



Transformational Leadership Influence on Follower Performance through Upward Knowledge Management and Organizational Learning

Ali Osman Uymaz¹

ABSTRACT

This article analyzes the direct and indirect effects of transformational leadership on follower performance through upward knowledge management and organizational learning. The research has been carried out in a company that has formed learning organization teams for organizational growth. 247 employees have participated in this study. After applying a confirmatory factor analysis to the scales used in the research, the relationship among research variables has been analyzed by using the structural equation model (SEM). The results of the research has determined that: a) transformational leadership has a positive effect on follower performance through upward knowledge management and organizational learning; b) upward knowledge management does not only directly and positively impact follower performance but also has a positive but indirect effect through organizational learning; c) organizational learning has a direct and positive effect on follower performance.

Keywords: Knowledge management, organizational learning, transformational leadership.

JEL Codes: J53, M10, M20, M54

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1.0 INTRODUCTION

A leader's achievement is closely related to how much he/she can make the knowledge and skills of subordinates useful and effective (Biransav et al., 2013). This basic relationship between managers and subordinates must be managed and the potential emerging from this effort must be converted into performance; this is the essence of the leadership process (Podsakoff et al., 1982). It has been found that transformational leadership wields a developmental impact on members of the organization, the working environment and the organization in general (Bass, 1999). Transformational leadership is a model of leadership in which members of the organization are encouraged to adopt a common awareness and vision and followers are guided in the direction of achieving the targets and goals of the

¹ Istanbul Sehir University. Email: aliuyamaz@sehir.edu.tr

organization (Bass et al., 1995). The vision and support given to fulfill this vision that the transformational leader provides followers with ensures that followers become high-performing individuals, thereby promoting organizational development and growth through personal improvement (Bass & Bass, 2008; Seltzer & Bass, 1990). For this reason, knowledge management (Tsai, 2001), new and multidirectional applications (Berson et al., 2006) are important, both from a personal perspective and on the organizational level. The intellectual stimulation provided by knowledge management directs not only the leader but also the leader's followers into questioning traditional ways and methods and developing new ones (Bass et al., 2003).

With his assertion, "We know more than we can tell" Polanyi (1998) distinguishes between two kinds of knowledge. The first type of knowledge is "explicit knowledge," and the second is "tacit knowledge." Explicit knowledge is the one which can easily be transferred when desired to a person or organization. Explicit knowledge is shaped and systematized specifically to be transferred. Tacit knowledge, on the other hand, is integrated within the individual, is specific to that person and refers to knowledge that has been formed through experience or personal effort. The foremost characteristic of tacit knowledge is that it is knowledge that is completely the result of an internal process that does not easily lend itself to ascertaining its existence or how it was produced (Rahe, 2009).

While the importance of knowledge management in organizational change and personal development has been emphasized, the impact of tacit knowledge on individual and organizational performance has not been the subject of research. Birkinshaw et al. (2002) stress the necessity of uncovering tacit knowledge that exists on the organizational level and converting this into organizational knowledge. The hidden tacit knowledge that originates from persons in the organization must be brought out and used within the organization so that it may be converted into explicit knowledge and transferred. This process also involves turning tacit knowledge into explicit knowledge that can be used throughout the organization once it is transmitted to other members of the organization.

This article studies the relationships between transformational leadership and upward knowledge management for uncovering tacit knowledge and organizational learning and examines the impact of these relationships on follower performance.

