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Benefiting from CEOs' Empowerment of TMTs: Does CEO–TMT Dissimilarity Matter?

ABSTRACT

This study examines empowering leadership from an upper echelons perspective by focusing on top management teams (TMTs) and considering the demographic dissimilarities between the CEO and other TMT members. Data from a multisource survey of 129 Chinese firms demonstrate the importance of the fit between the backgrounds of the leader and the TMT members. Although empowerment of TMTs by CEOs predicts superior organizational performance in general, the findings show that this practice is most beneficial when the CEO and the TMT members differ in their informational demographics but have a longer tenure overlap. If either dissimilarity in informational demographics or tenure overlap is lacking, the CEO's empowerment of the TMT has a less positive effect on firm performance. Essentially, a three-way interaction is demonstrated. Introducing boundary conditions for the empowerment of TMTs by CEOs and testing their interactive influence broadens our understanding of how CEO leadership style can affect organizational performance, and refines the guidance for practitioners on TMT management.

Key words:

Empowerment, organizational performance, CEOs, top management teams, dissimilarity

1. Introduction

Although empowering leadership, a useful and increasingly prevalent management practice, has typically been studied in lower-level non-managerial teams (e.g. Chen et al., 2011; Kirkman & Rosen, 1999), researchers have recently expanded this domain to the area of top management (e.g. Carmeli, Schaubroeck, & Tishler, 2011; Hmieleski & Ensley, 2007; Srivastava, Bartol, & Locke, 2006). This expansion is vital because top management teams (TMTs) play a crucial role in firms. The behavior of the team leader (i.e. the CEO) not only influences the team itself but is also ultimately reflected in firm-level outcomes (Finkelstein & Hambrick, 1996). A key finding from these efforts is that empowerment of TMTs by CEOs contributes to performance at the business-unit or firm level, and this influence is mediated by TMT processes and emergent states (Carmeli et al., 2011; Srivastava et al., 2006).

Despite the insights generated to date through this expansion, additional steps are still required for a more thorough understanding of the effect of CEO empowering leadership. Empowerment researchers (e.g., Maynard, Gilson, & Mathieu, 2012; Sharma & Kirkman, 2015; Spreitzer, 2008) have explicitly stressed that empowerment may not have equal effects in all circumstances, and thus urge scholars to consider a more nuanced, contextual approach that helps predict *when* empowering leadership is (or is not) the best “fit” for a team’s work setting or based on the followers’ qualities. By the same reasoning, researchers in the upper echelons field (e.g., Arendt, Priem, & Ndofofor, 2005; Jensen & Zajac, 2004; Olie, van Iterson, & Simsek, 2013) have warned that examining the association between CEO behavior (including leadership behavior) and firm outcomes alone may lead to an “atomized, undersocialized conception of human action” (Granovetter, 1985: 483) that neglects the CEO’s interpersonal context. More

specifically, they urge a more precise understanding of how CEOs wield influence in combination with the other TMT members who form their immediate context.

The organizational demography view about work groups suggests that the mix of personal characteristics is an important element of interpersonal context and has strong influence on leaders' and subordinates' behaviors (Pfeffer, 1983). This has been highlighted in the stream of studies that use demographic characteristics to represent interpersonal context within a team and examine how the context matters to team dynamics such as informal communication between the supervisor and subordinates (e.g., Jackson et al., 1991; Nathan, Mohrman, & Milliman, 1991). Based on this kind of reasoning, a few studies have explored TMT demographics as moderators of the effectiveness of CEOs' leadership styles or strategic choices (e.g., Elenkov, Judge, & Wright, 2005; Mihalache, Jansen, Van Den Bosch, & Volberda, 2012). However, these studies primarily examined the demographic diversity within the entire TMT, yet ignored the special position of the CEO as team leader and underemphasized the interplay between CEO and the rest of TMT (Cao, Simsek, & Zhang, 2010). The current study intends to augment previous efforts by focusing on the differences between the CEO and other TMT members and evaluating their effects. As such, the particular research question we address is: *Is empowering leadership more (or less) effective when provided by a CEO who is demographically different from the other TMT members?* In doing so, we hope not only to enrich the contextual understanding of empowering leadership but also to fill a void in the general research on the upper echelons.

We selected two aspects of CEO–TMT demographic dissimilarity as the focus of this study (i.e., informational demographics and tenure overlap) because these are expected to have distinct but supplementary effects on the nature of the interaction between the CEO and other top

executives as they engage in strategic decision-making. While informational dissimilarity introduces a divergent force into the relationship that helps with information flow, it may potentially cause difficulties with mutual identification. In contrast, a longer shared tenure facilitates a convergent force, which promotes interpersonal trust but may also lead to group think. Our core argument is that while empowerment of TMTs by CEOs contributes to firm performance, these two aspects of CEO–TMT dissimilarity interact to strengthen or attenuate this positive influence. A three-way interaction is thus expected. By considering how CEO–TMT dissimilarity may act as a boundary condition for empowering leadership by CEOs, we aim to contribute to the development of upper echelons research and improve understanding among CEOs of how to exploit their interpersonal context more effectively, particularly the fit between their own background and that of their team members, to reinforce the influence they seek to wield through empowerment. We used data from a multisource survey of TMTs in 129 Chinese organizations to test our hypotheses.

2. Theory and hypotheses

2.1. CEO's empowerment of the TMT and organizational performance

In general, an empowering leadership style encompasses the encouraging of self-leadership, participative goal-setting, and opportunity thinking by followers (Pearce et al., 2003). Through providing positive support and encouragement, empowering leaders help to increase the motivation and confidence of followers regarding the accomplishment of individual and collective goals (Conger, 1989; Hmieleski & Ensley, 2007). Compared with individual employees, empowering leadership in team situations is directed more toward the team as a whole, through which its members are more motivated to self-manage the team and apply their

abilities to accomplishing team goals (Chen et al., 2011; Maynard et al., 2012). Leading by example, being open to new ideas, encouraging participative decision-making, coaching, informing, and showing concern for team members are typical forms of empowering behavior in a team leadership situation (Arnold, Arad, Rhoades, & Drasgow, 2000; Spreitzer, 2008; Srivastava et al., 2006).

TMTs present a unique setting for team empowerment. TMTs are special in that their members tend to undertake more complex tasks and have relatively little role interdependence in some respects (Beckman & Burton, 2011). In practice, TMT members (e.g. CFOs, CIOs, COOs) are considered leaders in their own right, and company incentive structures are typically set up to reinforce such expectations. In other words, unlike at lower levels, TMT members already enjoy relative individual autonomy, which causes some leadership scholars to wonder whether empowerment of the TMT by the CEO actually affects TMT performance, and by extension, organizational performance (Stewart, Courtright, & Manz, 2011). Based on the upper echelons literature, this study argues that CEO empowerment efforts directed at the entire TMT are essential. While TMT members have operational responsibilities as individual senior executives, they also need to work interdependently as members of the firm's top decision-making team (Finkelstein & Hambrick, 1996). It is thus important for a CEO to shape the TMT into a coordinated unit within which these semi-autonomous executives will collaborate effectively and pool their wisdom and efforts. By guiding and supporting the TMT as a whole, an empowering CEO has the opportunity to address these needs. More specifically, through empowering behavior such as encouraging and coaching team members to solve problems together, providing insightful information to the team, and gathering collective feedback from team members, an

empowering CEO can help to “scale up” the expertise and efforts of individual TMT members, and in so doing create a whole with greater efficacy than the sum of its parts.

