

# Effects of Transformational Leadership on Team Performance

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## Abstract

*This study aims to understand the relation between transformational leadership and team performance. In all, two hundred and sixty two respondents from thirty nine different software development teams working for seven companies participated in the current study. All these respondents rated their team leader's leadership behavior on Multi Factor Leadership Questionnaire (MLQ) form 5 X and team performance on leadership outcomes scale developed by Bass & Avolio (1997). A series of statistical procedures are followed to analyze the data. First, correlations between transformational leadership components and team performance are analyzed. In addition to correlation analysis a series of regression analyses are conducted to test the hypotheses. Results reveal a positive relation between transformational leadership and team performance. Transformational leadership is associated with effectiveness, extra effort, and satisfaction.*

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## INTRODUCTION

Leadership is one that fascinates all. Nations, corporates, and individuals explicitly or implicitly aspire to become leaders in their domain. For years, many Scholars, researchers, and academicians tried to define and understand the process of leadership, still there is no consensus. Stogdill (1974) rightly pointed that, there are almost as many different definitions of leadership as there are persons who have attempted to define the concept. The result "In the past 50 years, there have been as many as 65 different classification systems developed to define the dimensions of leadership" (Fleishman et al., 1991). One such leadership theory, which attracted much attention of researchers and academicians in recent past, is transformational leadership. In the last 20 years, transformational leadership occupied a major portion of research on leadership (Judge & Bono, 2000; Lowe & Kroeck, 1996).

Bass (1985) developed the Multifactor Leadership Questionnaire (MLQ) to measure transformational, transactional, and laissez faire leadership styles. Ever since, MLQ was used in hundreds of doctoral dissertations and research articles to measure the transformational leadership behavior of leaders in different organizational settings. However, little work if any, studied the impact of leader behavior on team performance. The emphasis on team performance is critical because of the changes taking place in the work environment. As more and more organizations are shifting toward team based work culture, leadership at team level has become pivotal for successful performance of teams.

This study evaluates the relation between transformational leadership and team performance. In addition, this study also assesses the effect of each transformational leadership component on team performance.

## THEORETICAL BACKGROUND AND HYPOTHESES

### TRANSFORMATIONAL LEADERSHIP

An early conception of transformational leadership was formulated by Burns (1978) from descriptive research on political leaders. Burns (1978, p. 20) described transforming leadership as a process in which "leaders and followers raise one another to higher levels of morality and motivation." These leaders seek to raise the consciousness of followers by appealing to ideals and moral values such as liberty, justice, equality, peace, and humanitarianism, not to baser emotions such as fear, greed, jealousy, or hatred. Followers are elevated from their "everyday selves" to their "better selves." Burns contrasted transforming leadership with transactional leadership. The latter type of leadership motivates followers by appealing to their self-interest.

Bass (1985) proposed the theory of transformational leadership that builds on the earlier ideas of Burns (1978). The theory includes two different types of leadership processes. Like Burns (1978), Bass views transactional leadership as an exchange of reward for achievement. Transformational leadership is defined in terms of the leader's effect on followers: they feel trust, admiration, loyalty, and respect toward the leader, and they are motivated to do more than they originally expected to do. According to Bass, the leader transforms and motivates followers by: (1) making them more aware of the importance of task outcomes, (2)

inducing them to transcend their own self-interest for the sake of the organization or team, and (3) activating their higher-order needs. The major premise of the theory is that follower motivation and performance are enhanced more by transformational leadership than by transactional.

Factor studies from Bass (1985) to Howell and Avolio (1993), Bycio, Hackett and Allen (1995), to Avolio, Bass and Jung (1999) identified the components of transformational leadership as Idealized influence (attributed) Idealized influence (behavior), Inspirational motivation, Intellectual stimulation, Individualized consideration, Contingent reward, Management-by-exception (active), Management-by-exception (passive), and laissez-faire. Each of these components can be measured with the Multifactor Leadership Questionnaire (MLQ). Bass & Avolio (1995) categorized these subscales into three groups: (a) Idealized influence (attributed), idealized influence (behavior), inspirational motivation, intellectual stimulation, individualized consideration are considered as transformational leadership components b) Contingent reward, management-by-exception (active), and management-by-exception (passive) are considered as transactional leadership components and (c) Laissez-faire is considered as non-leadership component.

