD = 1.9)\) members. Of the 94 CEOs surveyed, 93 (98.9%) responded. CEOs were on average 48.2 years old \((SD = 15.2)\). They had been members of the TMT for an average of 16.0 years \((SD = 8.9)\). They were 78.5% male, and
80.7% held bachelor’s or graduate degrees. In addition, we received 424 (83.6%) responses from the 507 TMT members surveyed. Of the TMT member respondents, 54.1% were male. Seventy percent of respondents held bachelor’s or graduate degrees, and they were, on average, 44.7 years old (SD = 8.7). They had been TMT members for an average of 7.1 years (SD = 5.8).

CEOs provided lists of the TMT members who they relied on to formulate and implement strategic and tactical initiatives and of the TMT members’ direct reports. Approximately 4 months later, we surveyed CEOs, TMT members, and three randomly selected direct reports of each TMT member. CEOs provided ratings of their own personality traits. TMT members provided ratings of their own personality traits and CEO leadership. Of the 1,026 direct reports surveyed, 760 (74.1%) provided leadership ratings for the TMT member to whom they reported and rated their own organizational commitment. Approximately 1 year after the collection of survey data, we assessed organizational performance using archival data.

The data reported in this manuscript were collected as part of a larger data collection effort. Because of the breadth of the variables in the data set, findings have been reported in two previously published manuscripts (Barrick, Bradley, Kristof-Brown, & Colbert, 2007; Colbert et al., 2008). This manuscript has a different focus than either of the two published papers. More important, it would have been impossible to combine the analyses that are reported in this manuscript with either of the previous papers. The first published paper (Barrick et al., 2007) examined how team processes (cohesion and communication) impacted TMT and firm-level performance differently across varying levels of team interdependence. The second article (Colbert et al., 2008) examined the CEO’s role in facilitating dyadic goal congruence (between the CEO and each vice president) and within-team goal congruence (among all members of the TMT). In that study, we found that CEO transformational leadership was positively related to both dyadic and within-team goal congruence, which in turn influenced VP attitudes and firm performance.

This study is the first to include measures of TMT composition based on personality and transformational leadership concomitantly with CEO personality and transformational leadership and to examine the relationship of these variables with organizational performance. Firm-level organizational commitment, an aggregation of ratings provided by TMT members’ direct reports, has not been included in previous studies either, although the commitment of employees is a key indicator of organizational effectiveness. However, the measures of CEO transformational
leadership (Colbert et al., 2008) and firm performance (Barrick et al.,
2007; Colbert et al., 2008) have been reported in prior publications. Ex-
cluding CEO transformational leadership, none of the variables examined
in this study have ever been linked to firm performance nor studied along
with CEO leadership. Thus, this manuscript includes a number of vari-
ables not included in prior studies and uniquely focuses on TMT com-
position and its effects on firm performance and collective organizational
commitment.

Measures

**Personality.** The Big Five personality traits were assessed with 96
items from the Personal Characteristics Inventory (PCI; Mount, Barrick,
Laffitte, & Callans, 1999). The executives rated each item on a five-
point scale (1 = strongly disagree; 5 = strongly agree). Coefficient alpha
was .87, .87, .79, .86, and .80 for conscientiousness, emotional stability,
openness to experience, extraversion, and agreeableness. Evidence has
demonstrated the PCI’s convergent validity and divergent validity with
other FFM measures (Mount et al., 1999).

**Transformational leadership.** We used 20 items from the Multifactor
Leadership Questionnaire (MLQ Form 5X; Bass & Avolio, 1995) to as-
assess transformational leadership for the CEO and each member of the
TMT. The MLQ provides four-item scales to assess each of the five
subdimensions of transformational leadership: attributed idealized influ-
ence, behavioral idealized influence, inspirational motivation, intellectual
stimulation, and individualized consideration. An average of 4.5 TMT
members rated transformational leadership of each CEO, and an average
of 1.8 direct reports (of the three direct reports per TMT member who were
surveyed) rated transformational leadership of the other TMT members
using a five-point Likert response scale (1 = not at all; 5 = frequently, if
not always). We averaged across raters to obtain aggregated transforma-
tional leadership ratings for each executive ($F = 2.07, p < .01; ICC[1] = .27; ICC[2] = .52; mean r_{wg(J)} = .76, with slightly skewed distribution). Because we did not expect the subdimensions of transformational leader-
ship to have differential relationships with organizational effectiveness,
we estimated a higher-order measurement model with transformational
leadership as a second-order factor that explained the shared variance in
the five subdimensions. This approach is consistent with a number of other
studies of transformational leadership (e.g., Bono & Judge, 2003; Piccolo
& Colquitt, 2006; Walumbwa, Avolio, & Zhu, 2008). The higher-order
confirmatory factor analysis was a good fit to the data ($\chi^2_{165} = 973.57,
p < .01; SRMR = .06, NNFI = .96, IFI = .96$). The aggregated
transformational leadership ratings exhibited high internal consistency reliability ($\alpha = .93$).