There is evidence to support this view. The studies of both Srivastava et al. (2006) and Carmeli et al. (2011) show that leaders’ efforts to empower senior teams do indeed promote the financial performance of the business units or firms they operate. More importantly, both studies demonstrate that the effect of empowering leadership on performance is mediated through team processes that facilitate coordination, such as knowledge sharing and behavioral integration, and through emergent states that are characterized by high levels of perceived team potency.

With our study, we intend to first affirm the connection between CEO empowering leadership and organizational performance by testing this link among a sample of Chinese TMTs. The construct of empowering leadership originated and developed in Western cultures. Although researchers have expanded the external validity of empowering leadership theory in China by documenting the effectiveness of empowering leadership directed toward individuals (e.g. Chen et al., 2011; Sun, Zhang, Qi, & Chen, 2012), it remains unclear whether empowering leadership directed toward teams, especially TMTs, is also important in an Eastern culture. Carrying out our test in China thus allows a more thorough understanding of the generalizability of the empowerment literature. Indeed, China represents an interesting cultural setting in which to test the dynamics involved in CEOs’ empowerment of TMTs. For example, the high power distance typical of Chinese culture may reduce the willingness of TMT members to accept and exercise self-leadership, even when this is encouraged by the CEO (Chen & Aryee, 2007; Chow, Lo, Sha, & Hong, 2006). Such unwillingness would tend to reduce the benefits of CEO empowerment efforts (Chen & Aryee, 2007). Conversely, the strong collectivist orientation in China may make TMT members more in tune with their team and more concerned to maintain a positive group

atmosphere, rendering them more open to CEO empowerment initiatives (Chen et al., 2011), thus enhancing the effect of the CEO on firm performance. This mix of cultural characteristics raises the question of whether the effects of CEO empowering leadership found in the West are readily applicable in China. However, as most previous leadership studies conducted in China, particularly those about empowerment at the individual level (Chen et al., 2011; Sun et al., 2012), have generated relatively similar findings to those in the West, we predict that CEO empowerment of TMTs will be positively associated with firm performance in our Chinese sample. Hence,

H1. A CEO's empowering leadership of his or her TMT will be positively related to organizational performance.

2.2. The role of CEO–TMT dissimilarity

Although the CEO is a firm's primary leader, the upper echelons literature highlights that a CEO does not wield influence in isolation from the actors that support and are led by the CEO, that is, the other senior executives (Finkelstein & Hambrick, 1996; Hambrick 1994). As Arendt et al. (2005) point out, a more precise understanding of the potential influence of CEOs would acknowledge their principal role in the firm while recognizing their influence in combination with the other TMT members. Some researchers have underscored this idea by finding evidence of a mediating effect of the TMT on CEO influence (e.g., Arendt et al. 2005; Ling, Simsek, Lubatkin, & Veiga, 2008a; Peterson, Smith, Martorana, & Owens, 2003). More recently, others have started to explore the possibility that TMTs moderate the effectiveness of CEOs' leadership styles or strategic choices in shaping firm-level outcomes. The TMT factors most often considered are demographics (e.g., Elenkov et al., 2005; Mihalache et al., 2012).

Although this latter stream of studies is moving the research in an important direction, the “team-level diversity” typically examined in these studies treats everyone in a TMT as equal, including the CEO, and assesses the degree of difference or similarity across all of the members of the TMT. Doing so may overlook the benefits of a more fine-grained analysis of the interactive influence of the CEO and other TMT members by blurring the distinction between the CEO (the *source* of leadership influence) and the other TMT members (collective *recipients* of the leadership influence). It also fails to consider the interplay between them (Cao et al., 2010).

According to team studies within the organizational demography tradition, leaders’ characteristics and followers’ characteristic are two elements working together to influence the interpersonal context within a team, which is thought to be important not only for individuals’ performance but the performance of the team as a collective (Zaccaro & Klimoski, 2001). Leaders and followers attribute each other’s psychological character and adjust behaviors toward each other based on the perceptions of how their attributes coincide or differ (Nathan et al., 1991). In fact, when it comes to a better understanding of the dynamics of senior leadership teams, Graen (2013) has stressed that the forging of “interpersonal strategic alliances” between leaders and other team members involves many personal considerations such as demographic differences between them. Similarly, Li et al (2015) have asserted that research exploring the complex interplay between the attributes of “parts” (in our case, the leader) and the attributes of the others in the team is required to generate a better understanding of team effectiveness. Therefore, a study that concentrates on the demographic dissimilarity between CEO and the rest of TMT appears called for. Our work aims to fill this void by demonstrating how the understanding of an empowering CEO’s influence on firm performance may be advanced by considering CEO–TMT demographic dissimilarity.

A CEO can differ from other TMT members in various ways. Considering the unique and challenging strategic decision-making top executives collectively work on, we examine CEO–TMT dissimilarity in the more “hidden” informational demographics such as functional or educational background and tenure, rather than more readily observable demographic differences such as gender and age. We chose informational demographics because upper echelons researchers emphasize that they better capture the experiences, information, and perspectives relevant to complex, job-related cognitive tasks and thus have greater influence on senior executive interaction during strategic decision-making (Cao et al., 2010; Mihalache et al., 2012). Tenure is another important job-related characteristic commonly examined by upper echelon researchers due to its significant role in strategic decision-making (Elenkov et al., 2005). A synthesis of the core ideas from several areas of research, such as social psychology and sociology, also suggests that tenure differences may help to better elucidate the role of CEO–TMT informational dissimilarity, and we will discuss this temporal perspective below.

As strategic decision-makers face complex situations characterized by information overload, ambiguous cues, and competing goals and objectives (Hambrick & Mason, 1984), a key premise in the upper echelons research is that their decision-making benefits strongly from information flow between managers. The communication of different ideas, experiences, and perspectives helps to expand the knowledge pool and allow invalid assumptions to be challenged and alternative strategies to be assessed and compared more comprehensively (Miller, Burke, & Glick, 1998; Wei & Wu, 2013). Meanwhile, much of this research uses demographic characteristics such as educational background and work experience as reasonable proxies for the cognitive capability and knowledge of managers (see Finkelstein & Hambrick, 1996), because the prior experience of executives is assumed to influence their filtering, interpretation, and

application of stimuli (Hambrick & Mason, 1984). Accordingly, upper echelons researchers often argue that a range of informational demographics within a TMT is an asset with the potential to enhance the “requisite variety” (Ashby, 1956) needed to cope with ambiguous and multifaceted strategic decisions (Lyon & Ferrier, 2002; Mihalache et al., 2012).

