

# **Is Informational Diversity Really Informational? An Investigation of What and When in Entrepreneurial Teams**

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*Using a sample of 144 entrepreneurial teams, this study aims to answer two research questions: (1) what type of informational diversity matters in entrepreneurial teams; and (2) when does it work? This study explores the moderating effect of shared leadership on the relationship between informational diversity and entrepreneurial team performance. The results show that task-related informational diversity improves entrepreneurial team performance, while non-task-related informational diversity doesn't. And task-related informational diversity benefits more when leadership is shared among team members. These findings advance the understanding of entrepreneurial team performance and provide practical implications regarding team structure.*

## **INTRODUCTION**

More and more new businesses are founded by entrepreneurial teams rather than solo entrepreneurs. For example, entrepreneurial teams were founders of 70% of the firms in the high-tech industries (Cooper, Dunkelberg, Woo, and Dennis, 1990). And firms founded by teams are on average more successful than firms founded by individuals (Cooper and Bruno, 1977; Mayer, Heinzel, and Müller, 1989). One assumption of using entrepreneurial team is that heterogeneous teams can contribute to solving complex problems because of the existence of diversity in perceptions, skills, and knowledge. The question, however, is whether this is a truth or just a myth?

According to the evolutionary perspective of entrepreneurship (Boeker, 1988), the configuration of the founding team shapes subsequent entrepreneurial activities, strategies, and performance. Therefore, there is a growing interest in entrepreneurship research in the diversity and complexity of entrepreneurial teams because teams play a crucial role in shaping new business growth (Wright & Vanaelst, 2009). In addition, an important focus of research on teams has been the study of team composition, especially as regards team diversity (Williams & O'Reilly, 1998). The issue of entrepreneurial team composition is of considerable practical importance in that the creation of a new entrepreneurial venture entails decisions regarding who will participate. And research can provide guidance regarding team member selection. As the relationship between team composition and entrepreneurial team performance is better understood, founders can learn how to avoid some of the pitfalls in team selection that can lead to inadequate competencies as well as how to create teams that will best support venture success. As the mechanisms through which diversity contributes to team performance are better understood, clear guidelines can be developed for practitioners about how to establish effective entrepreneurial teams and how to guide them.

A review of the entrepreneurial team diversity literature indicates that research on the relationship between entrepreneurial team informational diversity and performance remains inconsistent and

inconclusive (Aspelund, Berg-Utby, & Skjevda, 2005; Ensley, Carland, & Carland, 1998). Moreover, while studies have examined the link between informational team diversity and entrepreneurial team performance, researchers have failed to investigate the conditions under which such diversity might benefit performance. As a process variable potentially capable of distributing information, shared leadership among multiple team members could determine how team diversity might affect entrepreneurial team performance. However, this potential moderating effect of shared leadership has not been empirically investigated. The purpose of this study is to empirically examine the moderating effect of shared leadership on the relationship between informational diversity and entrepreneurial team performance.

*Research question 1: what type of informational diversity is really informational?*

*Research question 2: when does informational diversity improve entrepreneurial team performance?*

## **THEORY AND HYPOTHESES**

### **Types of Informational Diversity: Task vs. Non-Task**

Researchers have used different approaches to categorize team diversity. Jehn, Northcraft, and Neale's (1999) multifaceted approach categorized team diversity into three categories: social-category diversity (or demographic diversity), informational diversity, and personality diversity. Social-category diversity refers to differences in demographic membership, including race, gender, and ethnicity. Informational diversity refers to differences in knowledge and perspectives that team members bring into the team. Informational diversity likely comes from team members' differences in education, training, and working experiences. Personality or value diversity presents when team members differ in personality traits or personal values. Studies proposing positive effects of demographic diversity on entrepreneurial team performance often employed demographic diversity as a proxy for informational diversity or cognitive diversity of a team. However, demographic diversity merely brings people together with diverse backgrounds but does not necessarily ensure the existence of diversity of perspectives and ideas (Chowdhury, 2005). Therefore, this study examines directly the effects of different types of informational diversity on entrepreneurial team performance.

