

EMPIRICAL STUDY ON EVALUATION OF TRANSACTIONAL AND TRANSFORMATIONAL LEADERSHIP

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Abstract: Task completion and realization of the organization's vision and goal are greatly influenced by leadership. While there exist different types of leadership styles, Research on both male and female employees' transactional and transformational leadership styles has been done by assessing through a multifactor leadership questionnaire. The stratified random sampling without a proportionate method has been adopted and collected using well well-designed structured questionnaire. The study's conclusions indicate that transformative leadership is more commonly observed among female employees, whereas transactional leadership is seen among male employees. Idealized and Intellectual factors are highly correlated. Management by Exception and laissez-faire factors scored low Cronbach values after factor analysis.

Key Words: Transformational Leadership, Multifactor Leadership, Transactional Leadership.

Introduction: Strong leaders who have an impact on their followers are motivated by self-interest and extraordinary effect to nurture, motivate, and bring a change in attitude. Such leaders are generally noted as transformational leaders who are creative, risk-takers, and have self-esteem. Transformational leaders always show a team spirit of achieving goals, accomplishing tasks, and holding responsibility on their shoulders. The term "Transformational

leadership" at the outset was recognized by Downton, highlighting the call for change agents in the organizations, to bring a clear focus on a vision of the organization. The Survey conducted by Giles rated the top ten leadership competencies as responded to by the respondents. Insert Table -1.

Study Objectives: The primary focus of the research article endeavors to examine what distinguishes transformational leadership from transactional leadership. leadership among the male and female respondents, through assessing multifactor leadership questionnaire.

Review of Literature: Transformational leaders are the ones who "expand and raise the interests of employees, who create responsiveness and getting of the group's goals and who encourage employees towards gaze their self-regard for the good of the group," According to Seltzer, J., & Bass, B. M. (1990). Kent, A., & Chelladurai, P. (2001) describe transformational leadership as it is the process of fostering assurance to the goals and aims of the organization and encouraging significant changes in members' attitudes and presumptions.

F. Vito et.al, 2014 stated Transformational and transactional leadership may both be reflected in the leadership challenge model. Secondly, the results corroborate the theory that the truly embodies transformative leadership. Elgamal, M. A. (2004). The study's findings demonstrated that transformational leadership affects outcome variables in a way that surpasses the contextual variables' influence.

Gavasn O' Shea et.al, 2009 mentioned small degree of passive management-by-exception conduct—such as staying out of the way until issues arise—was typically combined with transformational and contingent reward (such as exchange-based transactional leadership) actions by the most effective leaders. Passakoniaras, S. and Hartijiasti, Y. (2020) Leadership styles of Padang and Chinese and Javanese were shown to differ ethnically. Because of their distinct cultural beliefs, Padang managers appear to apply transformational leadership more

often, along with contingent reward—a transactional leadership technique that provides positive reinforcement.

Ejere, E. I., & Abasilim, U. D. (2013) According to his research, the Organizational performance variable is positively correlated with transactional as well as transformational leadership styles, however, the impact of transformational leadership is greater. Van Eeden, R., et.al, (2008) Transformational leadership was defined as emphasizing interpersonal work and social ethics, as well as interpersonal styles, rather than the visionary part of leadership. There were also observed behaviors linked to more passive leadership philosophies and transactional leadership. A transformational leader is one who "expands the desires, those they employ creates awareness and receipt of group's goals and mission and inspires to stare away their self-centeredness for the upright of the cluster," according to Seltzer, J., & Bass, B. M. (1990).

"Those who clearly define the needs as well as the circumstances of the task, and offer incentives for meeting those requirements" are considered leaders. are those who practice transactional leadership; completing the transaction is the same as meeting the demand, according to Bromley, H. R., & Kirschner-Bromley, V. A. (2007). Chan, E. H., and A. T. Chan (2005) Transformational leadership performs much better than transactional leadership in the sample of construction professionals when it comes to predicting employees' rates of additional effort, perceived effectiveness of leaders, and happiness with the leaders.

