

Transformational Leadership as a Predictor of Innovative Work Behavior: Moderated by Gender

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Abstract: The criterion of success has changed from ‘how hard you work’ to ‘how different you work’. Innovation is the lifeblood of today’s competitive organization. In this backdrop, this study investigates the effect of transformational leadership on innovative work behavior. The study also examines the moderating impact of gender on transformation leadership and innovative work behavior. Data was collected through a structured questionnaire using the random sampling method. The participants of the study consisted of managers from the telecommunication sector of Pakistan. 320 valid questionnaires were collected with a response rate of 20%. This empirical study used Hierarchical regression models to test the hypothesized relationships. The findings reveal that transformational leadership has a positive and significant impact on innovative work behavior. Gender contributes significantly as a moderator between transformational leadership and innovative work behavior. This study highlights the significant moderating role of gender between all dimensions of transformational leadership viz. Inspirational Motivation, Intellectual Stimulation and Attributed Charisma and Innovative Work, except Idealized Influence and Individualized Consideration.

Key words: Transformational Leadership • Innovative Work Behavior • Gender • Attributed charisma • Idealized Influence • Inspirational Motivation • Intellectual Stimulation • Individualized consideration

INTRODUCTION

The increasing advancements in technology, varying customer demands and globalization have given birth to an immensely competitive environment [1]. The organizations heavily rely on their employees to innovate and to maintain their competitive edge [2].

A relatively new dimension of research in the field of innovation emerged in recent years. The focus of this dimension is on the individual’s behaviors which consist of future oriented and self initiated actions. The aim of these actions is to change or improve one’s current situation [3]. Such behaviors include proactive work behavior [4, 5], innovative work behavior [2, 6], taking charge [7] and work group voice behavior [8]. Innovative work behavior expects to demonstrate creative output and some sort of benefit for the organization. The behavior of the employees intended towards making new products, processes and services is also part of such behavior [9,10].

The important dimensions of the innovative work behavior relate to the generation, promotion and realization of the innovative ideas [6]. West and Farr [11] described innovative work behavior as intentionally creating, introducing and applying creative ideas in order to improve the organizational performance. Innovative work behavior is also referred as the behavior of the individuals to deliberately initiate and introduce useful and new ideas, products, services, processes and procedures within the organization [12].

Leadership is comprised of all the factors from Supervisory affect on subordinates’ attitudes to the CEOs’ affect on organizational performance. Leadership is distinguished from management as it is comprised of those actions or words that create meaning for employees, whereas, management consists of attributes, behaviors and acts that affect performance without creating meaning [13]. Leadership enables individuals to think out of the box, to think for the collective interests rather than their individual concerns [15].

The current changing situation requires organizations to transform. Organizational administrators are now required to adopt the role of leadership. The conventional leadership styles are unable to match with this present environment. Highly committed organizational leaders can be the lifeblood for the organizations [15].

During 1980s and 1990s the researchers' interest in new leadership styles [16], opened prospects for further exploration. Later research revealed that effective leaders inspire followers and value their abilities for the contribution to organizational success. Burns [17] initially conceptualized this approach as transformational leadership and it was later elaborated by Bass [16]. According to Bass's transformational leadership theory, leader creates an environment of commitment, develops interest to work and motivates people to achieve organizational objectives. According to Cascio [18] transformational leadership is an appropriate tool to deal with future challenges.

Earlier research in leadership proposes that the process of subordinate transformation takes place when they start thinking about their intrinsic needs and work for other factors rather than simply earning money [19, 20, 16, 17]. Burns [17] suggested that transformational leaders interact with the persons in a way that raised the motivational and integrity level by the mutual understanding of the leaders and the followers.