According to the information and decision making perspective (Gruenfeld, Mannix, & Neale, 1996; Wittenbaum & Stasser, 1996), members in a diverse team may bring in more information and different perspectives. This added information may enhance team performance when tasks can benefit from multiple perspectives, generating benefits such as innovation or complex problem solving (Williams & O'Reilly, 1998). However, the literature review on entrepreneurial teams indicated that the relationship between informational diversity and entrepreneurial team performance is inconsistent and thus inconclusive. Thus a refined framework to study the effects of informational diversity is necessary. The differentiation between task diversity and non-task diversity may help better understand the relationship between informational diversity and entrepreneurial team performance.

### *Task-Related Informational Diversity*

Task diversities are individual differences that are related to the task at hand. It includes functional specialty diversity and managerial skills diversity. Because diverse teams are expected to contain more relevant expertise than homogeneous teams, teams with different functional backgrounds should be more effective in making decisions (Jackson, 1992). From this perspective, increased functional diversity should be positively associated with entrepreneurial team performance. Empirical studies provided support for this argument (Aspelund et al., 2005; Beckman, Burton, & O'Reilly, 2007; Davis, Aldrich, & Longest, 2009; Ucbasaran, Lockett, Wright, & Weshead, 2003). The presence of functional heterogeneity on a team would likely derive from different industry experience that enhances the team's human capital and is associated with productivity (Becker, 1975; Ucbasaran et al., 2003). Moreover, it's important for an entrepreneurial team to have members with diverse managerial skills, because teams which have more

diverse skill composition are more likely to solve problems and thus improve new venture performance (Roure & Madique, 1986). For new ventures, several managerial skills are critical for competitive survival, including industry analysis, product design, organizational design, strategic planning, and operational administration (Herron, 1990). In addition, diverse experience increases teams' entrepreneurial alertness (cf. Westhead, Ucbasaran, & Wright, 2005) to discover specific market opportunities. Finally, task-related informational diversity is a prerequisite for further learning and assists entrepreneurial teams in the accumulation of new knowledge and skills (Ackerman & Humphreys, 1990). Thus entrepreneurial teams with higher task-related informational diversity should be more effective in running their businesses.

*Hypothesis 1: Task-related informational diversity is positively related to entrepreneurial team performance.*

#### *Non-Task-Related Informational Diversity*

Team members could have different educational level and specialty as well. Theoretically, educational level diversity and education specialty diversity could improve team performance, because this diversity can bring members together with different cognitive skills and goal/task perceptions. Educational specialty diversity could provide entrepreneurial teams with a wide array of procedural and instrumental knowledge (Henneke & Lüthje, 2007). The empirical evidence, however, is very limited. One possible reason is that comparing with task-related diversity, diversity in education is less task-related. Hence, we proposed that non-task-related informational diversity is not significantly related to entrepreneurial team performance.

*Hypothesis 2: Non-task-related informational diversity is not significantly related to entrepreneurial team performance.*

#### **Shared Leadership and Entrepreneurial Team Performance**

Although the information/decision-making perspective holds that diverse teams should outperform homogeneous team because of the diverse perspectives from each team member, diverse ideas do not automatically come together and entail higher team performance. Empirical evidence regarding the effects of informational diversity on entrepreneurial team performance remains inconsistent (Aspelund et al., 2005; Ensley et al., 1998). One possible explanation might be the 'black box' problem (Lawrence, 1997), whereby researchers assume that some team process variables (e.g., team conflict or trust) are expected to explain the relationship between entrepreneurial team diversity and team performance. However, these process variables have not been directly measured (Nielsen, 2010). Therefore, research is needed to identify the conditions under which or the processes through which informational diversity benefits entrepreneurial team performance. For example, the information elaboration process has been proposed to facilitate the information sharing process among team members, a process defined as the exchanging, processing, and integrating of information and perspectives from individual level to team level (van Knippenberg, De Dreu, & Homan, 2004). In other words, it is not the availability of the information but the processing of that information during entrepreneurial tasks that improves the performance of new ventures. This perspective is consistent with Hackman's I-P-O (input-process-output) model. According to Hackman (1987), entrepreneurial team performance is influenced not only by team composition but also by interaction among team members, such as power and leadership processes (Mintzberg & Waters, 1985). A team leader's behavior has been shown to be crucial for both individual and team performance (Zaccaro, Rittman, & Marks, 2001). Although most research on leadership in teams has focused only on the leadership behaviors of the individual team leader, some researchers found that teams performed more effectively when most or all the individuals demonstrate leadership behaviors (Carson, Tesluk, & Marrone, 2007). This condition is referred to as shared leadership and functions as an information elaboration process.

