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The Impact of the Perceived Leadership Style on Team Cohesion in Munir Sukhtian Pharmaceuticals (MS Pharma) Company in Jordan

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Abstract. The present research paper intended to explore the impact of the perceived transformational & transactional Leadership styles on team cohesion in Munir Sukhtian Pharmaceutical Company. An electronic questionnaire was sent to 160 employees in different department in MSP in Amman- Jordan. 84 employees completed the adapted version of the multifactor leadership style (rater form) and the Group Environment Questionnaire. Two attributes of each of leadership styles were measured. For team cohesion, attraction to group and group integration attributes, were assessed regarding both social and task aspects. Results showed significant moderate correlation between leadership style and team cohesion with no difference when it comes to demographic and functional variables.

Keywords. Leadership Style, Team Cohesion, Transformational, Transactional, Inspirational Motivation, Intellectual Stimulation, Contingent Reward, Management by Exception, Attraction, Group Integration

Introduction

Over times, leadership was given different definitions. It involved influence on teams' and groups' behaviors and interactions. This research aims to assess the impact of the different leadership styles in MS Pharma Company on team cohesion in terms of group attraction and integration on both social and task levels.

This will help the company understand how leadership styles adopted by superiors and perceived by subordinates affected teams and how to optimize their styles to improve cohesion and interactions.

As a company with high contribution from confident leaders and very dynamic environment, it is worth checking demographic and functional variables to find out if there are any differences between gender, age, nationalities, job grade and years of experience in the impact of leadership style on team cohesion.

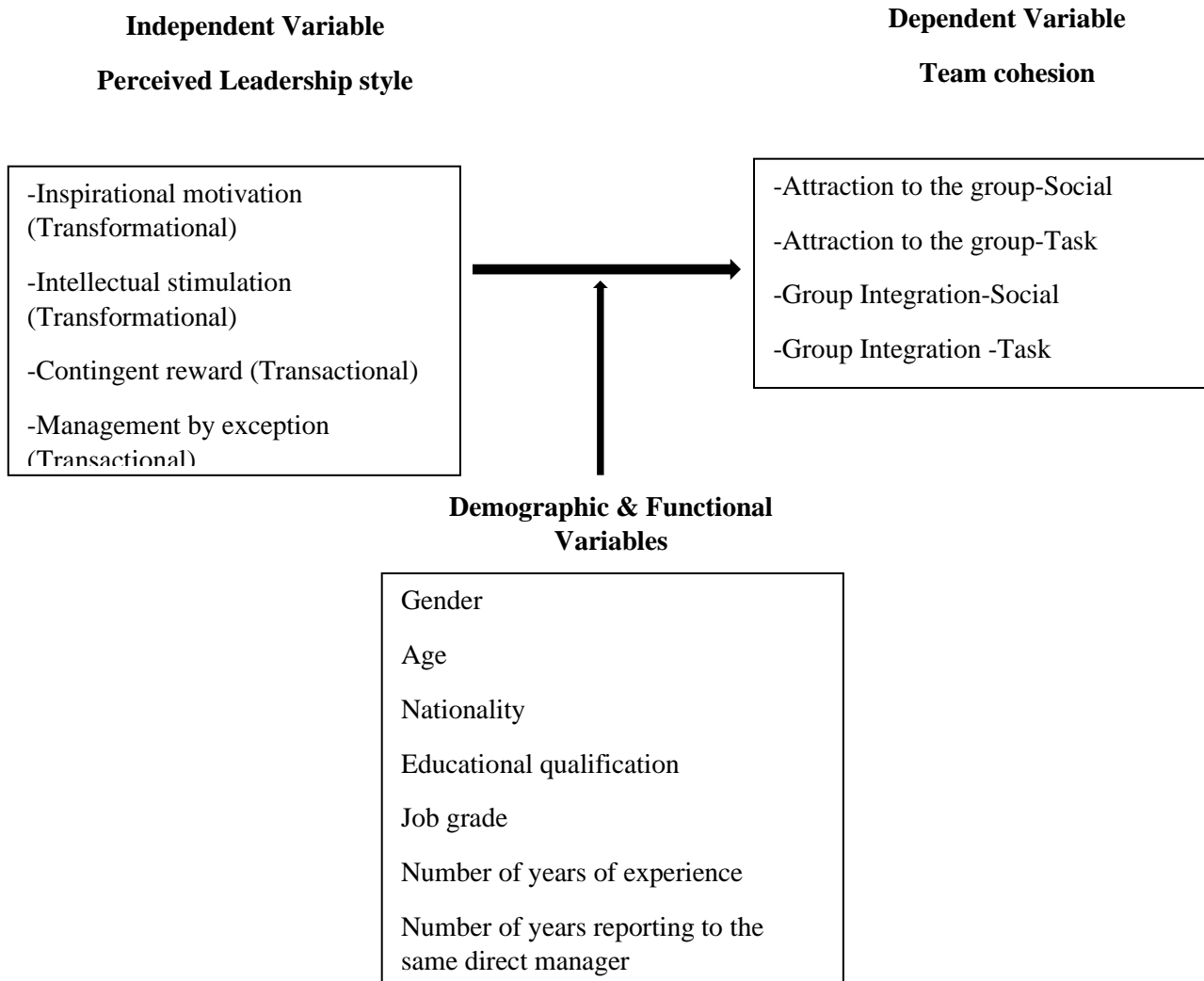
Significance:

It is important to study the leadership styles perceived by employees to test how leaders' behaviors will influence the group toward organization's development and objectives achievement, especially that the age group in this sample is in generation Y (millennial generation) in which leadership behaviors and styles are not well studied and expected to adopt different styles .

MS Pharma structure is based on teams and it is important to understand the factors affecting their cohesion to improve collaboration and communication and create a proper environment for achievement and teamwork.

Figure 1:

Research Model



Hypothesis

H₀ : There is no impact of the perceived transformational leadership style on team cohesion at MS Pharma with significance at ($\alpha=0.05$).

H₀₁: There is no impact of the inspirational motivation leadership style on attraction to the group-Social at MS Pharma with significance at ($\alpha=0.05$).

H₀₂: There is no impact of the inspirational motivation leadership style on attraction to the group-Task at MS Pharma with significance at ($\alpha=0.05$).

H₀₃: There is no impact of the inspirational motivation leadership style on Group Integration-Social at MS Pharma with significance at ($\alpha=0.05$).

H₀₄: There is no impact of the inspirational motivation leadership style on Group Integration -Task at MS Pharma with significance at ($\alpha=0.05$).

H₀₅: There is no impact of the intellectual stimulation leadership style on Attraction to the group-Social at MS Pharma with significance at ($\alpha=0.05$).

- Ho6:** There is no impact of the intellectual stimulation leadership style on Attraction to the group-Task at MS Pharma with significance at ($\alpha=0.05$).
- Ho7:** There is no impact of the intellectual stimulation leadership style on Group Integration-Social at MS Pharma with significance at ($\alpha=0.05$).
- Ho8:** There is no impact of the intellectual stimulation leadership style on Group Integration -Task at MS Pharma with significance at ($\alpha=0.05$).
- Ho9:** There is no impact of the contingent reward leadership style on Attraction to the group-Social at MS Pharma with significance at ($\alpha=0.05$).
- Ho10:** There is no impact of the contingent reward leadership style on Attraction to the group-Task at MS Pharma with significance at ($\alpha=0.05$).
- Ho11:** There is no impact of the contingent reward leadership style on Group Integration-Social at MS Pharma with significance at ($\alpha=0.05$).
- Ho12:** There is no impact of the contingent reward leadership style on Group Integration -Task at MS Pharma with significance at ($\alpha=0.05$).
- Ho13:** There is no impact of the management by exception leadership style on Attraction to the group-Social at MS Pharma with significance at ($\alpha=0.05$).
- Ho14:** There is no impact of the management by exception leadership style on Attraction to the group-Task at MS Pharma with significance at ($\alpha=0.05$).
- Ho15:** There is no impact of the management by exception leadership style on Group Integration-Social at MS Pharma with significance at ($\alpha=0.05$).
- Ho16:** There is no impact of the management by exception leadership style on Group Integration -Task at MS Pharma with significance at ($\alpha=0.05$).
- Ho17:** There is no difference between perceived leadership style and team cohesion when it comes to demographic and functional factors (Gender, Age, Nationality, Educational Qualification, Job Grade, Number of Years of Experience, Number of Years Reporting to the Same Direct Manager) at MS Pharma with significance at ($\alpha=0.05$).