Hater and Bass (1988) and Yammarino and Bass (1989), confirmed that those leaders who were described as transformational rather than transactional by their subordinates were judged to have a much higher leadership potential by the leaders' superiors. Waldman, Bass, and Einstein (1987) showed that the performance appraisals of subordinates were higher if their leaders had been described as transformational. Clover (1989) reported that commanders who received higher ratings in transformational leadership led better-performing squadrons and were more likely to be seen as preferred role models by the cadets.

### TEAM PERFORMANCE

Effective team performance derives from several fundamental characteristics (Zaccaro & Klimoski, 2002). First, team members need to successfully integrate their individual actions. Second, teams are increasingly required to perform in complex and dynamic environments. Team leadership represents a third characteristic of effective team performance. Most teams contain certain individuals who are primarily responsible for defining team goals and for developing and structuring the team to accomplish these missions. Zaccaro et al., (2001), suggested that effective teams integrate four fundamental processes: cognitive, motivational, affective, and coordination. Zaccaro et al., (2001), proposed that leadership influences on team effectiveness occur in part through their effects on these four processes. A central responsibility of team leaders is to raise the collective efficacy of the team (Kane, Zaccaro, Tremble, & Masuda, 2002). If team members believe their team is capable of achieving its goals, i.e., being successful, they are more likely to choose to engage the task (Zaccaro, Blair, Peterson, & Zazanis, 1995). Team efficiency also emerges from leaders who exhort their members to work hard and do well. This is related to the empowerment processes of transformational and inspirational leaders (Bass, 1985; Burns, 1978). By their actions (see Bass, 1985; House, 1977), such leaders fuse each member's personal goals with the team or organizational mission. Team members identify at a personal level with the purpose and goals of the collective as a whole and are therefore more committed to their accomplishment (House & Shamir, 1993). Thus, transformational leadership is fundamentally directed at aligning the motive states of individual members with the purpose of the team as a whole (Burns, 1978; House & Shamir, 1993).

The present study is intended to enhance the understanding on leadership processes by explaining how transformational leaders motivate their followers. Prior research proved that leadership behavior affects employee performance. Waldman, Bass, and Einstein (1987) showed that the performance appraisals of subordinates were higher if their leaders had been described as transformational. Singer (1985) showed that subordinates in New Zealand preferred working with leaders who were more transformational than transactional. Clover (1989) used an abbreviated version of the MLQ to correlate the descriptions of 3,500 subordinates at the U.S. Air Force Academy, it was found that commanders who received higher ratings in transformational leadership led better-performing squadrons and were more likely to be seen as preferred role models by the cadets.

Taking into the consideration of review of literature on transformational leadership and subordinate performance leads to the following set of hypotheses:

Hypothesis 1: transformational leadership components of team leader are significantly related to effectiveness of team members

Hypothesis 2: transformational leadership of team leader components are positively related extra effort of team members

Hypothesis 3: transformational leadership components of team leader are positively related to satisfaction of team members

## METHODS

### PARTICIPANTS AND RESEARCH DESIGN

For the purpose of the study, seven software companies were chosen as sample. From each company ten teams were chosen randomly. Questionnaires were given to all the team members and asked them to rate their team leader's leadership behavior on Multifactor Leadership Questionnaire. Again, team members were asked to give their own feelings of effectiveness, extra efforts and satisfaction on leadership outcomes measure. In all, thirty nine software development teams from these companies participated in the study. Of the seven participating companies four were Indian and three were U S based IT companies having their software development centers (SDC) in Hyderabad. Questionnaires from 314 respondents were returned. Of the 314 questionnaires, 262 were found to be valid, for a useable response rate of 52 percent. Out of a total of 262 respondents, 58.8 percent were male. In terms of nature of employment 61.4 percent were permanent employees and the rest were employed on contract basis. Fifty seven percent had bachelor's level education and forty three percent had master's degrees. The mean age of the sample was 25.4 years old (S. D = 4.6) and the average job tenure was 2.4 years (S .D = 1.8). **Table 1** summarizes the distribution of the sample respondents. The sample respondents are young, highly qualified, in their early years of employment, drawing higher salaries, and having less than five years of experience in current job / position. An important attribute of the sample is women, with 41% representation in the sample.

