

Open Access Repository www.ssoar.info

Leadership drivers of organizational creativity: a path model of creative climate in a professional service firm

Sandvik Madsen, Alexander; Espedal, Bjarne; Selart, Marcus

Veröffentlichungsversion / Published Version Zeitschriftenartikel / journal article

Empfohlene Zitierung / Suggested Citation:

Sandvik Madsen, A., Espedal, B., & Selart, M. (2015). Leadership drivers of organizational creativity: a path model of creative climate in a professional service firm. *Beta - Scandinavian Journal of Business Research*, 29(1), 74-90. <u>https://nbn-resolving.org/urn:nbn:de:0168-ssoar-444661</u>

Nutzungsbedingungen:

Dieser Text wird unter einer CC BY-SA Lizenz (Namensnennung-Weitergabe unter gleichen Bedingungen) zur Verfügung gestellt. Nähere Auskünfte zu den CC-Lizenzen finden Sie hier: https://creativecommons.org/licenses/by-sa/4.0/deed.de

Terms of use:

This document is made available under a CC BY-SA Licence (Attribution-ShareAlike). For more Information see: https://creativecommons.org/licenses/by-sa/4.0







© Universitetsforlaget Beta, volume 29, no 1–2015 s. 74–90 ISSN Online: 1504-3134

Leadership Drivers of Organizational Creativity: A Path Model of Creative Climate in a Professional Service Firm

Alexander Madsen Sandvik

Post doc, NHH Norwegian School of Economics E-post: alexander.sandvik@nhh.no

Bjarne Espedal

Professor at NHH Norwegian School of Economics E-post: bjarne.espedal@nhh.no

Marcus Selart

Professor at NHH Norwegian School of Economics E-post: marcus.selart@nhh.no

ABSTRACT

The purpose of this study was to explore how and under what conditions two different leadership roles are able to facilitate an organizational climate that supports creativity. The study was conducted in a leading professional service firm. The introduced hypotheses were tested by means of a structural equation model. Findings indicate that the leadership roles are conceptually different and that organizational structure is important for leaders' ability to create a climate that supports creativity. The results also indicate that relational and change leadership behaviors are vital for leaders when creating a climate that supports creativity. Furthermore, both job autonomy and intrinsic motivation are found to be important dimensions for enhancing the creative climate.

Keywords

creativity, leadership and creative climate, professional service firm

INTRODUCTION

Businesses need to be creative in order to develop products, services, and innovative management control practices. A challenge for businesses is to create and lead the organization to become more creative and outperform competitors by creating an organizational creative climate. From this perspective, this article addresses the question: How and under what conditions may leaders





develop a working atmosphere or a climate that supports creativity? Thus, the purpose of this article is to focus on how leaders affect creativity in organizations through their efforts to deliberately foster a work climate that supports creative thinking and acting. The study also explores how individual and organizational conditions may strengthen the relationship between leadership and a creative climate.

For several reasons, leadership has not been held to be particularly influential on creativity, at least historically (Mumford, Scott, Gaddis, and Strange, 2002). One reason for this might be that creative ideas are often attributed to the heroic individual (Jung, 2001). Another reason might be that professionalism, expertise, and autonomy, which characterize creative people, also neutralize leadership to some extent (Mumford et al., 2002). Despite this, several recently published studies clearly point out that leadership is important for creativity in many ways (Byrne, Mumford, Barrett, and Vessey, 2009; de Jong and Den Hartog, 2007; Oldham and Cummings, 1996; Tierney, Farmer, and Graen, 1999). For instance, if leaders encourage openness to new approaches or permit autonomy and risk taking, creativity is likely to follow in the organization. In line with this, if they are able to provide demanding intellectually challenging environments or build feelings of self-efficacy in followers, creativity will most certainly be the outcome. In other words, leaders' ability to orchestrate expertise, people, and relationships have recently proven to have an impact on creative behavior in organizations.

Climate studies examine peoples' perceptions of, or experiences in, their immediate work environment with respect to dimensions such as support and autonomy (Hunter, Bedell, and Mumford, 2007; Mathisen and Einarsen, 2004). The goal of this study is to test how leadership behaviors relate to a creative climate. We include two conditions that facilitate it: job autonomy as an organizational condition (Hackman and Oldham, 1976) and employees' intrinsic motivation processes as an individual condition. (Deci and Ryan, 1985, 2000). Hypotheses are tested using data from a professional service firm (PSF). In the specific context, the organization is characterized as a matrix-like structure compared to a more traditional hierarchical structure, and employees relate to several leaders that have different leadership roles. We assume that the two defined different leadership roles affect their leadership behaviors. This approach is theoretically important because it provides contextual insight into how job autonomy and intrinsic motivation contribute to a creative climate and how the two leadership roles contribute to a creative climate. Our research contributes to this special issue of Beta by exploring how leadership, individual conditions and organizational conditions may facilitate a climate for creativity, which systems, such as management control systems, can address.