Literature review

Leadership was discussed thoroughly in many major disciplines including organizational behavior, psychology, physiology, sociology, economics, history and political sciences.

Leaders are needed and recognized in all sectors and in communities. We need to understand what makes a leader a good leader in order to be able to create and assess leader's efficiency and effectiveness.

Many scholars wrote about leadership and defined it in terms of power as leader power helps hold the team. "Particular type of power relationship characterized by a group member's perception that another group member has the right to prescribe behavior patterns for the former regarding his activity as a group member" (Janda,1960) and Janda insisted that not all power phenomenon includes leadership.

Other scholars agreed that it is more about influence and involves interactions to achieve a certain goal or task (Tannenbaum, Weschler, & Massarik, 1961, Rauch & Behling, 1984).

Leadership is "the process of influencing the activities of an organized group toward goal achievement" (Rauch & Behling, 1984).

Other scholars didn't mention neither power nor influence but focused on the guiding role of a leader. According to (Bray, Campbell and Grant, 1974) leadership is the "effectiveness in getting ideas accepted and in guiding a group or an individual to accomplish a task"

Bass (1985) defined leaders in terms of change and called leaders as change agents "Leadership is an interaction between members of a group. Leaders are agents of change, persons whose acts affect other people more than other people's acts affect them".

Brache A. (1983) defined leadership as dealing with the situation “Leadership is the process of defining current situations and articulating goals for the future; making the decisions necessary to resolve the situation or achieve the goals; and gaining the commitment from those who have to implement these decisions” .

Certain traits were found to makes a leader different from other individual. Scholars like (Daft (1999), Stogdill (1948), R. Hogan et al. (1994), House & Aditya (1997), identified effective leaders’ traits .A meta-analysis done by Judge, et al. (2002),used the big five personality model to study personality traits and leadership and found that extraversion, conscientiousness, emotional stability, and openness were positively associated with leadership. According to this meta-analysis, there is a strong support for traits and leadership when personality traits assessed using the big five-personality model.

Leadership was also examined based on behaviors as mentioned in definitions earlier; a leader has the ability to influence followers’ behaviors.

Bass in the transformational leadership theory or the Neo-charisma theory reflected the effect of organization culture on leadership styles. Transformational leadership style is characterized by four factors include idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration. Contingent reward and management characterize transactional leaders-by exception styles of leadership. Most leaders combine both but a leader can display one style more than the other can.

In this study, we will measure the perceived leadership style because according to Janda K.F. (1960) different group members can perceive different individuals as leaders, the same member can perceive more than one individual as his leader.

Leaders to include transformational and transactional behaviors adopt full ranges of leadership styles. Those whom we consider transformational adopt more of the transformational than the transactional behaviors. In this specific situation, they are transformational. Those whom we consider as transactional leaders show more transactional leadership behavior. They are more likely to have attitudes, beliefs, and values more consistent with transactional leadership, but they still may be likely to be transformational in some cases.

Theoretically, it is expected that chief executive officers and top-level executives would show transformational leadership behavior than middle level managers because they create the vision of organization and they have high levels of autonomy.

