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Effects of Leader–Member Exchange and Perceived Organizational Support on Organizational Innovation: The Case of Denizli Technopark

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Abstract

Innovation is considered as a crucial key surviving in changing environments. This study examined a model of consequences of leader–member exchange and perceived organizational support on organizational innovation. Research data obtained from those 77 subordinates working in techno park firms in Denizli, Turkey. The data were analyzed through the SPSS 20 statistical packet program and two proposed relations were tested through regression analyses. Results indicate that when leader–member exchange increases, organizational innovation level also escalates. In the same way, as perceived organizational support increases organizations might perform well in terms of innovation. Therefore, it might be argued that, organizations concentrating on creativity and innovation may consider leader selection with an emphasis on leader–member exchanges and organizational support facilities for employees.

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1. Introduction

Today, companies compete in a dynamic and unpredictable environment. Innovation is considered as a key surviving in such environments. The main role of the innovation is to provide a competitive advantage for the company. A number of factors have been discussed to influence organizational innovation. The factors can be categorized as group level such as leadership style and organizational level like strategy, organizational structure, culture, climate, and organizational support. Among group factors, leaders are considered as one of the most influential predictors of innovation (Amabile, 1998; Jung, 2001; Mumford and Gustafson, 1988).

The relationship between an employee' positive performance-related behaviour and an organization builds on social exchange theory (Blau, 1964). It is argued that social exchange causes unspecified obligations; when one person does

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another a favour, there is an expectation of some future in return (Gouldner, 1960). The exchanges between supervisor-employee and organization-employee are analysed in this research.

It is aimed to develop and test the idea that innovation level is affected how employees develop and maintain social exchanges with their supervisors and organization in this study. In order to achieve such aim, the relationships between Leader-member exchange (LMX), perceived organizational support (POS) and organizational innovation are analyzed in the study. Whereas LMX measures the quality of the interpersonal relationship between the immediate supervisor and the employee (Liden & Maslyn 1998), POS measures the degree to which employees believe that the organization values their contribution and cares about their well-being (Eisenberger et al. 1986). There are some studies related to the relationships of these factors in the literature. Surprisingly, there have been few studies applying the social exchange framework to the techno park firms that innovation is considered as the most important competitive factor. Therefore, this study aims to reveal relationships between the factors in technopark firms.

2. Literature Review and Hypotheses

2.1. Organizational Innovation

Innovation is significantly and positively related to superior performance and considered as a significant driver of a variety of types of organizational performance (Isaksen and Akkermans, 2011). Innovation is an interaction process between those who innovate and those who are affected by the innovation (Kheng and Mahmood, 2013). There is recognition that one's action will affect others and will influence that action; to innovate means "bring in novelties, make changes" (Jain, 2010). Innovation is defined as an individual's propensity to intentionally introduce or apply a novelty that has social ramifications and the intention of benefit (West and Farr, 1989). Investigating new technologies, suggesting new ways, applying new work methods, and searching out resources to implement new ideas are the kind of instances for innovation.

Innovation declines when work environment stimulants to creativity decrease and work environmental obstacles increase (Amabile and Conti, 1999). Those environmental factors affecting creativity can be considered as; encouragement of creativity, autonomy or freedom, resources, pressures, and organizational impediments to creativity (Amabile et al. 1996). It is argued that creative behavior, which refers to behavior pertaining to the generation of ideas that are both novel and useful, is a interrelated concept to innovation in the literature (Oldham and Cummings, 1996).

The literature provides a number of factors as antecedents to individuals' innovation, such as organization culture and climate (Scott and Bruce, 1994), organizational support (Eisenberger et al., 1986), relationship with their supervisors (Janssen and Van Yperen, 2004), job characteristics (Oldham and Cummings, 1996), and managerial style (Thamain, 2003). The proposed study focuses on the relationship between innovation and POS, LMX. The literature provides that managers and organizations can create job environments that support employee innovation by setting creativity work goals, making creativity a job requirement, providing developmental feedback on creative goal progress, and rewarding employees when they achieve innovative outcomes (Amabile, et. al., 1996; Basu and Green, 1997; Scott and Bruce, 1994). The proposed study considers LMX and POS as the antecedents of organizational innovation.