Following this view, one might expect that differences in informational demographics between the CEO and the TMT would enrich the variety of skills, abilities, and knowledge that the parties have access to as they work together, and thus embrace the potential benefits of CEO empowerment practices. When empowering a TMT, a CEO with an informational background different from that of the other team members is more likely to be able to offer unique guidance and feedback, through which those TMT members who are encouraged to coordinate and integrate by the empowering CEO will have more to share and communicate. At the same time, empowering CEOs should also benefit from interacting with TMT members whose backgrounds differ from their own, such as becoming better informed about technical issues outside their domain of expertise. This should enable an empowering CEO to act as a more informed facilitator, effectively promoting communication between TMT members on strategic issues through intensive and insightful inquiry (Garvin & Roberto, 2001). Finally, when TMT members operate to generate synergy under the leadership of an empowering CEO, they may perceive greater efficacy due to unique insights from the CEO that enrich the pool of information at their disposal and enable them to better address complex strategic decision-making. Such advantages relating to TMT processes and emergent states, which are generated by CEO empowering leadership together with CEO–TMT dissimilarity in informational demographics, should promote superior firm performance.

The evidence relating to dissimilarity in informational demographics, however, does not provide clear support for this view. For example, Cao et al. (2010) found that CEO-TMT dissimilarity in functional background did not moderate the relationship between CEO network extensiveness and organizational ambidexterity as predicted. They noted that their null finding might have reflected the much-discussed double-edged influence of differences in informational demographics. That is, while the cognitive variety implicit in informational demographic differences may improve the richness of information available for exchange, it may also negatively affect the quality of interpersonal relationships.

In fact, relational demography research, a stream of study specifically focused on the differences between one individual and all others within a team, suggests that being different from others in demographics, including educational and work background, can have a negative influence on interpersonal relationships (Tsui & O'Reilly, 1989). Taking social categorization theory as a foundation, this research points out that people often classify others as members of their in-group or out-group based on how similar the others are to themselves (Chatman & Spataro, 2005). In this situation, commonalities make it easier to identify with others. The resulting attraction facilitates cooperative relationships (Tsui, Egan, & O'Reilly, 1992). In contrast, dissimilarity can disrupt interpersonal relationships through out-group labeling and reduced mutual attraction and interaction frequency (Farh, Tsui, Xin, & Cheng, 1998).

Extending this view to TMTs, it is possible that despite the potential information benefit from differences in CEO-TMT informational demographics, these differences may also cause difficulties. When a CEO is dissimilar in education and functional background to the rest of the TMT members, these members will be more likely to feel distanced and reluctant to communicate frankly and frequently with the CEO. The reduced mutual identification would

make it harder for the CEO's leadership style to come through (Graen & Uhl-Bien, 1995). More specifically, TMT members lacking any identification with an empowering CEO may not readily respond to the CEO's guidance to coordinate, draw on collective wisdom, and complement each other's efforts. They may also not readily accept the CEO's encouraging feedback and thus perceive lower team efficacy. As a result, the hypothesized beneficial effects of CEOs' empowering behavior are less likely to be transferred to organizational performance.

These opposing possibilities suggest that the effects of empowerment in the face of CEO-TMT dissimilarity in informational demographics may depend on the level of mutual identification and trust between the two parties. However, from a temporal perspective, one can argue that the negative effects of dissimilarity in informational demographics should not last forever. Theoretical perspectives from various bodies of literature suggest that although background characteristics are critical in the initial categorization process, mutual prejudice tends to reduce as people get to know one another (Harrison, Price, & Bell, 1998). Sociology scholars studying interethnic contact note that as people interact and become familiar with one another, stereotypes are replaced by more accurate knowledge of each other, which can result in reduced conflict and greater cohesiveness (Allport, 1954; Amir, 1969). Likewise, research in social psychology suggests that with increasing familiarity and comfort accumulated over time, people who differ from one another may withdraw their prejudice and become more tolerant toward others (Byrne, 1971). The evidence in this field shows that although people initially perceive great dissimilarity between themselves and a stranger based on differences in background, the perception of dissimilarity decreases and interpersonal attraction increases over time as more details are obtained about the stranger's attitudes and behavior (Byrne & Wong, 1962).

We therefore argue that the moderating influence of informational demographic dissimilarity in a CEO's empowerment of a TMT will depend on the degree of CEO-TMT dissimilarity (and its antithesis, similarity) in TMT tenure, another demographic commonly discussed by upper echelons researchers (Elenkov et al., 2005). The moderating influence of informational demographic dissimilarity is more likely to be positive when the CEO and TMT members share a longer history of working together. In this situation, the CEO-TMT relationship will be characterized not only by richness of information but also by trust and cohesion developed over time. As the CEO and TMT members get to know each other, their shared experience will override any initial social distance from the CEO perceived by TMT members. Accordingly, when the CEO strives to empower the TMT, those involved will feel more comfortable with each other and more willing to cooperate. For example, TMT members will more readily follow the empowering CEO's guidance and encouragement to integrate and work collectively to improve team potency, and thus be more capable of high-quality strategic decision-making.

Shared tenure may have another potential benefit. Working together in the same team for a long time gives the CEO and the other TMT members more opportunity to observe and exchange personal views and to come to understand each other's perspective more thoroughly. These mutual adjustment processes should increase an empowering CEO's capability to exploit the TMT's range of expertise, and thus to enhance the quality and quantity of the interactions between the TMT members (Buyl, Boone, Hendriks, & Matthyssens, 2011; Simsek, Veiga, Lubatkin, & Dino, 2005). Likewise, a greater shared history with the CEO is likely to lead to team members experiencing less ambiguity about the intent behind their leader's empowerment efforts. They should find it easier to leverage backgrounds of theirs that are complementary to

that of the CEO and be more effective in responding to the empowering CEO's requests for input. In short, when the CEO and the other TMT members have been working together for a long time, they will be more likely to have reached the stage termed "mature partnership" (Graen & Uhl-Bien, 1991), characterized by effective cooperation and mutual trust. This high-quality relationship will support the bright side of CEO-TMT dissimilarity in informational demographics in the empowerment-performance relationship and mitigate its dark side.

We acknowledge that tenure overlap also has a double-edged nature. The evidence shows that people who have spent a long time working together may become committed to the status quo, experience common perceptions, and be likely to develop "group think" (Katz, 1982; Smith et al., 1994). The implications are that overlap in team tenure alone could potentially attenuate, rather than reinforce, the benefits of empowering leadership by CEOs. However, we feel that this is less likely to occur when shared experience is accompanied by dissimilarity in informational demographics between the CEO and the other TMT members, as the two parties, whose perspectives and knowledge are based on different backgrounds, would be more likely to challenge each other's assumptions (Dooley & Fryxell, 1999). This would be particularly the case if the CEO is truly empowering his or her TMT. As noted, an empowering CEO will act as a role model and lead the TMT by example, encouraging the team members to actively share and use their knowledge and make decisions jointly (Srivastava et al., 2006). In doing so, he or she would not be satisfied with status quo thinking or accept passivity on the part of TMT members, even if the parties had been working together for a long time.