According to Widmeyer and colleagues (1985), there are two key differences to be noted when defining group cohesiveness. First, there is the difference between the individual and the group. The individual aspect of cohesion is summarized in the notion of individual attraction to the group; that is the extent to which the individual wants to be accepted by group members and stays in the group. The group aspect is represented by perceptions of the group as a whole (referred to as group integration), which is the degree of closeness, similarity, and unity within the group. The second difference is between task and social cohesiveness. Task cohesiveness is the degree of “motivation towards achieving the organization’s goals and objectives” (Widmeyer et al., 1985). Similar to this, social cohesiveness refers to the motivation to develop and keep social relationships within the group. Thus, using this framework, Widmeyer and colleagues defined cohesion as: (a) Group Integration-Task, which is an individual team member’s perceptions about the similarity and closeness within the team about accomplishing the task; (b) Group Integration-Social, which reflects individual team member’s perceptions about closeness and bonding regarding the team’s social activities; (c) Individual Attraction to Group-Task, which describes individual team members’ feelings about personal involvement in the group task; and (d) Individual Attraction to Group-Social, which reflects individual team members’ feelings about personal involvement in the social interaction of the group

A key variable in models of effective work teams is group cohesiveness (Hackman, 1987). Despite the importance of group cohesiveness, there is no agreement about how to conceptualize and measure it (Hogg, 1992). Cohesion has been defined as a unitary construct (Zaccaro, 1991) and tended to reflect Festinger's (1950) notion that cohesion is "the total field of forces which act on members to remain in the group. These forces may depend on the attractiveness or unattractiveness of either the prestige of the group, members of the group, or the activities in which the group engages".

Stashevsky, S., & Koslowsky, M. (2006) found that Transformational leadership was associated with a higher level of team cohesiveness, as compared to transactional leadership. Both knowledge level and team cohesiveness predict team performance, particularly among men.

Munir Sokhtian Pharmaceuticals is one of the leading pharmaceutical companies in Jordan. It was established in 1989 and it is considered a multinational pharmaceutical company with headquartered in Amman – Jordan . MS Pharma manufactures and promotes innovative products across the Middle East, Africa and Europe. The company leverages 9 manufacturing sites in Algeria, Jordan, Turkey, KSA and Greece to sell its products in over 60 countries worldwide, with a capacity of 600 million boxes per year. MS Pharma manufactures different dosage forms from solid (soft gelatin capsule), liquid, semi-solids, oral oncology, multipurpose injectable, and oncology injectable.

MS Pharma team is diverse with 2,700 employees from different nationalities, backgrounds and with a relatively high percentage of female in leading positions. MS Pharma is a young growing pharma company, with majority of its team considered millennials. This team helped to achieve more than 2,000 registered products and 365 products in the pipeline. MS Pharma products covers a wide range of therapeutic classes in the chronic and acute diseases from Cardiovascular and Diabetes, Central Nervous System, Oncology, Autoimmune Diseases, Hematology, Musculoskeletal, Respiratory, Alimentary, Systemic Antibiotics to Dermatology, beside a wide range of cosmeceutical and consumer products. Recently MS Pharma acquired Gene pharm – a multinational pharmaceutical company that is based in Greece and focuses on chronic diseases like Cardiovascular, CNS and Oncology.

Research Methods

Data analysis was done by using Statistical Package for Social Sciences (SPSS). Descriptive analyses were conducted on demographic and functional factors, and for all of the scales measured in the study.

Cronbach Alpha was used to test the reliability of the questionnaire. The null hypothesis for the normality of data was tested by using Z-score and Shapiro-Wilk and by drawing histograms. Data was considered normal if Z-score is between -1.96 and 1.96 as shown in the equation below.

Z-score =Skewness/Standard error of skewness

The null hypothesis for normality was rejected if p value <0.05 (Data is not normally distributed) and accepted if p value >0.05 , and also parametric statistical tests were conducted (linear regression, T-test and correlation).

Descriptive analysis was done on the independent and dependent variables by finding the mean, mode and median, skewness and standard deviation.

A scatter plot (perceived leadership on the X-Axis and Team cohesion on the Y-Axis) was drawn to assess linearity for data, and then a linear regression test was done to examine the impact of perceived leadership style on team cohesion.

