

# Transformational Leadership And Its Relationship With Administrative Innovation In Higher Education Institutions

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## Abstract

*The purpose of this study was to highlight the significant impact of transformational leadership on administrative innovation in higher education institutions, and to investigate the relationship between transformational leadership and administrative innovation from the perspectives of faculty members and administrators at a four-year higher education institution. Data were collected from 336 faculty members and administrators working at a public university in Saudi Arabia. The results reveal that transformational leadership has a significant influence on the leaders at the four-year higher education institution under study. Moreover, the results suggest that transformational leadership has important effects on innovation at the individual level. The results are discussed and recommendations are made based on the data analysis and conclusion.*

**Keywords:** *transformational leadership; innovation; administration; organizational innovation; and higher education.*

## 1. Introduction

Transformational leadership (TL) has been recognized as one of the most critical factors influencing innovation within organizations (Al Ahmad et al., 2019; García-Morales et al., 2012; Gui et al., 2022; Rafique et al., 2022; Islam, 2023; Yangailo, 2023). Transformational leadership is of great significance because of its impact on administrative creativity. Transformational leaders play a fundamental role in enhancing creativity in organizations by changing the workplace culture in a positive way. Furthermore, through setting the standards for embracing a new, inspiring vision, transformational leaders move their organizations forward to achieve maximum efficiency and effectiveness (Morales, 2022). In addition, these leaders create enthusiasm and significant change in the lives of employees (Pawar, 2016). Indeed, several studies have found that leaders' failures are attributed to their ineffective skills, as leaders have characteristics which distinguish them from subordinates (Burke, 2006; Aboassin & Abood, 2013; Einarsen et al., 2007; Shafique & Loo-See, 2018). Transformational leaders are particularly effective because they strive to achieve brilliant success for their organizations, with many studies having confirmed that the most important attributes of such leaders are vision, personality, ethics, sense of responsibility, depth of thinking, and respect for other people's feelings.

Transformational leadership is a leadership style that requires a clear vision for the future in addition to specific and clear objectives. This type of leadership encourages

subordinates to participate in formulating the organizational vision and mission and defining the organization's objectives. Transformational leaders are concerned with positive change and continuous managerial development within their organizations. Moreover, a transformational leader is interested in building teams and encourages teamwork in a work environment based on dialog, understanding and participation in defining common objectives and in decision making. Accordingly, a transformational leader contributes significantly to increasing employees' administrative creativity. Jung et al.'s (2003) study confirmed the correlation between transformational leadership and the level of administrative creativity among employees. The more an organization's leader follows transformational leadership standards, the higher the level of administrative creativity among employees. Currently, administrative creativity is something which organizations seek because of its strong role in changing prevailing work mechanisms, which results in the creation of new ideas that lead organizations to make administrative decisions and face various challenges in professional and unprecedented ways.

Organizations encounter a large number of challenges and difficulties in the current complicated work environment, with a degree of creativity required in order to guarantee the survival and competitiveness of such organizations. Organizations realize their need for administrative creativity to manage their administrative processes with professionalism and high efficiency so as to ensure their growth and prosperity in a competitive world in which only the most creative and most distinguished survive. The purpose of this research is to highlight the significant impact of transformational leadership on administrative innovation in educational institutions.

According to Bass and Riggio (2010), "Transformational leaders...are those who stimulate and inspire followers to both achieve extraordinary outcomes and, in the process, develop their own leadership capacity." Bass (1985) clarified and extended the work of Burns (1978) by explaining transformational leadership behaviors. According to Bass and Bernard (1985), the four major components of transformational leadership are as follows: 1) idealized influence (II), which indicates that transformational leaders are charismatic and serve as role models for followers. Transformational leaders' followers put a great deal of trust and respect in their leaders, which makes them incorporate their leaders' values and follow the example of their behaviors; 2) intellectual stimulation (IS), which refers to how transformational leaders encourage followers to create new ways of completing tasks, learn about new opportunities, and embrace challenges that come their way; 3) inspirational motivation (IM), which refers to being a leader who articulates a clear organizational vision to staff. These leaders support their employees in remaining motivated and accomplishing their goals; 4) individualized consideration (IC), wherein transformational leaders encourage followers to share their thoughts and maintain open communication in the workplace.