Research in the area confirms that innovation does not happen in a vacuum i.e. people working around an individual affect their innovative abilities [21]. In order to carry out or support innovation it is important for an individual to interact with people [22]. The innovative efforts of the employees may terminate if discouraged by the leader or coworker as suggested by Scott and Bruce [9] and Krause [23]. So, the most important factor affecting the innovative work behavior is leadership style, which is the main focus in the present study. Leadership style is greatly affected by the gender of the leader. The gender attributes affect the way people interact with each other and command subordinates. Gender differences have been extensively found in connection with transformational style but there is lack of empirical evidence to shed light on how gender differences enhance innovative work behavior through transformational leaders. Furthermore, the analysis of specific dimensions of transformational leadership i.e. attributed charisma, idealized influence, inspirational motivation, intellectual stimulation and individualized consideration would advance understanding of the relationships between transformational leadership and

innovative work behavior. It is vital to validate the role of gender in the development of entrepreneurs through better leadership style and innovation. The present study therefore attempts to find the moderating role of gender in the relationship between transformational leadership as a whole, as well as its facets, innovative work behavior, specifically in the Asian and developing nation.

Literature Review

Innovative Work Behavior: Innovation is described differently by a number of authors. Generally, it is considered as individual's personality, the output produced and their behaviors. The base of innovation is ideas and these are developed, transmitted and transformed by individuals [21]. Individual innovation is described as one's readiness to change and is based on one's personality [24]. Innovativeness is considered as a stable individual trait which is displayed in situations demanding innovation [25]. Individuals have different natures; some willingly take risks and try new ideas, while others hesitate to change their existing practices. Innovation Diffusion Theory reveals that the level of individual innovativeness varies among people and therefore, they react differently over the new ideas and practices [26]. Generally it is considered as individual's traits, characteristics and behaviors. De Jong [12] found it to be a set of behaviors. However, according to the innovation theory, innovation is not only idea generation but it also encompasses idea implementation [27]. Likewise, innovative work behavior is also composed of idea generation and implementation [12].

Relevant literature draws a line of differentiation between the concepts of creativity and innovative work behavior [9]. Production of new and useful ideas is considered to be employee creativity [28] whereas, innovative work behavior is supposed to be output based and more applied in nature. It is employee's behavior associated to creation of new ideas. Creativity may be identified as a subset of innovative work behavior and it is related to the crucial phase of the innovation process [29].

The intention of an individual to generate novel outcomes by exploring opportunities, identifying performance gaps or producing solutions for problems represents innovative work behavior. In addition, such behavior is not expected from the employees and is exclusively employee's discretion [30].

Substantial research supports the view that the organizations should keep on developing and making best use of employee's innovative potential in order to be

successful [31]. Dornboch, Marloes, Engen and Verhagen [32] consider the innovative potential of employees vital for creating and maintaining competitive advantage, quality management and continuous improvement practice. Individual innovativeness is considered to be a complex behavior having three stages [9]; *Idea generation* which consists of problem recognition and finding new solutions and ideas in response. Upcoming developments and evident problems related to the work are initiated [33]. *Idea promotion* identifies the ways to promote solutions and ideas. The authenticity of their ideas within and outside the organization is proved. *Idea realization* where realization of the idea or solution is done by creating a model of innovation to be used in the organizational setting [22]. However, Janssen *et al.* [34] considered innovative work behavior as a set of four interrelated activities comprising recognition/identification of problem and, generation, promotion and realization of ideas.

Innovation is facilitated by a number of factors [35]. The antecedent factors affect individual innovativeness at different levels of analysis like individual, work group and organization level [12]. It is affected by personality features, job features and cognitive capabilities that vary among individuals. Different traits, thinking patterns and job requirements are possessed by different individuals playing important role in their innovative output. The organizational characteristics and group level factors also influence individual innovativeness. The individuals cannot innovate in isolation, supportive leadership and climate is a must for innovative employees [12].

Transformational Leadership: With the introduction of transformational leadership, researchers became interested in understanding the role played by the leader in evaluating followers' motivation level in order to achieve performance beyond expectation [36]. The leaders enhance employee's performance capacity and create willingness to cope with complex tasks [37]. Transformational leaders encourage their followers to bring about both personal and organizational changes [38].

DeGroot, Kiker and Cross [39] in a meta-analytical review established positive relationship between effectiveness of the leadership and transformational leadership components. Transformational leadership has also been linked with supervision satisfaction [40, 41], extra effort [42, 43], organizational citizenship

behavior [44, 41], job satisfaction [40, 45], organizational commitment [40, 46] and turnover intention [47, 46]. Keller [48] also examined Transformational leadership style in large R & D organizations revealing that it boosts team performance.

