
Influence of Leadership Styles on Organizational Culture, Technology Acceptance, Knowledge Management Process & Capabilities on Organizational Performance

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Abstract

Leadership is considered backbone of the organization and played substantial role in exaggerating the organizational performance. The objective of the study is to explore impact of leadership on organizational performance in the presence of the organizational culture where technology acceptance and knowledge management process & capabilities mediate. For this empirical investigation, Microsoft questionnaire survey has been used for the data collection and 447 participants responded on this questionnaire. The findings revealed that leadership has positive association with organizational performance in the presence of organizational culture where technology acceptance and knowledge management process & capabilities play mediating role between leadership and organizational performance. For the regression analysis, SPSS has been used with Hayes' macro process to evaluate the moderated mediation effect.

Keywords: Transformational leadership, Transactional leadership, Organizational Culture, Technology acceptance, Knowledge management process & capabilities, Moderated Mediation effect, Organizational Performance

1. Introduction

The leadership refers to next level of advancement and innovations in organizational performance. The substantial role of the leadership style in exaggerating the organizational performance has got the attention in the executive environment and to exaggerate the effectiveness of organizational performance, the catalyst effect of organizational culture as moderator significantly contributes in enhancing the leadership style as well as knowledge management plays a mediating effect to improve the capabilities of the leadership which further enhance and evaluate the performance of the organization. This moderated mediating effect is getting attention for the experts in today's world because organizations are strategizing through these effects to catch the competitive advantage (Al-Tit, 2016).

No doubt, various organizations have been successful in overcoming the challenges of performance by incorporating leadership effects. The leadership is a technique where individuals collaborate to inspire and modify; it is the cardinal requirement to develop and utilize focused leadership skills by leaders for a good change in any organization (Martin, 2005). The fundamental construct of leadership, from an organizational perspective, is to bring about perfections, change, and transformation in the current system and its

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subordinates. Most of the businesses had leaders behind them with their vision, talent, and determination due to which they used to move the organization onward and survive in the competitive environment. The leadership is concealed as well as demonstrated force to acquire work well in time to accomplish the key goals of any organization (Fullan, 2014). Both transformational and transactional leaderships have ensured their contributions in uplifting the organizational performance and organizations have implemented these strategies and structure for grasping the success in the competitive market but with the passage of time, the direct effect and contribution of leadership on performance starts compromising and experts assert to emphasize on the modification and transformation in strategies. In this transformation era, the leadership alone cannot inflate the organizational performance. The catalyst assistance of the organizational culture and mediating effect of knowledge management process & capabilities and technology acceptance has expanded the vision of leadership to exaggerate the organizational performance.

The collaboration between organizational culture and leadership enhances the performance of the employees and leaders which ultimately boosts up the organizational performance (Fontannaz & Oosthuizen, 2007). This collaboration between organizational culture and leadership positively influences the performance and makes the organization effective and efficient (Deal & Kennedy, 1983) and improved organizational performance leads the organization towards the next level of effectiveness (Cummings & Schwab, 1973). Productive decision making capabilities provide strength to effective organization performance and knowledge is the primary source to enhance decision making abilities, hence the substantial role of the knowledge can never be snubbed. For this evidence, the researchers have engaged 227 persons in a survey to evaluate the impact of knowledge acquisition activities on leadership styles which explores the positive influence of knowledge in enhancing the transformational and transactional leadership of the employees (Politis, 2001) and improvement in the leadership in the presence of knowledge management process & capabilities and technology expedites the organizational performance. The evidence suggests that technology acceptance as mediator accelerates the leadership style in enhancing the organizational performance because the technology acceptance exaggerates the performance of the employees which is a contribution in the expediting the productivity of the organization (Bambe 2019). The intelligence level of the managers through knowledge management process & capabilities and technology acceptance introduce latest research and solutions for the employees and subordinates which improve the organization's human capital, productivity, effectiveness and performance (Dvir et al., 2002; Zhu et al., 2005; Nemanich & Keller, 2007; Peterson et al., 2009; Liu & Phillips, 2011; Sayyadi et al., 2018).

1.1 Research Objectives:

To estimate the relationship between transformational leadership and organizational performance in the presence of technology acceptance and knowledge management process & capabilities

To estimate, which leadership style more appropriate to enhance the organizational performance in the presence of organizational culture

To estimate the direct relationship between leadership styles and organizational performance.

