

Transformational leadership as an antecedent of change-oriented organizational citizenship behavior

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Abstract

This study draws on a general framework of proactive motivation to propose and test a model that evaluates the influence of the individualized consideration dimension of transformational leadership and organizational climate on change-oriented organizational citizenship behavior. In this model, individuals' cognitive emotional states (role breadth self-efficacy and felt responsibility for constructive change) act as mediating variables. For the first time in the literature, this paper develops a model of leadership and organizational climate antecedents of organizational citizenship behavior. Using a sample of 602 Spanish employees with higher education, the structural equation modeling indicates that the proposed model fits reasonably well to the data. Research results show that all hypotheses are significant, thus confirming the results of previous research that finds mediated relations between transformational leadership and other dimensions of organizational citizenship behavior.

Keywords: change-oriented organizational citizenship behavior, cognitive-motivational states, innovative climate

1. Introduction

In the last three decades, researchers have paid a great amount of attention to the concept of organizational citizenship behavior (OCB) (Podsakoff, Mackenzie, Paine & Bachrach, 2000). Currently, researchers consider that OCB is a multidimensional construct, covering different facets of discretionary behavior not directly related with job content behaviors (Podsakoff *et al.*, 2000). Such behaviors can fall into two broad groups: affiliative and challenging OCB (Bettencourt, 2004; Williams and Nadin, 2012). The affiliative dimensions of OCB are behaviors that promote group cohesion, maintaining existing working relationships or arrangements. According to Choi (2007), these affiliative dimensions are helping behavior, sportsmanship, organizational loyalty, civic virtue, and self-development. The challenging OCB encompasses “voluntary act[s] of creativity and innovation designed to improve one’s task or the organization’s performance” (Podsakoff *et al.*, 2000: 524), thus fostering organizational change. An ongoing stream of literature, mostly grounded in social exchange theory, examines the antecedents of the affiliative OCB. The results of empirical research show that affiliative OCB relates with organizational leadership

(Kwan, Lui and Yim, 2012, Wang, Law, Hackett, Wang and Chen, 2005), supervisor trust building (Deluga, 1994) and procedural justice (Karriker and Williams, 2009; Williams and Gurtoo, 2012). Organizational- and leader-member exchange are two elements that act as mediators of the relationship between these constructs and OCB. Only a few pieces of research examine the antecedents of challenging OCB (for example, Choi, 2007), and in particular change-oriented OCB.

Considering LePine and Van Dyne's (2001:326) definition of voice, conceptualized as "constructive change-oriented communication intended to improve the situation" and Morrison and Phelps' (1999: 403) definition of taking charge, which refers to those "voluntary and constructive efforts to affect organizationally functional change", Choi (2007) re-elaborates the change-oriented OCB definition offered by Bettencourt (2004). According to Choi, change-oriented OCB refers to the "constructive efforts by individuals to identify and implement changes with respect to work methods, policies, and procedures to improve the situation and performance" (Choi, 2007: 469).

Extant research on OCB focuses mainly on the affiliative dimensions of the construct (Bettencourt, 2004). In spite of their potential as drivers of organizational change, the challenging dimensions of OCB receive little attention by researchers in

works published to date (Ashworth, 2012; Choi, 2007; Datta, 2012). In this regard, and noting that few authors establish some of the possible antecedents of change-oriented OCB (e.g. Bettencourt, 2004; Choi, 2007), this research aims at examining proactive behaviors in the field of organizational citizenship behavior. More specifically, this research is one of the first attempts to propose and test a model centered on transformational leadership and organizational climate as mediated antecedents of change-oriented organizational citizenship behavior, through their direct impact upon individuals' cognitive-emotional states. This model draws upon Parker, Bindl and Strauss' (2010) model of proactive motivation and the extant research that recognizes the importance of transformational leadership and innovative organizational climate upon this type of behavior (e.g., Bettencourt, 2004; Choi, 2007; Scott and Bruce, 1994; Waikayi, Fearon, Morris and McLaughlin, 2012).