**Organizational commitment.** Organizational commitment was assessed using the nine positively worded items from the Organizational Commitment Questionnaire (OCQ; Mowday, Porter, & Steers, 1979). Direct reports of the TMT members rated their own commitment to the organization (e.g., I am proud to tell others that I am a part of this organization). To obtain an assessment of commitment at the organization level, we aggregated across direct report ratings ($F = 1.80, p < .01; \text{ICC}[1] = .09; \text{ICC}[2] = .45$; mean $r_{wgl(J)} = .85$, with slightly skewed distribution). An average of 8.5 direct reports rated their commitment toward each organization. The aggregated organizational commitment ratings exhibited high internal consistency reliability ($\alpha = .90$).

**Organizational performance.** Approximately 1 year after survey data were collected, we assessed the organizational performance of each firm. According to the National Credit Union Administration, four primary indicators of organizational performance are used in the industry. These financial ratios include return on average assets, net worth to total assets, delinquent loans to total loans, and net charge-offs to average loans. We reverse scored the latter two ratios, created a $z$-score for each of the four indicators and then averaged them to form a lagged overall assessment of organizational performance.

**Control variables.** Because prior upper echelons research has primarily used the variability of demographic variables as proxies for TMT characteristics, we considered the variability of a number of demographic variables as potential control variables. We operationalized the variability of TMT members’ age and team tenure using the standard deviation of these measures, and we operationalized the variability of TMT members’ sex and education using the Teachman’s index. Further, we coded the functional area that was the focus of each TMT member’s responsibility based on job titles ($1 = \text{accounting}, \ 2 = \text{administration}, \ 3 = \text{finance}, \ 4 = \text{human resources}, \ 5 = \text{information technology}, \ 6 = \text{marketing}, \ 7 = \text{operations}, \ 8 = \text{service}$) and used the Teachman’s index to operationalize functional diversity within the TMT. Consistent with the recommendation of Carpenter et al. (2004), we also considered team size as a potential control variable. Finally, given our focus on the role of both the TMT and the CEO in shaping organizational effectiveness, we considered CEOs’ tenure on the TMT and mean TMT tenure for other TMT members as potential control variables. Of these variables, only mean TMT tenure for TMT members was significantly related to our outcome variables. Given these results and to minimize the number of parameters that were required to be estimated in our path model, we included only TMT mean tenure as a control variable in our final path model.
Results

Table 1 presents the descriptive statistics and intercorrelations of the study variables. Although we did not expect that TMT mean agreeableness and CEO agreeableness would be related to collective organizational commitment or organizational performance, we included these two variables in the correlation matrix for comparison. To ensure these predictors did not explain practically useful levels of variance, we also estimated path models that included TMT mean agreeableness and CEO agreeableness. As expected, TMT mean agreeableness and CEO agreeableness were not significantly related to either organizational commitment or firm performance. Therefore, we excluded agreeableness from the remainder of the analyses.

