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# Inter-Relationship Among Transformational Leadership, Organizational Learning and Organizational Innovation: A Study of Pakistan's Telecom Sector

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**Abstract:** This paper aims to examine the relationship among Transformational Leadership, Organizational Learning and Organizational Innovation in the Telecom Sector of Pakistan. Data were collected through survey questionnaires from 150 executives working in Head Offices of four major telecom companies of Pakistan *i.e.* Mobilink, Ufone, Warid and Telenor. The SPSS 17 was used for data analysis. Factor analysis and cronbach's alpha were used to assess the validity and reliability of the instrument. Similarly, the relationship between the variables was examined through correlation and regression analysis. Results reveal that Transformational leadership significantly and positively affects organizational learning and organizational innovation. Moreover organizational learning partially mediates the relationship of Transformational leadership and organizational innovation. Moreover, the managerial and theoretical implications of the study along with limitations and suggestions for future research have also been discussed.

Key words: Transformational Leadership • Organizational Learning • Organizational innovation • Pakistan

## INTRODUCTION

Service sector plays a vital role in the growth and prosperity of Pakistan's economy. After agriculture, it is the second largest sector of Pakistan. In service sector, Telecom sector is fastest growing and one of the most prospective sectors that contributes largely in the country's GDP [1]. According to Pakistan telecommunication Authority (PTA), telecom sector has contributed about 363 billion rupees to the national economy during 2012 which showed an increase of 5.4% as compared to last year. Potential of this sector shows that foreign direct investment in this sector amazingly improved during the period of 2003-2006 from 21.8% to 54.1%. However, this sector has witnessed intense competition during last few years. The total number of mobile subscribers has reached to 119.8 million by the end of May, 2012 [1]. In order to survive in this competitive environment, organizations have to be creative and responsive to the external environment.

Leadership plays important role to compete in the dynamic business environment. Transformational leaders

are the charismatic personalities who can enhance firm's performance through innovation in services [2]. According to Calantone *et al.* [3], transformational leaders can enhance the learning process which is prerequisite of innovation in the organization. Firms that have depth, breadth and pace of learning can innovate and respond to external environment in a better way. These organizations have capability and knowledge to forecast and understand customer demands, own latest technology and use it to make services innovative. Therefore, transformational leadership is essential for organizational success [3].

Numerous studies analyzed the impact of transformational leadership on organizational performance by intermediary constructs like flexibility [4], absorptive capacity [5], entrepreneurship [6], congruence in top management teams [7] and human capital [8]. However, the impact of transformational leadership on organizational innovation by the intermediary construct of organizational learning has not been tested empirically. Moreover, the relationships among transformational leadership, organizational learning and organizational

**Corresponding Author:** Dr. Masood Ul Hassan, Department of Commerce, Bahauddin Zakariya University, Multan, Pakistan. innovation have not been addressed collectively in telecom sector of Pakistan. To the best knowledge of the authors of the study, this is the first research of its kind in Pakistan. Therefore, this leads to the following research questions of this study:

- Does transformational leadership affect the level of organizational learning in the telecom sector of Pakistan?
- Does transformational leadership affect the level of organizational innovation in the telecom sector of Pakistan?
- Does organizational learning mediates the relationship between transformational leadership and organizational innovation in the telecom sector of Pakistan?

In the following part of paper, this study evaluates the literature that will lead to a number of research hypotheses. This is followed by a detailed description of research methodology. Thereafter, observed results are presented and discussed. The final part of the paper shows the discussion on research findings, managerial and theoretical implications, intrinsic limitations and some directions for future research.

## Literature Review

Transformational Leadership: Transformational leadership is defined as the leadership that enhances the sense of common interest among the employees of the organization and supports them to obtain their common goals. On the other hand, in transactional leadership leaders emphasize on boosting their own interests and their supporters and to fulfill the obligations of leaders and their supporters [2]. Transformational and transactional leadership styles are used by leaders at different levels [9]. Employees are precious asset of the firm, so for this precious asset, transformational leader takes the task to promote their professional development [2, 5, 9, 10]. Transformational leader are loyal to the goals of the organization and to encourage their followers to achieve their organizational goals [2, 9]. Transformational leaders grant stimulation by encouraging their supporters, basically communicating their high expectations to their employees. These leaders also approve logical stimulation by enhancing employees' brainpower, learning and knowledge so the employees can be inventive and better problem solvers [2].