2. Theoretical framework and hypotheses

People are not always passive recipients of environmental constraints on their behavior; rather they can intentionally and directly change their current circumstances (Crant, 2000). Fuller, Marler and Hester (2006) suggest that access to strategic

information and resources can provide opportunities for individuals to adopt change-oriented behaviors, but only some of them can respond to this opportunity. The builders of proactive behaviors, such as change-oriented OCB, can be individual characteristics, leadership and organizational climate.

According to the interactionist perspective, certain situational factors can trigger personality traits that reside in individuals. Therefore, such traits are essential to understanding the situational factors that interfere with proactive work behavior (Fuller and Marler, 2009). Nevertheless, Mumford and Gustafson (1988) argue that, even if individuals develop their ability to innovate, their beliefs about the consequences of such actions in a given environment can condition their willingness to make productive efforts. In this context, both leadership and one's perception regarding organizational climate become increasingly important.

According to Parker, Bindl & Strauss (2010), some traits of the individual, such as personality, work context, and the interaction between these two traits, influence behavior through motivational states. Contextual factors, namely organizational climate and leadership, motivate individuals to undertake actions entailing a high potential risk, generating on organizational members cognitive-motivational states that drive them to undertake change-oriented behaviors (Dutton & Ashford, 1993).

2.1. Role breadth self-efficacy (RBSE)

Self-efficacy is important when engaging in proactive behaviors, as these behaviors entail certain psychological risks for individuals. Individuals who are confident in their capabilities are more prone to consider that their actions will be successful, and therefore assume the risk of being proactive (Chen and Chang, 2012; Griffin, Mason & Parker, 2010; Morrison & Phelps, 1999; Parker, Williams & Turner, 2006). Self-efficacy beliefs link with high levels of taking charge (Morrison & Phelps, 1999) and self-initiative (Frese, Garst & Fay, 2007), both these constructs being similar to change-oriented citizenship behaviors.

Role breadth self-efficacy (RBSE) refers to employees' perceived capability of carrying out a broader and more proactive set of work tasks that extends beyond prescribed technical requirements (Parker, 1998; Vences, Cepeda-Carrión and Chin, 2012). Extant research reports that RBSE is a strong predictor of behaviors such as suggestion making (Axtell, Holman, Unsworth, Wall, Waterson & Harrington, 2000), proactive behavior (Ohly & Fritz, 2007), and proactive problem solving (Parker et al., 2006). Additionally, RBSE is an important predictor of employees' innovation (Axtell

et al., 2000; Siegel and Renko, 2012) and proactive performance (Griffin, Parker & Neal, 2002). Various studies indicate that self-efficacy is an important predictor of two types of proactive behavior: personal initiative and taking charge (Morrison & Phelps, 1999). In light of these findings, authors suggest that role breadth self-efficacy is an important explanatory variable to consider when engaging in change-oriented citizenship behaviors.

H1: A positive relationship exists between an individual's role breadth self-efficacy (RBSE) and his / her change-oriented OCB.

2.2. Felt responsibility for constructive change (FRCC)

Constructive change-oriented behavior is likely to arise from the psychological state of feeling responsible for constructive change (FRCC), which refers to “an individual's belief that he or she is personally obligated to bring about constructive change” (Morrison & Phelps, 1999: 407). Morrison and Phelps (1999) argue that a positive relationship exists between feeling responsible for constructive change and taking-charge. Fuller et al. (2006) analyze the antecedents of proactive behaviors, defined as constructive, change-oriented communications (voice behavior) and proactive role performance (continuous improvement), and their research findings

indicate that a positive relationship exists between proactive personality and both behaviors, based on an individual's access to resources, access to strategic information, and felt-responsibility to change. Finally, Choi's (2007) results show that psychological empowerment and felt responsibility to change act as mediators in the relationship between change-oriented OCB and the antecedents included in his study.

H2: A positive relationship exists between an individual's felt responsibility for constructive change and his or her change-oriented OCB.