THEORETICAL BACKGROUND

Creative Climate

Ekvall (1991) defines climate as the observed and recurring patterns of behavior, attitudes, and feelings that characterize life in the organization. The climate concept is used extensively in western cultures to describe aspects of the social environment. The literature on climate has focused on leaders and their attempt to focus the energies and competencies of people working in settings under their leadership (Martin, 2002). Taking advantage of meteorology, social and behavioral scientists studying organizations have adopted the climate metaphor as a theoretical construct for understanding, explaining, and describing organizational processes and their effects. It tends to be local and varied between departments and workgroups, although structural and cultural elements of the larger organization exist. Thus, organizational climate arises in the confrontation between individuals and organizational situations such as routines, rules, procedures, strategies, policies, and the physical environment.

Creativity is often related to something new, novel, or original and to something useful, relevant, and valuable. It is defined as the creation of a valuable, useful new product, service, idea, procedure, or process by individuals working together in a complex social system (Woodman, 2014, p. 472). The concept of creativity is distinct from the concept of innovation (Shalley and Gilson, 2004); however, it is often seen as a prerequisite or necessary condition for innovation (West, 2002). For instance, it has been found by Selart and Johansen (2011) that the outcome of a creative thinking style (value-focused thinking) is judged as more innovative compared to the outcome from a noncreative thinking style (alternative-focused thinking). Mumford and Gustafson (1988) reviewed the literature on creativity and innovation and argued that an individual's willingness to innovate was dependent on the climate. Ekvall (1996, 1997) has found that the creative climate concept explains innovative differences in organizations (i.e. the number of patents obtained and successes in developing new products). Farmer, Tierney, and Kung-McIntyre (2003) reported that individuals with creative role identities were more creative when they perceived the organization as valuing creativity, but these individuals showed lower levels of creativity than those with weaker creative role identities when they perceived such organizational support to be lacking. Denison (1996) evaluated ten years of organizational climate and culture research and suggested that organizational climate is something that makes us more changeable and subject to direct control by leaders, and it includes aspects of the social environment that are consciously perceived by organizational members.

Part of leadership is creating an appropriate climate where employees share and build upon each other's ideas and suggestions (Isaksen and Ekvall, 2010). Leadership behavior has been shown to impact upon the climate for creativity within an organization (Amabile, 1996; Mumford and Gustafson, 1988; Mumford et al., 2002). The usual argument is that the climate strength will moderate the relationship between the climate and the outcome of interest in such a way



that the relationship will be stronger when the climate strength is high. Recent research has provided some promising evidence in support of the moderating effect (Colquitt, Noe, and Jackson, 2002; Schneider, Salvaggio, and Subirats, 2002). In a more recent study on creative climate, Isaksen and Akkermans (2011) examined how leaders affected creativity through their efforts to foster a creative climate that supports creative thinking in 140 respondents from 103 different organizations, 31 industries, and 10 countries. A creative climate was found to mediate the relationship between leadership behavior and innovative productivity.

Although researchers have learned much about the determinants of a creative climate and the consequences and importance of it, there is a lack of research that examines the roles of leadership styles (Sundgren, Dimenäs, Gustafsson, and Selart, 2005). Byrne, Mumford, Barrett, and Vessey (2009, p. 256) say that leadership regarding innovation has received less than its fair share of attention since leadership is known to have an impact on innovation and creativity.

LEADERSHIP AND CREATIVE CLIMATE

Ekvall and Arvonen (1991) were the first to suggest that individual leadership style is a combination of three behavior patterns: change-centered, productioncentered, and employee-centered leadership. In their definition, productioncentered leadership relates to "initiating structure," and employee-centered leadership relates to "consideration" according to the classic Ohio State University studies. Ekvall and Arvonen (1991) studied a company that was constantly innovating its business ideas and had a philosophy that emphasized flexibility and development. In this context, they found a new leadership behavior that depicted a leader who created a vision, accepted new ideas, made quick decisions, encouraged cooperation, and who was not overcautious and did not stress plans that must be followed. They sent out a survey measuring middle managers' leadership in Finland, Sweden, and the US and found support for a three-factor solution in each national sample. Later, Yukl (1999) distributed a questionnaire to 318 managers in charge of 48 organizational units and found support for task-oriented behavior, relational-oriented behavior, and change-oriented behavior. Thus, Yukl, Gordon, and Taber (2002) found more support for the three categories of leadership behavior than for alternative models by using two samples. The first sample included 174 middle managers participating in a training workshop conducted by a consulting company, and the second sample included 101 MBA students who had regular jobs but attended a management course at night. Finally, Derue, Nahrgang, Wellman, and Humphrey (2011), in a meta-analytic study, found support for task-oriented behavior, relational-oriented behavior, and change-oriented behavior being important predictors of overall leader effectiveness. Recent meta-studies have found that task-oriented and relational-oriented leadership behaviors are important for work performance (Derue et al., 2011; Judge, Piccolo, and Ilies, 2004). However, relatively little is known about creative climate and its rela-



tionship to the three leader behaviors. Thus, we propose the following hypotheses:

Hypothesis 1: Task leadership behaviors will be negatively related to creative climate.

Hypothesis 2: Relational leadership behaviors will be positively related to creative climate.

Hypothesis 3: Change leadership behaviors will be positively related to creative climate.