**Organizational Learning:** Organizational learning is a practice through which the organization improves the

knowledge created by employees in a structured manner and transforms this knowledge into part of the oranization's knowledge structure. Organizational learning involves gaining knowledge, to share knowledge and to utilize knowledge [11]. The expansion of new qualities increases the organization's capability that leads towards organizational learning. Now a day, organizational learning is not a choice but a need for the organizations. Lack of learning ability is the cause of most firms vanishes before forty years have passed [12, 13].

Organizational Innovation: Innovation can be defined as a new idea, method or device, the act of creating a new product, service or process [14]. Organizational innovation enhances the performance of the organization by reducing the transaction and administrative costs. Firms adopt organizational innovation to convey competence in the business. The innovative organizational method must be new to the organization and it can be made by the firm itself or with the help of the other organization [15]. Firms introduce changes in their organizational setup. They modify the traditions of managing things to compete with other organizations and satisfy their customers [16]. The products with higher level of innovation lead towards elevated sales and financial performance and towards overall superior business performance [8, 17].

The Impact of Transformational Leadership on Organizational Learning: Past studies state connection between leadership and organizational learning [12, 18-20]. Transformational leaders make teams and impart in them a trend of get-up-and-go and facilitate them for procedures of innovation and organizational learning [9, 21]. This fashion allows organizations to be trained by conducting tests, discovery, conversation and communication [19, 20, 22-24]. The transformational leader will be a channel, a counselor, a catalyst in organizational learning. Transformational leaders create better awareness and recognize the objective and promote a collective vision, revise the training procedure and create work teams. On the grounds of this discussion, this study proposes the first hypothesis:

**H1:** A positive relationship exists between transformational leadershipand organizational learning.

The Impact of Transformational Leadership on Organizational Innovation: Numerous characteristics of transformational leadership are correlated to organizational innovation [25, 26]. Transformational leaders have an interactive vision; they give utmost devotion to develop proficient communication and sharing values [27] and encouraging work groups to innovate [28]. They sustain shared methods for organizational learning [29] and favorable mind-set towards proficiency and mutual trust between leaders and employees of the organization [30]. All of these characteristics collectively permit to understand the strong association between transformational leadership and organizational innovation [31]. Therefore, this study further proposes:

**H2:** A positive relationship exists between transformational leadership and organizational innovation.

Impact of Organizational Learning on Organizational Innovation: The broad and diverse literature on organizational innovation has acknowledged the significant assistance from organizational learning in the past years. Most of these researches examine a positive relationship between organizational learning and organizational innovation [32, 28]. In depth, innovation requires the greater extent of learning. So, for new innovative products, services and procedures, the larger extent of vital capability, expertise, latest and appropriate knowledge is necessary [33]. Moreover, as learning organizations are always loyal to learning process, so their ability to innovate further improve and consequently, they have less chances to miss the opportunities posed by the market forces. Furthermore,

these organizations have capability to predict and understand customer demands, have better and latest technology and use it to innovative products. These organizations also have a strong ability to recognize competitor's strengths and weaknesses and thus to learn from their successes and failures and to create better inventive capability than their competitors [32, 34]. Meeus *et al.* [34] analyzed a sample of innovative firms to show that more versatile activities insist firms to bring together and swap information between users and producers, which leads towards greater interactive learning.

Finally this study further proposes:

**H3:** Organization learning mediates the relationship between transformational leadership and organizational innovation.

**Conceptual Model:** On the basis of above hypotheses, the conceptual model of this study has been shown in Figure 1.

**Data Collection & Measurement Scales:** Data was collected through questionnaire instrument from respondents working in the telecom sector of Pakistan (During January and February, 2013). Questionnaire contains four sections and was presented along with covering letter. In first section, managers were required to provide demographic information that includes company name, designation, age, gender, experience. Second section consists of Transformational leadership items.