We tested the hypotheses with path analysis using LISREL 8.8 (Jöreskog & Sörbom, 1993). TMT mean team tenure was included as a control variable with direct relationships to organizational performance and collective organizational commitment. Although the hypothesized model fit the data well ($\chi^2_{12} = 10.59, p < .05$; NNFI = 1.00, IFI = 1.00, SRMR = .04), it was compared with two alternative path models (see Table 2). Given the modest relationships that have been found between personality and transformational leadership in past research (e.g., Bono & Judge, 2004), the first alternative model constrained the paths from TMT mean personality to TMT mean transformational leadership to 0. This model was not a significantly worse fit to the data than the hypothesized model ($\Delta \chi^2 = 3.26, \Delta df = 4, p > .05$); therefore, it is preferable to the hypothesized model because it is more parsimonious. A second alternative model, in which paths from CEO personality to CEO transformational leadership were constrained to 0 resulted in a significantly worse fit than the hypothesized model ($\Delta \chi^2 = 12.15, \Delta df = 4, p < .05$). Thus, the first alternative model was the best fit to the data and is depicted in Figure 2. The path coefficients from this model were similar to the path coefficients from the hypothesized model, and the substantive conclusions drawn based on the two models did not differ.

To test specific hypotheses, we examined the path coefficients in the model. As shown in Figure 2, TMT mean conscientiousness ($\gamma = .25, p < .05$) and CEO conscientiousness ($\gamma = .22, p < .05$) were directly and significantly related to organizational performance. We did not find evidence that TMT mean personality or CEO personality was directly related to organizational performance for the other three personality traits. Hence, Hypotheses 1(a) and 4(a) were supported. Further, CEO and TMT mean personality were not significantly related to organizational commitment with the exception of an unexpected negative relationship between TMT mean extraversion and organizational commitment ($\gamma = -.33,$
<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
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<th>11</th>
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<td>.12</td>
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<td>.19</td>
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<td>-.09</td>
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<td>.09</td>
<td>.07</td>
<td>-.07</td>
<td>-.13</td>
<td>-.07</td>
<td>.00</td>
<td>.19</td>
<td>.17</td>
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</table>

*Note. N = 94. SD = standard deviation; TMT = top management team. Correlations of .21 or greater are significant at p < .05, two-tailed test.*
TABLE 2

Path Model Fit Comparisons

<table>
<thead>
<tr>
<th></th>
<th>$\chi^2$ (df)</th>
<th>$\Delta \chi^2$ (\Delta df)</th>
<th>NNFI</th>
<th>IFI</th>
<th>SRMR</th>
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<td>Hypothesized model</td>
<td>10.59 (12)</td>
<td>.00</td>
<td>1.00</td>
<td>1.00</td>
<td>.04</td>
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<tr>
<td>Alternative 1—No</td>
<td>13.85 (16)</td>
<td>3.26 (4)</td>
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<td>1.00</td>
<td>.06</td>
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<td>relationships between TMT mean personality and TMT mean transformational leadership</td>
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<tr>
<td>Alternative 2—No</td>
<td>22.74 (16)</td>
<td>12.15 (4)*</td>
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<tr>
<td>relationships between CEO personality and CEO transformational leadership</td>
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</table>

Note. $N = 94$. NNFI = non-normed fit index; IFI = incremental fit index; SRMR = standardized root mean square residual; TMT = top management team.

* $p < .05$.

$p < .05$). Because the zero-order correlation between these two variables was near zero and positive ($r = .05, p > .05$), it is possible this unexpected finding is an artifact of the moderately high collinearity between all of the variables included in this model. To investigate this possibility, we discuss results from relative importance analysis below (see Table 3).

In testing the relationship of transformational leadership with the outcome variables, we found that TMT mean transformational leadership was significantly related to organizational commitment ($\beta = .45$, $p < .05$), supporting Hypothesis 9(b). Further, CEO transformational leadership was significantly related to both organizational performance ($\beta = .26, p < .05$) and organizational commitment ($\beta = .22, p < .05$), supporting Hypotheses 10(a) and 10(b). Finally, Hypotheses 11 and 12 would be supported if there were significant paths from the personality traits to transformational leadership, from transformational leadership to outcomes, and from personality traits to the outcomes controlling for transformational leadership (James, Mulaik, & Brett, 2006). These conditions were not satisfied with respect to TMT characteristics because TMT mean personality was not significantly related to TMT mean transformational leadership. However, consistent with Hypothesis 12, CEO emotional stability ($\gamma = .32, p < .05$) and CEO openness ($\gamma = .23, p < .05$) were significantly related to CEO transformational leadership, which in turn was related to organizational performance and organizational commitment. However, because there was not a significant direct effect from CEO emotional stability or openness to the outcomes, these
results are more consistent with full mediation than with partial mediation as hypothesized.