THE ROLE OF JOB AUTONOMY

Job autonomy is important for designing work that motivates individuals to achieve high levels of performance (Hackman and Oldham, 1976). Job autonomy refers to when the job provides the employee the ability to decide how and when to carry out specific tasks. Defined, job autonomy is "the degree to which the job provides substantial freedom, independence, and discretion to the individual in scheduling the work and in determining the procedures to be used in carrying it out" (Hackman and Oldham, 1976, p. 258). Humphrey, Nahrgang, and Morgeson (2007) found in a meta-analytic study that job autonomy is positively related to job satisfaction, growth satisfaction, internal work motivation, and objective performance. In addition, Latham and Pinder (2005, p. 493) suggest that a high degree of job autonomy may allow the employee to free up time for learning and development.

It has been found that a wide range of job autonomy-oriented personality dispositions systematically covary with creative ability and creative achievement. Job autonomy can thus be seen as a cluster of personality traits (introversion, internal locus of control, intrinsic motivation, non-conformity/norm-doubting, and solitude), each of which is associated with creative performance. Amabile (1998) argues that the key to creativity is providing employees with autonomy concerning the way in which they work on strategically-driven problems to enable them to make the most of their expertise and their creative-thinking skills: "The task may end up being a stretch for them, but they can use their strengths to meet the challenge" (Amabile, 1998, p. 82). Job autonomy is, therefore, a critical condition for creativity (Amabile, 1988). Recently, it has also been established by Sundgren, Selart, Ingelgård, and Bengtson (2005) that leadership's evaluation of employees (either dialogue-based or control-based) relates to employee motivation (intrinsic or extrinsic) and to employee attitudes towards organizational creativity. We suggest that job autonomy matters to a creative climate and that leaders can design jobs to influence autonomy. Thus, we want to propose the following hypothesis:

Hypothesis 4: Job autonomy will mediate the relationship between task, relational, and change leadership behavior and creative climate.



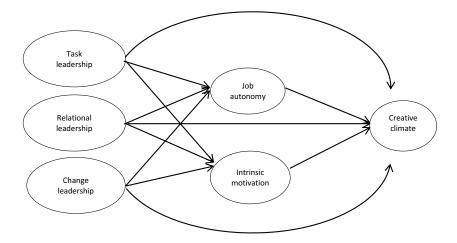
THE ROLE OF INTRINSIC MOTIVATION

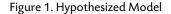
Deci (1971, p. 105) defines intrinsic motivation as the performance of an activity without apparent reward except the activity in itself. Intrinsic motivation emphasizes a person's internal behavioral motives (Deci, 1971; Deci and Ryan, 1985) as opposed to doing some task for reasons external to the self. Intrinsic motivation is a potent predictor of work performance (Deci and Ryan, 1985; Gagné and Deci, 2005; Kuvaas, 2006; Ryan and Deci, 2000) and creativity (Amabile, Conti, Coon, Lazenby, and Herron, 1996; Shalley, 1991, 1995).

Amabile (1983, 1993) suggests that an individual's intrinsic task motivation plays an important role in determining behaviors that may result in creative outcomes. Her intrinsic motivation principle of creativity specifies that intrinsic motivation (derived from interest in and enjoyment of the activity itself) is conductive to creativity, while extrinsic motivation (directed at a goal separate from the task) can be detrimental. Using similar argumentation, Csikszentmihalyi (1996) proposed that creativity arises in "autotelic" activities, where rewards stem from engagement in the activity itself, rather than from an external source. According to him, a concern for extrinsic rewards could interfere with an individual's focus and disrupt the fragile process of discovery. Recent findings confirm these observations. When individuals are intrinsically involved in their work, they are more likely to devote all of their attention to the problems they encounter (Zhang and Bartol, 2010, pp. 112-113). We suggest that leaders can facilitate employee activities that are interesting, enjoyable, and stimulating, and that intrinsic motivation promotes a creative climate. Thus, we propose the following hypothesis:

Hypothesis 5: Intrinsic motivation will mediate the relationship between task, relational, and change leadership behavior and creative climate.

Our hypotheses are reflected in the conceptual model depicted in Figure 1.







METHODS

Sample

Study participants were from a PSF in Norway. The firm is one of the largest suppliers of professional services within auditing, consultancy, and legal services. Of the 1,053 distributed questionnaires, 559 were completed—a response rate of 53%. We restricted the sample to those who work with clients, which left us with 515. Of these, 44% were women, and the average age was 36 years (SD = 9.44 years). On average, the participants had worked for the company for five years. The sample had a mean of 5.45 years (SD = 1.41 years) of university/higher education, ranging from 1 to 12 years. Among the 1,054 employees in the PSF in Norway, 68 persons are partners. The PSF has five managerial levels: partners, directors, senior managers, managers, and consultants. About 50% of the employees reported having a managerial/supervisory job. The three core areas in the PSF are 'law,' 'audit and advisory,' and 'consulting.'

The PSF is characterized by a matrix-like structure. Most activities take form in projects. Employees face situations where they have to engage with several managers. The projects are often led by a partner who has the main responsibility. All employees are also assigned a Mentor with employer responsibilities such as employee appraisal, competence, and career development. Consequently, employees have two leadership positions that are responsible for enhancing worker performance. Aligned with the structure in the company, we measured leadership behaviors from these two leadership positions to test the hypothesized model.

Measures

The questionnaire was prepared in collaboration with the HR-department, partners, and employees in the PSF. All questions asked the respondents to indicate the extent to which he/she agrees with the statement. The respondents used a 5-point response scale from strongly agree = 5 to strongly disagree = 1.