The above discussion suggests that the dissimilarity in informational demographics and the overlap in tenure both entail benefits and costs relating to the empowerment of TMTs by CEOs. In concert, however, they can serve to strengthen the potential effects of CEO

empowering leadership on firm performance. In China, owing to the strong traditional belief in the importance of leaders, CEOs and other TMT members have been found to be so distinguished that they often play different roles and possess different qualities (Fu et al., 2002). As such, separating leaders and members is viewed as important for studies about Chinese TMTs. This suggests that our Chinese sample presents an appropriate litmus test of the moderating influence of the demographic dissimilarity between CEO and the rest of TMT. In short, we propose that:

H2. There is a three-way interaction between CEO empowering leadership, CEO–TMT dissimilarity in informational demographics (i.e. level of education, education major, and functional specialty), and CEO–TMT overlap in TMT tenure, such that the positive association between a CEO’s empowering leadership and organizational performance is strongest when both dissimilarity in informational demographics and overlap in tenure are high.

3. Methods

3.1. *Sample and procedures*

We collected data from a multisource survey of TMT members in 129 Chinese organizations. We used a random number generator to randomly select 400 Chinese firms from a business directory covering China’s Guangdong and Hunan provinces. This business directory was developed by pooling company information listed in the China Economic Census Year Book 2008 (published by China Statistics Press, October 2010). A trained graduate assistant contacted the 400 CEOs to request participation and, for those who agreed ($N = 223$), to schedule a meeting with their human resources (HR) managers. During these meetings, the graduate assistant asked the HR managers to identify all TMT members and send each a questionnaire

with a return envelope. The HR managers later collected the sealed responses and mailed them unopened to the graduate assistant. Following previous studies (e.g. Carmeli et al., 2011), responses were only tabulated if at least 50% of the firm's TMT members participated in the survey. Usable responses were obtained from 735 managers in 133 organizations. To reduce the possibility that an organization's performance was overly influenced by a previous CEO and to ensure that sufficient time had lapsed between the onset of a CEO's empowering leadership and the measurement of the outcome variable (organizational performance), the analysis focused on firms whose CEO had been in place for over two years. This gave a final sample of 717 TMT members in 129 firms. On average, these firms had been in business for 14.33 years and had 1,722 employees (ranging from 91 to about 15,000).

The average number of TMT members was 6.95 (including the CEO), ranging from 5 to 11. The average response rate for the TMT members in each firm was 71.2% (i.e. approximately 5 members). The TMT members had an average TMT tenure of 4.78 years, with 74% having been on the team for two or more years and 95% having been with the organization for at least three years. Seventy-five percent of the CEOs and 67% of the other TMT members were male. The average age of the CEOs was 45, ranging from 32 to 64. The average age of the other TMT members was 44, ranging from 27 to 66.

We estimated nonresponse bias using an extrapolation technique suggested by Armstrong and Overton (1977). We divided the 129 firms around the median response order number into early and late respondents. Armstrong and Overton maintain that nonrespondents are more likely to resemble late respondents than early respondents, and that nonresponse bias can be estimated by comparing early and late respondents on the variables of interest. Thus, we compared the two

groups for firm age, firm size, industry, TMT size, TMT tenure, CEO tenure, and CEO age. For all of these variables, the means of the two groups did not differ significantly.

To address concerns about common method bias, data were collected from different informants. The outcome variable (organizational performance) was assessed by chief financial officers (CFOs). The independent variable (CEO empowering leadership) was evaluated by TMT members excluding the CEO and the CFO. HR managers provided the demographic and tenure information. All of the major constructs were assessed on scales (developed in English) that had been validated in previous studies. The conventional back-translation method was used to ensure translation validity.

3.2. *Measures*

3.2.1. *CEO empowering leadership*

We used a scale developed and validated by Arnold et al. (2000) to assess five types of empowering leadership behavior: leading by example, participative decision-making, coaching, informing, and showing concern. Carmeli et al. (2011) used three items from this scale to test the influence of a CEO's empowering leadership on firm performance, whereas the current study followed the work of Srivastava et al. (2006) in using three items to measure *each* of these five factors. Each TMT member except the CEO and the CFO was asked to evaluate whether the CEO frequently engaged in these types of behavior, using a five-point scale ranging from 1 (strongly disagree) to 5 (strongly agree). A sample item was "Our company's CEO frequently encourages TMT members to solve problems together." The average inter-rater reliability coefficient (r_{wg}) was 0.96, which legitimized the aggregation of team members' scores. The

average of the TMT members' responses was therefore used to calculate this measure. The reliability of the scale was 0.95.

3.2.2. Dissimilarity in informational demographics

The HR managers provided the demographic information. Education level was measured using five categories. The education major was categorized as fine arts, law, liberal arts, science, engineering, agriculture, medicine, or business. The functional specialty was categorized as operations, R&D, finance or accounting, general management, marketing, personnel, legal administration, or general counsel.

We then calculated dissimilarity scores for each of the three demographics—level of education, education major, and functional specialty. Following previous studies (e.g. Tsui et al., 1992), dissimilarity was assessed by aggregating the dissimilarity scores of all of the CEO–TMT member dyads. Specifically, a variant of Blau's (1977) index of heterogeneity was used. This is defined as $(1-P_i)^2$, where P_i is the proportion of CEO–TMT member dyads that share the i^{th} category (Murray, 1989). Taking education level as an example, the index gives the square of the proportion of CEO–TMT member dyads in which the individuals had different levels of degree. The indices for the three demographics were averaged to create an indicator of CEO–TMT dissimilarity in informational demographics.

3.2.3. TMT tenure overlap

Information about TMT tenure was provided by the HR managers. For each firm, we first calculated the tenure overlaps of all the CEO–TMT member dyads by identifying the number of years the CEO and the particular TMT member had worked together in the team. The sum of these scores was then divided by the number of non-CEO TMT members, to represent TMT tenure overlap between the CEO and the other TMT members.

3.2.4. Organizational performance

As the outcome of interest is a firm's competitive advantage, its performance relative to that of its competitors is of greatest interest. Objective performance data are difficult to obtain and are often incomparable in China due to lax accounting standards. It is also difficult to compare objective performance across industries. Following previous studies of Chinese businesses (e.g. Gong, Law, Chang, & Xin, 2009; Li & Zhang, 2007; Luo & Park, 2001; Wang, Tsui, Zhang, & Ma, 2003), therefore, we used manager assessments to quantify each firm's performance relative to that of its competitors.

The CFOs were assumed to be knowledgeable about their own firm's performance, and about its performance relative to that of its competitors (Arthaud-Day, Certo, Dalton, & Dalton, 2006). We asked each CFO to rate relative firm performance in terms of profit, sales, growth of sales, market share, growth of assets, and competitive positioning, using a seven-item scale developed by Wang et al. (2003) that ranged from 1 (very poor) to 5 (very good); this measure has demonstrated good reliability ($\alpha = 0.79$). There is evidence that managerial assessment of performance is significantly correlated with objective measures (e.g. Dess & Robinson, 1984). Caution was exercised, however, by testing the accuracy of the subjective comparisons through asking each firm's CEO, or an executive other than the CFO if the CEO was not available, to also make a similar assessment. Ninety-nine executives responded (77%), most of whom were CEOs. Their responses were significantly correlated ($r = 0.56, p < 0.001$) with those of the CFOs. This provided evidence of the convergent validity of this self-reported measure.