Felt responsibility for constructive change is a proactive mechanism, that explains the psychological process in which structural and socio-structural factors influence proactive behavior. However, Parker and Turner (2002) argue that proactive motivation not only implies willingness to put more effort in, but also willingness to proactively and flexibly apply this effort. Felt-responsibility for constructive change is a more dynamic concept compared with felt responsibility for the execution of assigned tasks. Consequently, FRCC is a malleable psychological state, which reflects the will to exert a greater effort, generate an improvement, develop new procedures, and correct problems in a constructive way that favors the organization. Besides being able to do something (RBSE is a motivational state that makes individuals believe they can do things), a motivational state that drives individuals to believe that they

have a reason to do something, such as FRCC is also necessary. Individuals may feel able to improve the working methods, but have no compelling reason to do so. Therefore, they need to want to be proactive or see value associated with being proactive to change a particular target (Parker, Bindl & Strauss, 2010).

H3: An individual's felt responsibility to change (FRCC) partially mediates the relation between role breadth self-efficacy (RBSE) and change-oriented OCB.

2.3. Transformational leadership: individualized consideration

The true essence of transformational leadership is that these leaders cause followers to go beyond expectations (Podsakoff, MacKenzie, Moorman & Fetter, 1990; Vega-Vazquez, Cossio and Martin-Ruiz, 2012). As a result, transformational leadership has an important impact upon extra-role performance and organizational citizenship behaviors.

Individualized consideration, a component of transformational leadership, may concentrate on changing followers' motives, moving them to consider not just their self-interests but also the moral and ethical implications of their actions and goals. The net effect on the individuals is to re-examine priorities among their needs,

aspirations for achievement and impending challenges (Avolio & Bass, 1995; Vila, Perez and Morillas, 2012). These considerations stress the need of examining the relation between the two individualized consideration dimensions of transformational leadership (supportive and developmental leadership) and change-oriented citizenship behaviors.

According to Rafferty and Griffin (2006) transformational leaders will display a number of developmentally-oriented behaviors, including coaching followers, identifying appropriate training courses for followers to undertake and encouraging followers to develop their job-related skills and abilities, in order to foster their self-confidence on undertaking a wide range of proactive tasks. Their research findings indicate that developmental leadership will display a significant positive relationship with RBSE, while the relation between supportive leadership and RBSE does not receive support in their study. Similarly, Choi (2007) indicates that supportive leadership does not promote change-oriented citizenship behaviors.

Therefore, development leadership plausibly contributes to building followers' self-confidence and personal development, thus enhancing their feeling of being able to perform a range of tasks beyond prescribed technical requirements (Fuller et al., 2006).

H4: A positive relationship exists between developmental leadership and role breadth self-efficacy.

H5: No relationship exists between supportive leadership and role breadth self-efficacy.

2.4. Innovative climate

Choi (2007) indicates that a relationship exists between innovative climate and change oriented OCB, which tends to challenge the *status quo* and disrupt the interpersonal relations and work processes endorsed by others; unlike affiliative or supported behavior, which superiors and colleagues regard positively since such behavior supports existing work relationships. For this reason, employees may need to feel protected and encouraged by the organization when they take risks in suggesting improving work procedures.

A climate that offers enough social and material resources for supporting change and innovation is likely to promote change-oriented OCB. Fuller et al. (2006) suggest that access to resources and strategic information constitutes an opportunity for individuals to adopt change-oriented OCB. Various researchers assume that the availability of resources is a key antecedent of innovative behavior (e.g., Scott &

Bruce, 1994). Organizational members can interpret access to resources as a signal of an organization's confidence in individuals, although these resources may be available due to other reasons, such as firm slack. Thus, as employees believe they have the authority to use resources to solve problems, experiment, suggest work-related improvements and take advantage of new opportunities, they are likely to feel personal responsibility for constructive change.

H6: A positive relationship exists between innovative climate (resources availability) and an individual's felt responsibility for constructive change

The existing literature suggests that an innovative climate provides a cognitive structure for generating ideas and fostering the actions directed at implementing those ideas, while demonstrating acceptance and appreciation for the creative efforts of the individual (Mumford and Gustafson 1988). In this sense, not only the resources offered by the organization are important, but also the organizations' support for such actions.