Creative climate. We measured creative climate using a 6-item short version adapted from Ekvall's (1996) creative climate instrument. For example: "Workers in the company can come up with new ideas and opinions without being criticized." The internal consistency was .70.

Leadership behaviors. We measured direct leadership and relational leadership using the new 3-item measure of initiating structure and a 3-item measure of consideration by Lambert, Teppe, Carr, Holt, and Barelka (2012) that builds on the original Leader Behavior Description Questionnaire (Stogdill, 1963). Examples of consideration are "Acting friendly and approachable," "Acting concerned for my personal welfare," and "Acting supportive when talking to me." Examples of initiating structure are "Letting me know what is expected of me," "Encouraging me to use uniform procedures," and "Maintaining defi-



nite performance standards with me." We measured change leadership behaviors using the 3-item version of intellectual stimulation from the Multifactor Leadership Questionnaire (MLQ Form 5x) (Bass and Avolio, 1995). We measured leadership behaviors by asking respondents to report on each leadership item for their Mentor and closest Partner. The internal consistency for relational, direct, and change leadership was .77, .88, and .90 by the Mentor and .83, .91, and .93 by the Partner.

Job autonomy. We measured job autonomy using the 3-item version of Hackman and Oldham's (1975) dimensions of autonomy. Sample items are: "I can choose work tasks," "I can choose the way I conduct the work tasks," and "I have great freedom to think and act independently of others." The internal consistency was .80.

Intrinsic motivation. We measured intrinsic motivation using the 3-item version by Ryan and Connell (1989). The three items for intrinsic motivation were "I enjoy the work itself," "I find the work engaging," and "I enjoy it." The internal consistency was .92.

ANALYSES

The data were analyzed in several phases. First, we conducted a confirmatory factor analysis (CFA) on the above six measures to examine their construct validity. Individual items were used as observed indicators. Since we measured two leadership positions using the same leadership behavioral constructs, we ran two independent models: one with the Mentor as the leader source and one with the Partner as the leader source. The two hypothesized six-factor measurement models consisting of leader behaviors, job autonomy, intrinsic motivation, and creative climate fit the data well (($\chi^2_{Mentor}(174) = 325.752; p \le .001; \chi^2/df = 1.87; CFI = .98; RMSEA = .04; SRMR = .03)$ and ($\chi^2_{Partner}(174) = 436.440; p \le .001; \chi^2/df = 2.51; CFI = .96; RMSEA = .05; SRMR = .04)$).

Second, we conducted a comparative test to examine the difference in leadership behaviors in terms of the two leadership positions. Third, we conducted a linear regression analysis where the dependent variable was creative climate. Fourth, we conducted the structure equation model using MPLUS to test the hypothesized model and the mediating mechanisms.



RESULTS

TABLE 1 DESCRIPTIVE STATISTICS AND CORRELATIONS OF STUDIED VAR-IABLES

	Ν	М	SD	1	2	3	4	5	6	7	8
					Me	ntor					
1. Gender	558	1.54	.50	1							
2. Tenure	558	5.55	7.01	.11	1						
3. Task Mentor	540	3.55	.91	03	07	(.77)					
4. Relation Mentor	545	4.27	.79	02	03	.48**	(.88)				
5. Change Mentor	508	3.68	.93	.01	02	.64**	.57**	(.90)			
6. Job Autonomy	558	3.47	.85	.19**	.27**	.02	.12**	.12**	(.80)		
7. Intrinsic motivation	558	3.95	.81	.06	.13**	.17**	.23**	.25**	.39**	(.92)	
8. Creative Climate	556	3.96	.70	.07	.03	.35**	.39**	.45**	.29**	.42**	(.70)
					Par	tner					
1. Gender	558	1.54	.50	1							
2. Tenure	558	5.55	7.01	.11*	1						
3. Task Partner	539	3.36	.85	.04	06	(.83)					
4. Relation Partner	545	4.12	.81	.06	04	.43**	(.91)				
5. Change Partner	526	3.68	.90	.01	04	.55**	.50**	(.92)			
6. Job Autonomy	558	3.47	.85	.19**	.27**	.08	.20**	.18**	(.80)		
7. Intrinsic motivation	558	3.95	.81	.06	.13**	.25**	.26**	.29**	.39**	(.92)	
8. Creative Climate	556	3.96	.70	.07	.03	.35**	.43**	.50**	.29**	.42**	(.70)

Notes: Gender: 1 = male; 2 = female.

TABLE 2: COMPARATIVE DISTRIBUTIONS OF LEADERSHIP STYLES

Leadership styles	M	SE	<u>)</u>				
Leadership styles	Mentor	Partner	Mentor	Partner	T-value	DF	Sig.
Task Leadership	3.54	3.35	.91	.85	-6.16	522	.00
Relational Leadership	4.27	4.12	.79	.81	-5.40	531	.00
Change Leadership	3.68	3.68	.93	.89	16	491	.87

Notes: 7 = very important, 1 = not important; SD (standard deviation): twotailed.

Table 1 proves the descriptive statistics and correlations among the study and control variables. As shown in the diagonal of this table, each study variable has an acceptable degree of internal consistency reliability. Correlations among the study variables are generally consistent with prior research with respect to their direction and magnitude. Table 2 presents the comparative distributions for the three leadership behaviors. They highlight leadership behavior differences for Mentor and Partner. Interestingly, the Mentor has significantly higher scores on task leadership and relational leadership than the Partner. Change leadership positions. Tables 3 and 4 report the ΔR^2 s and related F-values for each step in the hierarchical regression analysis.