3.2.5. Control variables

To minimize any variance caused by demographic factors extraneous to the research question, we included differences in gender and age between the CEO and the other TMT

members in the analysis as controls. For the categorical variable of gender, the same formula as above, $(1-P)^2$, was used, with P representing the proportion of CEO–TMT member dyads sharing the same gender. For the continuous variable of age, dissimilarity was measured using an analog of the Euclidean distance measure (i.e. the coefficient of variation):

$$\frac{1}{n} \left\{ \sum_{j=1}^n (S_{CEO} - S_j)^2 \right\}^{1/2}$$

where S_{CEO} is the CEO's age, S_j is the age of TMT member j , and n represents the total number of non-CEO TMT members. We also used the age of the CEO and the average age of the other TMT members as a proxy to control for the potential influence of the career stage of the CEO and other TMT members on leadership effectiveness (Super, 1980).

We also controlled for TMT size, as research suggests that it influences both the interactions between CEOs and their other TMT members (Simsek et al., 2005) and organizational performance (Smith et al., 1994). Firm size and firm age were additional controls to account for any potential variance in organizational performance that these might cause. Previous firm performance was another control variable, as leadership might be more illusory than real if people attribute past performance to the qualities of the current leader (Ling, Simsek, Lubatkin, & Veiga, 2008b; Meindl & Ehrlich, 1987). The CFOs evaluated organizational performance over the previous two years, using the same scale as for the dependent variable ($\alpha = 0.87$). Because industries vary in their performance (Zahra, 1996), we also controlled for industry type using a dummy variable, with 0 representing manufacturing firms and 1 representing service firms. As evidence suggests that organizational performance in China can vary with ownership structure (Wei, Varela, D'Souza, & Hassan, 2003), different forms of

ownership (state-owned, privately held, and foreign-owned) were also controlled for with dummy coding. Finally, we controlled for environmental uncertainty to rule out its influence on firm performance (Ling et al., 2008a). Environmental uncertainty was evaluated by CEOs using a four-item scale reported by Waldman, Ramirez, House, and Puranam (2001). The reliability of the scale was 0.83.

4. Analysis and Results

The means, standard deviations, and correlations are presented in Table 1. As no inter-factor correlation is above the recommended level of 0.65, multicollinearity is not likely to have biased the results (Tabachnick & Fidell, 1996). We performed CFAs to further test the construct validity of the multiple-item scales in our survey, namely empowering leadership, organizational performance, and environmental uncertainty. We first examined the baseline model that included all three constructs. The fit indices suggest that our measurement model has a satisfactory fit to the data: $\chi^2/df = 1.01$, $p = .44$, CFI = .99, IFI = .99, TLI = .99, and RMSEA = .01. In addition, all of the factor loadings are significant, demonstrating convergent validity. We tested the discriminant validity of the three constructs by contrasting the three-factor model against alternative models. Comparisons of the fit indexes reveal that the hypothesized three-factor model fits the data considerably better than any alternative model (results available from authors), confirming the discriminant validity of the constructs.

We used hierarchical regression to test the hypotheses. The variables used as components of the interaction terms were centered to minimize any multicollinearity between the interaction terms and their components. The variance inflation factor (VIF) for each variable is lower than the suggested threshold of 4.0. The covariates were entered first. Model 1 shows that the effects

of prior organizational performance ($\beta = 0.33, p < 0.001$) and industry type ($\beta = -0.19, p < 0.05$) are significant. Foreign-owned organizations tend to claim better performance ($\beta = 0.21, p < 0.05$). Model 2 provides support for Hypothesis 1, which predicts a main effect of CEO empowering leadership ($\beta = 0.18, p < 0.05$). Two moderators were entered in the third step. Model 3 reveals that no moderator has a significant direct effect. Model 4 includes all possible two-way interaction terms, and shows that dissimilarity in informational demographics positively moderates the relationship between CEO empowering leadership and organizational performance ($\beta = 0.22, p < 0.05$). Model 5 includes the hypothesized three-way interaction between CEO–TMT dissimilarity in informational demographics, tenure overlap, and empowering leadership. There is a significant three-way interaction effect ($\beta = 0.23, p < 0.05$). Figures 1 and 2 illustrate the effects.

--Insert Tables 1 and 2 and Figures 1 and 2 about here--

Figure 1 shows the interaction between CEO empowering leadership and CEO–TMT dissimilarity in informational demographics when tenure overlap is high, and Figure 2 shows this interaction when tenure overlap is low. The difference between the two figures implies that CEO–TMT dissimilarity in informational demographics does not play a universal moderating role. It significantly strengthens the positive effect of CEO empowering leadership when TMT tenure overlap is high (Figure 1), but attenuates this effect when tenure overlap is low (Figure 2). Figure 1 demonstrates that in the presence of extensive tenure overlap, the effect of CEO empowering leadership on organizational performance is positive when informational demographics dissimilarity is high ($p < 0.001$), but is negative when it is low ($p < 0.01$). Figure 2 demonstrates that with little overlap of tenure, CEO empowering leadership has a positive

effect on organizational performance when informational demographics dissimilarity is low ($p < 0.05$), but the influence of empowering leadership becomes insignificant when it is high.

We conducted slope difference tests to determine whether the individual slopes of the two significant positive relationships differ significantly (Dawson & Richter, 2006). The high and low test values were set at one standard deviation above and below the mean value. The slope for the situation where informational demographics dissimilarity and tenure overlap are both high is significantly larger ($t_{(112)} = 2.76, p < 0.01$). Taken together, Figures 1 and 2 indicate that the positive effect of CEO empowerment of TMTs on organizational performance is stronger when there is greater dissimilarity in informational demographics and tenure overlap is high, which supports Hypothesis 2.

4.1. *Robustness checks*

Several *post hoc* analyses were conducted to further verify the findings. First, to address the possibility that too much tenure overlap may have negative effects through generating group think (Smith et al., 1994), we assessed the curvilinear effect of TMT tenure overlap by creating an interaction term involving empowering leadership, informational dissimilarity, and the square of the tenure overlap indicator. This term is not significant ($\beta = 0.01, p > 0.05$).

Table 2 shows that CEO–TMT dissimilarities in both age ($\beta = 0.06, p > 0.05$) and gender ($\beta = -0.05, p > 0.05$) produce no significant direct effect. Another test reveals that neither factor has a significant moderating effect ($\beta = -0.04, p > 0.05$; $\beta = -0.02, p > 0.05$). Linked to our findings on informational demographics and tenure overlap, these findings support the view that for team effectiveness, particularly at the executive level, dissimilarities in more readily observable but less job-related demographics such as age and gender play a lesser role than more

job-related demographics such as informational background and tenure (Richter, Hirst, van Knippenberg, & Baer, 2012).

A core premise is that empowering CEOs influence TMT effectiveness through their empowering efforts. In practice, however, it is possible that an empowering CEO will hire and promote managers with certain qualities. In this case, the CEO influences performance through both the selection of TMT members and the practice of empowerment. To assess the importance of this factor, we evaluated regressions relating empowering leadership with TMT members' average in age ($\beta = 0.01$; $p > 0.05$), team tenure ($\beta = -0.04$; $p > 0.05$), firm tenure ($\beta = 0.05$; $p > 0.05$), and level of education ($\beta = -0.02$; $p > 0.05$), and with TMT-level diversity in gender ($\beta = 0.02$; $p > 0.05$), education major ($\beta = 0.08$; $p > 0.05$), and functional specialty ($\beta = 0.07$; $p > 0.05$). No significant relationships were found. This suggests that, at least in this Chinese sample, empowering CEOs do not select TMT members differently from their less empowering counterparts.

