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Effect of Transformational Leadership and its Components on Organizational Innovation

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Abstract

This study tries to expand the understanding of the relationship between transformational leadership and organizational innovation at the organizational level. This research proposes a conceptual framework to explain the components of transformational leadership while focusing on the relationship between each component and organizational innovation. A sample of 219 managers from 63 companies in the top 100 Iranian companies participated in this research. The results of this study support the expected positive relationship between transformational leadership and organizational innovation. Further findings revealed that among five components of transformational leadership (i.e., idealized influence, attributive charisma, inspirational motivation, intellectual stimulation, and individualized consideration) not all but some of the components (including attributive charisma, inspirational motivation, and intellectual stimulation) are positively related to organizational innovation.

Keywords

Transformational leadership, Organizational innovation, Partial Least Square (PLS)-SEM.

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Introduction

This study tries to expand the understanding of transformational leadership's effect on organizational innovation at the organizational level. This topic is important because at the present time, almost all organizations are facing a dynamic environment, rapid changes in technologies, and high demand for new products and services. In order to grow and survive, companies must develop new and inimitable approaches to attract and retain their customers. Whether the organization is a business or providing a service for the customer, creativity and innovation can be a good solution in becoming flexible when encountering changes to the business environment. As innovation can play an effective role in economic growth and development, it needs to foster efforts both individually and at an organizational level (Jung, Chow and Wu, 2003).

Over the past years, studying the antecedents of organizational innovation was one of the main streams of research in this area. Research on organizational innovation antecedents attempts to identify the factors that enhance and facilitate organizational innovation. An organization's characteristics, the behaviour of organizational members, and extra-organizational factors were identified as three main antecedents of organizational innovation (Obenchain, 2002). Among the three categories of organizational innovation antecedents, behaviours and characteristics of organizational members had been one of the most extensive standing research areas in the field of organizational innovation (Rogers, 2005). As a result, some researchers investigated the importance of leadership in relation to organizational innovation, and identified related factors such as leader's behaviours or characteristics that significantly affect organizational innovation (Gumusluoglu and Ilsev, 2009b; Jung *et al*., 2003; Makri and Scandura, 2010; Shin, 1996). Previous studies revealed that leadership (with its dominant role in the organization) is one of the key factors that affect organizational innovation (Jung, Chow and Wu, 2008).

Besides the importance of leadership for organizational innovation, of paramount importance is having the right type of leadership to effectively drive innovation in the organization (Oke, Munshi and

Walumbwa, 2009). Among the wide range of research on leadership, a set of adoptive leadership behaviours labelled "transformational" is held to be more effective in enhancing organizational innovation than other leadership styles (Bass and Riggio, 2006; Gumusluoglu and Ilsev, 2009a; Hsiao, Chang and Tu, 2009; Jung *et al*., 2003, 2008; Sarros, Cooper and Santora, 2008). Theoretical and empirical studies have found that transformational leaders are more capable in supporting values and norms of followers and in fostering organizational and personal changes (Jung *et a*l., 2003). Prior researchers believed that despite agreement on the importance of leadership for innovation, little research has been done on the nature of this link (García-Morales, Matías-Reche, and Hurtado-Torres, 2008; Gumusluoglu and Ilsev, 2009a; Hsiao *et al*., 2009; Jung *et al*., 2008; Makri and Scandura, 2010; Mumford, 2002; Oke *et al*., 2009). It has been argued that previous studies in the field of innovation and leadership are not sufficiently benefited by each other and are mostly studied in separate areas (Imran and Anis-ul-Haque, 2011).

This study elaborates the influence of transformational leadership on organizational innovation at the level of organizations. "Being held to be a key driver of innovation at the organizational level, transformational leadership's effects have mostly been studied at the levels of individual employees or organizational subunits" (Jung *et al*., 2008: 582).

The problem with such a focus is that, unless the innovative behaviours and individuals' production and subunits are consistent to produce organizational-level outcomes, the organization as a whole is left without a proper response to the challenges of a competitive market environment (Jung *et al*., 2008). Therefore, extending research to this level of analysis would make a good contribution to knowledge, and providing a more systematic understanding of the relationship between transformational leadership and innovation in the organization is not only timely but even essential (Jong and Hartog, 2007).