Population and Sample of the study:

A random sample of 160 employees was chosen from a population of 2700. Employees from different departments were tested for finding the impact of perceived leadership style on team

cohesion. 84 respondents (52% females and 48% males) in MS Pharma Jordan. 93% are Jordanian and the rest are Palestinians and Syrians. 86% are holding bachelor degree. All details of the sample demographic and functional factors are demonstrated in Table 1.

This sample was chosen and it was subtracted from many teams. The work process at MS pharma involves interaction between team members and the team leader, so proper communication and interaction and good team cohesion is essential for task and objectives' achievement.

In this institution, females in middle and top managerial levels were found, and it is worthwhile testing gender effect on the perceived leadership style and team cohesion in a profession with a history of male dominance in managerial levels.

For these teams, supervisors and senior supervisors are leaders for medical representatives and senior medical representatives constitute 63% of respondents. Detailed percentages of respondents' ranks are shown in (Table 1).

Table 1:

Demographic and Functional variables

Variable	Category	Freq.	%
Gender	Female	44	52.4
	Male	40	47.6
	23 yrs- less than 28 yrs.	29	34.5
	28 yrs-less than 33 yrs.	28	33.3
	33-less than 38 yrs.	19	22.6
	38 yrs-less than 43 yrs.	5	6.0
	43 and above	3	3.6
Nationality	Jordanian	78	92.9
	Palestinian	5	6.0
	Syrian	1	1.2
Educational qualification	BSc	72	85.7
	Diploma	4	4.8
	Higher diploma	1	1.2
	MSc	7	8.3
Years of experience	less than 3 yrs.	15	17.9
	3 yrs.-less than 6 yrs.	29	34.5
	6 yrs.-less than 9 yrs.	12	14.3
	9 yrs. and above	28	33.3
Job rank	Supervisor	1	1.2
	Manager	3	3.6
	Officer/med rep	28	33.3
	Section head/group product manager	4	4.8
	Senior officer/senior med rep	25	29.8
	Senior section head/business unit manager	5	6.0
	Senior supervisor/product manager	3	3.6
Supervisor	15	17.9	
Number of years reporting to same direct manager	3 yrs. -less than 6 yrs.	18	21.4
	6 yrs.-less than 9 yrs.	5	6.0

	9 yrs. and above	2	2.4
	Less than 3 yrs.	59	70.2

Perceived leadership style:

To determine perceptions of leadership styles, an adapted version of multifactor leadership questionnaire by Antonakis J. et al. (2003), (MLQ - short version) was used with replacing I with He/she to make it a rater form. The perceived multifactor leadership style questionnaire used in this study measured 2 elements of transformational leadership style and 2 elements of transactional leadership style. For transformational leadership style, Inspirational Motivation (IM) and Intellectual Stimulation (IS) were measured. Inspirational Motivation (IM) measures the degree to which you provide a vision, use appropriate symbols and images to help others focus on their work, and try to make others feel their work is significant.

Intellectual Stimulation (IS) shows the degree to which you encourage others to be creative in looking at old problems in new ways, create an environment that is tolerant of seemingly extreme positions, and nurture people to question their own values and beliefs of those of the organization. (Avery G. C. 2005).

For transactional leadership style Contingent Reward (CR) and Management by Exception (MBE) were measured. Contingent Reward (CR) shows the degree to which you tell others what to do in order to be rewarded, emphasizes what you expect from them, and recognizes their accomplishments.

Management by Exception assesses whether you tell others the job requirements, their content with standard performance, and are believers in "if it ain't broke, don't fix it."

The questionnaire included a total of 12 items, 3 items for Inspirational Motivation (IM-Transformational), 3 items for Intellectual Stimulation (IS-Transformational), 3 items for Contingent Reward (CR-Transactional), and 3 items for Management by Exception (MBE-Transactional) were done using google forms. Each item is measured on a 5-point Likert scale anchored by 1 (strongly disagree) to 5 (strongly agree).

The employees responded to each item according to how they perceived their direct manager behavior.

Team Cohesion

The Group Environment Questionnaire (GEQ); Carron et al., 1985) was used to assess team members' perceptions of team cohesion. The GEQ contains 18 items that measure the following four dimensions of task and social cohesion: attraction to group-task, group integration-task, attraction to group-social, and group integration-social. Each item is measured on a 5-point Likert scale anchored by 1 (strongly disagree) to 5 (strongly agree) with numbers reversed for questions with negative words.