Adopting the concept of transformational leadership in educational institutions has been shown to positively affect students' achievement. A study conducted by Pounder (2014) identified positive results associated with teachers' teaching style in terms of encouraging critical thinking as well as problem solving, in addition to the impact of transformational leadership on students' improvement in reading, embracing change, and overriding self-interest. The results of these studies showed that transformational leadership significantly affects students' achievement in reading and mathematics. Teachers' behavior and their eagerness to improve the ways and methods of teaching are positively impacted by transformational leadership. The more committed and more effective a teacher, the greater his/her work satisfaction. This positively affects the improvement of the educational process as well as students' academic achievement. Conversely, however, the behavior of a transformational leader is reflected in the improvement of teachers' performance. A transformational leader is a role model for teachers, and the relationship within educational institutions between a transformational leader and teachers is one of trust, cooperation, and

joint action to achieve their vision and mission (Bass & Steidlmeier, 1999; Santandreu et al., 2016; Aldawsari, 2020). In light of the aforementioned, this study explores the essential role of transformational leaders in educational institutions and how they inspire their followers to become innovative.

Studies have shown that organizational culture is among the most significant factors to impact innovation in higher education institutions (Gorzelay et al., 2020). Organizational culture influences the morale of employees, which, in turn, increases productivity and fosters an innovative culture within organizations (Hogan & Coote, 2014; Ali Taha et al., 2016). Additionally, studies have found that transformational leadership and organizational culture are significantly correlated with change management (Bagga et al., 2023).

Transformational leadership is crucial to driving organizational change (Burn, 1978; Cao & Le, 2022). To create an innovative culture, leaders must embrace change and actively seek to improve their inclusive leadership competencies. Therefore, innovation is essential to an organization's success. At its core, leadership is about change, as change is inevitable in leadership (Abbas & Asghar, 2010). A recent study by Udin and Dananjoyo (2024) concluded that transformational leadership had a significant impact on innovative work behavior, knowledge sharing, empowerment, and passion for work. Furthermore, other authors have suggested that transformational leadership is significantly associated with job satisfaction and employee performance (Rawashdeh et al., 2020). According to Zhang et al. (2021), psychological capital is associated with job satisfaction, which gives employees strong motivation. Psychological capital was also found to positively affect happiness because of job satisfaction (Shrestha, 2019). Research has shown that employees with a high level of job satisfaction are happier, healthier, and more productive (Dreer, 2024; Shrestha, 2019).

Studies have shown that creativity and innovation are often utilized as interchangeable or equivalent concepts (West & Farr, 1990). Creativity involves generating new, beneficial ideas, while innovation involves producing, adopting and implementing ideas (Alblooshi, Shamsuzzaman, & Haridy, 2021; Kanter, 1988; Van de Ven, 1986). West & Farr (1990, p.9) defined innovation as "the intentional introduction and application, within a role, group or organization of ideas, processes, products or procedures, new to the relevant unit of adoption, designed to significantly benefit the individual, the group, the organization or wider society." According to Baregheh et al. (2009, p.1334), "Innovation is the multi-stage process whereby organizations transform ideas into improved products, services or processes, in order to advance, compete and differentiate themselves successfully in their marketplace." In the opinion of Torrance (1966) and Guilford (1967), the most important innovative capabilities include originality, fluency, flexibility, a tendency toward analysis and details, the ability to solve problems, a tendency to experiment, self-confidence, risk, and self-criticism. In his book entitled "The Art of Thought," Graham Wallas describes a four-stage model of the creative process which consists of "preparation, incubation, emergence, and verification" (Wallas, 1926, p.10). Dimensions of administrative creativity include a willingness to change, problem solving, risk taking, communication capacity, and encouraging innovation (Ettile & O'Keefe, 1982).

The first stage of innovation involves identifying problems and generating ideas. Individuals who are innovative actively seek support for their ideas and, in the third stage, develop an innovation model that can be implemented within an organization (Kanter, 1988). Accordingly, innovative behavior involves idea generation, idea promotion, and implementing these ideas inside of institutions (Hansen & Pihl-Thingvad, 2019).

Studies have shown that there is a correlation between administrative creativity and the dominant leadership style of leaders of an organization (Akkaya & Tabak, 2020; Ali, Wang, & Johnson, 2020; Lam, Nguyen, Le & Tran, 2021; Naveed, et al., 2022). The role of leaders is to enhance the creative abilities of employees by encouraging them to express their opinion and by raising morale to solve problems in creative ways (Hage & Dewar, 1973).