Overall, the percent variance explained ($R^2$) by the structural equations was .22 for organizational performance and .47 for organizational commitment. This model was compared to a model in which only CEO personality and transformational leadership related to organizational effectiveness. That is, the effects of TMT mean personality and mean transformational leadership were removed from the model. Not only was this model a significantly worse fit than the model depicted in Figure 2 ($\Delta \chi^2 = 44.28$, $\Delta df = 10$, $p < .05$), but the percent variance explained ($R^2$) dropped to .13 for organizational performance and .27 for organizational commitment. This is consistent with the upper echelons perspective that a dominant coalition of senior leaders has a measurable
influence on the effectiveness of the organization. To consider the converse, we also estimated a model in which only TMT effects were estimated. To eliminate the contributions from a single leader, the effects of CEO personality and leadership were removed from the model. This model was a significantly worse fit as well ($\Delta \chi^2 = 34.59$, $\Delta df = 10$, $p < .05$). The percent variance explained ($R^2$) in organizational performance dropped to .10, and the percent variance explained in organizational commitment dropped to .36. Together, these results suggest that both the CEO and TMT influence organizational performance and collective commitment.

We also conducted relative weights analysis to gain insight into the relative importance of each predictor in explaining the two outcome variables, jointly considering each predictor’s unique contribution as well as its incremental contribution above and beyond other predictors. Epsilon weights analysis (Johnson, 2000; LeBreton, Hargis, Griepentrog, Oswald, & Ployhart, 2007) provides useful estimates of the predictive power of each variable, even in the presence of multicollinearity. The resulting epsilon values can be rescaled as increments in $R^2$ to reflect the percent of criterion variance accounted for by each predictor. The

<table>
<thead>
<tr>
<th>Independent variables</th>
<th>Relative weights</th>
<th>% of $R^2$</th>
<th>Relative weights</th>
<th>% of $R^2$</th>
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</thead>
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<tr>
<td>DV = organizational performance</td>
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<td>DV = organizational commitment</td>
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<td>.02</td>
<td>4.1%</td>
</tr>
<tr>
<td>TMT mean openness</td>
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<td>1.8%</td>
<td>.02</td>
<td>4.3%</td>
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<td>TMT mean extraversion</td>
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<td>CEO openness</td>
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<tr>
<td>$R^2$</td>
<td>.22</td>
<td>.50</td>
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Note. $N = 94$. DV = dependant variable; TMT = top management team.
resulting rank order of relative importance establishes the extent to which each predictor contributes meaningful variance to the outcome, relative to the other predictors. The results are shown in Table 3. For organizational performance, CEO transformational leadership accounted for the largest percentage of variance explained (22.1%), followed by TMT mean conscientiousness (13.8%). Again, this suggests that both the CEO and the TMT have roles to play in shaping organizational performance. Further, these results point to the importance of considering both personality and leadership as relevant characteristics of top managers. For organizational commitment, however, relative weights analysis suggests that leadership has a stronger influence on organizational commitment than personality does. TMT mean transformational leadership accounts for the largest percentage of variance explained in organizational commitment (37.9%), followed by CEO transformational leadership (12.2%).

**Supplemental Results**

It should be noted that this research used only mean scores to capture TMT composition effects, but other operationalizations of team composition (e.g., standard deviation, maximum, minimum) may provide additional insight into how personality and leadership composition impact organizational performance and commitment within TMTs. As we argued in the hypothesis development section, we believe that mean levels of TMT characteristics are most likely to influence organizational effectiveness because developing and implementing a strategic direction for the organization requires the combined efforts of all TMT members. However, it is also plausible that a single highly effective TMT member could have a disproportionate effect in shaping the organization’s strategy and influencing its effectiveness. Further, because each TMT member plays a unique role in implementing the strategic direction, a single ineffective member could harm the organization’s effectiveness. Finally, upper echelons theory also suggests that variance in team member characteristics may enhance team effectiveness through providing a diversity of perspectives or may constrain team effectiveness by impeding cohesive functioning (Williams & O’Reilly, 1998). We therefore ran additional analyses to examine the effects of TMT composition on organizational effectiveness using these other operationalizations of composition. The means, standard deviations, and correlations with outcomes for these alternative operationalizations of composition are included in Table 4.

