

THE MEDIATING EFFECT OF ORGANIZATIONAL TRUST IN THE RELATIONSHIP BETWEEN LEADER MEMBER EXCHANGE AND ORGANIZATIONAL INNOVATIVENESS

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Abstract

The paper focuses on the mediating effect of organizational trust and its cognitive and affective components on the impact of leadership relationship on different forms of organizational innovativeness such as product, market, behaviour, process and strategy. The empirical data was collected in a public organization (n=757) in Lithuania in 2013. A series of regression analysis suggest that organizational trust has partially mediating effect on the studied relationship. Leadership relationship and organizational trust have the strongest explanative power for behaviour innovativeness. In particular, the affective component of organizational trust influences the effect of leadership relationship on this form of innovativeness. Besides, affective trust plays a more significant role than cognitive trust in increasing processes innovativeness. However, cognitive trust is more powerful in accounting for development of product innovativeness. The authors discuss managerial implications to the studied sector organizations and suggest some directions for further research.

The type of the article: Empirical study.

Keywords: leadership relationship, leader member exchange, Lithuania, organizational innovativeness, organizational trust, public organizations.

JEL Classification: M14, O31.

1. Introduction

Organizational innovativeness as an organizational capacity to engage in creative processes, experiment, apply new approaches and techniques, generate new knowledge and products (Lumpkin & Dess, 1996) has become critical in the context of global economy and hyper competition (Broekel & Brenner, 2011; Cho & Pucik, 2005; Petuskiene & Glinskiene, 2011). Organizational innovativeness can account for innovation, which is considered the basis for company competitiveness (Banytė & Salickaitė, 2008). Yet, not only business organizations are pressed for innovation. Due to public sector reforms, public organizations are more and more required to act by business principles, e.g. provide high(er) quality service to clients, demonstrate sound financial performance to maintain or, in some societies, to regain public trust (Domarkas & Juknevičienė, 2010; Hansen, 2011). Public organizations have reacted to these demands by introducing quality management standards, training programmes, inclusive and participative management principles (Hansen, 2011). However, one of the key characteristics of innovation highlighted already in the classical works by J. A. Schumpeter is increased effectiveness and/or efficiency of an organization. Introducing quality management programmes, social accountability standards or environmental management systems does not necessarily result in benefits to the organization. These systems do not guarantee that employees and management will trust and treat each other with respect, team members will perform their tasks duly and be willing to experiment and exchange information and ideas for common good (Vilkas, Çınar, Bektaş & Katiliūtė, 2012). Rather, they may shift the focus on following the letter rather than spirit of standardized processes and related requirements, which may even inhibit organizational capacity to innovate and apply it

for organizational benefit (cf. Damanpour, 1991). And contrariwise, feeling respect, trust, support from one's subordinates or the leader, enjoying high-quality and effective relationships with the team members lead to higher levels of creativity.

Background of the study. Prior studies have found that respectful, fair and reciprocal leadership behaviour can enhance organizational capability to innovate by increasing followers' intrinsic motivation, promoting pro-active and adaptive skills as well as self-realization and positive self-perception of followers (Stobbeleir, Ashford & Buyens, 2011; Zhang & Bartol, 2010; Yidong & Xinxin, 2013). Yet, mechanisms by which leadership affects organizational innovativeness still constitute a gap in the empirical body of knowledge in this field (Denti & Hemlin, 2012). The study by Pučėtaite and Novelskaitė (2014) attempted to address this gap by studying the effect of different quality leadership relationship on different forms of organizational innovativeness empirically. They found that leadership relationships have statistically significant explanatory power to organizational innovativeness in a public organization which serves public interest with highly standardized services. In particular, leadership affects behaviour innovativeness, which is generally an advantage when employees can find creative solutions to complex problems and create precedents to them. Moreover, the study found that feedback giving by the leader, their support in problem-solving and backing the followers in trouble, using power and making extra efforts, in particular, affects this form of innovativeness. However, the strength of the effect of leader-member exchange on behaviour innovativeness and other forms of innovativeness was comparatively weak. These results urge searching for other organizational factors that affect organizational innovativeness.