Morrison and Phelps (1999) suggest that the management support for promoting an innovative organizational climate is important for individuals in order to display actions directed toward change. Organizational climate should provide support to such actions, since change-oriented behavior entails quite a high potential for psychological

risk to the individual (Dutton and Ashford, 1993).

H7: A positive relationship exists between innovative climate and an individual's role breadth self-efficacy (RBSE).

3. Methodology

3.1. Sample

The study collected research data using a web-based survey. The authors sent a link to the questionnaire to a sample of Spanish employees with higher education. The authors targeted informants with higher education in order to ensure that the informants interpret the questionnaire items correctly. Subsequently, 620 respondents submitted the surveys. After handling the missing data, the number of received questionnaires suitable for use stands at 602.

The average age of the respondents (50% women and 50% men) is 41.40 years old (SD=10). They represent a diverse set of sectors: agriculture (1.80 %), industry (16.16%), and services and education (53.84%). 28.20% of the informants did not provide information about their sector, marking this field as "other". In terms of the highest level of education achieved, the distribution was the following: Bachelor's degree (60.5%) technical degree (32.4%), and PhD (7.1%). In order to assess the

significance of demographic variables, the authors perform regressions with organizational change OCB as the dependent variable and sectorial and educational dummy variables as independent variables. Any regression coefficient on these models is significant, so the results are valid for all examined sectors and education levels.

3.2. Measurement

The measure of change-oriented organizational citizenship behavior is the 4-item scale developed by Choi (2007) with a Cronbach's alpha of 0.83 (sample item: *I frequently come up with new ideas or new work methods to perform my task*).

The measure of felt responsibility for constructive change is Morrison and Phelps' (1999) scale (reported Cronbach's alpha 0.80) (sample item: *I feel a personal sense of responsibility to bring about change at work*). Exploratory factor analysis provides the selection of those items with a higher factor loading, which are the three non-reverted items (Nunnally, 1978; Schriesheim, Eisenbach & Hill, 1991).

Authors constructed the measure of role breadth self-efficacy using items from Parker's (1998) scale, which reports an alpha coefficient of 0.96 (sample item: *I feel confident to resending information to a group of colleagues*) is the source for the

construction of role breadth self-efficacy scale. Since any of the Parker's scale items is specific to any industry or profession, the first five out of the initial ten comprise the selection of items. Other studies apply the same reduction of items for this scale (e.g. Griffin, Parker and Mason, 2010), although with different selection criteria.

The measures of the two subdimensions of individualized consideration come from Rafferty and Griffin's (2006) transformational leadership scale, which draws on Rafferty and Griffin's (2004) research for supportive leadership (reported Cronbach's alpha: 0.92, sample item: *My superior considers my personal feelings when implementing actions that will affect me*) and House's (1998) study for developmental leadership (reported Cronbach's alpha: 0.88), (sample item: *My superior encourages staff to improve their job-related skills*).

Finally, the measures of the two components of innovative organizational climate come from Scott and Bruce's (1994) scale, after selecting (based on exploratory factor analysis) those items with a higher factor loading. In practice, this selection corresponds to 7 items for assessing organizational climate with respect to support for innovation and 4 items to assess organizational climate with respect to resource availability (sample items, respectively: *Creativity is encouraged here*; *The reward system here encourages innovation*).

The data to carry out this research come from a questionnaire sent to the sample study group. The authors translate into Spanish, the general language of the target population, the original questionnaire items. A back-translation procedure ensures the accuracy of the translation (Nunnally & Bernstein, 1994; Silva da Rosa, Ensslin, Ensslin and Lunkes, 2012). Seven cognitive interviews ensure an accurate interpretation of the questionnaire items, as this technique allows understanding how respondents perceive and interpret questions, and identifies potential problems that may arise in prospective survey questionnaires (Drennan, 2003).

4. Results

In Table 1 authors report a summary of the means, standard deviations, and inter-scale correlations. For this table, the measure for each construct is equal to the sum of the scores of each item, divided by the numbers of items of the scale.

Table 1 here.