Corrigan, P. W., & Garman, A. N. (1999). There were three attributes that team leaders needed to avoid: intellectual stimulation, individual consideration, and inspiration and charisma. Boamah SA et. Al, 2019 found regarding the five transformational leadership and contingent reward elements of ML, the results validate the need for new theory and scale refinement.

Research Methodology: Before the analysis of the data, an attempt has been made to test out the data normality to decide the statistical tools to carry forward. Initially, the normality test was

conducted to verify the distribution of data with a mean of 77.45, St.dev = 11.168, and sig value $P = .191$, subsequently the data distribution is normal, and the null hypothesis is accepted.

To test whether there is equal participation among male and female respondents in the survey a chi-square test has been conducted. The proportion allocation between males and females is slightly different in each case. The asymp the sig P value is $.526$, $P > 0.05$.

Definition of Population: A stratified random sampling method without proportionate has been implemented for the current study. The data was gathered through an assessment online from individuals. While the objectives of the data informed the respondents. Infinite Population - $N = Z^2 \times P^n (1 - P^n) / e^2$ $N = 1.64^2 \times 0.5^n (1 - 0.5^n) / 0.05^2$, the calculated sample is 273. However, after removing the missing entries and outliers only a sample size of two hundred and one is considered for further analysis of data. The questionnaire inventory items are clearly shown in table – 2.

Descriptive Analysis: The examination of the statistics dealing with the demographic details around 63.2 percent of the participants under the age bracket of (20 – 25) actively participated in the survey. The female participation percentage of 52.2 was also observed to be high in the survey outcomes.

Reliability: To find the internal consistency among all the variables for the aggregate sample respondents of two hundred and one reliability analysis has been conducted to find the aggregate alpha value ($\alpha = .873$). To perceive the Cronbach alpha norms that all the items need to associate with the over-all alpha value ($\alpha = 0.83$), Towards measuring the association between levels of Multifactor leadership a correlation analysis has been done.

The correlation results show a high positive link between the concept and inspiration as well as a significant positive association between all the multifactor leadership factors. (0.622) and the

p – value for the two-tailed significance is less than 0.005. On the other aspect, a low positive correlation exists between the intellectual and Laissez-fair factor (.312). The correlation results show that all the multifactor leadership variables have a strong positive link with one another, and that idea and inspiration have a significant positive correlation. (0.622) and the p-value for the two-tailed significance is less than 0.005. On the other aspect, a low positive correlation exists between the intellectual and Laissez-faire factors (.312).

Correlations between the cross-sectional ratings of respondents' transformational and transactional leadership qualities. The outcomes indicate that there is a strong correlation among intellectual with inspirational (.580**) factors of transformation leadership further Lazziefaire and Management by exception (.365**) factor of transactional leadership among male respondents. Yet on the other hand Intellectual and Inspirational factors are highly correlated (.580**) in transformational leadership, while Management by exception and contingent reward is highly correlated (.452**) in transactional leadership. Insert table -3.

An independent sample test has been carried out to go deeper into each aspect to determine whether or not the mean difference between respondents of two different leadership styles is statistically significant. Insert table -4.

The mean difference of Idealized factor is higher in females ($\bar{x} = 11.5714$) than in males ($\bar{x} = 11.5313$) the mean difference of Idealized factor among females as compared to male is statistically significant ($t_{197.755} = -.129$) Inspirational factor is higher in female ($\bar{x} = 11.4952$) than male ($\bar{x} = 11.4167$), the mean difference of Inspirational factor among female as compared to male is statistically significant ($t_{192.833} = -.287$), Intellectual factor is lower in female ($\bar{x} = 10.5810$) than male ($\bar{x} = 11.0625$), the mean difference of Intellectual factor among female as compared to male is not statistically significant ($t_{195.794} = 1.454$), Individualized factor also reflects high score mean values in female ($\bar{x} = 11.3229$) than male ($\bar{x} = 11.4667$), the mean

difference of Individualized factor among female as compared to male is statistically significant ($t_{198.046} = -.506$). Idealized, Inspirational, and Individualized four factors of transformational leadership factors score high value among female respondents than males.