The present study is a step on the way to developing a framework that provides a better understanding of the link between transformational leadership and organizational innovation and advances than is in prior studies in several ways. First, despite the

difficulties and complexities of obtaining a large sample in studying issues at the organizational level, the sample of this research includes a larger number of firms in comparison to previous studies. In addition, the sample of this study covered large companies in both manufacturing and the service sector in 14 different industries. Second, as the perceptions of employees on their top managers' leadership style supplied the survey data, and different employees may have different perceptions, more than one respondent in every organization participated in this study, which may lead to more powerful hypothesis tests at this level of analysis. Third, more attention was devoted in this research to refining and expanding the measurement of organizational innovation, which was a limitation of previous studies. Fourth, this study elaborates the influence of certain types of transformational leadership behaviours developed by Bass (1985) (i.e., idealized influence, attributive charisma, inspirational motivation, intellectual stimulation, and individualized consideration) on organizational innovation. The following section explains the theoretical basis for hypothesized effects in this study.

Theoretical background and hypotheses

The effect of transformational leadership on organizational innovation

Previous studies on innovation have focused on different levels of analysis. Innovation can be studied at the individual, group, organizational, industrial, or national level. The conceptualization, scope of definition, research objectives and researchers' approaches would be affected by these levels of analysis (Read, 2000). According to Slappendel (1996) and Hage (1998), much of the early literature concentrated on innovation at the individual level and addressed the adoption of new ideas and practices by individuals. Since the 1980s, studies were conducted to identify how organizations adopt innovations and examine the relationship between specific organizational variables and organizational innovativeness. This was the beginning of a mounting interest in innovation both within and by organizations, i.e., organizational innovation. Given the importance of innovation as a necessity for effectiveness, evolution, survival, and competitiveness of the organizations (Woodman, Sawyer and Griffin,

1993), several studies have encouraged others to identify factors that enhance and facilitate organizational innovation.

The review of relevant literature indicated that leadership has been identified as one of the most important factors influencing organizational innovation (Jung *et al*., 2008). Among a wide range of research on leadership styles, transformational leadership with its unique approach in motivating subordinates has gained more attention during the past decade, and the effect of transformational leadership is an especially promising focus of leadership and innovation studies (Jung *et al*., 2003). Bass (1985) described transformational leadership as an adaptive leadership style with five key components, including idealized influence, attributive charisma, inspirational motivation, intellectual stimulation, and individualized consideration. Although the constructs of transformational leadership could be found in the works of other leadership theorists, Bass' (1985) transformational leadership theory is still considered to have apprehended many leadership scholars' attentions more than 20 years after original publication (Muenjohn and Armstrong, 2008). Transformational leadership can be related to organizational innovation through several features, including interactive vision, effective communication, and providing an environment that supports innovative teams. These features allow a better understanding of the relationship between transformational leadership and factors that foster organizational innovation (Aragón-Correa, García-Morales, and Cordón-Pozo, 2007). It has been noted that leaders with idealized influence and charisma demonstrate loyalty to important and basic values and principals while paying more attention to followers' needs rather than their own. With inspirational motivation, leaders provide meaning and challenges to the work of followers. Intellectual stimulation involves stimulation of followers to resolve problems using new approaches and to question assumptions. Intellectual stimulation can help employees to think innovatively and find alternative working processes in order to create knowledge and technology, which are essential factors of organizational innovation. Finally, individualized consideration is about focusing on the individual needs of followers by mentoring, coaching, and providing opportunities for learning and preparing a supportive climate for growth (Jung *et al*., 2008; Oke *et al*., 2009).

Supporters of transformational leadership believe that by means of their behaviour, transformational leaders create personal and professional commitment in subordinates toward higher-level needs like self-esteem and self-actualization (Bass, 1985; Gardner and Avolio, 1998). Sequentially, this increases the latter's inherent motivation, which has been identified as an important driver of employee creativity and organizational innovation (Amabile, 1998; Oldham and Cummings, 1996). Therefore, regarding the background of research and objectives of this study the following hypotheses were developed:

H1: Transformational Leadership is positively related to organizational innovation.

H2: Idealized Influence is positively related to organizational innovation.

H3: Attributed Charisma is positively related to organizational innovation.

H4: Inspirational Motivation is positively related to organizational innovation.

H5: Intellectual Stimulation is positively related to organizational innovation.

H6: Individualized Consideration is positively related to organizational innovation.

With respect to the literature of transformational leadership and organizational innovation, and based on the theoretical and practical gaps, this study conceptualized the relationship of transformational leadership and organizational innovation as follows (Fig. 1).