Pearce and Conger (2003) described shared team leadership as a dynamic, interactive influence process among individuals in work groups in which the objective is to lead one another to achieve group goals. Similarly, Carson et al. (2007) conceptualized shared leadership as an emergent team property that results from the distribution of leadership influence across multiple team members, a condition embedded in the interactions among team members that can significantly improve team and organizational performance.

According to Day, Gronn and Salas (2004), shared leadership should enhance team performance because it is an important intangible resource available to teams. First, shared leadership improves the experience of work by offering an incremental measure of self-determination and opportunity for meaningful impact (Cox, Pearce, & Perry, 2003). This significant work/life experience will result in higher team member commitment and thus higher team performance. Second, shared leadership also benefits team performance by fully utilizing team members' knowledge and expertise. In complex team environments, a vertical leader is less likely than the team as a whole to have the knowledge and skills required to effectively lead the team and perform the tasks (Pearce & Sims, 2000). Shared leadership, however, reaches beyond the limits of individual leader capability through mutual influence among team members who are better informed and more responsive to momentary task and leadership challenges (Cox et al., 2003).

Therefore teams with high degrees of shared leadership should experience higher commitment, bring greater personal and organizational resources, and share more information (Katz & Kahn, 1978). Shared leadership has been shown to enhance team effectiveness. Avolio, Jung, Murry & Sivasubramaniam (1996) found a positive correlation between shared leadership and self-reported team effectiveness using teams of undergraduate students, and Pearce and Sims (2002) found a significant relationship between shared leadership and change management team effectiveness as rated by managers. Shared leadership was also correlated with more objective measures of performance, such as team sales (Mehra, Smith, Dixon & Robertson, 2006) and growth in revenue (Ensley, Hmieleski & Pearce, 2006). Pearce, Yoo and Alavi (2004) found that shared leadership in virtual teams was a stronger predictor of team performance than vertical leadership. However, empirical studies exploring the influence of shared leadership with entrepreneurship have been limited, with the exception of Ensley et al. (2006). That study investigated the relative influence of vertical versus shared leadership among top management teams on the performance of start-ups, with the results providing robust evidence for the incremental value of shared leadership.

Tasks of entrepreneurial teams are typically characterized by interdependence, creativity and complexity because new venture founding teams face a situation that lacks standard operating procedures or organizational structures (Bryant, 2004). Shared leadership is appropriate for this type of team work (Pearce, 2004). In an entrepreneurial team, it is very rare that the leading entrepreneur has all the knowledge and skills to effectively lead the team and perform entrepreneurial tasks (Pearce & Sims, 2000). Moreover, shared leadership can also increase members' commitment and encourage more information sharing (Cox et al., 2003).

*Hypothesis 3: Shared leadership will positively relate to entrepreneurial team performance.*