The authors use Cronbach's alpha coefficients to assess the internal consistency of the scales. All scales have alpha coefficients higher than 0.7, and are similar to those reported in previous research. Change oriented OCB has an alpha of 0.85. Felt responsibility for constructive change and role breadth self-efficacy yield alpha

coefficients of 0.92 and 0.91 respectively. With regard to the two subdimensions of individualized consideration included in this study, namely supportive leadership and developmental leadership, the alpha coefficients are 0.92 and 0.93, respectively. Finally, the two components of innovative climate: organizational climate with respect to support for innovation and organizational climate with respect to resource availability have alphas of 0.87 and 0.89 respectively.

A confirmatory factor analysis (CFA) carried with the AMOS software (Arbuckle, 1999) tests the bi-dimensional structure of individualized consideration and innovative organizational climate. With regard to individualized consideration, results indicate that the two factor model fits the data reasonably well ($\chi^2=30.51$, $df=6$; RMSEA=.08, CFI=.99, TLI=.98). The competing one factor measurement model does not fit the data ($\chi^2=334.936$, $df=9$; RMSEA=.25, CFI=.91 TLI=.84). Subsequently, another set of CFAs tests the two-factor model of innovate climate and the results show that the fit indexes fall within an acceptable range ($\chi^2=25.457$, $df=8$; RMSEA=.06, CFI=.99, TLI=.99). The one-factor measurement model innovative climate does not fit the data: ($\chi^2=435.157$, $df=9$; RMSEA=.28, CFI=.825, TLI=.71). Finally, another CFA evaluates the RBSE scale. The results indicate that model fits the data well ($\chi^2=15.730$, $df=4$; RMSEA=.07, CFI=.99, TLI=.99).

The fact that the survey asks informants to rate the organizational climate and leadership can raise the problem of common method bias. The Harman one factor test is the method that Podsakoff and Organ (1986) propose to assess the existence of common method variance. Since no single factor explains more than 50% of the variance of all items, the Harman one factor test confirms, in this case, the absence of common method variance.

A structural equations model, carried also with AMOS, tests a model including all the seven hypothesized relationships. This approach allows the simultaneous examination of all hypothesized relationships, taking into account the measurement error (Byrne, 2001). In Figure 1 the results of the testing of the structural model appear.

Figure 1 here.

The test of the overall model indicates a good fit to the data (TLI=0.965, CFI=0.970, RMSEA=0.049). The results provide support for all the hypotheses proposed in this study, indicating that role breadth self-efficacy mediates the relation between developmental leadership and change-oriented OCB and that felt responsibility to change mediates the relationship between innovative climate with regard to resource availability and change-oriented OCB, respectively. Furthermore,

role breadth self-efficacy also mediates the positive relationship between an organizational climate that provides support for innovation and change-oriented OCB.

5. Discussion and conclusion

This research proposes a model that explores the antecedents of change-oriented organizational citizenship behaviors. Several authors (e.g. Podsakoff et al., 2000) stress the need to identify each of the underlying components of the organizational citizenship behavior construct, and especially those of change-oriented OCB, which to date, receives relatively limited attention in the literature.

The proposed model analyzes two dimensions of individualized consideration (supportive leadership and developmental leadership respectively) and innovative organizational climate as mediated antecedents of change-oriented OCB. Role breadth self-efficacy and felt responsibility for constructive change mediate the relations between change-oriented OCB and its antecedents. The proposed hypotheses indicate which type of leadership allows for inducing change-oriented OCB. Research results reveal that leadership centered on followers' professional development (developmental leadership) is more effective in promoting change-oriented OCB than leadership based on taking into consideration the followers' needs when making

decisions (supportive leadership). Role breadth self-efficacy also mediates the relationship between developmental leadership and change-oriented OCB. The organizational context in which leaders and followers interact, and more specifically the innovative climate associated with resource availability and support to innovation, act differently in promoting change-oriented OCB: resource availability affects change-oriented OCB through an individual's felt responsibility for constructive change, while developmental leadership enhances individual role breadth self-efficacy, which in turn positively affects change-oriented behavior. These results are consistent with previous research findings that confirmed mediating relationships between leadership and affiliative OCB (e. g., Wang et al., 1995), with data coming from Chinese informants.