The employees responded to each item according to how they perceived their team in that particular situation.

Scope of research

This research targeted a Jordanian pharmaceutical company (MS Pharma) during the period Sep.-Dec. 2019. The sample included employees from sales and marketing, regulatory affairs, business development, market access and other supportive departments.

Data Collection Sources

The current study used two sources to get data, secondary and primary sources. In the secondary source, the literature data was collected from various available sources that include published

articles, books, previous studies and website materials in order to form the theoretical framework of the study.

The primary source was gathered from a questionnaire that was borrowed and used to reflect the study objectives and needs.

Data Analysis and results

Data collected was tested for normality by using Statistical Package for Social Sciences (SPSS). Histogram and skewedness assessment using Z-score were done since samples size is more than 30. Both variables were tested for normality.

The Null hypothesis for normality according to Shapiro-Wilk test:

Ho: There is no difference between our data and the generated normal data at a significance of ($\alpha=0.05$).

Leadership style, (the independent variable), was not normally distributed. Shapiro-Wilk test (Table 3) was conducted and the null hypothesis for normality, (there is no difference between our data and the generated normal data), was rejected with a significance of <0.002 , histogram was skewed as the Z -score equals -3.239 which is out of the accepted range for normal distribution (-1.96 -1.96).

Team cohesion, the dependent variable, was normally distributed on histogram and with Z-score of -1.29. The null hypothesis for normality was accepted with significance of 0.422 (>0.05). A full descriptive analysis was done for both variables and their attributes as shown in (Table 4) . This indicates the perceived leadership style attributes were all around 10, which shows that the leaders adopted the four factors of the perceived leadership styles.

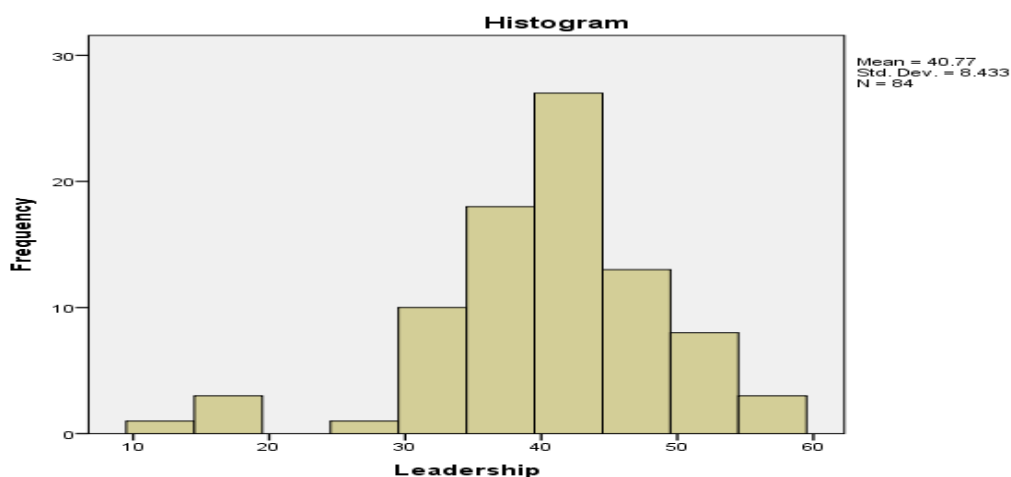
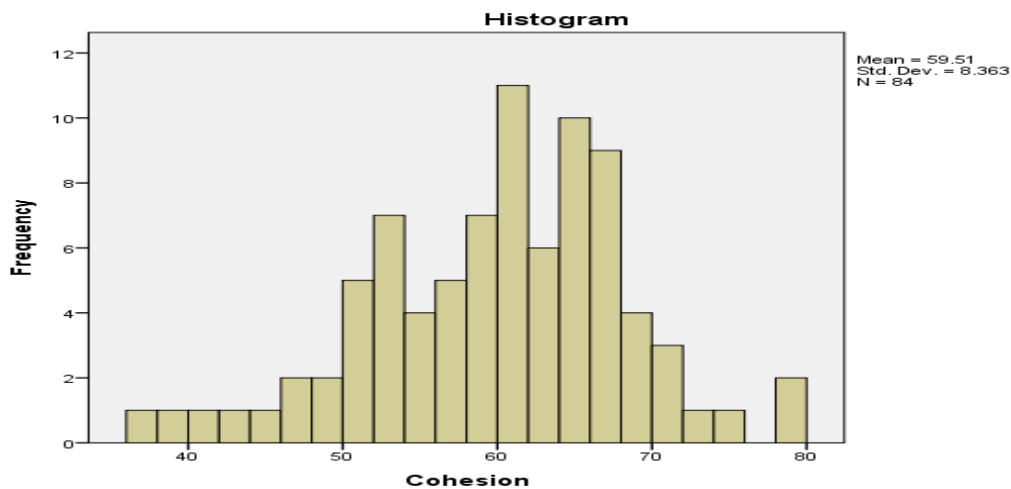