### **Moderating Effect of Shared Leadership**

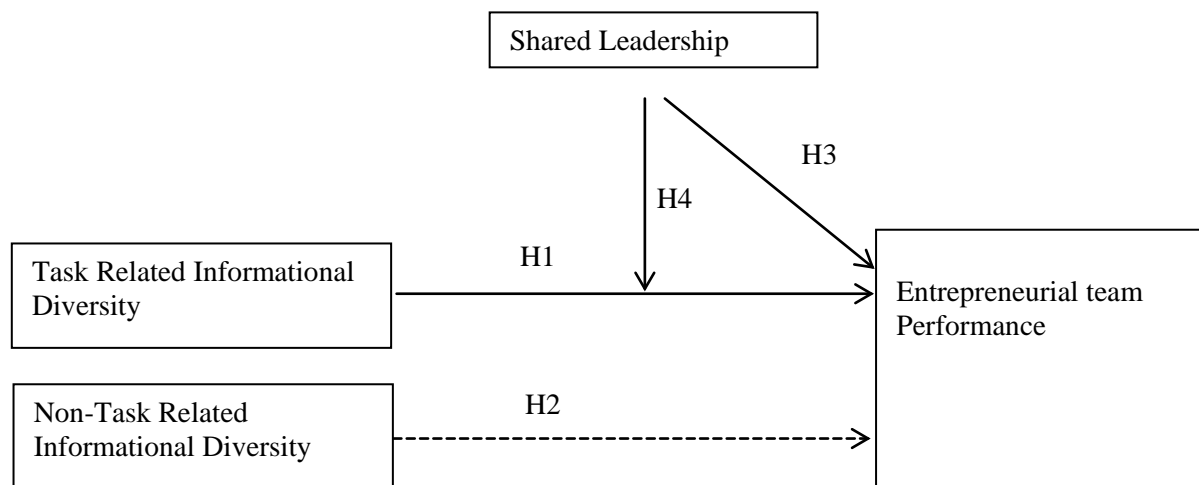
Theoretically, diverse entrepreneurial teams should outperform homogeneous teams because diverse teams are more likely to possess a broader range of task-relevant knowledge, skills and abilities (Williams & O'Reilly, 1998) which should lead to more innovative ideas and solutions (De Dreu & West, 2001) that are important to new venture performance. However the empirical relationship between informational diversity and entrepreneurial team performance remains inconclusive. Whether or not entrepreneurial teams can benefit from informational diversity depends on the degree to which they interactively develop and distribute different information, thereby elaborating this resource from the individual to the team level. Shared leadership can foster this information elaboration process within entrepreneurial teams and facilitate the utility of information. Hierarchical leadership may prevent the team from realizing the

advantages of diverse human capital, whereas with shared leadership members assume different leadership roles as problems and tasks necessitate. Thus, we hypothesize a moderating role for shared leadership as follows:

*Hypothesis 4: Shared leadership moderates the relationship between task-related informational diversity and entrepreneurial team performance such that the relationship will be significantly stronger in teams with higher shared leadership.*

Figure one displays the theoretical model and hypotheses of the current study.

**FIGURE 1  
THEORETICAL MODEL AND HYPOTHESES**



## METHOD

The sample consisted of 144 entrepreneurial teams in a technology incubator founded in 2009 by the local government in eastern China. This study used a cross-sectional study design. Participants were given a questionnaire which collected data on the independent, dependent, moderator, and control variables. Because all the measures were assessed by self-reported questionnaire, common method bias was a potential problem. However, the bias should be minimized in the current study. First, the measures of education background and number of employees were objective measures and thus not subject to common method bias. Second, the measure of shared leadership derived from team members' ratings and not an individual's self-ratings.

## Measures

### *Task-Related Informational Diversity*

Task-related informational diversity was measured on two dimensions: functional specialty and managerial skills. Functional specialty was measured by asking respondents to identify the functional areas in which they have expertise. Nine categories of functional areas (Bunderson & Sutcliffe, 2002) were available, including marketing, sales/customer service, finance/accounting, general management, human resources/personnel, information technology, R&D, administrative support, and operations/distribution/logistics. Management skills, was measured with a scale developed by Herron (1990). Respondents were asked to rate their skill level on each of seven items: product design, industry analysis, organizational design, motivating employees, creating a sphere of influence, planning and administration, and discovering opportunities. Measurement occurred on a five-point Likert-type scale ranging from (1)

Not Effective to (5) Extremely Effective. The coefficient of variation was used to measure team diversity for managerial skills, ranging from 0 (completely homogenous) to 1 (completely heterogeneous). A past Cronbach's coefficient alpha for the measure was .76 (Herron, 1990).