Next concerning transactional leadership style factors such as Contingent reward mean value is more in males ($\bar{x} = 11.4375$) than females ($\bar{x} = 11.2476$), the mean difference of Contingent reward factor among females as compared to males is not statistically significant ($t_{198.148} = .637$), yet another factor management by exception mean value score is high ($\bar{x} = 11.2188$) among male than female ($\bar{x} = 11.0952$) the mean difference of management by exception factor among female as compared to male is not statistically significant ($t_{194.482} = .407$), and finally the Laissez-faire factor is also scored high value of mean among male ($\bar{x} = 10.1250$) than female respondents ($\bar{x} = 9.4762$) the mean difference of Laissez-faire factor among female as compared to male is not statistically significant ($t_{198.330} = 1.917$). Finally, the overall conclusion after analysis of each factor the overall conclusion drawn is transactional leadership style is observed to be more common among males, and further transformational leadership is found to be more common among female respondents.

Factor Analysis The data collected is adequate as the high value of KMO is .854 (meritorious), as such the normality of the distribution of values presents the test value as 1217.435, df 210 highly statistically significant ($p \sim 0.000$) on the determination of the of factors to be retained. Insert table -5.

Overall five factors are extracted, and the first eight variables (19, 17, 10, 09,08, 11, 20, and 18) listed correspond to **Component 1**. The next four variables (16, 4, 5, 12) listed correspond to **Component 2** The next four variables (3, 15, 2, and 1) belong to **Component** The next variables (7, 14) correspond to **Component 4, Component 5**.

After the extraction of components from the principal component analysis, Component 4 Laissez-faire leadership besides management by exception is unacceptable as such the reliability of the items is very low. Jones, et.al, 2007 indicated the Freewheeling leadership style does not provide direction or guidance. Therefore, only three components namely components 1, 2, and 3 have been accepted. After due consideration of the items in the components, naming has been done such as Component 1 labeled as Individualized, Component 2 – Contingent Reward, and Component 3 – Idealized. (Insert Table – 13)

Research Hypotheses:

Towards testing the first hypothesis transformational leadership is more common in females than in males. ANOVA analysis examined the results to prove the hypothesis, the outcome of the results indicates. **H1₀ The mean scores of transformational leadership are more common in females than in males.** The calculated value of F is .585, which reaches significance of .445. The p-value in the ANOVA table's output is taken into consideration to accept or reject the insignificant hypothesis. If p-value is lesser than the significance level at 0.05 then the insignificant proposition has not been accepted and concluded that not all group means are equal. **H2₀** The mean scores of inspirational motivation and individual considerations are higher in female leadership than in male leadership. The calculated value of F is .082, and .256 of inspirational and individual respectively which reaches significance with a p-value of .775, and .614. **H3₀** The mean scores of idealized influence and intellectual stimulation are lower in female leadership than in male leadership. The calculated value of F is .017, 2.121 of idealized and intellectual respectively which reaches significance with a p-value of .897, .147 accordingly the null hypothesis has been accepted, **H4₀**. Female leadership had lower mean scores than male leadership in the areas of contingent compensation, laissez-faire leadership as well management by exception. The calculated value of F is .405, .162, and 3.626 for reward, laissez-faire and

management by exception, respectively which reaches significance with p -values of .525, .687, and 3.626 consequently hypothesis has been accepted. **H₅₀** **The mean scores of transformational leadership do not vary across the age levels of respondents.** Insert table -6

Around one hundred and twenty-seven respondents fall into the age group of 20-25, thirteen respondents are in the 26-30 years' category, twenty-six respondents into the 31-35 years, twenty respondents into the 36-40 age group, and nine members into 41-45 year and finally six belongs to 45- 50 age category. The calculated value of F is 3.537, of transformational leadership across the age levels which reaches significance with a p -value of .004 consequently the null hypothesis has not been accepted. Insert table – 7.