2.0 THEORETICAL BACKGROUND AND HYPOTHESES

2.01 THE INFLUENCE OF TRANSFORMATIONAL LEADERSHIP ON UPWARD KNOWLEDGE MANAGEMENT AND ORGANIZATIONAL LEARNING

Burns defines leadership as a mutual process (Leadership, 1978). It has been found that leaders create an effective organizational learning environment by encouraging the production of knowledge in the organization or ensuring the dissemination and application of this knowledge (Ash, 1997), thus contributing to accelerating personal and organizational development in that environment (Nemanich & Keller, 2007). For effective organizational learning to take place, the leader, first of all, and then all employees, must be interested not only in learning but also in teaching. At the same time, any barriers standing in the way of personal development within the organization need to be lifted and different ways and methods are to be utilized (Wick & Leon, 1995). To facilitate this, all members of the organization, including leaders, need to take on multiple roles simultaneously, such as the roles of coach, mentor, facilitator or trainee (Senge et al., 1994), and they must be supported in trying out innovative methods and techniques, being encouraged to learn and teach knowledge and skills (Morales et al., 2012; Menguc et al., 2007). For example, a leader must exhibit attitudes and behaviors that encourage the sharing of experiences, two-way communication (Berson et al., 2006) and information flow (Lei et al., 1999). It has also been reported that in such supportive environments, however, followers tend to lean toward areas that are encouraged by the leader in order to impress the leader but at the same time also to display attitudes and behavior that indicate that they have achieved both cognitive and behavioral development

(Zagorsek et al., 2009), that they are participatory and sharing (Morales et al., 2006) and that their performance has increased (Ansari & Kapoor, 1987; Colbert et al., 2008).

The leader encourages information flow, and by lifting the barriers preventing change (Ogbonna & Harris, 2000; Rubin et al., 2005), facilitates the realization of projects as well as the development of followers. In this process, followers also assume a high level of responsibility (Garcia et al., 2008).

Hypothesis 1: Transformational leadership is positively related to upward knowledge management.

Studies show that leadership is closely related to knowledge management and organizational learning (McGill et al., 1992; Senge et al., 1994). Senge (1990) asserts that organizational learning from the perspective of the learning organization represents an effective environment in which members of the organization are included in the process and simultaneously learn and teach in an effort to achieve a common vision, work together on problems, altogether creating a working environment where creative solutions are developed. Similar to the learning organization, the transformational leader also adopts a vision shared with followers as a basic strategy, ensuring that the needed awareness to achieve this vision (Morales et al., 2012) and a constructive learning environment is created so that the organization is transformed into an effective structure that promotes both learning and teaching (Bass, 1985; Burns, 1978; Gong et al., 2009). Learning and development is continuous on the individual, team and organizational level (Yang et al., 2004). The transformational leader transforms the organization, its departments and teams, into an efficient working environment where organizational learning takes place.

Hypothesis 2: Transformational leadership is positively related to organizational learning.

Organizational learning is the process whereby existing and/or newly learned knowledge of organization members are disseminated from the individual level into the whole organization (Nonaka, 1994). Organizational learning encompasses being equipped with new knowledge, sharing new or tacit knowledge and applying this to business processes (Morales et al., 2012). Learning and converting tacit knowledge into organizational knowledge is achieved through multidirectional transfer (Lowendahl et al., 2001). The transfer may be achieved upwards, downwards and/or horizontally but the usual path is downwards and to a certain extent, horizontal (Berson et al., 2006).

Organization learning includes both cognitive and behavioral development (Senge, 1990) and it turns into a process that spreads in depth throughout the organization with organization members teaching as much as they are learning (Morales et al., 2012). For this to happen, the leader ensures that subordinates learn new knowledge or share tacit knowledge with others, thus giving others the opportunity to teach. Organization members are encouraged to share and be participatory in order to facilitate the spread of newly learned or tacit knowledge throughout the organization (Senge et al., 1994). Passing on knowledge to colleagues and to the workplace setting as well as the practice of applying related skills to the job improves both individual and organizational performance (Wenger & Snyder, 2000). In today's organizations, managing organizational learning is not only a preference but has become a requirement (Argyris & Schön, 1996).

Upward knowledge management not only serves to motivate followers but also adds, albeit indirectly, the responsibility of looking after others' development (Wenger & Snyder, 2000). At the same time, in this process, tacit knowledge is transferred from the individual memory into the organizational memory. Tacit knowledge and skills are socialized and are activated within the organization (Tsai, 2001).

Hypothesis 3: Upward knowledge management is positively related to organizational learning.