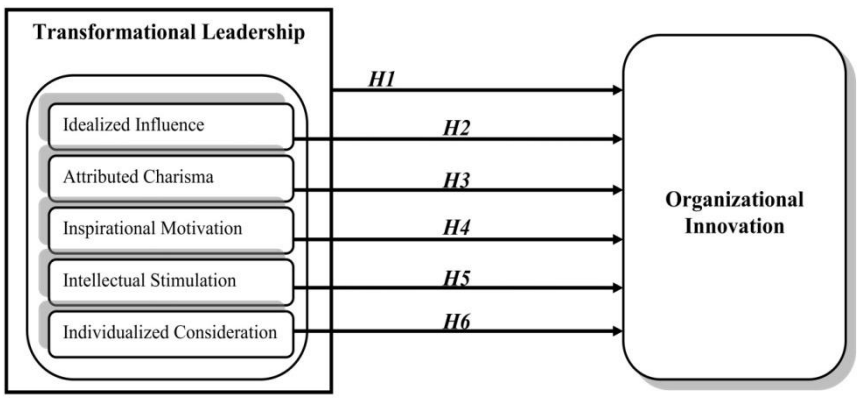

Fig. 1. Conceptual framework of this research

Methods

Population and Sampling

The sample of this research was compromised of 63 Iranian companies from both the manufacturing and the service sector in different industries. In this study, the population of interest was selected from the list of Top 100 Iranian Companies (IMI-100). The list of top 100 Iranian companies identifies the arrangement of large companies in Iran based on a national macro-view. To generate the sample of this study based on the given population from the top 100 Iranian companies, 77 companies fulfilled the criteria of this research as having being listed in IMI-100 for the last three years. This criterion was employed as the first step in sampling method to take into account the company's involvement in innovative activities constantly and continuously over a period of time. Of 77 organizations, a sample of 63 companies were randomly selected to participate in this study.

The unit of analysis in this study is the organization and in order to explain the relationship of transformational leadership and organizational innovation, this research measures the perception of top leaders' transformational leadership style by their low-level and middle-level managers. In order to consider this point that different managers may have different perceptions of their superior's leadership style (Jung *et al*., 2003), four respondents in every organization were asked to participate in this research based on random sampling. With this consideration, in total 252 questionnaires were distributed in 63 companies. With an 87% response rate, 219 questionnaires were accepted as the sample of this research and prepared to be evaluated statistically.

Procedures

In this study, data were collected through a questionnaire that included company identification codes to allow the researchers to match and group the data for analysis. The researchers distributed the research package in two ways of "delivery and collect" for those companies which were located in Tehran (the capital of Iran) and "online through email" for those in other cities. Moreover, as all the measures were collected using the same survey, the possibility of common method

bias was investigated. According to Bagozzi, Yi, and Phillips (1991), any highly correlated variables (greater than 0.9) are evidence of common method bias: none of which appeared to be presented in this research. Since all the participants in this research were Iranian, researchers used the Persian version of questions of which the copyright had been obtained for measuring transformational leadership. The rest of the questionnaire's items, however, were carefully translated and back-translated to ensure the conceptual and semantic equivalence (Brislin, 1986).

Demographic statistics

The sample of this study is regarded as highly homogeneous in terms of size of the firms. Companies that participated in this study are large-sized enterprises with more than 1000 employees. While of the top 100 Iranian companies, 66% are manufacturing enterprises, in the sample of this study, 60.3% of the companies are engaged in the field of manufacturing. Therefore, the sample of this research is significantly representative of the target population. Demographic profiles of the respondents suggest that they were well qualified to answer the questions. Half of the respondents (50.8%) were middle-level and senior managers and rest were low-level managers consisting of administrative, supervisors, and managerial assistants. In terms of gender and age, the majority of the survey respondents were male (85.7%) and they were split between 35 to 45 years old (36.6%) and more than 45 years old (45.4%). On average they had been working for the current employer for 8.8 years (sd=5.44 years). The vast majority (90.5%) of respondents were well educated and had Bachelor's or Master's degree. On average, the organizations' age was 35 years, which indicated that they were well established.

Measures

Transformational leadership

This study measured the extent of transformational leadership using twenty items from the Multifactor Leadership Questionnaire (MLQ-5X Rater Form) developed by Bass and Avolio (1997). The Multifactor Leadership Questionnaire is the most reliable and valid instrument for determining the transformational leadership

components. Participants were asked to evaluate how frequently their immediate leader engaged in transformational leadership behaviour using a five-point scale with "1" representing "Not at all" and "5" representing "Frequently, if not always". The questionnaire includes twenty items and each group of four items measures one of the components of transformational leadership (Table 1).