When both mean levels and standard deviations for TMT personality and leadership were included in a path model predicting organizational performance and commitment, we found that no standard deviation scores
### TABLE 4
Descriptive Statistics and Intercorrelations of Personality and Leadership SDs, Maximums, and Minimums With Organizational Performance and Commitment

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>SD</th>
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<th>Correlation with organizational commitment</th>
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<td>.33</td>
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<td>-.14</td>
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<td>.18</td>
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<td>.02</td>
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<td>TMT SD openness</td>
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<td>TMT SD agreeableness</td>
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<td>-.18</td>
<td>-.10</td>
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<tr>
<td>TMT max openness</td>
<td>4.33</td>
<td>.29</td>
<td>-.06</td>
<td>.07</td>
</tr>
<tr>
<td>TMT max extraversion</td>
<td>4.28</td>
<td>.30</td>
<td>-.18</td>
<td>-.13</td>
</tr>
<tr>
<td>TMT max agreeableness</td>
<td>4.41</td>
<td>.27</td>
<td>-.14</td>
<td>.05</td>
</tr>
<tr>
<td>TMT max transformational leadership</td>
<td>4.32</td>
<td>.35</td>
<td>-.02</td>
<td>.38</td>
</tr>
<tr>
<td>TMT min conscientiousness</td>
<td>3.69</td>
<td>.28</td>
<td>.25</td>
<td>.22</td>
</tr>
<tr>
<td>TMT min emotional stability</td>
<td>3.36</td>
<td>.36</td>
<td>.03</td>
<td>.17</td>
</tr>
<tr>
<td>TMT min openness</td>
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<td>.40</td>
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<td>3.10</td>
<td>.64</td>
<td>.16</td>
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*Note. N = 94. SD = standard deviation; max = maximum; min = minimum. Correlations of .21 or greater are significant at p < .05, two-tailed test.*

were significantly related to the outcome variables, and the mean scores reported in the results section remained significant. In addition, when both mean and maximum scores were included in a path model predicting organizational performance and commitment, we found that no maximum scores were significant, and the only change in mean scores from what is reported in the results section was that TMT mean conscientiousness no longer significantly predicted organizational performance. However, relative weights analysis showed that TMT mean conscientiousness accounted for 20% of the variance explained in organizational performance, and maximum conscientiousness only accounted for 4%. These results are consistent with the hypothesis that mean levels of TMT attributes are most relevant in predicting organizational effectiveness. Finally, when both mean and minimum scores were included in a path model predicting organizational performance and commitment, we found that no minimum scores were significantly related to organizational performance or organizational commitment, and the only change in mean scores from
what is reported in the results section was that mean conscientiousness no longer significantly predicted organizational performance. However, relative weights analysis showed that mean conscientiousness accounted for 11% of the variance explained in organizational performance, and minimum conscientiousness accounted for 22%. Thus, minimum conscientiousness in the TMT may also be a meaningful driver of organizational performance, although it was not found to be so in the path model.

Finally, as noted in the introduction, past research on TMT composition has primarily used demographic variables as proxies for the attributes of TMTs that are expected to influence organizational effectiveness. To determine if direct measures of personality and leadership are more strongly related to organizational effectiveness than demographic proxies, we compared the predictive validity of our direct measures of personality and leadership to the predictive validity of various demographic variables that have been commonly used in previous TMT research (including team size, CEO age, CEO education, CEO sex, CEO team tenure, TMT mean age, TMT mean education, TMT mean sex, TMT mean team tenure, TMT variance in age, TMT variance in education, TMT variance in sex, and TMT variance in team tenure). As noted earlier, the variance explained in organizational performance by personality and transformational leadership variables was .22. In comparison, the variance explained in organizational performance by demographic variables traditionally used in TMT research was only .12. Similarly, the variance explained in organizational commitment by personality and transformational leadership variables was .47, and the variance explained in organizational commitment by demographic variables traditionally used in TMT research was only .22. These results provide a more direct comparison to previous TMT research and further support the importance of using direct measures of personality and transformational leadership to understand the effect of the TMT on organizational effectiveness.