Findings: The key results indicate transformational leadership is more common in women, and transactional leadership is more common in men. A higher mean value for the Idealized, Inspirational, and Individualized components of transformational leadership was observed in female respondents compared to male respondents. Simultaneously, it was observed that gender differences existed in the transactional variables such as contingent reward, laissez-faire yet management by exception. Only three components labeled as Individualized, Contingent Reward, and Idealized were accepted after the factor analysis depending upon the reliability criteria. There exists a high positive correlation between ideas and inspiration. On the other aspect, a low positive correlation exists between the intellectual and laissez-faire factors.

Conclusion: In the present scenario, effective leadership plays a significant role in handling the challenges and uncertainty present in the organizations. Over the decades many researchers emphasized leadership styles, gender stereotypes, and different perceptions among males and females, yet with changing paradigm shift in the female workforce, occupying managerial top-notch positions in the organization. Feasibly it's the ability of either male or female leaders to combine both styles as per circumstances in the organization ahead in achieving the tasks, targets,

goals, objectives, vision, and mission as such yet the work environment factors do impact on the achievement of success. In the age of inclusive competition, to accomplish organizational competitiveness leadership is essential for both male and female leaders to build trust commitment, and standard performance among their followers.

Future Implications of the Study: There is a need for more study, thus to conclude how to generalize the research result, the sample size must be higher. The perspective of a sample of respondents determines the scores of the transformational and transactional leadership elements across variations in demographic characteristics.

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Tables

Table – 1: Top Ten Leadership Competencies			
Rank	Percentage	Survey Opinions	Dimension
1	67%	Ethical and moral standards	Strong ethics and safety
2	59%	Directions for achieving goals and objectives	Self-Organization
3	56%	Shares Expectations	Strong ethics and safety
4	52%	Flexibility to change opinions	Efficient learning
5	43%	Committed to ongoing training	Nurtures growth
6	42%	Communicates Openly	Connection and belonging
7	39%	Receptive to novel concepts and methodology	Efficient learning
8	38%	A sense of shared success and failure	Nurtures growth
9	38%	encourages development into a leader of the future.	Nurtures growth
10	37%	Enables risk-free experimentation	Efficient learning
Source: Sunnie Giles, HBR, March 15th, 2016			

Table – 2:Key Inventory Multifactor Leadership					
S.No	Factors	Item No	Mean	Std.Dev	Cronbach
1	Idealized influence	1, 8, 15	11.5522	2.19283	.663
2	Inspirational motivation	2, 9, 16	11.4577	1.93635	.541
3	Intellectual stimulation	3, 10, 17	10.8109	2.34821	.648
4	Individual consideration	4, 11, 18	11.3980	2.01017	.410
5	Contingent reward	5, 12, 19	11.3383	2.11068	.564
6	Management by exception	6, 13, 20.	11.1542	2.16589	.490
7	Laissez faire	7, 14, 21	9.7861	2.42879	.506

Source: Batista-Foguet JM, Esteve M, van Witteloostuijn A

Table – 3: Correlations between ratings of male and female respondents across Transformational and Transactional Leadership								
Gender	Transformational Leadership				Transactional Leadership			
Male	Idealized	Inspirational	Intellectual	Individualized		Contingent Reward	Mgt By Exception	Lazziefaire
Idealized					Contingent Reward			
Inspirational	.570**				Mgt By Exception	.360**		
Intellectual	.529**	.580**			laissez-faire	.248*	.365**	
Individualized	.286**	.468**	.502**					
Female	Idealized	Inspirational	Intellectual	Individualized		Contingent Reward	Mgt By Exception	Lazziefaire
Idealized					Contingent Reward			
Inspirational	.551**				Mgt By Exception	.452**		
Intellectual	.423**	.580**			laissez-faire	.335**	.365**	
Individualized	.421**	.563**	.497**					