Table 1. Transformational leadership Instrument

Construct		Measures
Transformational Leadership	Multifactor Leadership Questionnaire (MLQ-5x) Rater Form	Idealized Influence (4 Questions) Attributive Charisma (4 Questions) Inspirational Motivation (4 Questions) Intellectual Stimulation (4 Questions) Individualized Consideration (4 Questions)

Organizational innovation

This study focuses on product innovations in defining organizational innovation because it has been suggested that product innovations are more visible and perceived to be more advantageous for the organization while requiring more managerial attention and primary resources (Damanpour, 1991). Capturing product innovations approach in this research was consistent with Damanpour's (1991: 561) definition of product innovations and in line with Gumusluoglu and Ilsev's (2009a) definition of organizational innovation. Therefore, organizational innovation is defined as "the tendency of organization to develop improved or new products/services and the successful bringing of those new products/services to the market". This is a specific and quantifiable definition as it combines common elements of many definitions and provides a market-orientation perspective which is an absent feature in most organizational innovation definitions (Gumusluoglu and Ilsev, 2009b).

Therefore, based on this review, an instrument including six items was employed to evaluate organizational innovation in this study. Three items adopted from Gumusluoglu and Ilsev (2009b) as a market-oriented measure were used to produce two ratios as a proxy for organizational innovation. Another three items adopted from adult population survey conducted by Global Entrepreneurship Monitoring (GEM) (2011) were used to produce an innovativeness index from a market and industry perspective.

Organizational innovation Ratios. This instrument measures organizational innovation based on two ratios: namely, 1. the coefficient of innovativeness tendency, and 2. the success of product innovation, developed by Gumusluoglu and Ilsev (2009b). In order to produce these two ratios respondents, were asked to answer three questions:

1. Total sales of the company during the previous three years
2. Total sales generated by product innovations during the previous three years
3. Total expenditures in producing those product innovations during the previous three years

This ratio is sales generated by product innovations over expenditures in producing those product innovations.

Innovativeness Index. This instrument developed by GEM evaluates innovation from the market and industry perspective based on product or service novelty, competitor differentiation, and use of technology. This measure represents the extent to which an organization's product or service is new to some or all customers and if few or no other organizations offer the same products or services. In this regard, respondents were asked to evaluate product/service novelty, technology novelty, and competitiveness using three questions adopted from the adult population survey developed by Global Entrepreneurship Monitoring (GEM) (2011) and an innovation index is produced by the mean of these three items.

In conclusion, the research instrument on organizational innovation in this study consists of six items which is used to produce an innovativeness index from a market and industry perspective (Table 2).

Table 2. Organizational Innovation Instrument

Construct	Measures	
Organizational Innovation	Coefficient of innovativeness tendency Success of product innovation	Innovation Ratios (Innoratio, 3 Questions)
	Product/Service Novelty Competitiveness Technology Novelty	Innovativeness Index (Innoindex, 3 Questions)

Analysis and Results

In this research, the hypotheses were tested using the partial least

squares (PLS) structural equation modelling technique (Wold, 1975) which is increasingly being used by leadership researchers (see Bass, Avolio, Jung, and Berson, 2003; Howell, Neufeld, and Avolio, 2005; Jung *et al*., 2003; Jung *et al*., 2008). PLS does not make assumptions about data distributions to estimate model parameters, observation independence, or variable metrics. PLS conforms to the existence of conditions such as the co-linearity of independent variables and data non-normality (Chin, 1998).

In this study, SmartPLS software package 2.0.M3 was used for data analyses. PLS provides the measurement model, which includes an assessment of the reliability and validity of the measures and an evaluation of the structural model, which describes the relationship between dependent and independent variables by generating the estimates of standardized regression coefficients for the model (Götz, Liehr-Gobbers and Krafft, 2010). Table 3 shows mean and standard deviation of item constructs.

Table 3. Descriptive statistics of constructs (n=63 companies)

Construct	Indicator	Item	Mean	SD
1. Transformational Leadership	Attributive Charisma	Q1.2.11.AC	3.569	0.880
		Q1.2.13.AC	3.616	0.808
		Q1.2.5.AC	3.101	0.885
		Q1.2.9.AC	2.993	0.884
	Individualized Consideration	Q1.5.10.IC	3.265	0.825
		Q1.5.15.IC	3.245	0.899
		Q1.5.17.IC	3.080	0.873
		Q1.5.8.IC	3.340	0.828
	Idealized Influence	Q1.1.12.II	3.505	0.865
		Q1.1.19.II	3.395	0.917
		Q1.1.2.II	3.470	0.926
		Q1.1.7.II	3.595	0.786
	Inspirational Motivation	Q1.3.14.IM	3.563	0.789
		Q1.3.20.IM	3.371	0.983
		Q1.3.4.IM	3.462	0.863
		Q1.3.6.IM	3.565	0.773
2. Organizational Innovation	Intellectual Simulation	Q1.4.1.IS	3.494	0.885
		Q1.4.16.IS	3.491	0.790
		Q1.4.18.IS	3.185	0.833
		Q1.4.3.IS	3.418	0.847
		Innoindex	1.893	0.444
		Innoratio	0.503	0.953

Results for the measurement model

In order to ensure the adequate reliability and validity of the constructs and measures, three criteria were employed in this study. First, the factor loadings of indicators associated with each constructs had to be 0.7 or above (Götz *et al*., 2010) to ensure the indicator reliability. Second, the composite reliability for each construct had to exceed 0.7 (Götz *et al*., 2010) to indicate the adequate reliability of the constructs. Finally, the average variance extracted (AVE) range must exceed the recommended level of 0.50 (Götz *et al*., 2010). Table 4 presents the factor loadings, composite reliabilities, and average variance extracted for constructs, and indicates that all constructs satisfied all three aforementioned criteria in this research.