Literature supported the influential power of Transformational leadership on organizational innovation [49, 50, 51, 52]. There existed a positive relationship between transformational leadership and creativity of the followers [49]. Innovative and creative work behavior is strengthened by the leaders' vision based on innovation by providing guidelines and road map for the future activities [12].

When comparing with transactional leadership, subordinate's attitude is more affected by transformational leadership. Transformational leaders motivate followers to think logically and accordingly come up with new ideas and solutions than those working under transactional leaders [53]. Past researches confirm that transformational leaders are able to line up the values, norms, ideas, beliefs and attitudes of their followers to motivate them to work hard and achieve targets [54, 55].

De Hong and Den Hartog [56] investigated leaders' behavior to boost employee innovation. The authors established that intellectual stimulation was one of the 13 leadership styles and dimensions of the transformational leadership which effected employee innovation. Lee and Jung [57] also confirmed that in comparison to other leadership styles employees usually accepted transformational leadership style. There exist a positive relationship between transformational leadership style and organizational innovation [58, 38].

A study conducted by Lee and Jung [57] in Taiwan suggested that transformational leadership style encourage innovative abilities of employees. Leader is also considered to play an important role in developing a creativity supportive environment [59, 49].

Literature reveals very few empirical studies which examined the relationship between transformational leadership and innovative work behavior [52, 51]. Some studies posit that intellectual stimulation, i.e. an aspect of transformational leadership, encourages employees play with ideas and solutions rather than old ones [60-63]. Similarly, leaders involved individual pay considerations, needs, wants of their followers. Good leaders support their followers to work and convert their ideas into reality [51, 28, 65, 66].

Role of Gender: Debate regarding whether men or women are successful leaders depends upon specific circumstances and individuals. The gender-centered perspective claims that individual characteristics differ with the gender i.e. the women would have a feminine leadership style and men are prone towards a masculine leadership style [67]. Likewise, the social role theory of leadership states that leaders behave according to the social expectations attached to their gender role. In this regard women are likely to exhibit transformational leadership style [68]. Women generally take a participative leadership style more willingly as compared to their male counterparts. There are greater chances that subordinates make complain when female manager attempts to act as autocratic because of their expectations from them to act as participative [69]. Martell and DeSmet [70] studied that leadership capabilities of females are assessed differently than of males.

The past literature on gender and transformational leadership yield mixed results [68, 71, 72]. A meta-analysis by Eagly and Johnson [69] found no difference between male and female respondents in task and interpersonally oriented leadership. However, Eagly, Johannesen-Schmidt and van Engen [73] confirmed the role of gender on leadership styles in a meta analysis, the findings of which supported the fact that there is a significant impact of gender on transformational leadership style.

This study develops the following hypothesized relationships based on the theoretical background and literature review:

H₁: There is a positive impact of Transformational leadership on innovative work behavior.

H₂: Transformational leadership and innovative work behavior relationship is moderated by Gender.

H_{2a}: Attributed Charisma and innovative work behavior relationship is moderated by Gender.

H_{2b}: Idealized Influence and innovative work behavior relationship is moderated by Gender.

H_{2c}: Inspirational Motivation and innovative work behavior relationship is moderated by Gender.

H_{2d}: Intellectual Stimulation and innovative work behavior relationship is moderated by Gender.

H_{2e}: Individualized Consideration and innovative work behavior relationship is moderated by Gender.

MATERIALS AND METHODS

Sample and Data Collection: The research team collected data through a structured questionnaire using simple random sampling method. The subjects of the study consisted of top and middle level managers from the top telecommunication organizations in Pakistan. A total of 320 valid questionnaires were collected with a response rate of 20%. The age of the participants of this study ranged between 22 and 40 years with average age of 30 years (S.D= 5.9). The work experience of the participants ranged from 1 to 20 years (S.D= 1.1). The educational background of the respondents ranged from Bachelors to Masters Level. The research team administered the subjects individually. The research team distributed the questionnaires to the respondents after due consent of the employees. Each participant was approached individually by the research team in order to assure the validity of the data. The research team assured the participants about the confidentiality and privacy of the provided information and its usage for only research purpose. The instructions were given on every questionnaire specified with their required demographic information.