2.02 THE INFLUENCE OF UPWARD KNOWLEDGE TRANSFER AND ORGANIZATIONAL LEARNING ON FOLLOWER PERFORMANCE

The transformational leader encourages personal and organizational development in order to increase organizational capacity while at the same time supporting followers with needed opportunities and resources, adding to their strength by recognizing their autonomy (Jung et al., 2008).

Ansari & Kapoor (1987) note that a leader's attitudes and behavior leads followers in one direction and followers that are granted authority and responsibility start taking action to ready themselves to impress the leader. When a leader places more importance on upward knowledge transfer rather than on the traditional downward flow, this not only allows followers to see and interpret many situations in a different light, but also closely influences their individual performance (Wenger & Snyder, 2000). Fiske states that such situations are normal because people are sensitive to people that influence processes and results and they take these as references for determining their own attitudes and behavior (1993). The leader's attitudes and behavior have an impact on followers' attitudes and behavior, performance and business results (Epitropaki & Martin, 2013).

Hypothesis 4: Upward knowledge management is positively related to follower performance.

In a working environment where organizational learning is high, the organization supports intellectual, innovative initiatives that will motivate its members, strengthen their self-confidence in the face of change, thus bringing both individuals and the organization into a climate of dynamic activity (Coad & Berry, 1998). Studies on the learning organization have been more concentrated on individual learning and organizational performance. The results of individual learning, however, are first seen in individual performance (Simon, 1991). Berson et al. (2006) emphasize that in measuring leadership, organizational learning and performance, cross-measurements and measurements at different levels are important. The transformational leader takes individual goals and performance into as much account as organizational goals and performance (Rowe, 2001). This is why transformational leadership is closely connected with development both on the personal and the organizational level (Gong et al., 2009) as well as with performance (Ensley et al., 2006).

Hypothesis 5: Organizational learning is positively related to follower performance.

3.0 METHOD

3.01 PARTICIPANTS AND PROCEDURE

The study was conducted at a food production company in Turkey that formed learning organization teams for organizational development. A questionnaire was distributed to the company's 850 employees; 247 of the forms were returned but 45 of these were incomplete and therefore not used in the study. The rate of participation in the study was 24%.

The mean age of the participants was 36.1 (SD=8.26); mean work experience was 10.2 (SD=6.4) and mean seniority in the organization was / 7.8 (SD=4.9).

3.02 MEASURES

3.2.1 TRANSFORMATIONAL LEADERSHIP

The four statements referring to transformational leadership stated in the leadership style scale developed by McColl-Kennedy & Anderson (2002) have been adapted. The participants used the scale to assess the leadership attitude and behavior of their managers. The questions were based on a 5-item Likert-type scale.

The data collected were first analyzed using confirmatory factor analysis. The analysis exhibited satisfactory results on the leadership scale. $X^2=16.22$, Normed Fit Index (NFI) = .96, Non-Normed Fit Index (NNFI) = .97, Goodness of Fit Index (GFI) = .99, Comparative Fit Index (CFI) = .97. Cronbach's Alpha (α) coefficient was computed for internal consistency. Cronbach's Alpha coefficient was found to be $\alpha = .88$. A Cronbach Alpha coefficient of $>.70$ is accepted as an indication of scale reliability (Morgan et al., 2004).

3.2.2 ORGANIZATIONAL LEARNING

The four-statement organizational learning scale developed by Garcia et al. (2006) was used. The data collected were first analyzed using confirmatory factor analysis. The analysis exhibited satisfactory results on the learning organization scale. $X^2=6.38$, NFI= .97, NNFI= .95, GFI= .99, CFI= .97. In the internal consistency analysis of the scale, Cronbach's Alpha coefficient was found to be $\alpha= .84$.

3.2.3 UPWARD KNOWLEDGE MANAGEMENT

A six-statement scale previously developed by the researcher was used for upward knowledge transfer (see Appendix A). The data collected were first analyzed using confirmatory factor analysis. The analysis exhibited satisfactory results on the upward knowledge management scale. $X^2=22.09$, NFI= .95, NNFI= .97, GFI= .98, CFI= .97. In the internal consistency analysis of the scale, Cronbach's Alpha coefficient was found to be $\alpha= .85$.