Table 4. Factor loadings, composite reliability, and average variance extracted for assessing construct reliability

Constructs	Indicator	Item	Factor Loadings	Composite Reliability	AVE
1. Organizational Innovation	Innovation Index	Innoindex	0.908	0.83	0.72
	Innovation Ratios	Innoratio	0.782		
2. Transformational Leadership	Idealized Influence	Q1.1.12.II	0.882	0.96	0.85
		Q1.1.19.II	0.852		
		Q1.1.2.II	0.769		
		Q1.1.7.II	0.923		
	Attributive Charisma	Q1.2.11.AC	0.893		
		Q1.2.13.AC	0.800		
		Q1.2.5.AC	0.912		
		Q1.2.9.AC	0.816		
	Inspirational motivation	Q1.3.14.IM	0.850		
		Q1.3.20.IM	0.908		
		Q1.3.4.IM	0.830		
		Q1.3.6.IM	0.924		
	Intellectual stimulation	Q1.4.1.IS	0.906		
		Q1.4.16.IS	0.849		
		Q1.4.18.IS	0.763		
		Q1.4.3.IS	0.880		
	Individualized Consideration	Q1.5.10.IC	0.875		
		Q1.5.15.IC	0.900		
		Q1.5.17.IC	0.937		
		Q1.5.8.IC	0.763		

In order to test the constructs' convergent and discriminant validity, additional analyses were run by comparing the AVE and correlation between constructs. A comparison of the correlation with the square root of AVE (as shown in bold in Table 5) indicates that the

correlation between two constructs is less than the square root of AVE of both groups. This means that discriminant validity exists (Hulland, 1999). Therefore the results supported adequate convergent and discriminant validity of the constructs in the model.

Table 5. Latent variable inter-correlation, and square root of AVE for assessing convergent and discriminant validity

Latent Variables	Organizational innovation	Transformational Leadership	
Organizational Innovation	1.000		
Transformational Leadership	0.669	1.000	0.92

Results for the structural model and hypotheses

A satisfactory evaluation of the structural model in PLS must consist of three indexes including path coefficients, squared multiple correlations (R^2), and t-value. In order to evaluate predictive strength of the model, R^2 will be calculated for the dependent latent variable. The high values of R^2 verify the good fitness and validity of the built model (Götz *et al*., 2010). Finally, T-values are obtained through the bootstrap routine and must be more than 1.96 (Chin, 1998).

In this research, the results supported positive impact of transformational leadership on organizational innovation. PLS analysis showed that transformational leadership as a whole construct, accounted for about 45% of the variance in organizational innovation (R^2=0.449, β=0.670, t>= 3.29, P< 0.001). Therefore, the first hypothesis of this research was supported significantly. Furthermore, this research elaborated the relationship between transformational leadership components developed by Bass (1985) and organizational innovation. As described earlier, five hypotheses were developed to predict if idealized influence, attributed charisma, inspirational motivation, intellectual stimulation, and individualized consideration are positively related to organizational innovation. The PLS analysis indicated that transformational leadership components accounted for about 47% of the variance in organizational innovation.

Based on the results of the second hypothesis (H2), a significant but negative relationship of idealized influence with organizational innovation (β= -0.45, t>= 3.29, P< 0.001) was found in this research. Thus, idealized influence had a strong negative impact on

organizational innovation. The results showed that attributive charisma has a positive relationship with organizational innovation (β= 0.29, t>= 2.58, P< 0.01) and the third hypothesis (H3) of this research was supported significantly. Regarding the fourth hypothesis (H4), it has been found that inspirational motivation was highly associated with organizational innovation (β= 0.60, t>= 3.29, P< 0.001). Furthermore, the results supported hypothesis five (H5) and confirmed the significant positive influence of intellectual stimulation on organizational innovation (β= 0.30, t>= 2.58, P< 0.01). The last hypothesis (H6) of this research was not supported. It has been found that individualized consideration is not related to organizational innovation and does not play a role in effecting organizational innovation (β= 0.5, t<1.96). Table 6 presents a summary of results related to the effect of transformational leadership and its components on organizational innovation in this research.