	Creative Climate				
	Step 1	Step 2	Step 3		
Gender	.06	.06	.01		
Tenure	.03	.07	01		
Mentor's task leadership		.06	.09		
Mentor's relational leadership		.21**	.17**		
Mentor's change leadership		.30**	.22**		
Job autonomy			.15**		
Intrinsic motivation			.25**		
Adjusted R ²	.001	.237	.332		
ΔR^2	.006	.240	.097		
F	1.283	29.815**	33.937**		
ΔF	1.283	48.572**	33.641**		

TABLE 3: RESULTS FOR REGRESSION ANALYSES-MENTOR

Note. Standardized regression coefficients are shown * p < .05. ** p < .01.

	Creative Climate			
	Step 1	Step 2	Step 3	
Gender	.07	.04	.02	
Tenure	.02	.05	01	
Partner's task leadership		.06	.04	
Partner's relational leadership		.25**	.20**	
Partner's change leadership		.35**	.28**	
Job autonomy			.09*	
Intrinsic motivation			.25**	
Adjusted R ²	.001	.293	.362	
ΔR^2	.005	.296	.071	
F	1.175	41.153**	40.224**	
ΔF	1.175	67.481**	26.812**	

Note. Standardized regression coefficients are shown * p < .05. ** p < .01.

As Table 3 shows, the Mentor's task leadership did not predict a creative climate, in support of hypothesis 1. For hypothesis 2, the Mentor's relational leadership predicted a creative climate ($\beta = .21, p < .01$). For hypothesis 3, the Mentor's change leadership behavior predicted a creative climate ($\beta = .30, p < .01$). As seen in Table 3, the Partner's task leadership did not predict a creative climate, in support of hypothesis 1. For hypothesis 2, the Partner's relational leadership predicted a creative climate ($\beta = .25, p < .01$). For hypothesis 3, change leadership behavior predicted a creative climate ($\beta = .35, p < .01$). In both analyses of the Mentor's and Partner's leadership behavior (tables 2 and 3), job autonomy was found to predict a creative climate ($\beta_{Mentor} = .15, p < .01$; $\beta_{Partner} = .09, p < .05$), thus, in support of hypotheses 4. Finally, intrinsic motivation was found to predict a creative climate ($\beta_{Mentor} = .25, p < .01$; $\beta_{Partner} = .25, p < .01$), in support of hypothesis 5.



84 LEADERSHIP DRIVERS OF ORGANIZATIONAL CREATIVITY: A PATH MODEL OF CREATIVE CLIMATE IN A PROFESSIONAL SERVICE FIRM | ALEXANDER MADSEN SANDVIK, BJARNE ESPEDAL AND MARCUS SELART

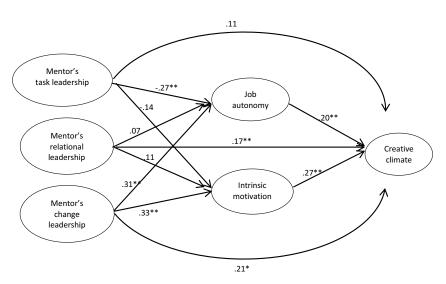


Figure 2. Mentor's Proposed Model of Leadership and Motivational Effects

Hypotheses 4 and 5 included a test of the hypothesized Structural Equation Modelling (SEM) model. We assessed the fit of the structural model in Figure 1 by adding the predicted paths to the measurement model. The Mentor's SEM model results suggested that the hypothesized model fit the data well ($\chi^2(175)$ = 396.410; χ^2/df = 2.27, $p \le .001$; CFI = .97; RMSEA = .05; SRMR = .06). Figure 2 presents the overall structural model with path coefficients for the Mentor's leadership behavior and creative climate. The Mentor's SEM model showed that task leadership behavior is negatively related to job autonomy (β = -.27, p < .01) and that change leadership behavior is positively related to job autonomy (β = .31, p < .01) and intrinsic motivation (β = .33, p < .01). Job autonomy showed a positive relationship to creative climate (β = .20, p < .01), and intrinsic motivation showed a positive relationship to creative climate (β = .27, p < .01).

Hypothesis 4 states that job autonomy will mediate the relationship between leadership behavior and creative climate. The model supported the indirect effects in hypothesis 4, in which autonomy mediated the relationship between the Mentor's task leadership behavior and creative climate ($\beta = -.06, p < .05$) and between the Mentor's change leadership behavior and creative climate ($\beta = .06, p < .03$). Hypothesis 5 states that intrinsic motivation mediated the relationship between leadership behavior and creative climate. The model supported the indirect effects in hypothesis 5, in which intrinsic motivation mediated the relationship between the Mentor's change leadership behavior and creative climate.