The research on organizational citizenship behavior shows a significant increase in volume over the last decade. However, this rapid growth in research leads to the emergence of several problems, including the need for a better understanding of the conceptual similarities and differences between the various forms of citizenship behavior, as well as their antecedents and consequences (Podsakoff et al, 2000). In this study, the authors develop and test empirically, for the first time in extant literature, a model of leadership and organizational climate antecedents of change-

oriented OCB. Authors hope that this work will help to accelerate progress in this field, by highlighting several key issues that deserve further research.

The present study has several limitations. First, cross-sectional design does not permit conclusions regarding causality among variables. Therefore, future research drawing on longitudinal designs is encouraged. These longitudinal studies can assess, for instance, if exogenous events such as a downturn in company's finances or the loss of key resources drive organizational members to increase their responsibility and to engage in challenging OCB. Secondly, the data of this study comes from self-reported measures, which can lead respondents to some biases due to the social desirability effect. Future research efforts should consider including third-party measures.

The data from this research comes from Spanish informants. An interesting avenue for future research would be to examine the potential impact that the different cultural and national contexts have on challenging OCB, articulating and examining the effects of cultural differences in the relationships between the change-oriented OCB and its antecedents. Finally, future research could consider expanded versions of the proposed conceptual model, that can include other constructs such as other subdimensions of transformational leadership (Rafferty & Griffin, 2004), personality characteristics included in the Big Five Model, or proactive personality as a moderator

of these relationships, since individuals with a proactive personality may respond more positively to developmental leadership and an innovative climate.

References

- Ashworth CJ. Marketing and organisational development in e-SMEs: understanding survival and sustainability in growth-oriented and comfort-zone pure-play enterprises in the fashion retail industry. *International Entrepreneurship and Management Journal* 2012; 8(2):165-201.
- Axtell CM, Holman DJ, Unsworth KL, Wall TD, Waterson PE, Harrington, E. Shopfloor innovation: Facilitating the suggestion and implementation of ideas. *Journal of Occupational and Organizational Psychology* 2000; 73(3):265-286.
- Bettencourt LA. Change-oriented organizational citizenship behaviors: The direct and moderating influence of goal orientation. *Journal of Retailing* 2004; 80(3):165–180.
- Chen YS, Chang CH. Enhance green purchase intentions: The roles of green perceived value, green perceived risk, and green trust. *Management Decision* 2012; 50(3): 502-520.
- Choi JN. Change-oriented organizational citizenship behavior: effects of work environment characteristics and intervening psychological processes. *Journal of Organizational Behavior* 2007; 28(4): 467-484
- Crant, JM. Proactive behavior in organizations. *Journal of Management* 2000; 26(3):435–462.
- Datta P. An applied organizational rewards distribution system. *Management Decision* 2012; 50(3): 479-501.
- Deluga, RJ. Supervisor trust building, leader-member exchange and organizational citizenship behaviour. *Journal of Occupational and Organizational Psychology* 1994; 67(4):315-326.

- Drennan, J. Cognitive interviewing: Verbal data in the design and pretesting of questionnaires. *Journal of Advanced Nursing* 2003; 42(1):57-63
- Dutton JE, Ashford SJ. Selling issues to top management. *Academy of Management Review* 1993; 18(3):397–428.
- Frese M, Garst H, Fay D. Making Things Happen: Reciprocal Relationships between Work Characteristics and Personal Initiative (PI) in a Four-Wave Longitudinal Structural Equation Model. *Journal of Applied Psychology* 2007; 92(4):1084-1102.
- Fuller JB, Marler LE. Change driven by nature: a meta-analytic review of the proactive personality literature. *Journal of Vocational Behavior* 2009, 75(3):329-345
- Fuller JB, Marler LE, Hester K. Promoting felt responsibility for constructive change and proactive behavior: Exploring aspects of an elaborated model of work design. *Journal of Organizational Behavior* 2006, 27(8):1089-1120.
- Gist ME, Mitchell TR. Self-efficacy: A theoretical analysis of its determinants and malleability. *Academy of Management Review* 1992: 17(2):183-211.
- Griffin MA, Parker SK, Mason CM. Leader vision and the development of adaptive and proactive performance: A longitudinal study. *Journal of Applied Psychology* 2010; 95(1):174-182
- Griffin MA, Parker SK, Neal A. Is behavioral engagement a distinct and useful construct? *Industrial and Organizational Psychology: Perspectives on Science and Practice* 2008; 1(1):48-51.
- Karriker JH, Williams ML. Organizational justice and organizational citizenship behavior: A mediated multifoci model. *Journal of Management* 2009; 35(1):