2.2. Leader-Member Exchange As an Antecedent of Innovation

LMX theory has evolved substantially over the past 40 years. There are a number of definitions of the theory. LMX can be clearly defined as "a system of components and their relationships; involving both members of a dyad; involving interdependent patterns of behavior and; sharing mutual outcome instrumentalities and producing conceptions of environments, cause maps, and value" (Scandura, Graen, and Novak, 1986, p. 580). LMX theory indicates that the quality of the relationship between an employee and the employee's immediate supervisor is related to innovativeness (Graen and Scandura, 1987). Some theorists postulates that supervisors and employees engage in a role development process during which understandings are arrived at regarding the amount of decision latitude, influence, and autonomy the employees will be allowed (Graen and Gashman, 1975). A high-quality relationship provides greater autonomy and decision latitude for employees. This relationship is associated with some positive outcomes, such as better performance, more commitment, job satisfaction, and innovation (Gerstner and Day, 1997; Wayne et al., 1997). On the other hand, low-quality exchange relationship are characterized by formal, role-defined interactions and predominantly contractual

exchanges that result in hierarchy-based downward influence and distance between the parties (Janssen and Van Yperene, 2004).

Previous research has argued that a high quality of leader-member exchange is predictive of innovative job performance (Basu and Green, 1997; Scott and Bruce, 1994). The first reason for such a statement is that innovative workers depend on their supervisors for the information (data, expertise, political intelligence), resources (materials, space, time), and social-political support (endorsement, legitimacy, backing) necessary to develop, protect, and apply their innovative ideas (Kanter, 1988). Secondly, mastery orientations may provide employees to establish high-quality exchanges with their leaders, providing them with opportunities for skill development and self-improvement since supervisors may provide these employees with support, decision latitude, and freedom so that they can initiate, control, and carry out their tasks without excessive supervision. Subsequently, employees may go beyond contractual expectations by performing spontaneous and innovative extra role behaviors (Basu and Green, 1997; Sparrowe and Liden, 1997; Wayne, Shore, and Liden, 1997). Finally, when the perception that they have been fairly rewarded by their leader occurs, employees tend to react more innovatively in a higher level of job demand situation (Janssen, 2000). This resulting outcome occurs simply because employees view the existence of distribution equity with regards to the rewards thus encouraging them to engage in innovative work behavior greater (Sanders et al., 2010).

LMX researches have confirmed positive impact of the dyadic relationships on employee performance, job satisfaction, organizational commitment, employee retention, innovative behavior and creativity. There are more studies supported these arguments. It is argued that managerial style has a significant impact on creativity that ultimately affected organizational innovation (Thamain, 2003). The effects of leadership style on innovation processes are examined by a case study method within the Dutch building industry and closely studied four building projects (Bossink, 2007). He found that leadership style and active coordination of knowledge exchange supported innovation in building environmentally friendly projects. Likewise, a study using a dataset of 170 employees from an energy supplier stated a positive impact of LMX on innovative work behavior (Janssen and Van Yperene, 2004). A study covering knowledge intensive business services companies in Malaysia and collected 318 usable questionnaires revealed that there is a significant positive relationship between pro-innovation organizational climate, LMX and innovative work behavior (Kheng and Mahmood, 2013). In the light of studies above, it is hypothesised that:

H1: Leader-member exchange has a significant positive relationship with organizational innovativeness.

2.3. Perceived Organizational Support As an Antecedent of Innovation

Perceived organizational support (POS) refers to “the extent to which the organization values employees’ contributions and cares about their well-being” (Eisenberger et al., 1986). Based on the norm of reciprocity, POS suggests that employees who believe that they receive a higher level of support from the organization will perform better on extra-role behaviors. The literature provides a positive relationship between POS and work-related attitudes (Trybou et al., 2014). The reason for such a result is that they feel obligated to care about the organization and help meet its objectives through positive attitudes and behaviors towards the organization (Eisenberger et al., 1986). POS for creativity has been recognized as an antecedent of employee creative performance (Zhou and George, 2001).

It is supposed that organizational conditions are believed to influence creative performance via their effects on employees’ intrinsic motivation (Shalley et al., 2004). Apart from contextual conditions, it is suggested that, supportive contexts may also channel and direct employees’ behaviors toward creative performance (Scott and Bruce, 1994). Employees try discretionary actions and, if they infer that they are being supported, they then seek to repay this favorable treatment (Jin and Zhong, 2014). At the individual level, one’s POS is positively related to work performance (Rhoades and Eisenberger, 2002). Therefore it is suggested that:

H2: Perceived organizational support has a significant positive relationship with organizational innovativeness.