#### *Non-Task-Related Informational Diversity*

Educational specialty and educational level were used to measure non-task-related informational diversity. Educational specialty consisted of nine different categories based on an international standard for educational classification (ISCED, 1997). Educational level was measured with five categories: no high school diploma, high school graduate, college graduate, master's degree, and doctoral degree. Blau's (1977) index was used to calculate a diversity index for categorical variables. The formula for calculating Blau's (1977) index is:

$$\text{Blau's Index} = 1 - \sum p_i^2$$

where  $p_i$  is the proportion of the population in a given team in the  $i^{\text{th}}$  category. The index ranges from 0 (completely homogeneous entrepreneurial team) to 1 (completely heterogeneous entrepreneurial team) for the functional specialty, educational specialty, and educational level dimensions of informational diversity.

#### *Entrepreneurial Team Performance*

Entrepreneurial team performance was measured by a 16-item scale developed by Pearce and Sims (2002) to evaluate team effectiveness with six dimensions: (a) output effectiveness, (b) quality effectiveness, (c) change effectiveness, (d) organizing and planning effectiveness, (e) interpersonal effectiveness, and (f) overall effectiveness. Responses were given along a 5-point scale from 1 (*strongly disagree*) to 5 (*strongly agree*). The Cronbach's alpha for the scale is .92 (Pearce and Sims, 2002). Each team member was asked to respond to the 16 items. Then the entrepreneurial team performance was measured as the mean score across team members. This team level performance measure reflects the perceived entrepreneurial team process and indicates how the team has functioned.

#### *Shared Leadership*

Shared leadership was measured with the approach used by Carson et al. (2007) focusing on density, which is a measure of the total amount of leadership displayed by team members as perceived by others on a team. Every team member rated each of his/her peers (1, "not at all," to 5, "to a very great extent") on the following question: "To what degree does your team rely on this individual for leadership?" The density was calculated by summing all values and then dividing that sum by the total number of possible relationships among team members (Sparrowe, Liden, Wayne, & Kraimer, 2001).

#### *Control Variables*

Team size influences team process and functioning. For instance, Bantel and Finkelstein (1991) suggest that larger teams have lower cohesion. Team size may also influence resources and workload requirements that may influence entrepreneurial team performance (Kirkman & Rosen, 1999). Therefore team size was included as a control variable in this study and was measured as the actual number of members on each team. Employee ownership affects a member's commitment to an enterprise and willingness to work together productively (Buchko, 1992; Rosen & Quarrey, 1987). Therefore, stock ownership dispersion among entrepreneurial team members may have an effect on their shared leadership behavior and team performance and should be included as a control variable. Ownership dispersion was measured by the following formula (Jacquemin & Berry, 1979):

$$\text{Owner Dispersion} = \sum_{i=1}^N S_i \ln \left( \frac{1}{S_i} \right)$$

where  $S_i$  is the percentage of shares owned by the  $i^{\text{th}}$  entrepreneurial team member. The value of ownership dispersion increases as ownership is spread more evenly across team members.

## RESULTS

Data were gathered from 144 entrepreneurial teams consisting of 516 entrepreneurs. Their average age was 28 years (SD = 3.6). Of the 516 entrepreneurs, 42.1 percent were female and 57.9% were male. Because the team effectiveness scores were aggregated from individual scores, the viability of aggregation was computed. This was done by calculating within-group agreement ( $r_{wg} = .92$ ; James, Demaree, & Wolf, 1984), intraclass correlations (ICC[1]=0.58), and the reliability of the means (ICC[2]=0.82; Bliese, 2000). These measures showed that it was statistically appropriate to analyze this variable at the team level. To test for potential common method bias, Harman's single-factor analysis (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003) was conducted with exploratory factor analysis and confirmatory factor analysis. The exploratory factor analysis generated seven factors, and the first factor explained only 17% of the total variance, suggesting that common method bias is not problematic. Table 1 presents the means, standard deviations, and zero-order correlations for all of the variables used in the analysis.