Instrument: The research instrument of this study comprised of three sections. First section consisted of the demographic profile of the respondents followed with the instructions to fill the questionnaire. Second section of the instrument consisted of innovative work behavior scale developed by Zaman [74] which consisted of 25 items. The instrument of innovative work behavior was an indigenously developed instrument which took into account most possible aspects present in the local context. It was selected keeping in mind that it was easy to understand and therefore would tap at the variables better than any foreign developed instrument as.

The third section of the instrument consisted of 20 items of Transformational leadership adopted from Multifactor Leadership Questionnaire MLQ-5X, developed by Bass and Avolio [45]. Five point Likert scale was used ranging from 1 being strongly disagree to 5 being strongly agree.

RESULTS AND DATA ANALYSIS

This empirical study used SPSS 17.0 to compute the descriptive statistic and Hierarchical regression models to test the hypothesized relationships.

Table 1: Descriptive Statistic and Correlation Coefficients (N=320)

	Scales	Mean	S.D	I	II	III	IV	V	VI	VII
I	Innovative Work Behavior	79.17	12.58	(.80)						
II	Overall Transformational Leadership	69.57	14.68	.27*	(.93)					
III	Attributed charisma	13.71	3.79	.23*	.82*	(.81)				
IV	Idealized Influence	14.31	3.49	.31*	.86*	.69*	(.78)			
V	Inspirational Motivation	14.01	3.43	.29*	.87*	.71*	.74*	(.79)		
VI	Intellectual Stimulation	13.69	3.59	.19*	.85*	.58*	.65*	.68*	(.81)	
VII	Individualized Consideration	13.85	3.67	.08	.70*	.37*	.44*	.47*	.59*	(.78)

p<.01, Chronbach alpha in parenthesis

Table 2: Regression Analysis- Transformational leadership and Innovative work behavior (N=320)

Model	B	SE	β	t
Constant	61.61	3.01	----	20.49*
Transformational Leadership	.62	.10	.32	6.0*
R ² = .10				
$\Delta R^2 = .10$				
F = 35.89, df = 1, 318, p<.001				

* p< 0.001

Note: B= Unstandardized beta; SE= Standard error; β = Standardized beta

Table 3: Hierarchical step-by-step regression coefficients (N=320)

Model	B	S.E	β	t
1 (constant)	68.01	3.31	-	20.53*
Attributed charisma	-.38	.27	-.12	-1.43
Idealized Influence	.46	.31	.13	1.43
Inspirational Motivation	.32	.33	.09	.96
Intellectual Stimulation	-.21	.28	-.06	-.76
Individualized consideration	-.61	.23	-.18	-2.66*
Gender	10.92	2.24	.43	4.90*
2 (constant)	13.85	14.25	-	9.82*
Attributed charisma	-2.25	.80	.68	-2.81*
Idealized Influence	-.86	.91	-.24	-.94
Inspirational Motivation	-4.03	.98	-1.10	-4.12*
Intellectual Stimulation	1.92	.82	.55	2.31*
Individualized consideration	-.35	.72	-.10	-.49
Gender	-47.09	10.75	-1.9	-4.38*
Gender* Attributed charisma	1.37	.58	1.25	2.73*
Gender* Idealized Influence	.85	.58	.77	1.456
Gender* Inspirational Motivation	3.01	.63	2.67	4.81*
Gender* Intellectual Stimulation	-1.25	.53	-1.10	-2.40*
Gender* Individualized consideration	-.05	.44	-.05	-.12

Model 1, R² = .414, F (6,313) = 10.77, p<.01; Model 2, R² change = .139, F(5,308), p<.001

Table 1 reveals the descriptive statistic, coefficient alpha reliabilities for the scales used in the present study and the correlation between the variables of this study. The reliability coefficients for all the variables exceeded .70 as recommended by Nunnally [75]. There is a positive and significant relationship ($r = .27$, $p < .01$) between the overall transformational leadership and innovative work behavior. There is a positive and significant relationship ($r = .23$, $p < .01$) between the attributed charisma and innovative work behavior. There is a positive and significant relationship ($r = .31$, $p < .01$) between idealized influence and innovative work

behavior. There is a positive and significant relationship ($r = .29$, $p < .01$) between inspirational motivation and innovative work behavior. There is a positive and significant relationship ($r = .19$, $p < .01$) between intellectual stimulation innovative work behavior. There is a positive but insignificant relationship ($r = .08$) between individualized consideration and innovative work behavior.