The relationship between transformational leadership and innovation has gained considerable attention in academic literature over the last decade. Transformational leadership plays a vital role in the process of transformation and engaging followers' innovative behavior by inspiring the vision and mission of an organization (Begum et al., 2022; Suhana et al., 2019; Afsar, Masood, & Umrani, 2019). Transformational leaders support employees in developing and generating new, innovative ideas (Suhana et al., 2019). These leaders encourage followers to adopt new perspectives and take advantage of new opportunities. Studies have indicated that transformational leaders positively increase employees' creativity (Elrehail et al., 2018; Jaiswal et al., 2015; Karimi et al., 2023; Matzler et al., 2008; Tipu et al., 2012). Accordingly, these followers are motivated to exert innovative effort and encouraged to utilize their logical problem-solving abilities (Geier, 2016). Transformational leaders inspire followers to embrace change and achieve missions and goals through their creativity (Sulistiyan, et al., 2018; Udin, et al., 2023; Udin & Dananjoyo, 2024; Nasir, et al., 2022). Besides, these leaders also support employees' learning and facilitate their socialization to gain support for implementing ideas (Geier, 2016). Furthermore, they create trusting relationships among followers and influence ideas, as well as the execution of those ideas, by encouraging said followers to expand their thinking through intellectual stimulation (Wang, Courtright, & Colbert, 2011). Prior studies have found that transactional leadership and transformational leadership have a positive impact on the innovation capabilities of lecturers (Purwanto, 2021; Gumusluoglu & Ilsev, 2009; Cuevas-Vargas et al., 2023). Recent work has demonstrated that the dimensions of transformational leadership have a positive effect and that there exists a correlation between TL and promoting innovative behavior among employees (Abbas et al., 2012). Such work has further shown that the majority of universities' presidents prefer to apply TL, while they also foster a supportive and trusting environment for academics in higher education (Basham, 2010). As such, transformational leadership is a significant determinant of organizational innovation.

This research was motivated by three major questions: 1) What is the level of transformational leadership among the leaders at a public university in Saudi Arabia? 2) What is the level of administrative innovation for administrators at a Saudi university? 3) Is there a correlation between the level of transformational leadership and the degree of employees' administrative innovation at a Saudi university?.

## **2. Methodology**

The purpose of this study is to investigate the impact of transformational leadership on administrative innovation in higher education institutions. The research was conducted using a quantitative approach comprising a survey method, and was limited to the perspectives of faculty members and administrators at a four-year higher education institution. A sample of 336 male and female administrators and faculty members was selected. A questionnaire was sent via email to all members of the population. The participants of the study were able to express the extent to which they agreed or disagreed with the offered items on a five-point Likert scale, with possible responses including: (1) I strongly disagree; (2) I disagree; (3) Neutral; (4) I agree; and (5) I strongly agree.

### **i) Participants**

The participants included in the study consisted of administrators and faculty members at a public four-year university in Saudi Arabia. The participant age range was 25 to approximately 60; all respondents were working full-time. The sample included 336 (148 male and 188 female) individuals, with data collection spanning November 2022 to February 2023. Approval with which to conduct the study and distribute the questionnaire was obtained from the Scientific Research Deanship at the university. The data were collected voluntarily from the respondents, who were not provided with any benefit for their participation.

The limitation of the study originated from the sample population, which was drawn from a single public university in the eastern region of Saudi Arabia; therefore, the research study lacked population diversity (i.e., other regions in Saudi Arabia or private institutions).

**ii) Procedure & Measures**

We used questionnaires distributed electronically to gather the data from the study population. The random sample selection method was used to collect the data. A total of 336 questionnaires were retrieved; no questionnaire was excluded following the preliminary evaluation, since after that point they were all deemed to have met the required criteria. The survey, consisting of 43 items, was employed to investigate the relationship between transformational leadership and administrative innovation from the perspectives of the faculty members and administrators. The questionnaire was divided into three parts. The first part consisted of demographic data, while the second part concerned five principles of transformational leadership, i.e., idealized influence, inspirational motivation, intellectual stimulation, individualized consideration, and empowerment. Each principle comprised seven to 11 items. The third part concerned six principles of administrative innovation, i.e., originality, problem solving, flexibility, intellectual fluency, paying attention, and ability to analyze and form correlations. Each principle consisted of four to five items. Data were gathered and analyzed using SPSS. Percentages and frequencies were employed to analyze demographic variables, while data were analyzed using descriptive statistics such as percentage, mean, and standard deviation. The descriptive analytical approach was utilized to interpret data and identify their implications.

Respondents were able to express the extent to which they agreed or disagreed with the offered items on a five-point Likert scale. The survey was written on Google Drive and distributed electronically to faculty members and administrators. After data collection, the Google Drive file was converted to an Excel file to analyze the data. In order to determine the length of the scale (the lower and upper limits) used in the study sections, the range  $5-1 = 4$  was calculated, which was then divided by the number of scales (5) to obtain the item's length ( $4/5 = 0.8$ ); this value was then added to the lowest value on the scale (1) to determine the upper limit for the first mean, and so on. Table (1) shows the lengths of the periods.