3.2.4 FOLLOWER PERFORMANCE

A six-statement scale previously developed by the researcher was used for follower performance (see Appendix B). The data collected were first analyzed using confirmatory factor analysis. The analysis exhibited satisfactory results on the follower performance scale. $X^2=19.56$, NFI= .98, NNFI= .99, GFI= .98, CFI= .99. In the internal consistency analysis of the scale, Cronbach's Alpha coefficient was found to be $\alpha= .92$.

3.03 ANALYSIS

The study analyzed the causal link between the structural equivalence model and the variables. The variables of the study were transformational leadership (the exogenous latent variable), upward knowledge management (first grade endogenous latent variable), organizational learning and follower performance (second grade endogenous latent variables). The analysis was performed on the Lisrel 9.1 program.

4.0 RESULTS

Table 1: Means, standard deviations and correlations.

	M	SD	1	2	3	4
1. Transformational leadership	3.68	.85	1.00			
2. Upward knowledge manag.	3.26	.78	.52***	1.00		
3. Organizational learning	3.28	1.03	.41***	.57***	1.00	
4. Follower performance	3.54	.89	.46***	.42***	.39***	1.00

*** $p < .001$, $n = 202$

The results reveal statistically significant and positive correlations between transformational leadership, upward knowledge management, organizational learning and follower performance on the correlation table.

The regression chart in Table 2 shows a multicollinearity test was performed to determine whether there was a high correlation between variables. The test results determine that multicollinearity did not exist. Besides the multicollinearity test, regression analysis was also performed to examine the direct effects between variables.

Based on the results of the regression table, transformational leadership has a strong impact on upward knowledge management ($\beta = .67$, $p < .001$) and on organizational learning ($\beta = .42$, $p < .001$). Upward knowledge management has an impact on organizational learning ($\beta = .20$, $p < .01$). Upward knowledge management has an impact on follower performance ($\beta = .31$, $p < .001$) and on organizational learning ($\beta = .29$, $p < .001$) and that both variables has a significant effect on follower performance.

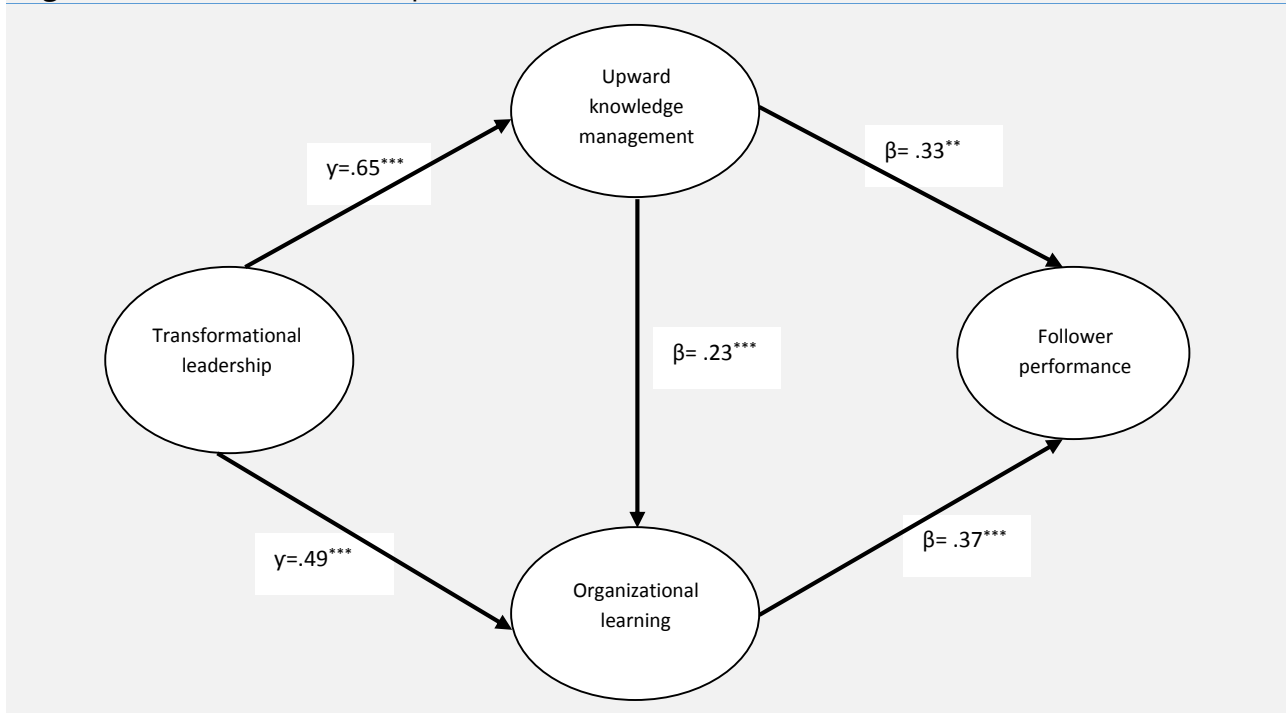
Table 2: Results of regression.