Table 6. The effect of transformational leadership and its components on organizational innovation

Hypothesis	Path coefficients	T-value
Transformational Leadership → Organizational Innovation (H1)	0.678	13.11***
Idealized Influence → Organizational Innovation (H2)	-0.450	3.330***
Attributive Charisma → Organizational Innovation (H3)	0.290	3.262**
Inspirational Motivation → Organizational Innovation (H4)	0.602	4.204***
Intellectual Simulation → Organizational Innovation (H5)	0.307	2.270*
Individualized Consideration → Organizational Innovation (H6)	0.053	0.488

* t>=1.96 at P<0.05 level, ** t>=2.58 at P< 0.01 level, *** t>=3.29 at P< 0.001 level

Discussion

This study has examined the effect of transformational leadership on organizational innovation. The results of this research supported a direct and positive effect of transformational leadership on organizational innovation. It has been found that about 45% of the variance in organizational innovation was explained by transformational leadership, which is consistent with the prior findings by Jung *et al*. (2008).

The findings of this research revealed that of five components of transformational leadership, three of them (including attributed charisma, inspirational motivation, and intellectual stimulation) were positively and significantly related to organizational innovation, while the effect of idealized influence on organizational innovation was

opposite to the hypothesized direction. When leaders exhibit idealized influence, employees look at such leaders as role models and try to imitate them in order to reach organizational goals (Oke *et al*., 2009). However, in this research idealized influence with a moderate path coefficient (-0.45) has a significant and negative effect on organizational innovation. The negative effect of idealized influence on organizational innovation can be explained based on the leader empowerment of followers.

According to Bass and Riggio (2006: 199), "although transformational leaders can use intellectual stimulation and individualized consideration to empower followers, the charismatic elements, particularly idealized influence, can foster a potentially unhealthy dependence on the leader". Usually, the leader empowerment of followers is expected to have a positive effect but it is important to know that empowerment can have also negative consequences. The negative result of empowerment appears when the goals of followers are out of alignment or oppose the organization's goals (Bass and Riggio, 2006). Followers' empowerment may generate inflexible norms that are unfavourable to organizations and provide the opportunity to harm the organizations' innovation and creativity. It is important to consider that although leaders talk about empowering followers, they do not actually like to share power and this imbalance in power is maintained between leaders and followers (Bass and Riggio, 2006). The negative effect of idealized influence on organizational innovation in this research may suggest the existence of unhealthy dependence of followers on leaders and inauthentic leadership which is unwilling to share power with followers.

Contrary to the expectation of this study, the hypothesized relationship between individualized consideration and organizational innovation was not supported in this research. Sourcing data from Iran might be one of the main reasons of this unexpected result. As noted by Javidan and Dastmalchian (2003) Iranian managers mostly desire to move in the direction of collective well-being and create a situation in which collective actions, rather than individualism, are encouraged and rewarded. In collectivistic societies, the group and organization is an essential part of an individual's life. Consequently, people are more willing to sacrifice their self-interest for the sake of their group and

the self-aggrandizing individual is a threat (Bass and Riggio, 2006). Vandenberghe (1999) found that the effect of individualized consideration could be different and even deleterious in specific contexts. Based on the findings of Vandenberghe (1999), representing individualized consideration by a leader or top manager could sometimes be perceived as a sign of inequity and favouritism, which threatens employees or followers. In this regard, the desire of managers for a significantly higher level of institutional collectivism (Javidan and Dastmalchian, 2003) might be a possible reason for this finding.

In addition, the study of comparing transformational leadership in successful and unsuccessful companies in Iran by Jandaghi, Zareei Matin, and Farjami (2009) provides support for this proposition. A study by Jandaghi *et al*. (2009) revealed that individualized consideration has the lowest mean score among transformational leadership components in both successful and unsuccessful companies in Iran. They noted that "managers and leaders in successful companies are acting weakly in individualized consideration aspect" (Jandaghi *et al*., 2009). Allocating time to followers and employees, valuing their interests and demands, training them, and developing their empowerment and skills are all about individualized consideration, which needs to be enforced by transformational leaders in both successful and unsuccessful companies in Iran (Jandaghi *et al*., 2009). However, it must be kept in mind that the organizational environment, goals, tasks, and the distribution of power between leader and followers are important in the success and effectiveness of transformational leadership behaviours (Bass and Riggio, 2006).

Conclusion

From a theoretical perspective, the findings of this study highlight the importance of an empirical analysis in considering the relationship between transformational leadership and organizational innovation. This research tried to refine and expand the measurement of organizational innovation, including the success of innovations as well as the organization's tendency to innovate. Therefore, the findings of this study suggest that transformational leaders might not only

promote innovative activity within the organization but also ensure the innovations' market success.