Prior research on the effect of leadership and positive employee and organizational outcomes, for example, transformational leadership and employee well-being (Liu, Siu & Shi, 2010), transformational leadership and organizational citizenship behaviour (Podsakoff, MacKenzie, Moorman & Fetter, 1990), authentic leadership, positive psychological capital and organizational performance (Clapp-Smith, Vogelgesang & Avey, 2009) has identified trust as a mediator. Indeed, organizational trust is regarded as a binding material to team-working, cooperation and networking, learning, knowledge sharing and creating (McAllister, 1995; Whitener, Brodt, Korsgaard & Werner, 1998) and was found to account for innovativeness and innovation (Ellonen, Blomqvist & Puumalainen, 2008; Sankowska, 2013). These findings prompt us to explore the mediating effect of organizational trust on the impact of leadership relationship on organizational innovativeness.

Conceptual background

In this paper, organizational innovativeness is regarded as a multidimensional construct, based on the concept by Wang and Ahmed (2004). Their model includes five dimensions of organizational innovativeness (hereafter ON), i.e. the ones of product, market, process, behaviour and strategy. Product dimension relates to the newness of organization's products and services. Market innovativeness concerns new approaches to reaching the target audiences. Process innovativeness refers to novelties in production methods, management styles and technologies that are applied to enhance production and management systems. Behaviour innovativeness denotes employees and management's resourcefulness and interest in new ideas, organizational encouragement to think and act originally and creatively. Finally, strategy innovativeness is related to organization's capability to achieve goals, identify gaps in goals and resources, timely react to changes in the market and management's willingness to experiment and search for original approaches to problem solving and showing due appreciation to talented people.

In this study we draw upon a relational leadership theory, namely, leader and member exchange (hereafter LMX, Graen & Uhl-Bien, 1995; Uhl-Bien, 2006) theory. The theory focuses on the two-way influence between leader and followers rather than just on leader's or followers' influence on the other party (Kaminskas, Bartkus & Pilinkus, 2011). The theory departs from the theories of social exchange (Blau, 1964) and role (Dienesch & Liden, 1986; Scandura & Graen, 1984) and holds that interrelations between leader and followers may differ depending on the quality of the relationship. LMX theory distinguishes relationships between leader and the so-called

“in-group” and “out-group” members which are termed, respectively, high and low LMX (Anand, Hu, Liden & Vidyarthi, 2011). High LMX or in-group relationships can be described by loyalty, respect, high trust and liking between leader and followers while low LMX or out-group relationships can be characterized by following employment contract, managing by autocratic methods and low trust between the parties (Dansereau, Graen & Haga, 1975). The characteristics of high LMX such as reciprocity, respect, empowering followers may encourage employees to be open and sharing and, thus, contribute to organization’s capability to innovate (DiLiello & Houghton, 2006). In some respects, even low LMX may account for a certain degree of organizational innovativeness if teams are disciplined, perform their tasks dully and gear those accomplishments towards organizational goals.

Finally, organizational trust (hereafter OT) is defined as a positive attitude held by an organization’s member towards another member that the other party will act by fair-play rules and will not take an advantage of one’s vulnerability and dependence in a risky situation (Das & Teng, 1998). Trust usually develops when two parties regularly comply with the same ethical or/and social norms and regulations (Fukuyama, 1995; Jones and George, 1998). Based on the related literature (Lewis & Weigert, 1985; Jones & George, 1998; McAllister, 1995; Whitener *et al.*, 1998; Wicks, Berman & Jones, 1999), we consider organizational trust as a combination of the cognitive and the affective components which are characterized by different origins and quality. The cognitive component of organizational trust refers to an evaluative belief and usually a certain extent of experience and knowledge about the other actor. This perception of trust implies that one party trusts the other because both have followed the same ethical principles and acted in a trustworthy, competent way in the past and can be expected to do so in the future (Gulati & Sytch, 2008; Ristig, 2009). Cognition-based trust works best in short-term affairs, meanwhile to achieve sustainable organizational development, affect-based trust is needed. The affective component is related to the emotional side of trust. This form of trust is characterized by congruence between values and interests of the parties and can be found in reliable, mutually-rewarding and effective relationships (Gulati & Sytch, 2008; Lämsä & Pučėtaitė, 2006; Lewicki & Bunker, 1996)