Source: Primary Data - Results

Table – 4 : Independent Sample Test									
Factor	Gender	No	Mean	Std.Dev	Result	Leven’s Test-	df	t-test	Type of Style
Idealized	Male	96	11.5313	2.18585	Lower	.917	197.755	-.129	Transformational
	Female	105	11.5714	2.20949	Higher				
Inspirational	Male	96	11.4167	2.02961	Lower	.493	198.833	-.287	Transformational
	Female	105	11.4952	1.85599	Higher				
Intellectual	Male	96	11.0625	2.38774	Higher	.565	195.794	1.454	Transformational
	Female	105	10.5810	2.29875	Lower				
Individualized	Male	96	11.3229	1.99206	Lower	.783	198.046	-.506	Transformational
	Female	105	11.4667	2.03369	Higher				
	Male	96	11.4375	2.08661	Higher	.780	198.148	.637	Transactional

Contingent Reward	Female	105	11.2476	2.13839	Lower				
Management by Exception	Male	96	11.2188	1.88179	Higher	.009	194.482	.407	Transactional
	Female	105	11.0952	2.40402	Lower				
Laizzeffaire	Male	96	10.1250	2.22072	Higher	.199	198.330	1.917	Transactional
	Female	105	9.4762	2.57613	Lower				
Source: Primary Data - Results									

Table – 5: Total Variance Explained									
Factor	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	6.267	29.844	29.844	6.267	29.844	29.844	3.495	16.643	16.643
2	1.459	6.946	36.790	1.459	6.946	36.790	2.270	10.810	27.453
3	1.350	6.429	43.218	1.350	6.429	43.218	2.201	10.479	37.932
4	1.109	5.281	48.499	1.109	5.281	48.499	1.704	8.112	46.044
5	1.019	4.854	53.354	1.019	4.854	53.354	1.535	7.310	53.354
6	.985	4.692	58.046						
7	.946	4.506	62.552						
8	.856	4.076	66.628						
9	.839	3.995	70.623						
10	.775	3.689	74.312						
11	.741	3.529	77.841						
12	.662	3.150	80.991						
13	.602	2.865	83.856						
14	.574	2.733	86.590						
15	.525	2.501	89.090						
16	.487	2.320	91.410						
17	.426	2.031	93.441						
18	.401	1.909	95.350						
19	.376	1.792	97.142						
20	.347	1.651	98.793						
21	.254	1.207	100.000						
Source: Primary Data - Results									

Table – 6: Transformational Leadership - Descriptive Statistics								
Age	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		ANOVA	
					Lower Bound	Upper Bound	F	Sig
20-25	127	76.4252	10.58939	.93966	74.5656	78.2847		
26-30	13	69.1538	12.80525	3.55154	61.4157	76.8920	3.537	.004
31-35	26	81.4615	11.76854	2.30800	76.7081	86.2150		
36-40	20	80.2500	9.14719	2.04537	75.9690	84.5310		
41-45	9	84.3333	8.83176	2.94392	77.5446	91.1220		
45-50	6	80.1667	14.81103	6.04658	64.6234	95.7099		
Total	201	77.4527	11.16777	.78771	75.8994	79.0060		

Source: Primary Data - Results

Table – 7: Hypotheses ANOVA Test Results				
Hypothesis	F - Value	Sig	Result	Factor
H1 ₀	.585	.445	Accepted.	Transformational leadership among female
H2 ₀	.082	.775	Accepted.	Inspirational
	.256	.614	Accepted.	Individual
H3 ₀	.017	.897	Accepted.	Idealized
	2.121	.147	Accepted.	Intellectual
H4 ₀	.405	.525	Accepted.	Contingent Reward
	.162	.687	Accepted.	Management by Exception
	3.626	.058	Accepted.	Laissez-faire
H5 ₀	3.537	.004	Not Accepted.	Transformational leadership Across age levels.

Source: Primary Data Results.