3. Methodology

3.1. Research Goal

As the world becomes a global village and the increase in competition, the importance of innovation concept arises for businesses today. The way of maintaining their existence and being competitive is to be creative and innovative. As discussed in the literature review, the quality of exchange between managers and subordinates is crucial in the emergence of the potential innovation. In this context, the aim of this study is to identify the relationship between organizational innovation potential, LMX and POS. To test the hypothesis, a field survey using questionnaires was conducted.

3.2. Sample and Data Collection

The relationships between factors were examined in a field study. The sampling frame of the respondents was obtained from several techno park firms operating in Denizli, Turkey. The reason for selecting techno park firms as sample was their concentration on innovation.

In the first part of the questionnaire, organizational innovation level is measured by the scale developed by Wang and Ahmed (2004). The organizational innovation construct consists of 20 questions and five dimensions namely; product (4 items), market (4 items), strategic (4 items), process (4 items) and behavioural innovation (4 items). In this study, these five dimensions will be collapsed into a single measurement of organizational innovation, and the research instrument will cover this dimension. Some of the statement examples are “in new product and service introductions, our company is often first-to-market”, “new products and services in our company often take us up against new competitors”, “in our company, we tolerate individuals who do things in a different way.” The third, sixth, ninth and nineteenth questions are reverse questions in the scale. The scale previously used in Turkey by Aksay (2011) and Kapucu (2012). Cronbach alpha is measured as 0.93 for this scale in the proposed study.

There are some scales in order to assess the quality of the exchange between manager and subordinates. Multidimensional Measure of LMX developed by Liden and Maslyn (1998) is used in this study. Its widely use was the main reason for selecting the scale. In this scale, there are four factors namely; affect, respect, contribution and loyalty consisting of three question each. This scale was applied in Turkey and its reliability and validity tests were proven (Yıldız, Özutku and Cevrioğlu, 2008). Moreover, another study applied in Turkey concluded that the scale’ validity and reliability scores are high (Baş et. al., 2010). Cronbach alpha is measured as 0.93 for this scale in this study.

In order to measure POS, the scale developed by Eisenberger et. al. (1986) is used. Even though, the scale originally consists of 36 questions, the shorten version obtaining eight questions is applied in this study. Respondents ranging from strongly disagree =1 to strongly agree =5 to respond to all items. The second, third, fifth and seventh questions are reverse questions in the scale. Eisenberger et. al. (1986) provided 0.97 reliability score for the scale. This study measured 0.86 cronbach alpha score.

The survey of this study is conducted on 67 firms located at Denizli Techno park. The questionnaire firstly applied 10 subordinates in two firms in industrial park in Aydin city and according to reflections, the final form was developed. The questionnaires are delivered by random sampling applied subordinates in the techno park. E-mail and interview techniques are implemented in gathering relevant data. 145 questionnaires were delivered in total and 82 were returned. Because of inaccurate and missing replies, five questionnaires were not taken into consideration. Data obtained from those 77 questionnaires were analyzed through the SPSS 20 statistical packet program and two proposed relations were tested through regression analyses.

3.3. Analyses and Results

As seen in Table 1, of those surveyed 29% are female and 71% male. 20% of the participants is 20-25 years old, 29% 26-30 years, 31-35 years, 17% , 18% 36-40 years, 41 years and above range is 7%. Of those surveyed 9% do not notify their age. As far as the education level is concerned, 13% of participants have degree in vocational school, 53% university, 24% postgraduate. Only 9% of the participants graduated from high school. 7% of respondents have 1-3 years, 33% 4-6 years, 25% 7-9 years of professional experience. Of those surveyed 35% participants have 10 years and

above profession experience. Considering tenure in the firm, 20% of the participants have worked 1-3 years, 27% 4-6 years, 22% 7-9 years. 31% of the participants notify that their tenure period is 10 years and above range.