1.2 Research Questions:

1. How technology acceptance and knowledge management process & capabilities mediate between transformational leadership and organizational performance?
2. Which leadership style fosters the organizational performance with the moderation effect of organizational culture?
3. Does the transformational leadership have direct effect on organizational performance?

1.3 Research Hypothesis:

- H1: Transformational leadership has direct impact on organizational performance
H2: Transactional leadership has direct impact on organizational performance
H3: Transformational leadership is directly related to the organizational culture
H4: Transactional leadership is directly related to organizational culture
H5: Organizational performance is positively correlated with mediating effect of knowledge management process & capabilities and technology acceptance

2. Literature Review:

Leadership is mostly observed as well as least understood (Burns, 1978). Leadership is a process that influences a group and it is towards the achievement of goals (Robbins, 2005). The ability to influence a group toward the achievement of the vision or set of goals is known as leadership (Langton et al., 2013). Two basic pillars of leadership with respect to leader's behaviour have been explored and named as transformational and transactional leadership. The concept of the transformational leadership has been explored where both the leaders and their followers barter their concepts to uplift the organization (Burns, 1978) and take necessary stepladders for the next level of the motivation (Bass & Avolio, 1994) which enhances the productivity and performance of the organization (Peterson et al., 2009). Whereas, the second pillar of the leadership style, transactional leadership endorses the concept of taking instructions from leaders and followers execute their assignments accordingly (Long et al., 2012) to enhance the organizational performance.

2.1 Leadership and organizational culture

In today's era of transformation and advancement, the concept of the collaboration has got the attention for the advance performance of the organization. So, the collaboration of leadership with organizational culture has delivered a productive impact on the organizational performance. The role of the organizational culture is substantial in improving the leadership especially the transformational leadership which impressively exaggerate the performance of the organization. The organizational culture is now considered as predictor of the organizational performance (Nahayandi, 1993; Kottar, 1998; Sarros et. al., 2008). The transformational leadership which has been considered to be responsible to enhance the employee's motivation influences the performance but in the presence of the organizational culture, leadership accelerates and gears up the organizational performance and productivity. The empirical evidence shows that culture behaves like a catalyst to enhance the performance of the organization (Le et al., 2018). The statistical evidence emphasizes to

incorporate the organizational culture to exaggerate the organizational performance. The productivity and efficiency of the leadership slope upward in the presence of the organizational culture and obtain the desired standards to achieve the milestones (Ogbona et al., 2000).

2.2 Leadership and Technology acceptance:

In the competitive environment, transformation leadership alone cannot play substantial role to make the organization more competitive. The Technology acceptance and innovation provide the alternative paths to boost up the efficiency, productivity and overall performance of the organization. In the intensive competitive environment, international organizations have adopted the rapid transformation, latest technology and innovative techniques to achieve the sustainable competitive development (Samad, 2012). The innovation and technology participate to redesign organizational strategies to sustain organizational performance. The theoretical linkage between Technology acceptance and organizational performance has been observed and later on, statistical findings have confirmed the theoretical observations which reveal the substantial role of the innovation and technology to enhance the organizational performance (Cho et al., 2005). The significant effect of transformational and transactional leadership influences technology acceptance which leads towards productive and efficient organizational performance (Iscan et al., 2014).

2.3 Leadership and Knowledge Management process & Capabilities:

The business climate has been transforming with the growing importance of knowledge management process & capabilities to enhance the organizational performance. In this business climate, leadership has contributed with substantial impact on knowledge management process & capabilities which later on participated in improving organizational performance. The outcomes of the empirical evidence explore the direct influence of the transformational leadership on organizational performance as well as impact of transformational leadership on organizational performance by using the bridge of knowledge management process & capabilities (Zack et al., 2009; Garcia-Morales et al., 2012; Sayyadi, 2019). The statistical evidence examines the strong bonding between transformational leadership and knowledge management process & capabilities in enhancing an organizational performance (Liu & Phillips, 2011; Gamo & Navarro, 2015; Chu, 2016; Millar et al., 2016).

2.4 Research Gap:

The statistical studies have explored culture as moderator and technology acceptance and knowledge management process & capabilities as mediator in isolated articles to investigate their catalysed impact but this empirical evidence has taken all these catalyst in the same investigation to evaluate the organizational performance due to leadership which is till unexplored.