The impact of transformational leadership on innovative work behavior was examined through the regression analysis. The value of R² in the Table 2 shows that 10% of the variation in Innovative Work Behavior

is accounted for by the Transformational Leadership style of the supervisor with $F(1, 318) = 35.89, p < .001$. Beta values of .32 ($p < .001$) shows that there is a significant positive impact of transformational leadership on Innovative Work Behavior.

Moderating Effect of Gender: Following the procedure outlined by Aguinis [76] (2003), this study used the hierarchical step-by-step regression analysis to examine the moderating effect of gender between different facets of transformational leadership and innovative work behavior as presented in Table 3.

At the first step, the transformational leadership facets and gender were entered into the equation. At the second step, the interaction terms such as Gender \times Attributed Charisma, Gender \times Idealized Influence, Gender \times Inspirational Motivation, Gender \times Intellectual Stimulation and Gender \times Individualized consideration were entered.

In Model 1, the value of $R^2 = .414$ shows that 41.4 percent variance is explained in innovative work behavior by transformational leadership facets and gender.

In Model 2, the inclusion of interaction terms resulted in an R^2 change of .139 $F(5,308), p < .001$. The moderating effect of gender explained a variance of 13.9 in innovative work behavior above and beyond the variance explained by transformational leadership facets and gender.

The regression models demonstrated that there is a significant moderating effect of gender between three of the transformational leadership facets such as Attributed Charisma, Inspirational Motivation and Intellectual Stimulation and innovative work behavior. Whereas there is no significant moderating effect of gender between transformational leadership facets such as Idealized Influence and Individualized Consideration and innovative work behavior.

DISCUSSION AND CONCLUSION

The purpose of this research was to examine the impact of transformational leadership and innovative work behavior. Another objective of this study was to examine the moderating affect of gender between transformational leadership and innovative work behavior.

The first hypothesis was supported as transformational leadership had a significant and positive impact on innovative work behavior. The literature demonstrates links between transformational leadership and innovation. Transformational leaders motivate people to think logically and produce creative ideas [53].

Transformational leaders were found to promote innovative abilities of the employees [57]. Shin and Zhou [49] revealed a positive correlation between transformational leadership and creativity. The relationship between transformational leadership to innovative work behavior was also observed by a very few number of studies, for instance, a positive and significant association between transformational leadership and innovative work behavior was found by Janessen, [52] and Reuvers *et al.* [51].

Changing business environment requires organizations to transform and be competitive and innovative. Administrators within the organizations are now required to change their style and adopt leadership role. The committed and dedicated leaders can play a pivot role for the organizations [77]. For this purpose leaders rely on their employees' innovative work behavior. Leadership style makes a considerable difference in encouraging employee's innovativeness. Stimulating innovative work behavior asks for the leader's participation, vision, support, motivation and intellect - all aspects attributed to transformational leadership. The present study found transformational leadership style leading employees to exhibit innovative work behavior.

The second hypothesis and its sub-hypotheses anticipated that gender moderates the relationship of transformational leadership and its facets with innovative work behavior. The sub hypothesis H_{2a} , H_{2c} and H_{2d} were substantiated as gender significantly moderated the relationship between three facets of transformational leadership (i.e. Attributed charisma, Inspirational Motivation and Intellectual Stimulation) and innovative work behavior. However, there was no affect of the other two facets of transformational leadership (i.e. idealized influence and Individualized consideration) on innovative work behavior.

A meta-analysis by Eagly, Makhijani and Klonsky [78] and Eagly, Karau and Makhijani [79] revealed the role of gender in enhancing innovative work behavior while using a transformational leadership style. Reuvers *et al.* [51] found gender moderating the relationship between transformational leadership and innovative work behavior. Groves [80] confirmed that social and emotional abilities of gender played a pivot role in the development of specific leadership style.

This study signifies the role of gender in the development of entrepreneurial abilities of the organization such as innovation and leadership. It is essential for a developing country like Pakistan to ensure the relevant and participatory role of both genders for the socio-economic development of the nation.

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