High quality leadership relationships in particular can incite affect-based organizational trust as they create a working environment in which a person perceives the values of the other party in the relationship congruent with her own. In the case of value congruence, an employee’s motivation to identify with the group, department or organization she works for increases (Chatman, 1989; Ellemers, Sleebos, Stam & de Gilder, 2013). Consequently, identification with the group, a sense of achievement, a feeling of being respected for it, support from the leader or followers, professionally and personally rewarding relationships induce positive emotions, which stimulates a person’s intrinsic motivation to practice autonomy in decision-making, cooperate and contribute to organizational goals (Amabile, Schatzel, Moneta & Kramer, 1998). Even in the case of low quality relationships which are guided by contractual commitments, cognitive trust may be present as it rests on the knowledge of the other party’s professionalism, which may be induced by low quality LMX.

When leadership relationships are based on ethical behaviour and induce organizational trust, it is more likely that the overall organizational context will be perceived by employees as trustworthy. As trust gives spontaneous sociability (Fukuyama, 1995), i.e. an ability to form new associations and cooperate within the terms of reference partners, it contributes to building an organizational context that is favourable for communities of practice (Brown & Duguid, 1998). Communities of practice are characterized by organizational learning and knowledge sharing (Easterby-Smith, Crossan & Nicolini, 2000), which are inherent characteristics of organizational innovativeness. Consequently, knowledge transfer and sharing may lead to innovative solutions, problem-solving, products etc. (cf. Ramirez, Vasauskaite & Kumpikaitė, 2012). Hence, it can be assumed that organizational trust induced by leadership relationship will likely affect organizational innovativeness and increase the direct effect of leadership relationship on organizational innovativeness.

The purpose and rationale of the study. In this paper we extend the theoretical model of the relationship between leadership relationship and different forms of organizational innovativeness by including organizational trust as a mediator of leadership effect in an empirical study. Moreover, we are interested in a potentially different effect of cognitive and affective components of trust in this type of relationship. As the impact of leadership on organizational innovativeness and the role of organizational trust are context-specific phenomena, the study is carried out in a public organization in Lithuania. In this respect, we aim to contribute to the discussion of antecedents to organizational innovativeness in this type of organizations in Lithuania.

2. Method

The empirical data for this study were collected by means of an electronic standardised questionnaire from one public sector organisation in Lithuania (N=1221, n=757, a response rate of 62 %) in autumn 2013. The questionnaire was distributed as an electronic survey, having contacted the top management and posting the link to the communication department for further dissemination to the employees.

Organizational trust was measured by McAllister's (1995) 11-item questionnaire in which statements were measured in a 7-item Likert scale, 1 meaning "totally disagree" and 7 "totally agree". This instrument allows to measure affective and cognitive trust (respectively, 5 and 6 statements in the instrument). LMX was measured using the 7-item scale recommended by Graen and Uhl-Bien (1995). It is a one-dimensional measurement scale, however, despite the criticism against it (cf. Lee, 2008), it still encompasses the dimensions of mutual affection, loyalty, trust, and professional recognition. The statements in the scale were measured in a 5-item Likert scale (1 denoting "totally disagree" and 5 "totally agree"). Organisational innovativeness was measured with a 20-item questionnaire developed and validated by Wang and Ahmed (2004). It consists of 5 thematic blocks related to product, market, behaviour, process and strategy innovation. Each construct is measured by 4 statements using 1 ("totally disagree") to 7 ("totally agree") Likert scale. Some original items in the questionnaires of organizational trust and organizational innovativeness were reverse coded, thus, adequately transformed for analysis. The fourth thematic block in the questionnaire included socio-demographic questions.

Statistical data analysis was carried out using software SPSS 22.0. It started with descriptive analysis and continued with a series of regression analysis (enter method) to test the role of organizational trust as a mediator of the effect of LMX on organizational innovativeness. This strategy for testing the mediating role is based on suggestions by Baron and Kenny (1986) and Frazier, Tix and Barron (2004). In this study, the two components of organizational trust, i.e. affective and cognitive, were tested as mediating ones. Testing the mediating role of organizational trust in the relationship between LMX and ON was accomplished with a series of regressions in two stages. First, all variables were treated as one-dimensional to test whether our assumptions about interrelations between the variables are generally valid. Second, we explored the relationships between the phenomena considering them as multidimensional ones and differentiating their dimensions in regression analysis.