**Discussion**

The firm’s top executives are charged with leading the organization, which gives them the power to influence the firm’s success. Although personality and leadership attributes have been identified as critical characteristics of all executives (Boal & Hooijberg, 2001; Cannella & Monroe, 1997; Cohen & Bailey, 1997; Hambrick, 1994; Peterson et al., 2003), extant research has not empirically established whether they are related to organizational effectiveness. In our study, we used direct measures to assess the personality and transformational leadership of CEOs and TMT members, and we examined their relationships with two measures
of organizational effectiveness: firm financial performance and collective organizational commitment. We found that CEO and TMT mean conscientiousness were both directly related to organizational performance. Further, organizational performance was higher when the CEO exhibited higher levels of transformational leadership. Both CEO and TMT mean transformational leadership were significantly related to collective organizational commitment. Finally, CEO emotional stability and openness to experience were indirectly related to both measures of organizational effectiveness through CEO transformational leadership. In the next section, we discuss the implications of these results for theory and practice.

Theoretical Contributions

Our primary contribution lies in demonstrating significant support for the importance of both personality and leadership composition among TMT members. Specifically, we found the higher the mean conscientiousness of the TMT, the higher the lagged financial performance of the entire organization. Further, this relationship was unexpectedly robust, remaining after accounting for the effects of leadership and other personality traits in the TMT as well as CEO personality and leadership. Thus, teams that on average plan more of their work, exert greater effort, and are more persistent in doing their work are more likely to arrive at superior strategic decisions and are more successful in implementing the established strategy or tactics. This should not be surprising, as conscientiousness is thought to reflect trait work motivation (Barrick et al., 2001), and performance is likely to be higher as motivation increases. At the individual level, considerable meta-analytic research has illustrated that conscientiousness is the one personality trait that consistently predicts individual performance at work (Barrick & Mount, 1991; Barrick et al., 2001) and that this likely occurs through gains in motivation, particularly through goal processes (Barrick, Mount, & Strauss, 1993; Judge & Ilies, 2002). This study reveals that the prominence of conscientiousness as a predictor of performance extends to TMTs and organizational performance. Future research is needed to explore whether the team-level effect for conscientiousness is primarily driven through task-focused motivational mediators arising from the motivation and engagement of followers or, alternatively, through improved individual contributions by the TMT members themselves, due to members being achievement oriented, disciplined, and diligent toward their work and, consequently, being able to establish and execute better strategies.

Turning to the examination of leadership composition among TMT members, our study contributes to the existing literature by demonstrating
the impact of transformational leadership among all TMT members, rather than just the CEO, on organizational effectiveness. Recent developments in leadership theory suggest leadership composition is likely to be a critical input variable in TMTs (Barling, Christie, & Hoption, 2010; Boal & Hooijberg, 2001; Cannella & Monroe, 1997). The intricacies and importance of leadership behavior and leader–follower dynamics suggest why leadership, particularly the distribution of leadership among members of a TMT, would be expected to have a significant impact on organizational effectiveness. This is particularly true for transformational leadership, which suggests effective leaders transform the values and priorities of followers by creating a shared sense of identity within the unit and motivate followers to perform beyond their own expectations (Bass, 1985). As such, transformational leadership among TMT members was expected to have a significant impact on organizational effectiveness.

Although TMT mean transformational leadership was not significantly related to organizational performance when controlling for CEO transformational leadership, TMT mean transformational leadership was significantly related to collective organizational commitment. This suggests that TMT members may impact organizational effectiveness through the influence that they have on employees throughout the organization. It is possible that employees interact more with TMT members than with the CEO and thus are more influenced by the leadership exhibited by TMT members. However, it should be noted that CEO transformational leadership was also significantly related to organizational commitment, although its relative importance was lower than that of TMT mean transformational leadership.

Although our focus is on the TMT as a whole, the TMT literature suggests that power differences within TMTs cannot be ignored (Priem et al., 1999). Clearly, the CEO possesses more position power than other members of the TMT, and studies have shown that CEO personality and leadership significantly impact TMT functioning (e.g., Colbert et al., 2008; Peterson et al., 2003). In this paper, we have argued that the composition of the TMT influences organizational performance beyond the effects of the CEO; however, we also propose that the CEO plays a distinctive role separate from other TMT members. The results revealed that both CEO conscientiousness and transformational leadership were related to organizational performance, and CEO transformational leadership was also related to collective organizational commitment. Further, CEO emotional stability and openness to experience were indirectly related to organizational performance through CEO transformational leadership. The percent variance explained in both organizational performance and collective organizational commitment was higher when effects of both the CEO and
TMT were included than when only the CEO or the TMT was considered. These findings underscore the importance of both the CEO and TMT in influencing organizational effectiveness.