**Table (1): Five-point Likert Scale**

Assessment	I strongly disagree	I disagree	Neutral	I agree	I strongly agree
<b>Degree</b>	1	2	3	4	5
Weighted Mean	1-1.80	1.81-2.60	2.61-3.40	3.41-4.20	4.21-5.0
Degree of response	Very low	low	medium	high	Very high
<b>Relative Average</b>	20%-36%	36%-52%	52%-68%	68%-84%	84%-100%

**iii) Data Analysis**

First, the validity of the study was confirmed by two experts in the field of educational leadership. Additionally, validity and reliability in the study were achieved via internal consistency and structural consistency.

1) Internal consistency:

The internal consistency of the questionnaire was analyzed for 43 items by calculating the correlation coefficients between each item and the total score of its section. Tables (2) and (3) show the correlation coefficients between each item of the questionnaire and the overall

rate for these paragraphs. All items were significantly correlated.

**Table (2): The correlation coefficient between each item in the field and the whole field (transformational leadership)**

No.	Coefficient of correlation	No.	Coefficient of correlation	No.	Coefficient of correlation	No.	Coefficient of correlation	No.	Coefficient of correlation
Idealized influence		Inspirational motivation		Intellectual stimulation		Individualized consideration		Empowerment	
1	0.926**	1	0.834**	1	0.904**	1	0.928**	1	0.904**
2	0.910**	2	0.903**	2	0.938**	2	0.932**	2	0.930**
3	0.902**	3	0.923**	3	0.953**	3	0.917**	3	0.880**
4	0.935**	4	0.879**	4	0.925**	4	0.934**	4	0.895**
5	0.913**	5	0.857**	5	0.912**	5	0.940**	5	0.920**
6	0.908**	6	0.889**	6	0.840**	6	0.943**	6	0.924**
7	0.914**	7	0.906**	7	0.900**	7	0.941**	7	0.929**
8	0.924**	8	0.938**	8	0.754**			8	0.932**
9	0.922**	9	0.939**						
10	0.901**								
11	0.924**								

\*\* Correlation is significant at the 0.01 level

Table (2) illustrates that the correlation agreements between each item and the overall score for the domain that belongs to it are statistically significant at the 0.01 significance level, which indicates that all of the items in the questionnaire have internal consistency validity, while it also reveals that the values of the correlation agreements for the paragraphs with their domains are considered to be strong, in turn suggesting that the study tool is valid.

**Table (3): The correlation coefficient between each item in the field and the whole field (administrative innovation)**

No.	Coefficient of correlation	No.	Coefficient of correlation	No.	Coefficient of correlation	No.	Coefficient of correlation	No.	Coefficient of correlation	No.	Coefficient of correlation
Originality		Problem solving		Flexibility		Intellectual fluency		Paying attention		Ability to analysis and correlation	
1	0.784*	1	0.857*	1	0.766*	1	0.863*	1	0.784*	1	0.821*
2	0.789*	2	0.828*	2	0.865*	2	0.906*	2	0.771*	2	0.845*

3	0.761*	3	0.846*	3	0.776*	3	0.877*	3	0.782*	3	0.848*
	*		*		*		*		*		*
4	0.698*	4	0.794*	4	0.782*	4	0.880*	4	0.660*	4	0.847*
	*		*		*		*		*		*
5	0.736*										
	*										

\*\* Correlation is significant at the 0.01 level

Table (3) shows that all correlation coefficients between each item and the total score of the field to which it belongs are statistically significant at the 0.01 significance level. These are values that range between strong and good and are considered to be appropriate indicators and values for conducting this study; indeed, the aforementioned indicates that the tool, with its dimensions, measures what it was designed to measure.

2) Structural validity of the questionnaire; structural consistency.

Table (4) displays the correlation coefficients between the rates of each section and the total average of the questionnaire items, which shows that the correlation coefficients are at a significance level of 0.05.

**Table (4): Structural validity of the questionnaire**

No.		Section	Pearson correlation coefficient
1	Transformational Leadership	Idealized influence	0.956**
2		Inspirational motivation	0.976**
3		Intellectual stimulation	0.969**
4		Individualized consideration	0.968**
5		Empowerment	0.940**
1	Administrative Innovation	Originality	0.845**
2		Problem solving	0.889**
3		Flexibility	0.810**
4		Intellectual fluency	0.879**
5		Paying attention	0.817**
6		Ability to analysis and correlation	0.841**

\*\* Correlation is significant at the 0.01 level

Table (4) shows that the correlation coefficient between the score of each field and the total score of the questionnaire ranged from 0.9760–0.810. It was statistically significant at the 0.01 significance level, which confirms that the questionnaire areas have a strong degree of internal validity. Second, reliability steps were conducted with the same pilot sample using two methods: split-half coefficient and Cronbach’s alpha.