Dependent variables	Upward knowledge management				Organizational learning				Follower performance				
	Independent variables	COE	(t)	TOL	VIF	COE	(t)	TOL	VIF	COE	(t)	TOL	VIF
Constant	3.12***	11.32			1.82***	3.15				2.47***	5.55		
Transformational leadership	0.67***	9.27	1.00	1.00	0.42***	4.89	0.63	1.52					
Upward knowledge management					0.20**	2.12	0.63	1.52		0.31***	3.79	0.79	2.11
Organizational learning										0.29***	3.56	0.79	2.11
R ²	0.34				0.25					0.19			
Adjusted R ²	0.33				0.23					0.17			
F	85.15***				30.02***					20.35***			
Standart error	0.76				.98					.85			

* p<.05, **p<.01, ***p<.001 (two tailed); COE= Coefficients; t= t statistics; TOL= Tolerance; VIF= Variance Inflation Factor.

The relationships between the variables in the study model were analyzed on the basis of the structural equivalence model. The results of the analysis of the model, X²=125.34, NFI= .95, NNFI= .96, GFI= .98, CFI= .97 exhibited satisfying results. Figure 1 shows standardized structural coefficients and Table 3 the direct, indirect and total effects between the variables.

Figure 1: Results of structural equation model



According to the results of the model analysis, transformational leadership is directly correlated with and has a significant effect on upward knowledge management (.65, p<.001) and organizational learning (.49, p<.001). According to this result, H₁ and H₂ are accepted. On the other hand, it can be seen that transformational leadership has a statistically significant, indirect impact on upward knowledge management and organizational learning (.15, p<.01). It is found that transformational leadership has a total high effect (.64, p<.001) on organizational learning.

Table 3: Results of structural equation model

			Direct effects ^a	t	Indirect effects	t	Total effects	T
Transformational leadership	→	Upward knowledge management	.65 ^{***}	10.8			.65 ^{***}	10.8
Transformational leadership	→	Organizational learning	.49 ^{***}	7.15	.15 ^{**}	2.48	.64 ^{***}	9.29
Transformational leadership	→	Follower performance			.58 ^{***}	7.57	.58 ^{***}	7.57
Upward knowledge management.	→	Organizational learning	.23 ^{***}	5.88			.23 ^{***}	5.88
Upward knowledge management.	→	Follower performance	.33 ^{***}	4.77	.09 ^{**}	2.38	.41 ^{***}	7.37
Organizational learning	→	Follower performance	.37 ^{***}	5.46			.37 ^{***}	5.46

^a Standardized Structural Coefficients; * p<.05, **p<.01, ***p<.001.