**Table 1: Summary statement of the sample and respondents**

S No	Name of the company	Origin	Teams	Respondents			%	Country %
				Male	Female	Total		
1	I - 1	India	6	21	19	40	15.27	
2	I - 2	India	5	18	26	44	16.79	
3	I - 3	India	4	18	5	23	8.78	
4	I - 4	India	5	26	13	39	14.89	
		<b>Total</b>	20	83	63	146		55.73
5	U - 1	USA	8	23	17	40	15.27	
6	U - 2	USA	5	25	7	32	12.21	
7	U - 3	USA	6	23	21	44	16.79	
		<b>Total</b>	19	71	45	116		44.27
		<b>Total</b>	<b>39</b>	<b>154</b>	<b>108</b>	<b>262</b>		
<b>Gender wise percentage</b>				<b>58.78</b>	<b>41.22</b>		<b>100.00</b>	

## INSTRUMENTS

In this study, two different questionnaires were used to collect the data. First, a 20-item multifactor leadership questionnaire was used to measure the team leaders' transformational leadership behavior. The MLQ Form 5X is self-scoring and uses 20 items to measure the transformational leadership (Sample: "Seeks differing perspectives when solving problems"). Second, a nine item leadership outcome measures questionnaire was used to measure the team performance. This questionnaire measures the team performance on three different dimensions i.e., Effectiveness, Extra Effort, and Satisfaction (Example: "Uses methods of leadership that are satisfying"). These items are rated using a 5-point Likert scale with anchors labeled as 1 = not at all, 2 = once in a while, 3 = sometimes, 4 = fairly often, 5 = frequently, if not always.

## RESULTS

Before testing the hypotheses a correlation analysis was conducted to examine the relations between dependent and independent variables. Transformational leadership was considered as independent variable. Dependent variables include: effectiveness, extra effort, and satisfaction. Results reveal high correlations between transformational leadership and performance measures. Transformational leadership is significantly associated with effectiveness ( $r = .84$ ,  $p < 0.01$ ), extra effort ( $r = .79$ ,  $p < 0.01$ ), and satisfaction ( $r = .84$ ,  $p < 0.01$ ).

All the transformational leadership subscales has positive, statistically significant ( $p < .01$ ), correlations with effectiveness. These correlations are as follows: idealized influence (attributed),  $r = .89$ ; idealized influence (behavior),  $r = .89$ ; individualized consideration,  $r = .87$ ; inspirational motivation  $r = .85$ ; and intellectual

stimulation  $r = .85$ . The transformational leadership subscales also has positive, statistically significant ( $p = .01$ ), correlations with extra effort. These correlations are as follows: idealized influence (behavior),  $r = .92$ ; inspirational motivation  $r = .91$ ; individualized consideration,  $r = .88$ ; idealized influence (attributed),  $r = .86$ ; and intellectual stimulation  $r = .86$ . The transformational leadership subscales has positive, statistically significant ( $p = .01$ ), correlations with satisfaction. These correlations are somewhat higher; idealized influence (attributed),  $r = .92$ ; idealized influence (behavior),  $r = .92$ ; individualized consideration,  $r = .89$ ; inspirational motivation  $r = .89$ ; and intellectual stimulation  $r = .85$ .

**Table 2: Correlations among transformational leadership scale and performance measures**

	<i>TL</i>	<i>Effectiveness</i>	<i>Extra Effort</i>	<i>Satisfaction</i>
Transformational Leadership (TL)	1	.84(**)	.79(**)	.84(**)
Effectiveness		1	.81(**)	.82(**)
Extra Effort			1	.75(**)
Satisfaction				1

These results suggest that there is a positive and strong, relationship between the transformational leadership behaviors and team performance. For team performance, this suggests that leadership behaviors which involve building trust, inspiring a shared vision, encouraging creativity, emphasizing development, and recognizing accomplishments is positively related to how team members feel about reaching that extra mile and achieving goals in software companies.

**Table 3: Correlations among transformational leadership subscales and team performance measures**

	<i>IIA</i>	<i>IIB</i>	<i>IM</i>	<i>IS</i>	<i>IC</i>	<i>EFEC</i>	<i>EE</i>	<i>SATIS</i>
<i>IIA</i>	1	.93(**)	.92(**)	.81(**)	.89(**)	.89(**)	.86(**)	.92(**)
<i>IIB</i>		1	.94(**)	.84(**)	.89(**)	.89(**)	.92(**)	.92(**)
<i>IM</i>			1	.86(**)	.90(**)	.85(**)	.91(**)	.89(**)
<i>IS</i>				1	.89(**)	.85(**)	.86(**)	.85(**)
<i>IC</i>					1	.87(**)	.88(**)	.89(**)
<i>EFEC</i>						1	.89(**)	.92(**)
<i>EE</i>							1	.90(**)
<i>SATIS</i>								1

\*\* Correlation is significant at the 0.01 level (1-tailed). (IIA- Idealized Influence (Attributable), IIB- Idealized Influence (Behavior), IM-Inspirational Motivation, IS- Intellectual Stimulation, IC-Individualized Consideration, Efec – Effectiveness, EE-Extra Effort, and Satis-Satisfaction.