Finally, although our focus was on the mean levels of personality and transformational leadership across TMT members, we also explored how alternative conceptualizations of team composition, including minimums, maximums, and variance, influenced organizational effectiveness. In general, when mean levels of personality and transformational leadership were controlled for, other operationalizations of composition were not related to organizational effectiveness. However, when considering minimum levels of personality traits and leadership, relative weights analysis showed that mean conscientiousness accounted for 11% of the variance explained in organizational performance whereas minimum conscientiousness accounted for 22%. This suggests that a single executive with low levels of conscientiousness may negatively impact organizational performance. Future research investigating the impact of a single low-performing TMT member is needed to more fully understand the mechanisms through which this individual disproportionately impacts organizational performance.

**Practical Implications**

These results have important implications for organizations. First and foremost, as promotion and succession planning decisions are made for an organization’s top leaders, every effort should be made to select individuals who are high in conscientiousness and who exhibit high levels of transformational leadership. These attributes are important not only for CEOs but also for all members of the TMT. In addition, those in charge of succession planning should note that the relative weights analysis showed that, for organizational performance, CEO transformational leadership had a bigger impact than CEO conscientiousness, but TMT members’ conscientiousness had a bigger impact than their transformational leadership. Thus, both characteristics are important traits of top executives.

In addition to selecting leaders who have exhibited transformational leadership in other roles, organizations should institute formal systems to develop transformational leadership among current and potential future CEOs and TMT members. Training and development opportunities along with leadership experiences that expose leaders to situations that demand transformational leadership will help build a pipeline of leaders who can positively impact the attitudes and performance of their direct reports at lower levels of the organization (Judge & Piccolo, 2004; Wang, Oh, Courtright, & Colbert, 2011). This pipeline of leaders can also
impact organizational effectiveness as they move into executive roles. In addition, executive coaching, especially when provided to the TMT as a whole, might be used to raise awareness about how team composition influences interactions in the TMT and provides the team with ideas about how to maximize effectiveness given the existing composition of the TMT (Feldman & Lankau, 2005; Hackman & Wageman, 2005). Finally, an organization’s board of directors often considers removing the CEO when organizational performance suffers, but our results suggest that the board should also look at the whole TMT. For example, changing a portion of the team that surrounds the CEO may help change the trajectory of organizational performance without removal of the CEO. This new infusion of perspectives, talent, and traits may help augment the CEO’s leadership and vision, and propel the organization to success.

The results also have important implications for individuals and managers in organizations. First, the results show that the performance of an organization is influenced by the TMT, not just the CEO. Rising executives who understand that they impact the performance of the organization are more likely to see themselves as influential and seek out more responsibilities and leadership opportunities. Second, to the extent that team processes also influence organizational performance (Barrick et al., 2007; Carpenter et al., 2004), our results underscore the key role group dynamics play in this process. To have a TMT composed of highly transformational leaders who can effectively communicate with each other and coordinate their efforts will be crucial to the success of the team. In addition, although prior evidence shows that both agreeable and conscientious personality traits are critical for improving performance of teams at lower levels of the organization (Bell, 2007), our results show that, for top teams, conscientiousness matters a great deal, but agreeableness does not. This is not to say relationships are not important in the TMT but rather that achievement-oriented top executives are well-suited to meet the task demands placed on a TMT. Finally, TMT transformational leadership had a larger impact on the organizational commitment of lower level employees than CEO leadership did. This may indicate that TMT members are especially important in fostering employee bonds with the organization. Managers rising in the organization should consider relationship building efforts with their direct reports to be a key part of their contribution to organizational effectiveness.