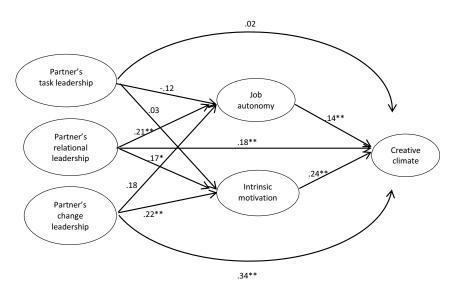


Figure 3. Partner's Proposed Model of Leadership and Motivational Effects

Regarding the second leader source, the Partner's SEM results suggested that the hypothesized model fit the data well ($\chi^2(175) = 499.365$; $\chi^2/df = 2.85$, $p \le .001$; CFI = .95; RMSEA = .06; SRMR = .07). Figure 3 presents the overall structural model with path coefficients for the Partner's leadership behavior and creative climate. The Partner's SEM model showed that relational leadership behavior is positively related to job autonomy ($\beta = .21$, p < .01) and intrinsic motivation ($\beta = .17$, p < .05), and the Partner's change leadership behaviors showed a positive relationship to intrinsic motivation ($\beta = .22$, p < .01). In addition, autonomy showed a positive relationship to creative climate ($\beta = .14$, p < .01), and intrinsic motivation showed a positive relationship to creative climate ($\beta = .24$, p < .01).

Hypothesis 4 states that job autonomy will mediate the relationship between leadership behavior and creative climate. The model did not support the indirect effects in hypothesis 4, in which job autonomy mediated the relationship between the Partner's leadership behavior and creative climate. Hypothesis 5 states that intrinsic motivation will mediate the relationship between leadership behavior and creative climate. The model supported the indirect effects in hypothesis 5, in which intrinsic motivation mediated the relationship between the Partner's relational leadership behavior and creative climate ($\beta = .04, p < .04$) and the relationship between the Partner's change leadership behavior and creative climate ($\beta = .05, p < .02$).

DISCUSSION

Traditionally, the perspective of leadership research has been to examine the leadership behaviors of the immediate superior (leader) of a given set of employees (followers). However, the professional service firm studied here used a matrix and project-based structure that caused followers to have several



immediate leaders responsible for the followers' behaviors and performance. We expected that the two company-defined leadership roles may vary regarding the three types of leadership behaviors. Our central objective was to examine how and under which conditions two distinct set of leadership roles influence individual and organizational conditions for developing a working atmosphere or a climate that supports creativity. Findings indicate that the Mentor and Partner have different leadership roles. Using a descriptive survey allows us to conclude that organizational structure is important for a leader's ability to create a climate that supports creativity.

Our findings contribute to the creativity and leadership literature in three ways. First, the results show that the Mentor and Partner have different leadership roles. For example, task leader behaviors and relational leader behaviors differentiated when comparing the two leadership positions. In order to explore this more closely, we inspected the two SEM models that show that the two leadership positions have different relationships to job autonomy and intrinsic motivation. For example, the Mentor's strongest relationships are through task-related and change-related behavior, while the Partner's most important relationships are through relational and change behaviors. We believe that this finding has significant implications for leadership research.

Second, our study shows that relational and change leadership behaviors are important for leaders when creating a climate that supports creativity (Derue et al., 2011; Ekvall and Arvonen, 1991; Yukl, 1999; Yukl et al., 2002). The results showed that the Mentor should be cautious when using task-related behaviors and should instead use more change and relational leadership behaviors. The results also showed that the Partner should use relational and change leadership behaviors to enhance a creative climate.

Third, in this study we also tested a model where job autonomy and intrinsic motivation were used as tools for explaining the relationship between leadership behaviors and creative climate. The results showed that both job autonomy and intrinsic motivation are important for enhancing creative climate, as predicted by the literature (Amabile, 1983; Csikszentmihalyi, 1996; Ekvall, 1991; Zhang and Bartol, 2010).

Our findings suggest some practical implications in terms of the leadership behaviors of the Mentor and Partner being complementary. Organizations that are project-based and with a matrix structure should consider developing team leadership among their leaders. For example, regulatory employee surveys and 360-degree feedback systems should include content that captures the various leadership roles and their effects on follower performance.

There are several limitations on our research that should be acknowledged. First, because we employed a correlation research design, we cannot verify the causal relationships of the study variables. We used theory to propose the



causal relationships. However, the literature recommends longitudinal or experimental designs to test the causality in our model.

Second, the model cannot claim to represent how the organization actually functions. The reason is that it is difficult for a simplified and constrained model in terms of linear relationships to capture such a complex construction as an organization. For instance, the methodology involves a multi-level problem that involves both organizational and individual aspects of creative climate at the individual level only. Thus, the model merely serves the purpose of being an analytical tool for empirically investigating which relationships hold and which do not hold.

A third limitation is that we used employed survey methods to measure all the variables in the study, and, consequently, we cannot rule out common-method bias as a potential threat to the validity of our study variables. However, we have ensured that there is variation among the study variables.