A fourth test shows that the association between CEO empowering leadership and organizational performance is actually stronger in larger firms than in smaller ones (< 500 employees) ($\beta = 0.27$ vs. $\beta = 0.18$). Considering that TMT members in large firms are more often in charge of their own business units and operate more independently, this finding further supports the core argument that where TMT members have considerable individual autonomy, empowering measures directed at the entire team become particularly effective.

Finally, one could speculate that the relative difference between a CEO and other TMT members may be correlated with compositional diversity at the team level, and that compositional diversity may influence the functioning of CEO empowering leadership in the same way as CEO–TMT dissimilarity. To assess this, the regressions were re-evaluated with

CEO–TMT dissimilarity replaced with team-level diversity. No team-level diversity variable shows a significant direct or moderating effect (results available from the authors).

5. Discussion

The current study enriches the contextual understanding of empowering leadership by discussing how demographic differences between leaders and their team members can moderate the effectiveness of team empowerment. In contrast to previous studies that integrate empowerment and demographic dissimilarity among lower-level teams (Avery, Wang, Volpone, & Zhou, 2013; Kirkman, Tesluk, & Rosen, 2004), this study draws on the upper echelons perspective and focuses on TMTs at the apex of firms. Specifically, we find that although CEOs' empowerment of TMTs predicts superior organizational performance in general, this positive influence is played out the best when the CEO and other TMT members differ in informational background but share a longer tenure overlap.

5.1. *Theoretical implications*

This study provides empirical support for a view that has been somewhat understated in the empowerment literature, namely that the empowerment efforts of leaders vis-à-vis their teams play a special role where individual team members have high autonomy (Kirkman & Rosen, 1999; Zaccaro & Klimoski, 2001). In the present case, it demonstrates that empowering leadership is valuable in executive teams even when the members of these teams have considerable individual responsibility and autonomy in solving their own set of strategic objectives. In addition, using a sample of Chinese firms, this study demonstrates the external validity of this phenomenon in an Eastern setting, where issues of power distance and

collectivism are more salient than in most Western cultures, such as the United States (Hofstede, 1991).

The greatest value of this study, however, is its examination of the influence of context on the effects of empowering leadership. Our results challenge the widespread view that empowering leadership is a universally useful management practice. We show that CEO empowering leadership is most beneficial to firm performance when two features of the CEO–TMT interpersonal context coincide—greater dissimilarity in informational demographics and substantial overlap in team tenure. When either of these is lacking, the benefits of CEO empowering practices tend to be attenuated. Informational demographic dissimilarity and tenure overlap interact to moderate the effects of CEO empowering leadership because both are potentially valuable to the nature of CEO–TMT interaction. The former promotes informational richness but may also disrupt mutual identification and trust; the latter facilitates trust but may also promote group think. Our study shows that these two forces combined can create a functional context that enables CEO’s empowerment of the TMT to have a positive effect. In contrast, we find that in certain situations, specifically when there is little dissimilarity in informational demographics and extensive tenure overlap, less empowerment by the CEO may be appropriate. In this case, other leadership styles such as the more traditional command leadership may actually be more effective, at least in our sample of Chinese companies.

By examining the moderating effect of the interpersonal context on the relationship between a CEO’s empowering leadership style and firm performance, this study provides new insights for upper echelons researchers. First, it highlights the value of building on two main research streams in the upper echelons field, one focused on the CEO and the other focused on TMT composition (Menz, 2012). Augmenting previous efforts (e.g., Elenkov et al., 2005), our

study focuses specifically on the dissimilarity between the CEO and the other TMT members and its moderating role. Our results, both for the effects of CEO–TMT dissimilarity and our *post hoc* null findings regarding the effects of team-level compositional diversity, highlight that at least in certain situations (e.g., when the CEO strives to empower the TMT) the moderating effect of TMT composition on CEO influence may derive mostly from the relative differences between the CEO and other TMT members. Thus, distinguishing CEOs from other TMT members may prove fruitful in advancing our overall understanding of the joint influence of the CEO and the TMT.

Second, our findings also suggest that different aspects of TMT composition often play out in complex ways. That is, a difference in one characteristic may influence the effects of differences in other characteristics. In particular, our study demonstrates that the effects of CEO–TMT similarity or dissimilarity in information demographics are more thoroughly understood by adopting a temporal perspective based on tenure overlap. Hence, closer attention to the way in which various types of TMT difference might interact to produce an effect (in our case on firm performance) may be useful.

5.2. *Managerial implications*

The managerial implications of our findings are clear. First, CEOs need to recognize the potential performance advantage of empowering their TMTs. Our study adds to the growing body of evidence that there is a strong business case for empowering teams (e.g., Chen et al., 2011). However, it must also be recognized that to be successful, empowerment must be performed in the context of a high-quality relationship between the CEO and his or her team members, a relationship that is characterized by both information flow and trust. For example, a

frequent turnover of TMT members will diminish the chances of success. Similarly, CEOs should avoid surrounding themselves with managers whose informational backgrounds are highly similar to their own, which reduces the possibility of bringing new information or insights to bear on strategic discussions.

Despite the potential benefits of empowering TMTs, CEOs also need to recognize that under certain conditions there may be few potential performance advantages of this leadership style. This study provides evidence that when the CEO and other managers have similar backgrounds and have also worked together for a long period, less rather than more empowerment by the CEO is actually more functional. Empowering leadership requires time and effort. In practice, it may provide little benefit to strategic decision-making when the CEO's background is similar to that of the other managers. Our data suggest that in this situation and when CEOs and TMT members have worked together for a long time, at least fair organizational performance can be attained without CEOs' high levels of empowering efforts. In this case, one may speculate that decision-making may be easily or efficiently performed, and assuming that the CEO is reasonably competent, "competent" firm performance may result. In some respects, these implications are consistent with the prescriptive framework offered by Vroom and Yetton (1973) regarding when a leader's use of employee participation in decision-making is more likely to yield benefits. In short, it is important for CEOs to be sensitive to context when calibrating the potential payoff of their empowerment efforts (Klimoski, 2012).

5.3. *Limitations and future research*

In this study, subjective assessments are used to capture firm-level performance, driven by the need for inter-industry comparison and because the quality of the financial data reported

by Chinese firms is often questionable (Gong, et al. 2009). While subjective assessments might raise concern, support for the three-way interaction is found as predicted. This should be reassuring, as it is unlikely that respondents would have had any interaction-based theory in mind that could have systematically biased their responses and distorted the results (Aiken & West, 1991). A preliminary check also reveals that the CFO ratings were well correlated with the independent assessments made by other top managers (mostly CEOs). Nevertheless, future research might verify the findings using objective financial measures.