112-135.

Kwan HK, Lui J, Yim FH. Effects on mentoring functions on receivers' organizational citizenship behavior in a Chinese context: A two-study investigation. *Journal of Business Research* 2011; 64(4):363-370.

LePine JA, Van Dyne L. Voice and cooperative behavior as contrasting forms of contextual performance: Evidence of differential relationships with big five personality characteristics and cognitive ability. *Journal of Applied Psychology* 2001; 86(2):326–336

Morrison EW, Phelps CC. Taking charge at work: Extrarole efforts to initiate workplace change. *Academy of Management Journal* 1999; 42(4):403–419.

Mumford MD, Gustafson SB. Creativity syndrome: integration, application, and innovation. *Psychological Bulletin* 1988; 103(1):27–43.

Nunnally JC, Bernstein IH. *Psychometric theory* (3rd ed.). New York: McGraw-Hill; 1994.

Ohly S, Fritz C. Challenging the status quo: What motivates proactive behavior? *Journal of Occupational and Organizational Psychology* 2007; 80(4):623-629.

Organ DW, Podsakoff PM, MacKenzie SB. *Organizational citizenship behavior: Its nature, antecedents, and consequences*. Thousand Oaks: Sage; 2006.

Parker SK. Enhancing role breadth self-efficacy: The roles of job enrichment and other organizational interventions. *Journal of Applied Psychology* 1998; 83(6):835–852.

Parker SK, Bindl U, Strauss K. Making things happen: A model of proactive motivation. *Journal of Management* 2010; 36(4): 827-856.

Parker SK, Turner N. Work design and individual work performance: Research

- findings and an agenda for future inquiry. In S. Sonnentag (ed.). *The psychological management of individual performance: A handbook in the psychology of the management of organizations*, pp 69-93. Chichester, UK: Erlbaum; 2002.
- Podsakoff PM, MacKenzie SB, Paine JB, Bachrach DG. Organizational citizenship behaviors: A critical review of the theoretical and empirical literature and suggestions for future research. *Journal of Management* 2000; 26(3):513–563.
- Podsakoff, PM; Organ DW. Self-reports in organizational research: problems and prospects. *Journal of Management* 1986; 12(4):531-544.
- Rafferty AE, Griffin MA. Dimensions of transformational leadership: Conceptual and empirical extensions. *Leadership Quarterly* 2004; 15(3), 329–354.
- Scott SG, Bruce RA. Determinants of innovative behavior: A path model of individual innovation in the workplace. *Academy of Management Journal* 1994; 37(3):580–607
- Siegel DS, Renko M. The role of market and technological knowledge in recognizing entrepreneurial opportunities. *Management Decision* 2012; 50(5), 797-816.
- Silva da Rosa F, Ensslin SM, Ensslin L, Lunkes RJ. Environmental disclosure management: a constructivist case. *Management Decision* 2012; 50(6): 1117-1136.
- Vega-Vazquez M, Cossio F, Martin-Ruiz D. Does the firm's market orientation behaviour influence innovation's success?. *Management Decision* 2012; 50(8): 1445-1464.
- Vila LE, Perez PJ, Morillas FG. Higher education and the development of competencies for innovation in the workplace. *Management Decision* 2012;

50(9): 1634-1648.

Vinces JC, Cepeda-Carrión G, Chin WW. Effect of ITC on the international competitiveness of firms. *Management Decision* 2012; 50(6), 1045-1061.