Upward knowledge management is found to have a statistically significant effect on organizational learning (.23, p<.001). From this result, H₃ is accepted. In addition to these results, significant correlations are also found between follower performance and upward knowledge management (.33, p<.001) and organizational learning (.37, p<.001). From the analysis results, then, H₄ and H₅ are accepted.

The results of the analysis show that upward knowledge management has a statistically significant indirect effect on follower performance (.09, p<.01). On the other hand, it can be seen that upward knowledge management has a direct influence on follower performance (.33, p<.001). On the basis of the results of the analysis, the total impact of upward knowledge management on employee performance is high (.41, p<.001).

5.0 CONCLUSION AND POLICY IMPLICATIONS

It is clear that leadership style and practices have a rapid impact and a changing effect on all factors in the working environment as well as an influence on the corporate culture as well as on the performance of both employees and the organization (Morales et al., 2012). The results of the study confirm this, and the study shows that transformational leadership has an important influence on organizational learning and follower performance through upward knowledge management.

The study first of all reveals that there are positive correlations between transformational leadership, upward knowledge management and organizational learning. Transformational leadership activates upward knowledge management, and personal, passive knowledge found at the base of the organization is transformed into organizational active knowledge (Tsai, 2001). It has been found that at the end of this process, employees consider themselves high-performers.

The results of the research indicate that there is tacit knowledge in the organization that policy makers do not dwell upon despite the fact that this knowledge could be used to increase personal and organizational performance. Knowledge seekers have this knowledge but it can easily be ignored in the organization since it is a hidden knowledge that has an impact on many factors (Polanyi, 1998). Leadership upward knowledge management activates the potential of tacit knowledge, converting followers into high-performing individuals. Leaders turn tacit knowledge into explicit knowledge which can be used throughout the organization and transmitted to other members. Upward knowledge management and followers of leaders are able to convert their latent potentials into individual and organizational performance.

Leadership style and applications are closely related to communications and knowledge transfer (Epitropaki & Martin, 2013; Ogbonna & Harris, 2000). The results of the study, as in other studies (Cable

& Judge, 2003; Krishnan, 2003) show that the leader's effectiveness increases with his/her method of upward knowledge influence, which not only ensures an in-depth relationship with followers but also adds dynamism to the entire working environment. Upward knowledge management also adds important responsibilities to followers on a personal and organizational development basis and strengthens organizational learning (Senge et al., 1994), lifting the barriers standing in the way of achieving goals (Wick & Leon, 1995). Just as effective organizational learning protects the working environment from stagnancy (Thomas et al., 2001), so too does it ensure an increase in individual and organizational performance. The working environment that a leader creates is one of the methods of exerting a positive influence (Epitropaki & Martin, 2013). Such an environment facilitates the realization of the goals of the setting and while personal and organizational development is ensured, performance is heightened at both levels.

5.01 POTENTIAL LIMITATIONS

Although the results of the research are satisfactory, the study have some limitations. Individuals were asked to assess their own performance in measuring follower performance. Provided the corporation permits, performance evaluations in the company may be compared with the results of previous years and added to the analysis.

It is believed that if the upward knowledge dimension can be studied not only from the perspective of transformational leadership but also from the outlook of leader-member exchange and perceived organizational support, the correlations between the variables will be better explained.

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APPENDIX A

1. My manager encourages me to keep up with innovations related to my job.
2. My manager wants me to share any new development related to my job with all my business colleagues.
3. My manager asks all employees for their ideas before making a decision about the business.
4. My manager asks us to prepare executive reports about innovation and changes related to our business so that other people who might be affected are informed.
5. My manager encourages me to share/explain/present reports related to business at meetings.
6. My manager always encourages us to share best and worst applications and results.

APPENDIX B

1. I make recommendations to my colleagues about how they can improve their business.
2. I achieved a measurable improvement in the last year in the product and/or services I provide.
3. There have been fewer complaints in the last year about the product or service I provide.
4. The percentage of errors and/or rejects in the product or service I provide has dropped.
5. I am able to reach my personal goals at the workplace.
6. I am able to reach my business goals at the workplace.