REFERENCES

- Amabile, T. M. (1983). The social psychology of creativity: A componential conceptualization. *Journal of Personality and Social Psychology*, *45*(2), 357-376. doi: 10.1037/0022-3514.45.2.357
- Amabile, T. M. (1988). A model of creativity and innovation in organizations. In B. M. Staw and L. L. Cummings (Eds.), *Research in Organizational Behavior* (Vol. 10, pp. 123-167). Greenwich, CT: JAI Press.
- Amabile, T. M. (1993). Motivational synergy: Toward new conceptualizations of intrinsic and extrinsic motivation in the workplace. *Human Resource Management Review*, *3*(3), 185-201. doi: http://dx.doi.org/10.1016/1053-4822(93)90012-S.
- Amabile, T. M. (1996). *Creativity in context: Update to the social psychology of creativity.* Boulder, Colo.: Westview Press.
- Amabile, T. M. (1998). How to kill creativity. [Article]. *Harvard Business Review*, 76(5), 76-87.
- Amabile, T. M., Conti, R., Coon, H., Lazenby, J., and Herron, M. (1996). Assessing the work environment for creativity. [Article]. *Academy of Management Journal*, 39(5), 1154-1184.
- Bass, B. M., and Avolio, B. (1995). Transformational leadership development: Manual for the Multifactor Leadership Questionnaire. Palo Alto, CA: Consulting Psychologists Press.
- Byrne, C. L., Mumford, M. D., Barrett, J. D., and Vessey, W. B. (2009). Examining the Leaders of Creative Efforts: What Do They Do, and What Do They Think About?
 [Article]. *Creativity and Innovation Management, 18*(4), 256-268. doi: 10.1111/j.1467-8691.2009.00532.x
- Colquitt, J. A., Noe, R. A., and Jackson, C. L. (2002). Justice in teams: Antecedents and consequences of procedural justice climate. *Personnel Psychology*, *55*(1), 83-109. doi: 10.1111/j.1744-6570.2002.tb00104.x
- Csikszentmihalyi, M. (1996). *Creativity: flow and the psychology of discovery and invention*. New York: HarperCollins.
- de Jong, J. P. J., and Den Hartog, D. N. (2007). How leaders influence employees' innovative behaviour. *European Journal of Innovation Management*, 10(1), 41–64.



Deci, E. L. (1971). Effects of externally mediated rewards on intrinsic motivation. *Journal* of *Personality and Social Psychology*, 18(1), 105-115.

- Deci, E. L., and Ryan, R. M. (1985). *Intrinsic motivation and self-determination in human behavior*. New York: Plenum.
- Deci, E. L., and Ryan, R. M. (2000). The 'What' and 'Why' of Goal Pursuits: Human Needs and the Self-Determination of Behavior. *Psychological Inquiry*, *11*(4), 227.

Denison, D. R. (1996). What IS the difference between organizational culture and organizational climate? A native's point of view on a decade of paradigm wars. *The Academy of Management Review*, *21*(3), 619-654.

- Derue, D. S., Nahrgang, J. D., Wellman, N., and Humphrey, S. E. (2011). Trait and behavioral theories of leadership: An integration and meta-analytic test of their relative validity. *Personnel Psychology*, *64*(1), 7-52. doi: 10.1111/j.1744-6570.2010.01201.x
- Ekvall, G. (1991). The organizational culture of idea-management: A creative climate for the management of ideas. In J. Henry and D. Walker (Eds.), *Managing innovation* (pp. 73-79). London: Sage.

Ekvall, G. (1996). Organizational climate for creativity and innovation. *European Journal* of Work and Organizational Psychology, 5(1), 105-123.

- Ekvall, G. (1997). Organizational Conditions and Levels of Creativity. *Creativity and Innovation Management*, 6(4), 195-205. doi: 10.1111/1467-8691.00070
- Ekvall, G., and Arvonen, J. (1991). Change-centered leadership: An extension of the twodimensional model. *Scandinavian Journal of Management*, 7(1), 17-26. doi: http:// dx.doi.org/10.1016/0956-5221(91)90024-U.
- Farmer, S. M., Tierney, P., and Kung-McIntyre, K. (2003). Employee creativity in Taiwan: An application of role identity theory. [Article]. *Academy of Management Journal*, 46(5), 618-630.
- Gagné, M., and Deci, E. L. (2005). Self-determination theory and work motivation. *Journal* of Organizational Behavior, 26(4), 331-362.
- Hackman, J. R., and Oldham, G. R. (1975). Development of the Job Diagnostic Survey. *Journal of Applied Psychology*, 60(2), 159-170.
- Hackman, J. R., and Oldham, G. R. (1976). Motivation through the design of work: test of a theory. *Organizational Behavior and Human Performance*, *16*(2), 250-279.
- Humphrey, S. E., Nahrgang, J. D., and Morgeson, F. P. (2007). Integrating motivational, social, and contextual work design features: A meta-analytic summary and theoretical extension of the work design literature. *Journal of Applied Psychology*, 92(5), 1332– 1356.
- Hunter, S. T., Bedell, K. E., and Mumford, M. D. (2007). Climate for Creativity: A Quantitative Review. *Creativity Research Journal*, 19(1), 69-90. doi: 10.1080/ 10400410709336883
- Isaksen, S. G., and Akkermans, H. J. (2011). Creative climate: A leadership lever for innovation. *The Journal of Creative Behavior*, *45*(3), 161-187.
- Isaksen, S. G., and Ekvall, G. (2010). Managing for innovation: The two faces of tension in creative climates. *Creativity and Innovation Management*, *19*(2), 73-88.
- Judge, T. A., Piccolo, R. F., and Ilies, R. (2004). The forgotten ones?: The validity of consideration and initiating structure in leadership research. *Journal of Applied Psychology*, 89(1), 36–51.
- Jung, D. I. (2001). Transformational and Transactional Leadership and Their Effects on Creativity in Groups. *Creativity Research Journal*, 13(2), 185-195. doi: 10.1207/ s15326934crj1302_6
- Kuvaas, B. (2006). Performance appraisal satisfaction and employee outcomes: mediating and moderating roles of work motivation. *International Journal of Human Resource Management*, 17(3), 504-522.