3. Results

Descriptive statistics show that 15% of the respondents were male, and the rest, 85% female. 92% of them were with higher education. 86% of the respondents were in an expert/ specialist position, 3% in an administrative and 10% in a managerial one. The average number of years in the company was 14 (SD = 8.5). A major age group among the respondents was above 51 years old (45%), followed by a group of 41-50 years (29%).

Reliability analysis of organizational innovativeness, organizational trust and LMX scales yielded Cronbach alphas of 0.9, which shows rather high internal consistency of the used scales and, leading to the conclusion that the measurement scales of the three phenomena are adequate. However, reliability test of separate variables defining organizational innovativeness and

organizational trust has yielded Cronbach’s alphas below 0.7, which is the threshold for sufficient reliability (Peterson, 1994; Yang & Green, 2011). Namely, Cronbach’s alphas of market and strategy innovativeness were, respectively, 0.42 and 0.56 (see Table 1). In this case, a low reliability coefficient could be explained by organizational reality rather than a low number of items in the scale (i.e. 4 per variable) which is an often quoted reason for low internal consistency (Peterson, 1994). As it is a public organization with regulating functions, it does not carry out marketing programmes to increase its visibility in society or to enlarge the number of clients. Neither do specialists of this organization, who were the dominant group of the respondents, are involved in strategy development or competition processes. Therefore, these two forms of organizational innovativeness were eliminated from further data analysis.

Table 1. Descriptive findings

Variables	N	Min	Max	Mean	Std. dev.	Cronbach’s alpha
Organizational innovativeness						
PROD	472	1.0	7.0	5.4	1.189	0.77
MARK	497	1.0	7.0	5.0	.948	0.42
BEHA	513	1.0	7.0	4.6	1.412	0.75
PROC	459	1.0	7.0	5.0	1.211	0.85
STRA	389	1.0	7.0	4.6	1.149	0.56
ON, total	291	1.0	6.7	4.9	.927	0.90
Leader member exchange						
LMX, total	465	1.0	5.0	3.9	.943	0.95
Organizational trust						
OTA	643	1.0	7.0	4.6	1.434	0.87
OTC	545	1.0	7.0	5.2	1.102	0.83
OT, total	509	1.6	7.0	4.9	1.106	0.89

Organizational innovativeness: PROD *product innovativeness*; MARK *market innovativeness*; BEHA *behaviour innovativeness*; PROC *process innovativeness*; STRA *strategy innovativeness*.

Organizational trust: OTA *affective trust*, OTC *cognitive trust*.

Source: authors’ calculations

Analysis of the three variables as one-dimensional (i.e. LMX, OT and ON) has yielded the following results: regression analysis of potential effect of LMX on ON established a statistically significant relation ($p < 0.001$) with adjusted R^2 of 0.3 and standardized coefficient β of 0.53. Similarly, the effect of LMX on OT resulted in a statistically significant relation ($p < 0.001$) with adjusted R^2 of 0.2 and β of 0.49 (see Table 2). Hence, although the explanative power of LMX of the variance in evaluations of ON and OT are weak, acquired statistical significance allows us to conclude that ON and OT dependence on LMX is present to some extent. Regression analysis of the effect of LMX on ON with controlling for OT loaded a statistically significant relation ($p < 0.001$) with adjusted R^2 of 0.4 and β s of 0.31 and 0.41 (see Table 3). As these coefficients are smaller than the ones of the two relationships described above, the result suggests partial mediation according to Frazier *et al.* (2004), Baron and Kenny (1986).