Although we do not expect our findings to be specific to China, they may nevertheless be influenced by national culture. As noted, China is characterized by a strong orientation toward collectivism, which has been shown to place more importance on relationship quality (especially cohesion and trust in a relationship) (Javidan, et al, 2006). This may have strengthened the interactive moderating influence of CEO–TMT informational dissimilarity and tenure overlap. Future investigators may therefore wish to replicate our study among TMTs in other societies or those made up of individuals from different cultures. It would also be interesting to explore other contextual factors, both within and outside the firm, which may also set boundary conditions for the effectiveness of CEO empowerment efforts (e.g., organizational culture and environmental dynamism).

In addition, although asking HR managers to identify TMT members is not a rare practice in upper echelons studies (Carpenter, Geletkanycz, & Sanders, 2004), we cannot assume that all HR managers had equally accurate understanding of who work intensively with the CEO and truly constitute the TMT. This could be of particular concern in China given that high levels of power distance should make it harder for HR managers to fully understand the practices at the

very top level. In this vein future researchers may consider testing the stability of our proposed model based on a different definition of TMTs (e.g., asking the CEO to identify TMT members).

Another potential limitation is the inability to test the actual mechanism mediating the observed effect of CEO empowering leadership practice, through which the moderating role of CEO–TMT dissimilarity occurs. By collecting information on such mediating processes as communication and social influence (Vecchio, Justin, & Pearce, 2010), future research may generate further insights into how relationships between CEOs and TMTs are developed and leveraged to promote effective team decision-making.

We also acknowledge that ours is a cross-sectional study. Although we did incorporate a two-year delay between the onset of a CEO’s empowering leadership and the measurement of the dependent variable (organizational performance) by focusing on CEOs with at least 2 years of tenure in the position, no claim of causation can be fully justified, and our research design does not rule out the possibility of reverse or even reciprocal causality. For example, better organizational performance may promote confidence in the TMT members and encourage the CEO to become more empowering, stimulating a virtuous cycle where greater empowerment results in still more effective TMT performance, and the firm is “on a roll.” In this scenario, empowerment would be both an outcome and an antecedent of good performance. While it is reassuring that our analysis reveals no significant association between previous firm performance and empowering CEO leadership, well-designed longitudinal studies would help to clarify the dynamics involved.

Finally, whether our findings about the moderating role of CEO–TMT dissimilarity in informational background and tenure can be generalized to other CEO leadership styles or to the leadership of lower-level managers remains an intriguing question. Although, as previously

argued, richness of information based on background differences is important to TMT performance, it may not be equally valuable for lower-level teams whose tasks are less complex or demanding of information. Also, the cohesion or mutual identification hypothesized to develop with tenure overlap is found to be important for effective empowering leadership, but it may be less critical for other leadership styles, such as transactional leadership. A promising direction for future research is to extend our study by comparing the role of leader–team dissimilarity across different team types and leadership styles.

5.4. Summary

This study demonstrates the benefits of integrating insights from the empowerment literature with an upper echelons perspective that focuses on top executives and firm performance. It considers the influence of the interpersonal context surrounding CEOs who empower their teams. In doing so, it enables a better understanding of the dynamics underlying the effectiveness of TMTs, and may identify some important boundary conditions for TMT empowerment practices. It also establishes that CEOs' empowerment of TMTs can have desirable effects in a non-Western culture, namely China. However, its greatest contribution lies in highlighting the need for leaders to promote high-quality relationships with the members of their TMTs and then take full advantage of the differences between themselves and these members to enable the desired effects of empowerment to occur.

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Table 1: Means, standard deviations, and correlations between the variables

Variables	Mean	s.d.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1. CEO empowering leadership	3.70	.54															
2. Organizational performance	3.51	.61	.17*														
3. Dissimilarity in informational demographics	.62	.17	-.01	.12													
4. Overlap in team tenure	3.95	1.62	-.05	.03	-.07												
5. Dissimilarity in age	8.33	4.33	.03	.01	.04	.01											
6. Dissimilarity in gender	.23	.30	.08	-.02	.01	.01	.10										
7. CEO age	45.33	7.28	.01	-.06	-.03	-.08	.46***	-.07									
8. Average age of other TMT members	43.74	5.77	.01	.13	.04	-.06	.15	-.02	.26**								
9. Firm size (log)	2.90	.52	.04	-.02	-.07	.06	.10	-.15	.06	.00							
10. Firm age (log)	2.43	.71	-.11	-.08	.07	.13	.04	-.03	.01	-.17*	.34***						
11. TMT size	6.95	1.25	-.18*	-.03	-.16	-.03	-.16	-.12	-.14	-.13	.17*	.08					
12. Prior organizational performance	3.42	.71	.05	.39***	.09	-.03	-.08	.08	-.03	.07	.01	-.04	-.03				
13. Industry (service) ^a	.31	.46	.05	-.19*	.01	.07	.02	-.06	.02	.08	.01	-.15	-.04	-.13			
14. Environmental uncertainty	3.26	.85	.03	.03	.22*	-.01	-.02	-.07	-.01	.14	.18*	-.04	.09	-.02	.02		
15. State-owned organization ^a	.35	.48	.04	-.15	-.17*	.01	-.05	.13	-.01	-.03	.04	.01	.10	-.11	-.05	.09	
16. Foreign organization ^a	.29	.46	-.09	.21*	.14	-.09	.01	.01	.01	.05	-.18*	-.04	-.11	.01	.14	-.08	-.48***

Note. ^a Coded as a dummy variable; $N = 129$; *** $p < .001$; ** $p < .01$; * $p < .05$

Table 2: Results of hierarchical regressions predicting organizational performance

Variables	Model 1	Model 2	Model 3	Model 4	Model 5
Step 1: Controls					
Dissimilarity in age	.06	.05	.05	.02	.02
Dissimilarity in gender	-.05	-.06	-.06	-.11	-.11
CEO age	-.05	-.07	-.06	-.06	-.09
Average age of other TMT members	.09	.11	.08	.07	.05
Firm size (log)	.03	-.01	.01	.05	.05
Firm age (log)	-.08	-.06	-.08	-.10	-.10
TMT size	-.04	-.02	-.01	.03	.03
Prior organizational performance	.33***	.32***	.32***	.30***	.30***
Industry (service)	-.19*	-.20*	-.17*	-.15	-.15
Environmental uncertainty	.02	.03	.03	.01	.02
State-owned organization	-.15	-.14	-.14	-.16	-.17*
Foreign organization	.21*	.22*	.23*	.24*	.23*
Step 2: Independent variable					
CEO empowering leadership		.18*	.19*	.22*	.19*
Step 3: Moderators					
Dissimilarity in informational demographics			.10	.06	.05
Overlap in TMT tenure			.07	.08	.06
Step 4: Two-way interaction terms					
Empowering leadership × Dissimilarity in informational demographics				.22*	.18*
Empowering leadership × Overlap in TMT tenure				-.05	-.11
Dissimilarity in informational demographics × Overlap in TMT tenure				.04	.03
Step 5: Three-way interaction terms					
Empowering leadership × Dissimilarity in informational demographics × Overlap in TMT tenure					.23*
R ²	.16	.19	.20	.28	.33
Adjusted R ²	.10	.13	.14	.17	.20
F	2.62**	2.85**	2.45**	2.79***	2.94***
Δ R ²		.03*	.01	.08*	.05*

N = 129; *** *p* < .001; ** *p* < .01; * *p* < .05

Note: Beta weights are reported for the final step in each model.