Factors & Items	Factor loads	Cronbach's Alpha if Item Deleted		
Factor 1: Transformational Leadership(KMO=0.738, Variance explained=81.12%, Alpha value=0.883)				
Transmits the organization's mission, reason for being and purpose to all of the employees.	.910	.867		
Increases employees' level of enthusiasm	.909	.814		
Emphasizes the use of employees' intelligence	.880	.821		
Factor 2: Organizational Learning(KMO=0.813, Variance explained=74.11%, Alpha value=0.813)				
The organization has acquired and shared much new and relevant knowledge that provided competitive advantage.	.909	.831		
The organization's members have acquired some critical capacities and skills that provided competitive advantage	.892	.817		
Organizational improvements have been influenced fundamentally by new knowledge entering the organization (knowledge used).	.847	.884		
The organization is a learning organization	.791	.858		
Factor 3: Organizational Innovation (KMO=0.829, Variance explained=56.73%, Alpha value=0.882				
Organization's emphasis on developing new products or services	.702	.871		
Rate of introduction of new products or services into the market	.876	.880		
Organization's spending on new product or service development activities	.764	.872		
Number of new products or services added by the organization and already on the market.	.874	.887		
Number of new products or services that the organization has introduced for the first time on the market	.885	.877		
Investment in developing proprietary technologies	.902	.868		
Organization's emphasis on technological innovation	.904	.871		
Organization's emphasis on pioneering technological developments in its industry.	.884	.873		
Transformational leadership Organizational learning Organizational				
leadership learning innovation				

#### Fig. 1: Conceptual model

Table 1. Validity and Daliability Values

In third section of the instrument, organizational learning is operationalized and finally, fourth section contains items to measure organizational innovation. A total of 200 questionnaires were distributed among management personnel working in head offices of Mobilink, Ufone, Warid and Telenor. Out of 200 questionnaires, 150 were returned back yielding 75% response rate. Seven point Likert type scale ranging from 1=strongly disagree to 7=strongly agree was used to measure the variables of the study.

All the constructs were measured by using multiple items from various studies. Transformational leadership was measured by using scale of three items developed by McColl-Kennedy and Anderson [35]. Organizational learning was measured by four items used in previous studies [5, 6, 36]. Similarly, Antoncic and Hirsch's scale [37] was used to measure organizational innovation.

The factor analysis and Cronbach's Alpha analysis were used to test the validity and reliability of the measures (Table 1). The results show that all the measures i.e. transformational leadership ( $\alpha$ =0.883, KMO=0.813 and variance explained= 81.12%), organizational learning ( $\alpha$ =0.813, KMO=0.813 and variance explained=74.11%) and organizational innovation ( $\alpha$ =882, KMO=0.829, variance explained= 56.73%) are valid and reliable.

### RESULTS

**Correlation Analysis:** As the intention of this study is to find the relationship between transformational leadership, organizational learning and organizational innovation, therefore correlation analysis between the variables have been performed. Correlation coefficient (r)that contains a single value between -1 and +1 is the useful technique to summarize the relationship between two variables [38].

Table 2: Mean, S.D. & Correlation Coefficient Values

The correlation matrix has been shown in Table 2. It is evident from the table that all the variables are significantly correlated with each other. Moreover, means, standard deviations of all variables are also presented in the table. Mean rating of each factor is near or above to six, it means each variable is rated high.

Regression Analysis: Regression analysis has been carried out with the help of SPSS 17 to investigate the impact of independent variable on dependent variable and partial or full mediating effect of organizational learning. Method suggested by Baronand Kenny [39] has been used to find out the effect of mediator. Method follows three steps. In the first step, the independent and mediating variable must be significantly related. In the second step, there should be significant relationship between independent and dependent variable. In the third step, when the mediating variable is introduced, the impact of independent variable on dependent variable must be significantly decreased. So we have used the same procedure for regression analysis that was introduced by Baron & Kenny [39] to perform mediation analysis. Results of regression analysis are shown in Table 3. As described in the first step, Adjusted R<sup>2</sup> is .746 which shows that variation in organizational learning is explained up to 74% through variation in independent variable i.e. transformational leadership. Standard regression coefficient between transformational leadership and organizational learning is significant (=.744, p<.001) with significant T value (6.409, p<.001) and F value (374.29, p<.001). In second step, Adjusted R<sup>2</sup> is .618 indicating that the variation in organizational innovation is explained up to 61% through variation in independent variable i.e. transformational leadership. Standard regression coefficient between transformational

Variable	Mean	S.D	1	2	3
1. Transformational leadership	6.1042	1.09	1		
2. Organizational learning	6.0703	0.93	0.865**	1	
3. Organizational innovation	5.9757	0.820	$0.788^{**}$	0.863**	1