Cronbach's alpha was used to measure the internal reliability of the questionnaire as a second method for assessing consistency. Table (5) illustrates that the coefficients were high, since the reliability coefficient for all items reached 0.993 for transformational leadership and 0.951 for administrative innovation, which indicates that the questionnaire is highly reliable.

**Table (5): Cronbach's alpha**

No.		Principle	No. of items	Cronbach's Alpha
1	Transformational Leadership	Idealized influence	11	<b>0.981</b>
2		Inspirational motivation	9	<b>0.962</b>
3		Intellectual stimulation	8	<b>0.963</b>
4		Individualized consideration	7	<b>0.975</b>
5		Empowerment	8	<b>0.972</b>
All items of Transformational Leadership			<b>43</b>	0.993
1	Administrative innovation	Originality	5	<b>0.794</b>
2		Problem solving	4	<b>0.847</b>
3		Flexibility	4	<b>0.808</b>
4		Intellectual fluency	4	<b>0.902</b>
5		Paying attention	4	<b>0.738</b>
6		Ability to analyze and form correlations	4	<b>0.859</b>
All items of administrative innovation			25	0.951

Table (5) illustrates that the values of the coefficients are considered to be strong indicators, which signals that the questionnaire has a high degree of reliability, and the tool can be adopted in the final application to the members of the population sample. This indicates a high reliability coefficient that can be trusted in order to use the study tools to collect the data necessary to answer the research questions.

### 3. Results & Discussion

#### i) Demographic Data

**Table (6): Demographic characteristics (N=336)**

Variables	Category	Frequency	Percentage
Gender	Male	148	44.0%.
	Female	188	56.0%.



	Total	336	100%.
<b>Nationality</b>	Saudi	245	72.9%.
	Non-Saudi	91	27.1%.
	Total	336	100%.
<b>Age</b>	Less than 30 years	18	5.4%.
	30 years and less than 40 years	138	41.1%.
	40 years and less than 50 years	149	44.3%.
	50 years and over	31	9.2%.
	Total	336	100%.
<b>Qualifications</b>	Ph.D.,	181	53.9%.
	Masters' degree	79	23.5%.
	Bachelor's degree	60	17.9%.
	High school diploma	16	4.8%.
	Total	336	100%.
<b>Job Title</b>	Faculty Member	235	69.9%.
	Administrators	101	30.1%.
	Total	336	100%.
<b>Years of Experience</b>	Less than 5 years	81	24.1%.
	5 to less than 10 years	85	25.3%.
	10 to 15 years	96	28.6%.
	15 years and over	74	22.0%.
	Total	336	100%.

The demographic data of the respondents are summarized in Table (7). Approximately 44% of participants were male, while 56% were female; moreover, 72.9% of participants were Saudi, while 27.1% were non-Saudi. The majority of the participants were aged between 40 and below 50 years. Most participants (181, 53.9%) had a doctoral degree, followed by 79 (23.5%) with a master's degree, 60 (17.9%) with a bachelor's degree, and 4.8 (2.7%) with a high school diploma. Of the 336 participants, 69.9% were faculty members, while 30.1% were administrators.

To answer the first research question (What is the level of transformational leadership among the leaders at a public university in Saudi Arabia?), the researcher, as shown in the questionnaire, analyzed the data of each principle of transformational leadership, including idealized influence, inspirational motivation, intellectual stimulation, individualized consideration, and empowerment.

The arithmetic mean of all items of the first principle of transformational leadership is shown in Table (8). It illustrates that the mean was within the 3.26–4.04 bracket, the weighted mean of items ranged from 65.18%–80.71%, the average mean for all items = 3.71 out of 5 with a standard deviation = 1.03, and the average weighted mean = 74.11%. Therefore, the level of transformational leadership among the leaders at the university is high.