Although several encouraging results have been found based on this research, it is important to recognize that the current findings also have some limitations that leave further possibilities for future research. Further investigation of these findings based on both employees and leaders' ratings may lead to different or similar results. Second, collecting qualitative data to construct a comprehensive picture of transformational leadership and organizational innovation was not possible. Therefore, since the current research was restricted in quantitative data collection and in analysing cross-sectional data, our study can reveal only correlation and not causation. Hence, examining this issue based on a cross-level analysis that encompasses leadership styles, employees' features, and organizational and environmental characteristics will be a possible direction for future research.

This study added distinctive support to the literature of transformational leadership and organizational innovation by investigating the relationship between these two variables. The ability to innovate is the key to the competitiveness of organizations. In today's twenty-first-century business environment, organizations need to innovate continuously by encouraging development of creative efforts, required knowledge, and skills, besides being seriously competitive. Leadership at the top, with its significant impact on development of the organizational vision and the strategies to accomplish that vision, seems to be an important antecedent of an organization's ability to innovate. The advantages of transformational leadership in stimulating organizational innovation can be reinforced by an organizational context that supports innovation, when the overall performance of the organization may greatly improve at every organizational level.

References

Amabile, T. M. (1998). "How to kill creativity". *Harvard Business Review,* 76(9), 77-87.

Aragón-Correa, J. A.; García-Morales, V., J. & Cordón-Pozo, E. (2007). "Leadership and organizational learning's role on innovation and performance: Lessons from Spain". *Industrial Marketing Management Science,* 36(3), 349-359.

Bagozzi, R. P.; Yi, Y. & Phillips, L. W. (1991). "Assessing Construct Validity in Organizational Research". *Administrative Science Quarterly,* 36(3), 421-458.

Bass, B. (1985). *Leadership and performance beyond expectations*. New York: Free Press.

Bass, B. & Avolio, B. J. (1997). *Revised manual for the Multifactor Leadership Questionnaire*. Palo Alto, CA: Mind Garden.

Bass, B.; Avolio, B. J.; Jung, D. & Berson, Y. (2003). "Predicting unit performance by assessing transformational and transactional leadership". *Journal of Applied Psychology Bulletin,* 88(2), 207−218.

Bass, B. & Riggio, R. E. (2006). *Transformational leadership*. Mahwah, N.J.: L. Erlbaum Associates.

Brislin, R. W. (1986). "The wording and translation of research instruments". In W. J. Lonner & J. W. Berry (Eds.), *Field methods in cross-cultural research*. Thousand Oaks, CA, US: Sage Publications, Inc. 137-164.

Chin, W. (1998). "The partial least squares approach to structural equation modeling". In G. A. Marcoulides (Ed.), *Modern methods for business researc*. Mahwah, NJ: Erlbaum. 295−336.

Damanpour, F. (1991). "Organizational innovation: a meta-analysis of effects of determinants and moderators". *Academy of Management Journal,* 34(5), 55–90.

Fornell, C. & Larcker, D. (1981). "Evaluating structural equation models with unobservable variables and measurement error". *Journal of Marketing Research,* 18(1), 39−50.

García-Morales, V. J.; Matías-Reche, F. & Hurtado-Torres, N. (2008). "Influence of transformational leadership on organizational innovation and performance depending on the level of organizational learning in the pharmaceutical sector". *Journal of Organizational Change Management,* 21(2).

Gardner, W. L. & Avolio, B. A. (1998). "The charismatic relationship: A dramaturgical perspective". *Academy of Management Review,* 23(1), 32-58.

Götz, O.; Liehr-Gobbers, K. & Krafft, M. (2010). "Evaluation of Structural

Equation Models Using the Partial Least Squares (PLS) Approach Handbook of Partial Least Squares". In V. Esposito Vinzi, W. W. Chin, J. Henseler & H. Wang (Eds.), Springer Berlin Heidelberg. 691-711.

Gumusluoglu, L. & Ilsev, A. (2009a). "Transformational Leadership and Organizational Innovation: The Roles of Internal and External Support for Innovation". *Journal of product innovation management,* 26, 264–277.

Gumusluoglu, L. & Ilsev, A. (2009b). "Transformational leadership, creativity, and organizational innovation". *Journal of Business Research,* 62(4), 461-473.

Hage, J. T. (1998). *Organizational innovation*: Ashgate.

Henseler, J.; Fassott, G.; Dijkstra, T. K. & Wilson, B. (2012). "Analysing quadratic effects of formative constructs by means of variance-based structural equation modellingw". *European Journal of Information Systems,* 21, 99–112.