Waikayi L, Fearon C, Morris L, McLaughlin H. Volunteer management: an exploratory case study within the British Red Cross. *Management Decision* 2012; 50(3): 349-367.

Wang H, Law KS, Hackett RD, Wang, DX, Chen ZX. Leader-member exchange as a mediator of the relationship between transformational leadership and followers' performance and organizational citizenship behavior. *Academy of Management Journal* 2005; 48(3): 420-432.

Williams CC, Nadin S. Entrepreneurship in the informal economy: commercial or social entrepreneurs?. *International Entrepreneurship and Management Journal* 2012; 8(3):309-324.

Williams CC, Gurtoo A. Evaluating competing theories of street entrepreneurship: some lessons from a study of street vendors in Bangalore, India. *International Entrepreneurship and Management Journal* 2012;8(4):391-409.

Table 1 Means, standard deviations and inter-scale correlations (n = 603)

	mean	std. dev.	2	3	4	5	6	7
1. organizational change OCB	3.78	0.78	.70	.58	.37	.24	.31	.34
2. felt resp. for const. change	3.72	0.94		.49	.39	.28	.32	.33
3. role-breadth self-efficacy	4.16	0.74			.30	.12	.22	.27
4. support for innovation	3.31	1.02				.64	.62	.67
5. resources availability	2.85	1.08					.53	.53
6. supportive leadership	3.29	1.07						.80
7. developmental leadership	3.34	1.06						

Note. All correlations are significant with $p < .001$.

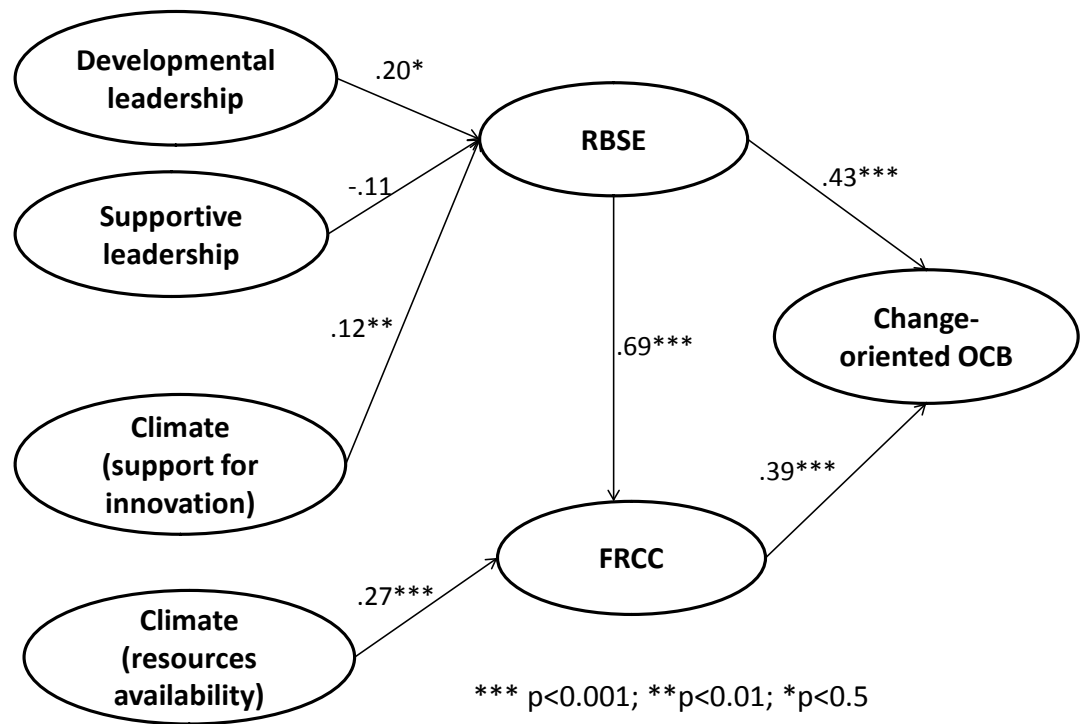


Figure 1

Structural equations model