3. Research Methodology:

3.1 Research Design and Sample

In this study, a descriptive research approach has been implemented for the data collection

by using questionnaire. A simple random sampling technique has been applied and Microsoft Google Forms has been used for the data collection. The response on questionnaire has been taken from research participants by providing them link. This research design has been adopted to facilitate participants because social distancing protocols have not been neglected due to COVID-19. The research design also avoids data entry errors and provides on time data-collection. 447 research participants have been enrolled through this online questionnaire with a healthy response rate.

3.2 Measurements

In this study, two models have been constructed for the data analysis with two different independent variables and same dependent variable. Transformational leadership style has been taken as independent variable which has been developed through Multifactor Leadership Questionnaire (Bass & Avolio, 1995). This questionnaire of transformational leadership consists of 20 items and 5 points Likert Scale ranging from 1 to 5 has been used with 1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, and 5 = Strongly Agree. Organizational performance (dependent variable) consists of questionnaire containing 14 items which have been developed by Luque et al., (2008). The response has been taken on 5 points Likert Scale ranging from 1 to 5 and used with 1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, and 5 = Strongly Agree. The items explore the productivity and quality of the organization.

In the second model, impact of transactional leadership has been evaluated on organizational performance. Transactional leadership (Independent variable) is composed of 12 items. The questionnaire of this variable is measured through Multifactor Leadership Questionnaire (Avolio & Bass, 2002). The response has been taken on 5 points Likert Scale ranging from 1 to 5 and used with 1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, and 5 = Strongly Agree.

The empirical evidence of reliability test has been examined with Cronbach's Alpha. The reliability test below 0.6 is considered to be poor while the value of the reliability test ranging from 0.7 is considered to be acceptable and above 0.8 is considered to be good (Nunnally, 1978). The statistical evidence of reliability test confirms the value above 0.9 which is 0.946. This value confirms the reliability of the data.

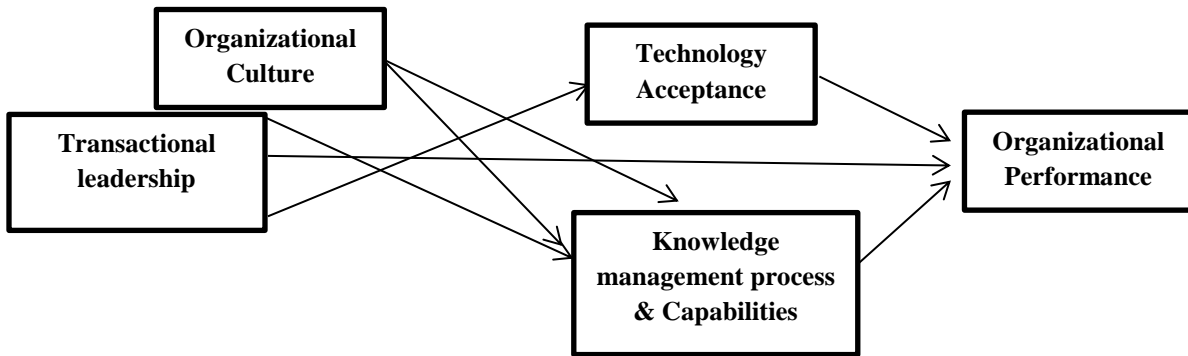
Regression with Hayes' process macro has been used to determine the moderated mediation analysis in two models. In this moderated mediation analysis, Four effects have been explored in each model. In Model 1, First, to estimate the direct effect of Transformational leadership (Independent variable) on Organizational Performance (dependent variable) and Second, the effect of transformational leadership on organizational performance in the presence of Organizational culture (Moderator). Third, estimate the indirect effect of transformational leadership on Organizational Performance varies as a function of Organizational Culture (moderator), where organizational culture is moderating the path from transformational leadership to Technology Acceptance (Mediator 1) and Forth, estimate the indirect effect of transformational leadership on Organizational Performance varies as a function of Organizational Culture (moderator), where organizational culture is moderating the path from transformational leadership to Knowledge Management process & Capabilities (Mediator 2). Same four effects have been estimated with Transactional

Leadership as Independent variable in Model 2. Here mediation path has been considered conditional on other variables (Muller et al., 2005)