Howell, J. M.; Neufeld, D. & Avolio, B. (2005). "Examining the relationship of leadership and physical distance with business unit performance". *The Leadership Quarterly,* 16(2), 273−285.

Hsiao, H.-C.; Chang, J.-C. & Tu, Y. (2009). "The influence of transformational leadership and support for innovation on organizational innovation: from the vocational high school teachers' perspective". Paper presented at the 2009 IEEE International Conference on *Industrial Engineering and Engineering Management*.

Imran, R. & Anis-ul-Haque, M. (2011). "Mediating Effect of Organizational Climate between Transformational Leadership and Innovative Work Behaviour". *Pakistan Journal of Psychological Research,* 26(2), 183-199.

Jandaghi, G.; Zareei Matin, H. & Farjami, A. (2009). "Comparing transformational leadership in successful and unsuccessful companies". *The Journal of International Social Research,* 2(6), 356-372.

Javidan, M. & Dastmalchian, A. (2003). "Culture and Leadership in Iran: The Land of Individual Achievers, Strong Family Ties, and Powerful Elite". *Building Effective Networks,* 17(4), 127-142.

Jong, J. P. J. d. & Hartog, D. N. D. (2007). "How leaders influence employees' innovative behaviour". *European Journal of Innovation Management,* 10(1), 41-64.

Jung, D.; Chow, C. & Wu, A. (2003). "The role of transformational leadership in enhancing organizational innovation: Hypotheses and some preliminary findings". *The Leadership Quarterly,* 14(4-5), 525-544.

Jung, D.; Chow, C. & Wu, A. (2008). "Towards understanding the direct and indirect effects of CEOs' transformational leadership on firm innovation". *The Leadership Quarterly,* 19(5), 582-594.

Kelley, D. J.; Singer, S. & Herrington, M. (2012). The Global Entrepreneurship Monitor 2011 Global Report: GEM.

Makri, M., & Scandura, T. A. (2010). "Exploring the effects of creative CEO leadership on innovation in high-technology firms". *The Leadership Quarterly,* 21(1), 75-88.

Muenjohn, N., & Armstrong, A. (2008). "Evaluating the Structural Validity of the Multifactor Leadership Questionnaire (MLQ), Capturing the Leadership Factors of Transformational-Transactional Leadership". *Contemporary Management Research,* 4(1), 3-14.

Mumford, M. D. (2002). "Leading creative people: Orchestrating expertise and relationships". *The Leadership Quarterly,* 13(6), 705-750.

Obenchain, A. M. (2002). *Organization culture and organizational innovation in not-for-profit, private and public institutions of higher education.* D.B.A. 3039605, Nova Southeastern University, United States -- Florida.

Oke, A.; Munshi, N. & Walumbwa, F. (2009). "The Influence of Leadership on Innovation Processes and Activities". *Organizational Dynamics,* 38(1), 64-72.

Oldham, G. R. & Cummings, A. (1996). "Employee creativity: Personal and contextual factors at work". *Academy of Management Journal,* 39(3), 607-655.

Read, A. (2000). "Determinants of Successful Organisational Innovation: A Review of Current Research". *Journal of Management Practice,* 3(1), 95-119.

Reinartz, W.; Haenlein, M. & Henseler, J. (2009). "An empirical comparison of the efficacy of covariance-based and variance-based SEM". *International Journal of Research in Marketing,* 26(4), 332-344.

Rogers, E. (2005). *Diffusion of Innovations*. New York, NY: The Free Press.

Sarros, J. C.; Cooper, B. K. & Santora, J. C. (2008). "Building a Climate for Innovation Through Transformational Leadership and Organizational Culture. *Journal of Leadership & Organizational Studies,* 15(2), 145-158.

Shin, J. (1996). *The Effects of Executive Leadership on Organizational Innovation in Nonprofit, Human Service Organizations (HSOs).* University of Pittsburgh.

Slappendel, C. (1996). "Perspectives on Innovation in Organizations". *Organization Studies,* 17(1), 107-129.

Vandenberghe, C. (1999). "Organizational culture, person-culture fit, and

turnover: a replication in the health care industry". *Journal of Organizational Behavior,* 20, 175-184.

Wold, H. (1975). "Path models with latent variables: The NIPALS approach". In H. M. Blalock, A. Aganbegian, F. M. Borodkin, R. Boudon & V. Capecchi (Eds.), *Quantitative sociology: International perspectives on mathematical and statistical modeling*. NewYork: Academic Press, 307–357.

Woodman, R. W.; Sawyer, J. E. & Griffin, R. W. (1993). "Toward a Theory of Organizational Creativity". *Academy of Management Review,* 18(2), 293–321.