**TABLE 1**  
**DESCRIPTIVE STATISTICS<sup>a</sup>**

	Mean	S.D.	1	2	3	4	5
1 Team Size Ownership	3.5	.68					
2 Dispersion	.2	.33	-.06				
3 Shared Leadership	3.5	.64	.00	-.03			
4 Task diversity	.53	.11	.38*	-.1	.14		
5 Non-task diversity	.48	.14	.34*	-.06	.06	.46**	
6 Team Performance	42.4	8.57	-.03	-.13	.45**	.25**	.08

<sup>a</sup>N=144 teams. \* p< .05 \*\* p< .01

### Tests of Hypotheses

Hierarchical regression analysis was used to examine the relationships among informational diversity, shared leadership and entrepreneurial team performance. In Model 1, only control variables were entered. In Model 2, task-related and non-task-related informational diversity were entered. In Model 3, shared leadership was included. In Models 4, the interaction of task-related diversity and shared leadership were entered to test the moderation of shared leadership. Table 2 shows the results of the hierarchical regression analyses.

To test hypotheses 1 and 2 that task-related informational diversity positively relates to entrepreneurial team performance while non-task-related informational diversity does not, the performance variable was regressed on the control variables (team size and ownership dispersion) and the two types of informational diversity. The Model 1 analysis result of the team size and ownership dispersion control variables was not significant (F=1.25, n.s.). With task and non-task related diversity scores added in Model 2, the model was significant (F=3.49, p<.01). Hypothesis 1, asserting that task-related informational diversity is positively related with entrepreneurial team performance, was supported

( $\beta=.30$ ,  $p<.01$ ). Hypothesis 2 that non-task-related informational diversity was not significantly related to entrepreneurial team performance was also supported ( $\beta= -.01$ , n.s.).

In Model 3, shared leadership was included into the regression to test Hypothesis 3, which specifies a positive relationship between shared leadership and entrepreneurial team performance. The model explains a significant amount of the variance in entrepreneurial team performance ( $R^2= .26$ ,  $p< .01$ ). The results indicate a positive and significant relationship between shared leadership and entrepreneurial team performance ( $\beta= .41$ ,  $p<.01$ ), supporting Hypothesis 3.

To test hypotheses 4 that shared leadership moderates the relationship between task-related informational diversity and entrepreneurial team performance, the interaction between task-related informational diversity and shared leadership was included in Models 4. The interaction of task-related informational diversity and shared leadership had a positive coefficient ( $\beta=.89$ ,  $p<.05$ ). This supported Hypothesis 4 that the positive relationship between task-related informational diversity and entrepreneurial team performance is greater from teams with higher levels of shared leadership.

**TABLE 2**  
**RESULTS OF HIERARCHICAL REGRESSION MODELS<sup>a</sup>**

	Model 1	Model 2	Model 3	Model 4
	$\beta$	$\beta$	$\beta$	$\beta$
Team size	-.04	-.15	-.12	-.10
Ownership Dispersion	-.13	-.11	-.10	-.10
Task-related diversity		.30**	.23*	-.42
Non-task-related diversity		-.01	-.01	-.01
Shared Leadership			.41**	-.12*
Task-related diversity $\times$ Shared Leadership				.89*
Model F Statistics	1.25	3.49**	9.54**	7.47**
R <sup>2</sup>	.02	.09	.26	.27
Adjusted R <sup>2</sup>	.00	.07	.23	.24
$\Delta R^2$	.02	.7	.16	.01

<sup>a</sup>N=144 teams;  $\beta$ : Standardized regression coefficient. \*  $p<.05$  \*\*  $p<.01$

## DISCUSSION

The primary focus of this study is when and how team informational diversity might enhance entrepreneurial performance by answering two fundamental research questions: (1) what type of informational diversity is really informational? (2) when does informational diversity improve entrepreneurial team performance? This issue is important since the composition and functioning of entrepreneurial teams are traditionally viewed as fundamental factors that shape consequent performance of start-ups competing in rapidly changing, highly competitive markets. Despite widespread interest in entrepreneurial teams, the shared leadership mechanism that links team diversity and entrepreneurial team performance had not been previously examined.

Significant findings emerged from this study. Functional specialty diversity and managerial skills diversity are more task-related and can improve entrepreneurial team performance. Education level and education major diversity are less task-related and do not appear to play significant roles in entrepreneurial team performance. Shared leadership improves entrepreneurial team performance and moderates the relationship between task-related informational diversity and entrepreneurial team performance.