**Table (7): Transformational leadership**

No	Items	Mean	Standard deviation	Weighted mean	Degree of response	Rank
10	He/She has a great deal of integrity	4.04	1.103	80.71	high	1
1	He/She gains trust and respect of others.	3.99	1.151	79.88	high	2
7	He/She has strong principles and values.	3.95	1.129	78.93	high	3
2	He/She has a strong personality & professional courtesy.	3.93	1.131	78.57	high	4
3	He/She fosters a positive work environment.	3.82	1.231	76.43	high	5
4	He/She encourages the pursuit of excellence in the workplace.	3.80	1.219	76.01	high	6
11	He/She has strong persuasion skills where he/she presents compelling arguments.	3.78	1.105	75.65	high	7
9	He/She possesses exceptional leadership qualities.	3.73	1.277	74.58	high	8
8	His/Her actions match his/her words.	3.71	1.244	74.29	high	9
5	He/She has a clear vision of the future.	3.69	1.204	73.81	high	10
6	He/She goes beyond his/her own self-interest to serve the common good.	3.62	1.264	72.44	high	11
	<b>Overall mean for items of Idealized influence</b>	<b>3.82</b>	<b>1.09</b>	<b>76.48</b>	<b>high</b>	
12	He/She talks excitedly about what needs to be done.	3.95	0.987	78.99	high	1
15	He/She expresses appreciation and gratitude to employees when they perform well at work.	3.85	1.213	77.02	high	2
13	He/She motivates faculty members/employees to achieve a shared vision.	3.83	1.080	76.67	high	3
19	He/She encourages teamwork.	3.74	1.203	74.76	high	4
14	He/She makes me feel important and valued.	3.70	1.178	73.93	high	5
18	He/She is successfully in dealing with difficult situations.	3.62	1.183	72.44	high	6
20	He/She promotes creative problem-solving.	3.57	1.195	71.31	high	7
17	When he/she makes a mistake at work, he/she admits it.	3.42	1.192	68.45	high	8
16	He/She provides incentives via financial and moral rewards.	3.29	1.264	65.77	medium	9
	<b>Overall mean for items of Inspirational motivation</b>	<b>3.66</b>	<b>1.05</b>	<b>73.26</b>	<b>high</b>	
21	He/She listens to our suggestions.	3.84	1.199	76.79	high	1

22	He/She encourages using suggestions of others.	3.79	1.147	75.89	high	2
25	He/She realizes the need to change for the better.	3.79	1.166	75.83	high	3
26	He/She trusts the abilities of his/her subordinates.	3.73	1.129	74.52	high	4
23	He/She encourages faculty members/employees to be creative.	3.70	1.168	73.99	high	5
24	He/She creates a culture where it is safe to have different perspectives in the workplace.	3.67	1.277	73.33	high	6
27	He/She suggests new ways to accomplish tasks at work.	3.59	1.100	71.85	high	7
28	He/She encourages risk-taking.	3.26	1.185	65.18	medium	8
	<b>Overall mean for items of Intellectual stimulation</b>	<b>3.67</b>	<b>1.04</b>	<b>73.42</b>	<b>high</b>	
30	He/She works effectively with individual differences among employees.	3.66	1.243	73.21	high	1
29	He/She instills a sense of enthusiasm, commitment, and confidence in employees.	3.65	1.164	73.10	high	2
33	He/She believes in the importance of employees' participation in the change process.	3.63	1.180	72.50	high	3
34	He/She encourages employees to dissent or voice opinions.	3.52	1.316	70.48	high	4
35	He/She tries to meet employees' needs and goals.	3.51	1.297	70.30	high	5
32	He/She is committed to treating all employees equally.	3.51	1.304	70.12	high	6
31	He/She helps employees to overcome their own problems.	3.46	1.255	69.29	high	7
	<b>Overall mean for items of Individualized consideration</b>	<b>3.56</b>	<b>1.17</b>	<b>71.28</b>	<b>high</b>	
38	He/She encourages his/her employees to take responsibility.	3.96	1.029	79.23	high	1
37	He/She provides a bigger picture at work and trusts teammates to do the right things and come back with results.	3.77	1.152	75.48	high	2
41	He/She supports his/her teams in practicing their authority.	3.75	1.147	75.06	high	3
40	He/She guides and coordinates work activity and makes sure people know what to do.	3.74	1.114	74.88	high	4
43	He/She encourages a collaborative leadership style.	3.73	1.203	74.52	high	5
39	He/She sets standards that are attainable and achievable.	3.70	1.096	73.99	high	6
36	He/She delegates his/her authority effectively to faculty members/employees.	3.68	1.164	73.51	high	7
42	He/She makes sure that each person has the same equivalent authority.	3.66	1.100	73.15	high	8
	<b>Overall mean for items of Empowerment</b>	<b>3.75</b>	<b>1.03</b>	<b>74.98</b>	<b>high</b>	

<b>Overall mean for all items of transformational leadership</b>	<b>3.71</b>	<b>1.03</b>	<b>74.11</b>	<b>high</b>
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To answer the second research question (What is the level of administrative innovation for employees at a Saudi university?), the researcher, as shown in the questionnaire, analyzed the data of the six principles of administrative innovation, namely originality, problem solving, flexibility, intellectual fluency, paying attention, and ability to analyze and form correlations. The mean of items ranged from 3.79 to 4.40, while the weighted mean ranged from 75.89% to 87.98%. The overall mean for all items was 4.19 (out of 5) with a standard deviation of 0.50, and the average weighted mean was 83.74%. These results indicate a high level of administrative innovation among employees at a Saudi university.