Table	3:	Regression	Ana	lysis

Steps	Dependent variable	Independent variable	Standardized regression coefficients	F	Т	Sig	Adjusted R <sup>2</sup>	Result
1	OL	TRL	0.744	374.29	6.409	.000	.746	H1 Accepted
2	OI	TRL	0.592	206.68	14.376	.000	.618	H2 Accepted
4	OI	TRL	0.592	206.68	14.376	.000	.618	
		TRL	.260	157.04	2.730	.007	.711	Partial mediation
		OL	.611		6.427	.000		H3 Accepted

leadership and organizational innovation is significant ( $\beta$ =.592, p<.001) with significant T value (14.376, p<.001) and F value (206.68, p<.001). In third step, Organizational learning is introduced into the overall model of transformational leadership and organizational innovation. The results indicate that standard regression coefficient in case of transformational leadership has decreased in magnitude but still is significant ( $\beta$ =.260, p<.001). Hence, organizational learning partially mediates the relationship between transformational leadership and organizational innovation. So, all the study hypotheses i.e. *H1, H2 and H3* are well supported.

## DISCUSSION AND CONCLUSION

Every organization needs charismatic leaders like transformational leaders to boost their performance in turbulent corporate environment. This study adds to such performance enhancement by revealing the strategic position of organizational innovation and organizational learning. Management with such leadership awards the standards within the organization which are hard to copy. In particular, the results of the current study support all the hypotheses, revealing that transformational leadership enhances organizational innovation and organizational learning also plays avital mediating role in this relationship.

The current study illustrates the impact of transformational leadership on organizational innovation while considering organizational learning as mediating variable. First, our empirical analysis illustrates the impact of transformational leadership on organizational innovation. A significant positive relationship exists between transformational leadership and organizational innovation. The results elaborate the significance of transformational leadership in generating organizational innovation [21], which implies that strong and supportive leadership leads towards organizational innovation. Secondly, this study empirically tested the relationship between organizational learning and organizational innovation. The results show that both of these variables are significantly and positively correlated. These findings support the earlier researches [40-42] which implies that organizational learning avoids stagnation and promotes incessant innovation. Thirdly, the study tests mediating relationship of organizational learning between transformational leadership and organizational innovation. The results suggest that organizational learning partially mediates the relationship between transformational

leadership and organizational innovation. Transformational leadership also stimulates organizational learning. It can be concluded that transformational leadership promotes organizational learning that in result leads to organizational innovation and high competitive advantage.

Hence, the organization that attains a vibrant and pragmatic vision also enhances organizational innovation by making its own resources that are exclusive, precious, difficult to swap and hard to replicate. Two key variables that conclude organizational innovation is therefore organizational learning and transformational leadership, both of these have positive andcausal effects [3, 43-45].

**Theoretical Implications:** Previously several researches have been conducted on the impact of transformational leadership, organizational innovation and organizational learning on organizational performance [5, 3] in different sectors but there are very few studies in the telecom sector especially in Pakistani context. Transformational leadership and its direct impact on innovation is a relatively new concept for research in Pakistan. Although results of this study are similar to previous researches in the said field but it presents an insight into the spirit of transformational leadership on organizational innovation and the mediating role of organizational learning in the telecom sector of Pakistan.

**Managerial Implications:** In order to maintain a competitive edge in today's market, corporate managers have a dual mission of constantly creating extra value for their customers while striving to cut costs and enhance their productivity. To make this possible, the results of this study proposes that business leaders in Telecom sector should give more significance to transformational leadership and organizational learning in order to enhance organizational innovation.

This study exhibit a positive relation between organizational innovation and learning. Innovative organizations consistently discover and recognize how to make and remain proficient. In the course of learning, the organizations can change their activities and hence renovate and reinvent their technology and production to evade falling into sluggishness and promote organizational innovation. In all of this process, transformational leadership plays the crucial role of providing direction, guidance and motivation for continuous improvement [46-48].

#### CONCLUSION

This study has focused on telecom sector of Pakistan only which includes very few companies. Another restraint was the sample size as the data was collected from management level personnel only. Moreover, only instrument used in the study was questionnaire and other Instrument like interviews could have been used. As transformational leadership affects the whole organizational environment from top to bottom and also brings innovations in new and enhanced products and services for the end users i.e. customers, so in future researches, low level employees and customers can also be included to study the interrelationship among transformational leadership, organizational learning and innovation. Finally, this study only analyses the relation between transformational leadership and organizational innovation through organizational learning. Although some other selected intermediate variables can also be used like technology, teamwork or shared vision [33].

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