- Lambert, L. S., Teppe, B. J., Carr, J. C., Holt, D. T., and Barelka, A. J. (2012). Forgotten but Not Gone: An Examination of Fit Between Leader Consideration and Initiating Structure Needed and Received. [Article]. *Journal of Applied Psychology*, 97(5), 913-930. doi: 10.1037/a0028970
- Latham, G. P., and Pinder, C. C. (2005). Work motivation theory and research at the dawn of the twenty-first century. [Article]. *Annual Review of Psychology*, *56*(1), 485-516. doi: 10.1146/annurev.psych.55.090902.142105
- Martin, J. (2002). *Organizational culture: mapping the terrain*. Thousand Oaks, Calif.: Sage Publications.
- Mathisen, G. E., and Einarsen, S. (2004). A Review of Instruments Assessing Creative and Innovative Environments Within Organizations. *Creativity Research Journal*, 16(1), 119-140. doi: 10.1207/s15326934crj1601_12
- Mumford, M. D., and Gustafson, S. B. (1988). Creativity syndrome: Integration, application, and innovation. *Psychological Bulletin*, *103*(1), 27-43.
- Mumford, M. D., Scott, G. M., Gaddis, B., and Strange, J. M. (2002). Leading creative people: Orchestrating expertise and relationships. *The Leadership Quarterly*, *13*(6), 705-750.
- Oldham, G. R., and Cummings, A. (1996). Employee Creativity: Personal and Contextual Factors at Work. *The Academy of Management Journal*, *39*(3), 607-634.
- Ryan, R. M., and Connell, J. P. (1989). Perceived locus of causality and internalization: Examining reasons for acting in two domains. *Journal of Personality and Social Psychology*, 57(5), 749-761. doi: 10.1037/0022-3514.57.5.749
- Ryan, R. M., and Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist*, 55(1), 68-78. doi: 10.1037/0003-066x.55.1.68
- Schneider, B., Salvaggio, A. N., and Subirats, M. (2002). Climate strength: A new direction for climate research. [Article; Proceedings Paper]. *Journal of Applied Psychology*, 87(2), 220-229. doi: 10.1037//0021-9010.87.2.220
- Selart, M., and Johansen, S. T. (2011). Understanding the Role of Value-Focused Thinking in Idea Management. *Creativity and Innovation Management*, *20*(3), 196-206. doi: 10.1111/j.1467-8691.2011.00602.x
- Shalley, C. E. (1991). Effects of productivity goals, creativity goals, and personal discretion on individual creativity. *Journal of Applied Psychology*, 76(2), 179-185. doi: 10.1037/ 0021-9010.76.2.179
- Shalley, C. E. (1995). Effects of coaction, expected evaluation, and goal setting on creativity and productivity. [Article]. *Academy of Management Journal*, *38*(2), 483-503.
- Shalley, C. E., and Gilson, L. L. (2004). What leaders need to know: A review of social and contextual factors that can foster or hinder creativity. *The Leadership Quarterly*, 15(1), 33-53. doi: http://dx.doi.org/10.1016/j.leaqua.2003.12.004.
- Stogdill, R. M. (1963). *Manual for the Leader Behavior Description Questionnaire-Form XII*. Columbus: Bureau of Business Resaearch, Ohio State University.
- Sundgren, M., Dimenäs, E., Gustafsson, J.-E., and Selart, M. (2005). Drivers of organizational creativity: a path model of creative climate in pharmaceutical RandD. *RandD Management*, 35(4), 359-374. doi: 10.1111/j.1467-9310.2005.00395.x
- Sundgren, M., Selart, M., Ingelgård, A., and Bengtson, C. (2005). Dialogue-Based Evaluation as a Creative Climate Indicator: Evidence from the Pharmaceutical Industry. *Creativity and Innovation Management*, 14(1), 84-98. doi: 10.1111/j.1476-8691.2005.00328.x
- Tierney, P., Farmer, S. M., and Graen, G. B. (1999). An examination of leadership and employee creativity: The relevance of traits and relationships. *Personnel Psychology*, *52*(3), 591.



- West, M. A. (2002). Sparkling fountains or stagnant ponds: An integrative model of creativity and innovation implementation in work groups. *Applied Psychology: An International Review*, *51*(3), 355-387.
- Woodman, R. W. (2014). The science of organizational change and the art of changing organizations. *Journal of Applied Behavioral Science*, *50*(4), 463-477.
- Yukl, G. (1999). An Evaluative Essay on Current Conceptions of Effective Leadership. *European Journal of Work and Organizational Psychology*, 8(1), 33-48. doi: 10.1080/ 135943299398429
- Yukl, G., Gordon, A., and Taber, T. D. (2002). A Hierarchical Taxonomy of Leadership Behavior: Integrating a Half Century of Behavior Research. [Article]. *Journal of Leadership and Organizational Studies (Baker College)*, 9(1), 15-32.
- Zhang, X., and Bartol, K. M. (2010). Linking empowering leadership and employee creativity: The influence of psychological empowerment, intrinsic motivation, and creative process engagement. *Academy of Management Journal*, *53*(1), 107-128.