**Table (8): Administrative innovation**

No	Items	Mean	Standard deviation	Weight mean	Degree of response	Ranking
2	I try to rejuvenate my mind and break out of daily routines to unlock great new ideas.	4.29	0.709	85.71	Very high	1
3	I provide innovative ideas to develop my work.	4.19	0.767	83.75	high	2
1	I accomplish the tasks assigned to me in a creative manner.	4.16	0.656	83.27	high	3
4	I get bored when performing repetitive tasks at work.	3.92	0.952	78.33	high	4
5	I don't solve problems in a traditional way.	3.79	0.954	75.89	high	5
	<b>Originality</b>	<b>4.07</b>	<b>0.61</b>	<b>81.39</b>	<b>high</b>	
7	I make sure to know the shortcomings of work I have done.	4.26	0.681	85.30	Very high	1
8	I have an accurate perspective on work problems.	4.17	0.685	83.39	high	2
9	I can make a critical decision in a relatively short period of time.	4.12	0.761	82.44	high	3
6	I anticipate work problems before they happen.	4.01	0.871	80.24	high	4
	Problem solving	4.14	0.62	82.84		
12	I do not hesitate to change my decision if I know it is incorrect.	4.40	0.730	87.98	Very high	1
10	I am able to see things from different perspectives.	4.31	0.650	86.13	Very high	2
11	I'm open to opposing viewpoints.	4.30	0.688	86.01	Very high	3
13	I welcome others' criticism with open arms.	4.27	0.688	85.42	Very high	4
	<b>Flexibility</b>	<b>4.32</b>	<b>0.55</b>	<b>86.38</b>	<b>Very high</b>	

14	I am able to develop my thoughts.	4.35	0.623	86.90	Very high	1
16	I am able to understand and influence others' perspectives.	4.17	0.765	83.45	high	2
17	I am more interested in generating new ideas than seeking the approval of others.	4.13	0.759	82.68	high	3
15	I am able to generate more ideas in a short period of time.	4.12	0.807	82.44	high	4
	<b>Intellectual fluency</b>	<b>4.19</b>	<b>0.65</b>	<b>83.87</b>	<b>high</b>	
19	I encourage suggestions from others.	4.38	0.650	87.68	Very high	1
20	I prefer tasks that challenge my potential.	4.18	0.782	83.51	high	2
21	I do some research and gather information when solving a problem.	4.06	0.686	81.25	high	3
19	I don't make compromises on my goals, and I'm committed to achieving them.	4.00	0.829	80.00	high	4
	<b>Paying attention</b>	<b>4.16</b>	<b>0.55</b>	<b>83.11</b>	<b>high</b>	
25	I determine work details before implementing it.	4.33	0.656	86.55	Very high	1
23	I don't make random decisions.	4.32	0.593	86.49	Very high	2
22	I am able to organize my thoughts.	4.23	0.678	84.64	Very high	3
24	I am able to perceive and interpret relationships between things.	4.20	0.723	83.93	high	4
	Ability to analyze and form correlations	4.27	0.56	85.40	Very high	
	Overall mean for all items of the section (administrative innovation)	4.19	0.50	83.74	high	

To answer the third research question (Is there a statistically significant relationship at the  $\alpha \leq 0.05$  level between the level of transformational leadership and the degree of employees' administrative innovation at a Saudi university?), the researcher used the Pearson correlation to test the relationship between the level of transformational leadership and the degree of employees' administrative innovation at a Saudi university. The results in Table (10) show that there was a significant correlation between domains of transformational leadership and domains of administrative innovation at the 0.01 level of significance. In general, the Pearson correlation between overall domains of transformational leadership and overall domains of administrative innovation = 0.299, and the p-value = 0.000 < 0.01, thus indicating that there was a correlation between the level of transformational leadership and the degree of administrators' administrative innovation at the university at the 0.01 level of significance.

The purpose of this study is to identify the impact of transformational leadership on administrative innovation in higher education institutions. As such, a regression analysis was calculated, and to conduct said analysis, the validity of the model was confirmed.