## RESULTS OF THE HYPOTHESES TESTING

To test further Hypothesis 1 to Hypothesis 3, regression is employed. Table 4 to 6 shows the regression results. When analyzing the results with this method, particular attention is given to the beta coefficients, and  $R^2$ .

**Hypotheses** proposed that transformational leadership behavior of a team leader would be significantly correlated with team performance variables. The data (Table 4 to 6) clearly offered support to these hypotheses. There is a significant positive correlation between transformational leadership and team performance variables. Transformational leadership is found to be positively related to effectiveness ( $R^2 = .74$ ,  $\beta = .86$ ,  $p < .001$ ), extra effort ( $R^2 = .65$ ,  $\beta = .81$ ,  $p < .001$ ), and satisfaction ( $R^2 = .72$ ,  $\beta = .85$ ,  $p < .001$ ). These results are in support of prior research (Avolio, Waldman, & Einstein, 1988; Bass & Avolio, 1989; Bass, 1985, 1987, 1989; Howell and Avolio, 1989) on transformational leadership.

**Table 4 Regression analysis between transformational leadership and Effectiveness**

	<i>ANOVA</i>				<i>Coefficients</i>			
	<i>R</i>	<i>R</i> <sup>2</sup>	<i>F</i>	<i>Sig.</i>	<i>B</i>	<i>Beta</i>	<i>t</i>	<i>Sig.</i>
Independent variables (Constant)								
TL	.86	.74	728	0.00	.116	.86	.87 26.98	0.39 0.00

**Table 5 Regression analysis between transformational leadership and Extra Effort**

Independent variables	ANOVA			Coefficients				
	R	R <sup>2</sup>	F	Sig.	B	Beta	t	Sig.
(Constant)TL	.81	.65	487	0.00	.03	.81	.21	0.83
							22.11	0.00

**Table 6 Regression analysis between transformational leadership and Satisfaction**

Independent variables	ANOVA			Coefficients				
	R	R <sup>2</sup>	F	Sig.	B	Beta	t	Sig.
(Constant) TL	.85	.72	653	0.00	.222	.85	1.45	0.15
							25.57	0.00

## DISCUSSION

The literature review discussed several studies that found relations between leadership behaviors, and team performance and other studies that found no such relationship. There are many factors that can influence team performance ex. (a) age, sex, race, personality, attitudes, climate, and culture; and (b) values, fairness of policies, empowerment, competence, job challenges, degree of autonomy, and variety of skills used (Meyer & Allen, 1997). This study is unique in that it has helped to fill this gap in an effort to improve our understanding of the role of leadership in the global environment. With increasing globalization, greater knowledge of the interaction of these factors in non-western cultures can be beneficial for assessing the effectiveness of current theory as well as benefiting practicing leaders and decision makers. Consistent with previous studies (Shamir et al., 1993), this study reports a positive association between transformational leadership and team performance. Transformational leaders place emphasis on the meaning of tasks that followers engage in at work. It appears, based on these results, that transformational leader demonstrating their trust in their followers' capabilities, therefore creating opportunities for them to significantly impact their work, which could lead to higher levels of performance. There are several practical implications that can be derived from these findings. First, by creating a greater sense of empowerment, team leaders could have a more positive effect on levels of team performance. Second, team leaders should clearly articulate a vision that inspires employees to take greater responsibility for their work. Third, Goal clarification, and a clear specification of tasks, roles, and rewards, perhaps at the more immediate supervisory level, may also facilitate higher team performance. Finally, understanding employee needs, creating a supportive atmosphere and engaging in confidence-building practices would also likely contribute to a greater performance.

## CONCLUSION

The results of this study point to the need for developing transformational leadership training programs in Informational Technology (IT), IT enabled, and Knowledge Processing services, through a structured leadership interventions designed to bring about a positive change in employee confidence, attitudes and performance.

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