Limitations and Future Research

Limitations of this study suggest directions for future research. First, we only examined the relationship of one type of leadership—transformational leadership—with organizational effectiveness. Our
focus on transformational leadership was based on its theoretical relevance to leading an organization (Waldman & Yammarino, 1999) and calls in the strategic leadership literature to examine the role of transformational leadership in TMTs (Boal & Hooijberg, 2001; Cannella & Monroe, 1997). However, future research might consider how other types of leadership (e.g., ethical leadership, authentic leadership; Avolio, Gardner, Walumbwa, Luthans, & May, 2004; Brown, Treviño, & Harrison, 2005) influence TMT functioning and organizational effectiveness. Second, we assessed TMT transformational leadership by computing the mean of the team members’ individual transformational leadership scores, consistent with our treatment of TMT transformational leadership as a configural unit property. However, in some situations, leadership may be an emergent property of a team (Day, Gronn, & Salas, 2004), reflecting more than just the combination of individual leadership styles. Sivasubramaniam and colleagues have developed a direct measure of team transformational leadership (Sivasubramaniam, Murry, Avolio, & Jung, 2002) that assesses transformational leadership of the team as a whole. Future research is needed to assess the conditions under which ratings of team member’s transformational leadership converge within teams to create a shared unit level construct.

Third, we relied on leadership ratings from direct reports. The intrater reliability of these ratings was somewhat low (ICC[1] = .27, ICC[2] = .52), suggesting that the direct reports had varied perspectives regarding the transformational leadership exhibited by the leaders. Further, because our focus was on leadership within TMTs, leadership ratings from other members of the TMT may have provided a better assessment of the transformational leadership exhibited within the team. Consequently, future research should incorporate transformational leadership ratings from multiple perspectives to fully assess the impact of transformational leadership on organizational effectiveness. Similarly, collective organizational commitment was assessed based only on ratings from direct reports of TMT members. This was due to limitations placed on the data collection by the participating organizations. Future research might examine the extent to which the CEO and TMT influence organizational commitment of employees at lower levels of the organization.

Finally, questions of endogeneity may be raised, especially regarding the relationships between transformational leadership and organizational effectiveness. Although organizational performance was collected 1 year after other study variables, this does not eliminate the possibility that organizational performance at the time surveys were administered may have influenced both transformational leadership ratings and lagged organizational performance. This concern is less salient for the relationships between personality and organizational effectiveness given the heritability
of personality characteristics and their stability during adulthood (Roberts & DelVecchio, 2000). Nevertheless, because TMT membership was relatively stable (mean TMT tenure for CEOs = 16.0 years [$SD = 8.9$], for TMT members = 7.1 years [$SD = 5.8$]), performance at the time the surveys were administered was also likely influenced by CEO and TMT characteristics. Thus, controlling for concurrent performance would extract relevant variance—that is, variance in lagged organizational performance that is influenced by TMT and CEO personality and leadership—out of the ultimate dependent variable. Consequently, future research, possibly using TMTs with more rapidly changing membership, is needed to disentangle the causal direction of the relationship between leadership and organizational performance.

Future research is also needed to investigate potential mediating mechanisms and moderators of the relationships of CEO and TMT personality and leadership with organizational effectiveness. It is possible that CEO and TMT personality and leadership influence decisions about the strategic direction of the firm, TMT functioning, and motivation of employees throughout the firm. Further, different contexts may trigger different personality characteristics (Tett & Burnett, 2003) or require different leadership styles (Avolio, Gardner et al., 2004). Future research is needed to evaluate these possibilities.

**Conclusion**

Our study contributes to the upper echelons literature by providing an initial examination of the relationship of TMT personality and leadership composition with organizational effectiveness. The findings revealed that TMT mean conscientiousness was associated with an objective lagged measure of organizational performance, even controlling for the effects of CEO personality and leadership. Further, TMT mean transformational leadership, along with CEO transformational leadership, was related to organizational commitment. Although it is not surprising that collective leadership matters given that TMTs are charged with leading the organization, it was relatively surprising to find that both the conscientiousness of an inner circle of leaders and the conscientiousness of the CEO are related directly to a lagged financial indicator of organizational performance. We also found that CEO emotional stability and openness were indirectly related to organizational effectiveness through their effects on CEO leadership. By comparison, most demographic characteristics were not significantly related to organizational performance or collective organizational commitment, which illustrates the importance of using direct measures of personality and leadership rather than proxies when examining TMT effects.
REFERENCES