Table 2. Results of regression analysis

Dependent/ mediating variables		ON	PROD	PROC	BEHA	OT	OTA	OTC
Adj. R^2		0.3	0.2	0.2	0.3	0.2	0.2	0.2
Independent variable (Betas)	LMX	0.53***	0.40***	0.39***	0.56***	0.49***	0.47***	0.44***

*** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$

Source: authors’ calculations

Further regression analysis with affective and cognitive aspects of OT as mediators in the relationship between LMX and ON as well as its forms of product, behaviour and process has yielded two models. Table 3 reports the models with the stronger explanative power. OT as a one-dimensional variable seems to have a stronger effect on ON (the first model) compared to separate effects of affective and cognitive aspects of OT (the second model). Notwithstanding, namely, the cognitive aspect of OT seems to have a slightly stronger effect on ON than the affective one (the second model). Moreover, the affective aspect of OT has no effect on product innovativeness but has stronger effect than cognitive trust has on process and behaviour types of ON.

Table 3. Results of regression analysis (organizational trust as a mediator)

Dependent variable	Adj. R ²	Independent and mediating variables	Standardized Beta coefficient
Organizational innovativeness	0.4	OT	0.41***
		LMX	0.31***
Organizational innovativeness	0.4	OTA	0.19**
		OTC	0.26***
		LMX	0.31***
Product innovativeness	0.3	OTA	0.09
		OTC	0.25***
		LMX	0.28***
Process innovativeness	0.3	OTA	0.25***
		OTC	0.18**
		LMX	0.19**
Behaviour innovativeness	0.4	OTA	0.24***
		OTC	0.19**
		LMX	0.36***

*** p<0.001, ** p<0.01, *p<0.05

Source: authors' calculations

The role of LMX in the presented models is interesting as well. That is, following the results of regression analysis, LMX should increase evaluations of ON by 31%. However, the strongest effect of LMX is revealed in the case of behaviour ON, followed by its effect on product ON and the weakest effect on process ON.

4. Discussion and conclusions

In this study we were interested in the mediating effect of organizational trust and its cognitive and affective components on the relationship between leadership relationship and different forms of innovativeness. Regression analysis of the data showed that OT partially mediates the effect of LMX on ON as none of the models in which OT and its cognitive and affective components were used as independent variables predicting ON were stronger than the ones explaining the direct effect of LMX on ON. The same tendency was established for the models in which different forms of ON were used as dependent variables. Cognitive trust had a stronger mediating effect on the influence of LMX on ON as a one-dimensional variable and its product form. Affective trust was more powerful in mediating the effect of LMX on behaviour and process innovativeness. In general, the results do not give evidence that emotionally strong, potentially-commitment-based leadership relationship and high trust will lead to a higher organizational capacity. In this respect, they lend support to the study by Molina-Morales and Martinez-Fernandez (2009) who established a tendency that trust and strong social ties increase productivity and yield organizational benefits to a certain extent. Once it is reached, no more added value is created. From this perspective, product innovativeness on which cognitive trust had almost the same effect as LMX meanwhile affective trust had no effect at all can

be an indicative example when emotions and high quality leadership relationship are not essential in the processes of innovation development.

These results suggest that public organizations striving for organizational innovativeness should be managing their leadership relationships and relationships among its employees with different strategies. For example, developing high LMX and affective trust in the organization may be suitable for encouraging more innovative decision-making, problem solving, experimenting with new servicing methods (not the services themselves) and developing new processes, meanwhile more rational, control-based and potentially perceived as low LMX could be used for development of product innovativeness. High LMX may be even risky considering peculiarities of public organizations with highly standardized services such as social security or tax administration. Cognitive trust may also be sufficient in development of new services in such public organizations as employees need to rely on each other's competence first.

In this study we eliminated market and strategy innovativeness from deeper analysis, which is in line with characteristics of public organizations operating in other socio-cultural contexts. For example, studies by Riivari, Lämsä, Kujala and Heiskanen (2012), Riivari and Lämsä (2013) also found low reliability of the scales measuring market innovativeness in the Finnish data from public organizations.

The main limitation of our study is that it is based on the data from one public organization. Further data collection from public and private sector organizations would increase validity and generalizability of the findings. Studies in public organizations operating in different socio-cultural contexts may also suggest interesting insights about the effect of organizational trust on the impact of leadership on organizational innovativeness. Finally, as explanative power of leadership and organizational trust to organizational innovativeness was considerably low (although statistically significant), further research should consider other factors of organizational innovativeness and elaborate on our conceptual framework.

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