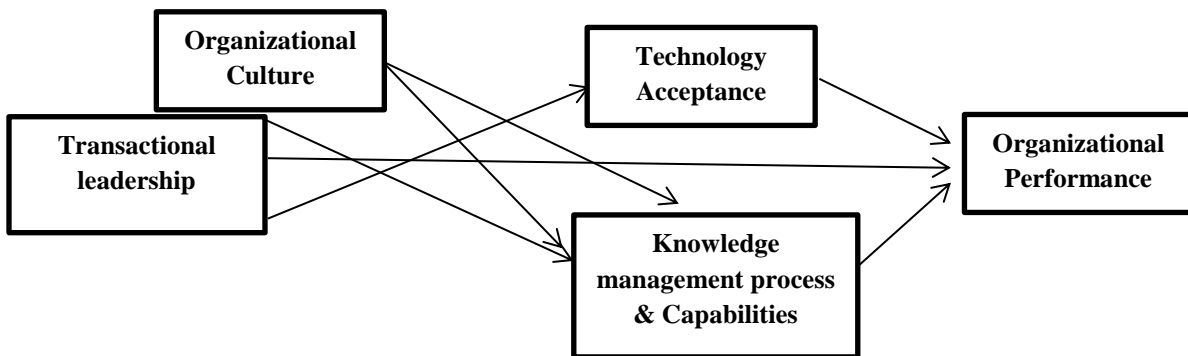
Model:

In this model, moderated mediation effect has been evaluated. in Model 1, in the first path, the organizational culture works as a catalyst between transformational leadership and technology acceptance and in second path organizational culture works as a catalyst between transformational leadership and knowledge management process & capabilities which later on makes an impact on organizational performance whereas model 2 works with transactional leadership with same variables.

Model Diagram 1: Impact of transformational leadership in the presence of organizational culture on organizational performance where technology acceptance and knowledge management process & capabilities mediate.



Model Diagram 2: Impact of transactional leadership in the presence of organizational culture on organizational performance where technology acceptance and knowledge management process & capabilities mediate.



4. Data Analysis and Results Estimation:

4.1 Sample Characteristics

Total number of respondents in this research is 447, among them 92% are male and 8% are female. The data revealed that 13% of the respondents fall under the age of 18-24 years old.

14% of the respondents are between 25 and 30 years old, the participants fall between the age group of 31 and 36 are 20%, the respondents fall between the age group of 37 and 42 are 19%, 15% are between the age group of 43 and 48, 11% are between 49 and 54 and 6% are between 55 and 60 and only 2% are above 61 years old.

Table 1. Participants' Demographic Data

Variable	Frequency	Percentage
Gender: Male	411	92%
Gender: Female	36	8%
Age: 18-24	58	13%
Age: 25-30	63	14%
Age: 31-36	91	20%
Age: 37-42	86	19%
Age: 43-48	65	15%
Age: 49-54	50	11%
Age: 55-60	26	6%
Age: 61-Above	8	2%

4.2 Correlation:

The correlation table demonstrate the relationship between variables. The empirical evidence of **Model 1** explores the significant and strong association between transformational leadership and organizational performance ($r = 0.69$, $p < .05$) and organizational culture ($r = 0.785$, $p < .05$). As organizational culture is playing its role as moderator. So, the significant relationship and correlation exists between organizational culture and organizational performance ($r = 0.721$, $p < .05$). Technology acceptance and Knowledge management process & capabilities also have significant relationship with organizational performance ($r = 0.752$, 0.738 , $p < .05$) respectively. The significant relationship can also be examined between transformational leadership and Technology acceptance ($r = 0.717$, $p < .05$) and knowledge management process & capabilities ($r = 0.69$, $p < .05$). In addition of all of these, the empirical evidence of **Model 2** explores the significant and strong association between transactional leadership and organizational performance ($r = 0.675$, $p < .05$) and organizational culture ($r = 0.773$, $p < .05$). As organizational culture is playing its role as moderator. So, the significant relationship and correlation exists between organizational culture and organizational performance ($r = 0.721$, $p < .05$). Technology acceptance and Knowledge management process & capabilities also have significant relationship with organizational performance ($r = 0.752$, 0.738 , $p < .05$) respectively. The significant relationship can also be examined between transactional leadership and Technology acceptance ($r = 0.721$, $p < .05$) and knowledge management process & capabilities ($r = 0.688$, $p < .05$)

Correlation is significant at the 0.05 level.