**Table (9): Results of regression analysis of variance (analysis of variance) to ensure continuity of the regression model.**

Dependent Variable	independent	Regression	Sum of Squares	df	Mean Square	R Square	F	Sig.
administrative innovation	Transformational Leadership	Residual	7.517	1	7.517	0.089	32.785	0.000
		Total	76.577	334	0.229			
		Regression	84.093	335				

This table confirms that the validity of the model used in the regression analysis is stable due to the higher value of (F) calculated when compared to its tabulated value in the effect of transformational leadership, amounting to 32.785; indeed, this means that transformational leadership explains varying percentages (8.9%) of the variance in administrative innovation, which is due to the effect of transformational leadership. Based on this, the impact of transformational leadership on administrative innovation in higher education institutions was assessed, and Table (10) shows the values of the regression analysis to test the impact of transformational leadership on administrative innovation in higher education institutions.

**Table (10): Regression analysis values to test the impact of transformational leadership on administrative innovation in higher education institutions.**

The source of regression	Unstandardized Coefficients		Standardized Coefficients Beta	t	Sig.
	B	Std. Error			
Constant	3.649	0.097		37.434	0.000
Transformational Leadership	0.145	0.025	0.299	5.726	0.000

As noted in Table (10), the regression equation constant or the prediction constant for administrative innovation as well as the non-standard partial regression coefficient have significant values at the significance level of  $\alpha \leq 0.05$ . Through following the values of the standard regression coefficients (beta) for the transformational leadership interaction, we find that the value of beta is 0.145. It is noted that every change of one standard score in the values of the transformational leadership interaction leads to a change in the value of administrative innovation.

Every change of one standard score in the value of transformational leadership leads to a change of 0.145 in the value of the level of administrative creativity. In terms of the values of the t-test, it is obvious that there is a significant effect of transformational leadership in achieving administrative innovation, as the calculated t-values reached 5.726, which is greater than its tabulated value. At a significance level of  $\alpha \leq 0.05$ , and given the positive beta value, this is a relatively high relationship; indeed, the aforementioned result confirms the existence

of a correlation and a positive effect between transformational leadership and achieving administrative innovation.

#### **4. Conclusion & Recommendations**

This study was conducted to ascertain the influence of TL on administrative innovation from the perspectives of faculty members and administrators at a four-year higher education institution. Past studies have found that TL has been identified as one of the most critical factors influencing innovation within organizations (Al Ahmad et al., 2019; García-Morales et al., 2012; Gui et al., 2022; Rafique et al., 2022; Islam, 2023; Yangailo, 2023). Indeed, Le and Lei (2019) stressed that transformational leaders encourage employees to discuss their new ideas and approaches, which consequently leads to an increase in innovation within organizations. The current study shows that TL is positively linked to administrative innovation. This finding is consistent with the results of certain past works (Elrehail et al., 2018; Jaiswal et al., 2015; Karimi et al., 2023; Matzler et al., 2008; Tipu et al., 2012; Udin et al., 2023), which shows that transformational leadership is positively related to organizational culture and innovation in organizations. The traits of transformational leadership — namely trusting team members, motivating employees to achieve the common goals of an organization, and having the tendency to be receptive toward new ideas and perspectives — help to create a culture of innovation at work.

Institutions are obliged to embrace change in their administrative procedures and their internal administrative culture and to adopt innovative administrative strategies. One of the significant roles of transformational leaders is to encourage employees' personal development and recognize their potential. Additionally, transformational leaders involve employees in decision-making processes, which helps to increase the latter's productivity and morale. Transformational leaders motivate their employees and drive them to exceed expectations regarding their performance by transforming their beliefs, attitudes, or behaviors (Rawat, 2015). These leaders, characteristically, encourage their employees to focus persistently on the best interests of the shareholders in an organization rather than their self-interest.

Based on the findings of this study, the following recommendations are proposed: First, findings from the research could provide an insight into the preparation and training of educational transformational leaders for promoting the innovative behavior of employees. Second, further research is needed to qualitatively explore the construct of transformational leadership. Third, it is recommended that transformational leadership be applied in organizations, and leaders must be ready to take on the mantle of the transformational leader. Fourth, leaders should create a safe space for employees to explore their new and different perspectives. They should foster collaboration by promoting a culture of trust, respect, and innovation.

The study was initially designed to investigate the influence of transformational leadership on administrative innovation in higher education institutions. In this regard, the study's findings suggest that transformational leadership is considered to be one of the significant factors impacting administrative creativity among employees. Transformational leaders play a fundamental role when it comes to enhancing creativity in organizations by changing the workplace culture in a positive way. Transformational leaders move their organizations forward to achieve maximum efficiency and effectiveness by inspiring and motivating others to achieve goals through the strength of their vision and personality.

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