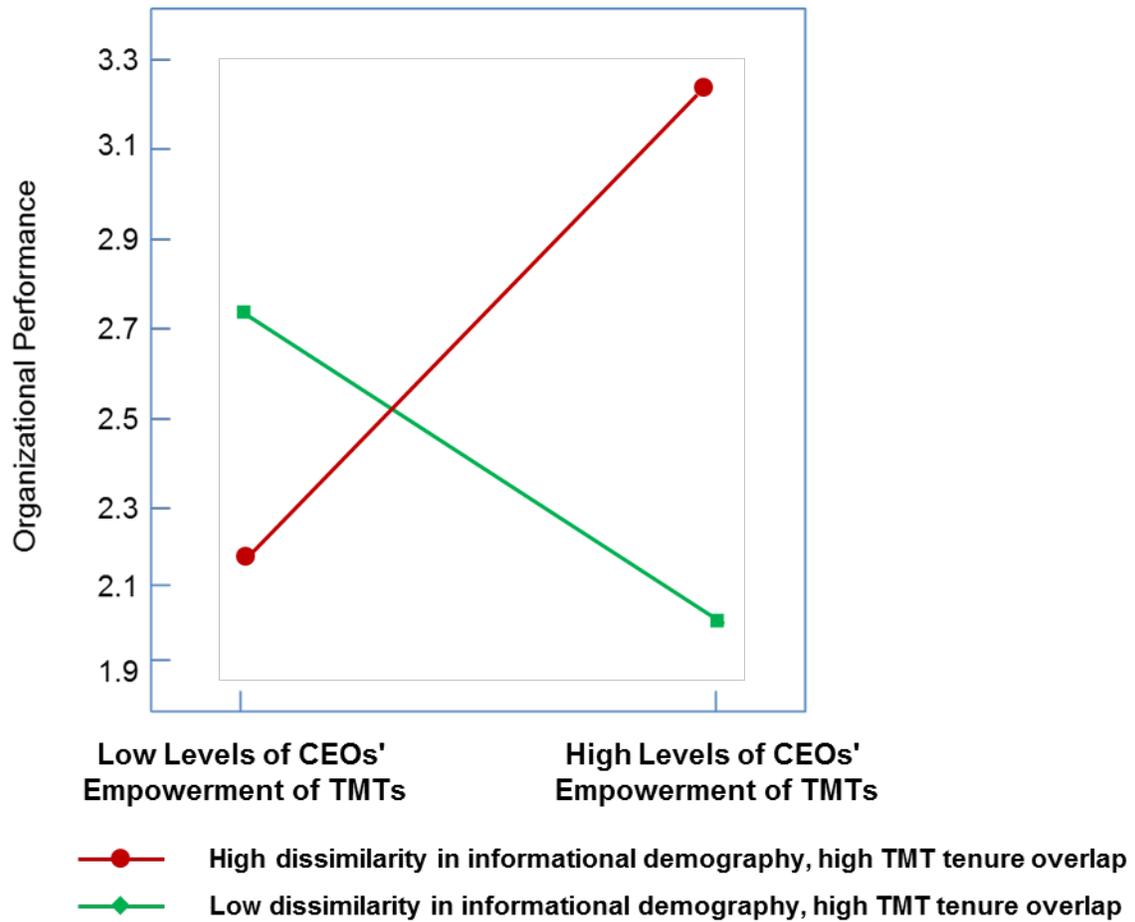


Figure 1: The interaction between CEO empowering leadership and CEO–TMT dissimilarity in informational demographics when TMT tenure overlap is high

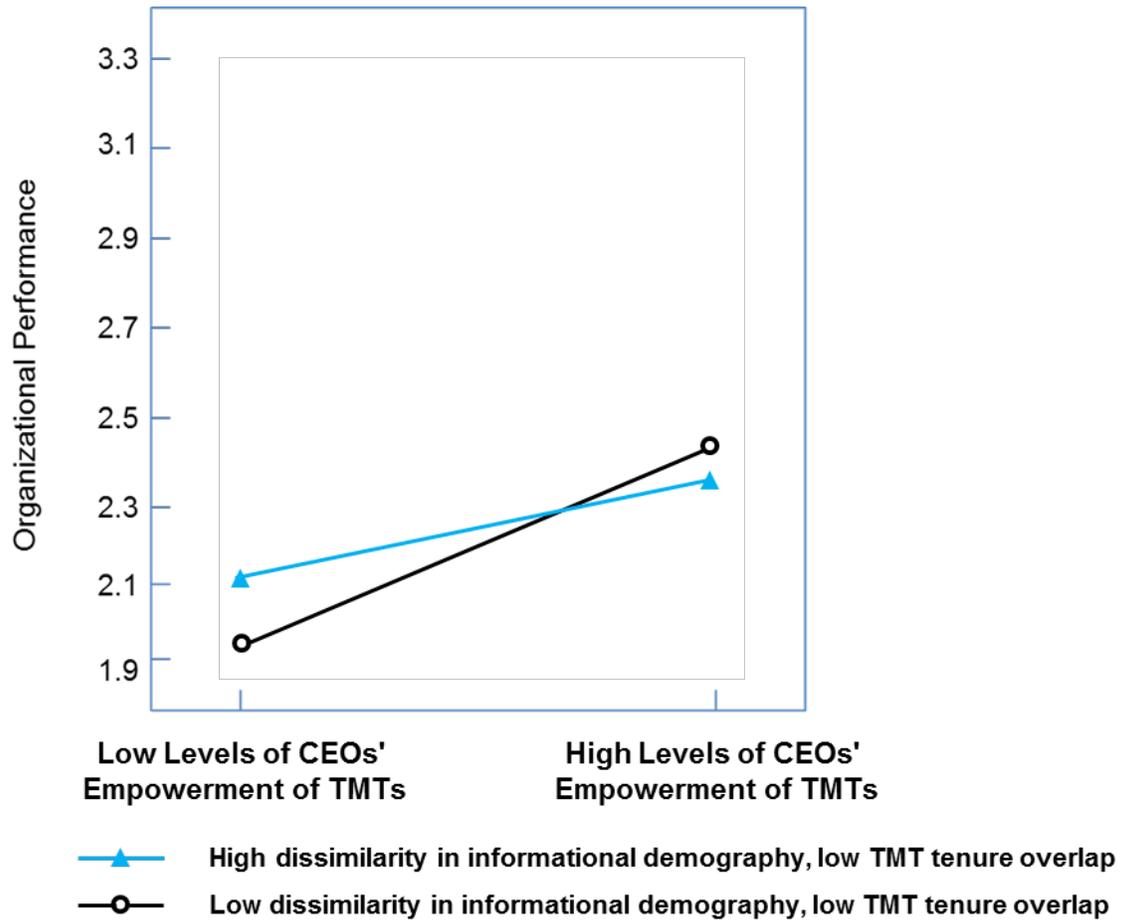


Figure 2: The interaction between CEO empowering leadership and CEO–TMT dissimilarity in informational demographics when TMT tenure overlap is low