Table 1. Demographic Variables

Demographic Variables		F	Percentage %
Sex	Female	22	29
	Male	55	71
Age	20-25	16	20
	26-30	22	29
	31-35	13	17
	36-40	14	18
	41+	5	7
	N/A	7	9
Education degree	High Scholl	7	9
	Vocational School	10	13
	University Graduate	41	53
	Postgraduate	18	24
	N/A	1	1
Profession Experience	1-3	5	7
	4-6	26	33
	7-9	19	25
	10+	27	35
Tenure in the firm	1-3	15	20
	4-6	21	27
	7-9	17	22
	10+	24	31

In this study, regression analysis is conducted to test the hypotheses and to define the direction of relations. Organizational innovation is stated as dependent variable where LMX and POS are considered as independent variables. According to the analysis results, as seen in Table 2, Adjusted R² is 0.53 stating that 53% change in organizational innovation is accounted for independent variables. Regression results points out that LMX ($\beta=,272$; $p=,000$) and POS ($\beta=,326$; $p=,000$) have significant relationship to organizational innovation. These findings support the two proposed relations.

As regression analysis results have showed, when LMX increases, organizational innovation level also escalates. In the same way, as POS increases organizations might perform well in terms of innovation. So, regression analysis results support H1 and H2 hypotheses.

Table 2. Regression Analysis Results

Independent Variables	Standardized β	Sig.	Adjusted R ²	F Value	Model Sig.
Constant	1,276	0,000	,524	42,758	0,000
Leader-Member Exchange	,272	0,000			
Perceived Organizational Support	,326	0,000			

As far as H1 is considered, the results are consistent with previous literature stating that there is a positive relationship between LMX and organizational innovation (Thamain, 2003; Janssen and Van Yperene, 2004; Kheng and Mahmood, 2013). That result is supported by the literature. For instance, Sanders et. al. (2009:59) found that there is a positive relationship between LMX, satisfaction with HR practices and innovative behaviour. They also noted that satisfaction with HR practices mediates the relationship between LMX and innovative behaviour. Moreover, according to Shunlong and Weiming, (2012:87) LMX was positively related to employee's innovative behavior, which generally related to contribution and respect. In the same line, as the leader deals with his/her subordinates more closely, it is likely that his/her awareness of the needs, expectations and problems of a given employee will increase. As a result, employees behave more innovative and productive work performance. Research results suggest that when the leaders are perceived as helpful in the realization of innovative activities, the subordinates feel encouraged to use their influence while implementing innovative activities in the workplace (Turek and Wojtczuk-Turek, 2013:541).

In the same way, H2 also provided consistent results with previous literature stating about POS (Rhoades and Eisenberger, 2002; Jin and Zhong, 2014). Eisenberger et al., argued that (1990) POS was positively related to innovation as measured by the constructiveness of anonymous employee proposals to aid the organization. Moreover, employees

with high perceived support revealed greater affective attachment to the organization and greater performance-reward expectancies. The literature also provides that, in more than 70 empirical studies, POS has been related to increases in many positive employee outcomes such as, effort to fulfill organizational goals, affective commitment, positive mood, job satisfaction, conscientiousness in carrying out conventional job responsibilities and innovation on behalf of the organization (Mitchell et.al., 2012:731).

4. Conclusion

This study highlighted the relationships between organizational innovation, LMX, and POS. First of all, to our knowledge, social exchange theory and innovation have never been combined in a techno park firm context. Secondly, LMX has a positive effect on organizational innovation. As the social exchange theory argues when one person does another a favour, there is an expectation of some future in return. As a result, focusing on the quality relationships between managers and subordinates may increase the possibility of organizational innovation. Attitudes such as work-related efforts which leaders and followers perceive what they contribute to both explicit and implicit goals of a dyad and the mutual affection that have for each other based primarily on interpersonal attraction rather than on work or professional values may create an innovative climate in the organization. Therefore, in addition to the other required skills, organizations concentrating on creativity and innovation may consider leader selection with an emphasis on leader-member exchanges. Thirdly, the findings also noted that POS has a positive impact on organizational innovation. The voluntary suggestions for improving the organization was higher by those perceiving that the organization valued their contribution and cared about their well-being.

However, as with any research endeavour, this study is not without limitations and the results of the current study should be interpreted carefully. The study focused on Denizli techno park firms therefore the results may not be generalized too easily to experiences in other techno parks. Also, by increasing participant number and involving other techno parks the results may be generalized. Apart from those limitations, the study provides a good support for the social exchange theory.

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