## Implications

*What type of informational diversity is really informational?* The current study provides implications regarding the relationship between team diversity and entrepreneurial team performance. Overall, the findings show that task-related informational diversity accounts for 9% of the variation in entrepreneurial team performance. Functional diversity and managerial skills diversity are primarily responsible for this relationship. This finding is consistent with Foo, Wong, & Ong (2005)'s study that diversity related to tasks was more beneficial for team performance than other kinds of diversity. Clearly, entrepreneurial teams need members from different functional areas to deal with tasks of high complexity.

*When does informational diversity improve entrepreneurial team performance?* Having uncovered relationships between informational diversity and entrepreneurial team performance and between shared leadership and team performance, this study was then able to investigate the moderating effects of shared leadership on the diversity-performance relationships. In general the results found that shared leadership does moderate this relationship. Current theoretical frameworks such as social categorization theory (Tajfel, 1982) and attraction-selection-attrition theory (Berscheid & Walster, 1978; Byrne, 1971) appear insufficient for resolving the mixed findings regarding the informational diversity – performance link. The findings of this study provide evidence that shared leadership may provide a context within which entrepreneurial teams can benefit from the diversity team members bring. The results suggest that when team members share leadership influence, the entrepreneurial teams benefit more from skill diversity. When teams could not share leadership, skill diversity actually harmed entrepreneurial team performance. It appears that it is not enough to just bring people with diverse backgrounds together; it is also necessary for entrepreneurial teams to develop strong internal leadership patterns to bolster effectiveness.

This study also contributes to shared leadership research regarding its implication on entrepreneurial team performance. Though the importance of shared leadership has been suggested by previous researchers (Gibb, 1954; Katz & Kahn, 1978), the primary focus of most team leadership research (Kozlowski & Bell, 2003) was still on the leadership behavior of individual leaders. Previous research suggested that shared leadership was appropriate for certain types of knowledge work characterized as interdependent, creative, and complex (Carson et al., 2007; Pearce, 2004). Entrepreneurial tasks are typically characterized by these features, and the present study revealed the relevance of shared leadership for entrepreneurial team performance. The finding that shared leadership improved entrepreneurial team performance does not suggest that shared leadership is necessarily better than vertical leadership. Indeed, as was shown in an O'Toole, Galbraith, & Lawler (2002) study, some instances of shared leadership have ended in failure. Therefore, a pertinent question remains as to when shared leadership is more appropriate than vertical leadership.

*What are the practical implications?* Besides theoretical contributions, this study has implications for policy makers and practitioners. First, this study provides policy implications for government agencies, foundations, and universities who provide support for start-ups in incubators. These institutions should know the importance of entrepreneurial team composition and team process to start-up performance and should provide entrepreneurial teams support in team development pursuant to these guidelines. Second, the study provides entrepreneurs with implications regarding team member composition. The findings suggest that entrepreneurial team founders should select team members with diverse functional experience and management skills. Also, to really benefit from the informational diversity team members bring, entrepreneurial teams should share leadership. Each team member should be willing and able to assume leadership roles when tasks require.

It is important to consider the limitations of this study when interpreting the findings. The university-based sample may limit the generalizability of the results, especially since the sample was from a single university incubator. The sample of the current study was also limited to entrepreneurial teams with a limited partnership structure, in which certain limited partners relinquish their ability to manage the business in exchange for limited liability for the partnership's debts. Furthermore, since only new start-ups were considered in the current study, it is limited in the extent to which the findings could be generalized to later stages of new ventures. It may be that the relative importance of vertical versus shared leadership is dependent on the developmental stage of the organization (Ensley et al., 2006). Therefore, it

might be useful to examine the relationships among team diversity, shared leadership and entrepreneurial team performance longitudinally across stages in the entrepreneurship life cycle. Relatedly, the cross-sectional nature of the research design does not allow us to draw causal conclusions, indicating further the need for longitudinal research. Moreover, future research should adopt other performance measures (e.g. innovation, profitability, or revenue) that are applicable to different stages of venture development. Finally, another direction for future research is to understand team diversity, shared leadership, and entrepreneurial team performance with a cross-cultural design (Zhou & Shi, 2011). Since this study focused on dispositional factors, future research should explore relevant cultural and situational conditions.

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