Table 2: Correlation between variables

	Organizational Performance	Transformational Leadership	Transactional Leadership	Organizational Culture	Technology acceptance	Knowledge Management process & Capabilities
Organizational Performance	1					
Transformational Leadership	0.69	1				
Transactional Leadership	0.675	0.91	1			
Organizational Culture	0.721	0.785	0.773	1		
Technology acceptance	0.738	0.717	0.721	0.739	1	
Knowledge Management process & Capabilities	0.752	0.69	0.688	0.72	0.872	1

4.3 Regression Analysis:

In order to examine the statistical analysis, moderated mediation model has been used to explore the impact of transformational leadership in Model 1 and transactional leadership in Model 2 on organizational performance in the presence of organizational culture where technology acceptance and knowledge management process & capabilities mediates. The moderated mediation concept is referred by Muller et al., (2005) and Preacher et al., (2007). The regression analysis has been executed in three steps in each model. In the model 1, in the first step of regression, transformational leadership make influence on technology acceptance in the presence of organizational culture ($\beta=0.7616, P < 0.05$). Where the second step express that transformation leadership have an impact on knowledge management process & capabilities in the presence of organizational culture ($\beta=0.1.1252, P < 0.05$) which shows the significance of the model. In the next phase, impact of transformational leadership, knowledge management process & capabilities and technology acceptance has been evaluated on organizational performance in the presence of organizational culture ($\beta=0.2646, P < 0.05$) that shows fractional impact of mediators in enhancing the performance of organization and the coefficients show positive association with organizational performance. The empirical evidence of this research is supported by the another study which elaborates the mediating impact of organizational commitment between transformational leadership and performance (Almutairi, 2016)

Table 3:

Model 1					
	Independent Variable	Dependent Variable	B	R	R ²
1	Transformational Leadership	Technological Acceptance	0.7616	0.7748	0.6003

	Organizational Culture		0.9		
2	<i>Transformational Leadership</i>	Knowledge management process & Capabilities	1.1252	0.7592	0.5763
	Organizational Culture		1.2625		
3	<i>Transformational Leadership</i>		0.2646		
	Technology Acceptance Knowledge Management Process & Capabilities	Organizational Performance	0.2048	0.7944	0.6381
			0.3681		

In the model 2, in the first step of regression, transactional leadership also make influence on technology acceptance in the presence of organizational culture ($\beta=0.7992, P < 0.05$). Where the second step express that transactional leadership have an impact on knowledge management process & capabilities in the presence of organizational culture ($\beta=0.11523, P < 0.05$) which shows the significance of the model. In the next phase, impact of transformational leadership, knowledge management process & capabilities and technology acceptance has been evaluated on organizational performance in the presence of organizational culture ($\beta=0.2313, P < 0.05$) that shows fractional impact of mediators in enhancing the performance of organization and the coefficients show positive association with organizational performance.

Table 4:

Model 2

	Independent Variable	Dependent Variable	B	R	R²
1	<i>Transactional Leadership</i>	Technological Acceptance	0.7992	0.7796	0.6077
	Organizational Culture		0.9295		
2	<i>Transactional Leadership</i>	Knowledge management process & Capabilities	1.1523	0.7622	0.5809
	Organizational Culture		1.3111		
3	<i>Transactional Leadership</i>		0.2313		
	Technology Acceptance Knowledge Management	Organizational Performance	0.2149	0.7893	0.6231
			0.3809		

Process &
Capabilities

5. Discussion and Conclusion:

The study examines the relationship between leadership and organizational performance with the moderated mediation effect where organizational culture moderates the mediation effect of technology acceptance and knowledge management process & capabilities. The findings explored that transformational and transactional leadership contributes in organizational performance with this moderated mediation effect. This research finds the support of some previous studies (Deluga & Souza, 1991; Geyery & Steyrer, 1998; Dvir et al., 2002; Howell et al., 2005; Almutairi, 2016). There exists significant relationship in empirical investigation between leadership and organizational performance as well as between leadership and technology acceptance and significant relationship between leadership and knowledge management process & capabilities. There is an evidence of positive correlation between variables that shows the positive association of transformational and transactional leadership with technology acceptance, knowledge management process & capabilities and organizational performance but moderated mediation effect seems to be partially influential on organizational performance with significant values (Chi et al., 2007; Yeh & Hong, 2012). The study demonstrates the importance of mediating effect of technology acceptance and knowledge management process & capabilities in enhancing the role of leadership in an organization which ultimately make an influence on organizational performance.

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