Figure 2: Histogram of Team cohesion (A) Perceived leadership style (B).

Table 2:

Tests of Normality

	Shapiro-Wilk		
	Statistic	df	Sig.
Leadership	.948	84	.002
Cohesion	.985	84	.422

Table 3:

Descriptive statistics of variables

	Leadership	IM	IS	CR	MBE	Cohesion	ATG-S	ATG-T	GI-T	GI-S
Mean	40.77	10.42	9.76	9.90	10.69	59.51	16.23	14.19	17.15	11.94
Median	42.00	11.00	10.00	10.00	11.00	60.50	16.50	15.00	17.00	12.00
Mode	43	11	11	11	12	61a	18	16	18	13
Std. Deviation	8.433	2.460	2.614	2.682	1.982	8.363	3.102	3.217	3.044	2.153
Skewness	-.852	-.845	-.429	-.748	-.699	-.338	-.085	-.485	.196	-.381
Std. Error of Skewness	.263	.263	.263	.263	.263	.263	.263	.263	.263	.263

a. Multiple modes exist. The smallest value is shown

Linear regression test was done after analyzing the data by drawing a scatter graph as shown in figure 3, the correlation coefficient (R) was 0.507 which indicates a moderate correlation between perceived leadership style and Team cohesion, and equation was created based on coefficients found by Linear regression test as below:

$$\text{Team cohesion} = 0.502 * \text{Leadership} + 39.026$$

Table 4:

Correlation Coefficient-perceived leadership style and team cohesion

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.507	.257	.248	7.254

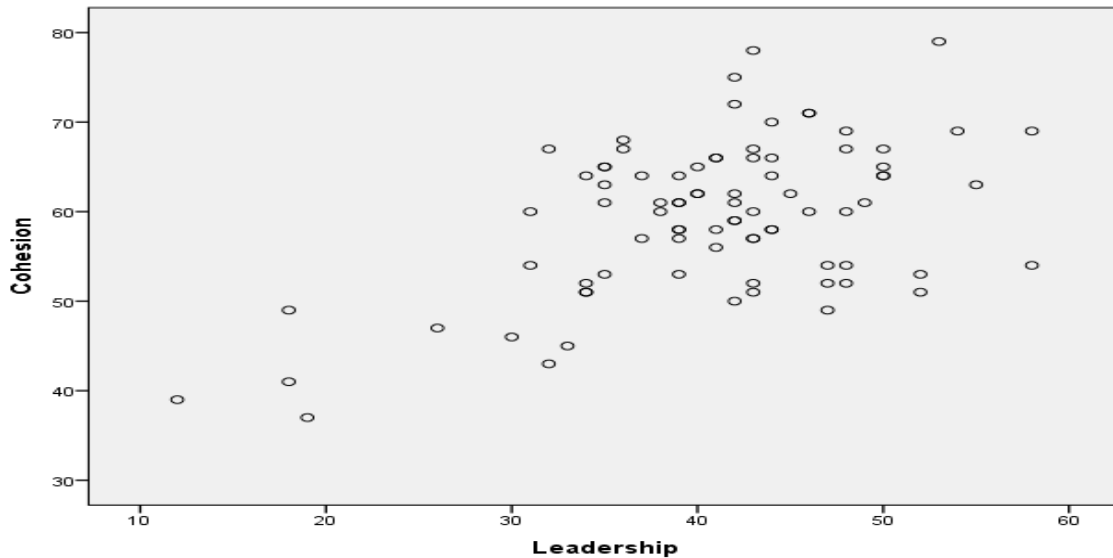


Figure 3: Scattered graph for Perceived leadership style (X-axis) and Team cohesion (Y- Axis)

Table 5:

Regression coefficients used to build prediction equation between the dependent and independent variables

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	39.026	3.930		9.929	.000
Leadership	.502	.094	.507	5.321	.000

Hypothesis Testing:

Paired sample T-test was done, and correlation of variables and sub variables were assessed for significance, as in Table 7, there is a significant correlation between the independent and dependent variables.

For transformational leadership attributes, there was a significant moderate correlation between Inspirational motivation (IM) and Task related team cohesion, Attracting to the group -Task (ATG-T), (R=0.463, P=0.463) and Group Integration -Task (GI-T), R=0.315, p=0.004).

for Intellectual stimulation (IS) there was a significant moderate correlation with attraction to the group both social and task (ATG-S ,R=0.345,P=0.001 and ATG-T,R=0.348,P=0.001) and for group integration-Social (GI-S,R=0.434,p=0.00004) only ,so there is a significant correlation between Intellectual stimulation (IS) and both social attributes of cohesion .

For transactional perceived leadership style attributes ,there was a significant moderate correlation between Contingent reward (CR) with attraction to the group both social and task (ATG-S,R=0.363,P=0.001 and ATG-T,R=0.392,p=0.0002) and for group integration-Social (GI-T,R=0.390,p=0.0002) only ,so there is a significant correlation between Intellectual stimulation (IS) and Task attributes .

For Management by exception there was a significant correlation with Attraction to the group - task (ATG-T, $R=0.322$, $p=0.003$).

The null hypothesis for demographic and functional variables was tested by independent t-test of equal means:

H₀: $\mu_1 = \mu_2$ ($\alpha=0.05$).

The null hypothesis of Levene's Test Homogeneity of variances was rejected with significance as $p>0.05$ for both variables, which indicates that variances between males and females can be treated equally.

Table 6:

Correlation Coefficients-Variables and Attributes

Variables and attributes	N	Correlation	Sig.	Result
Leadership & Cohesion	84	.507	.000	Significantly correlated
IM-ATG-S	84	.259	.017	Significantly correlated
IM- ATG-T	84	.463	.000	Significantly correlated
IM- GI-T	84	.315	.004	Significantly correlated
IM-GI-S	84	.241	.027	Significantly correlated
IS- ATG-S	84	.345	.001	Significantly correlated
IS- ATG-T	84	.348	.001	Significantly correlated
IS- GI-T	84	.271	.013	Significantly correlated
IS- GI-S	84	.434	.000	Significantly correlated
CR- ATG-S	84	.363	.001	Significantly correlated
CR- ATG-T	84	.392	.000	Significantly correlated
CR- GI-T	84	.390	.000	Significantly correlated
CR- GI-S	84	.283	.009	Significantly correlated
MBE- ATG-S	84	.149	.177	Not significant
MBE- ATG-T	84	.208	.058	Not significant
MBE-GI-T	84	.322	.003	Significantly correlated
MBE- GI-S	84	.171	.121	Not significant

Differences in perceived leadership and team cohesion scores were assessed using independent sample t-test. The null hypothesis for independent T-test of equal means for scores for both ages less 3 yrs.- less than 28 yrs. And 43 and above was accepted as zero or null is included in 95%-confidence intervals .no significant difference between ages less 3 yrs.- less than 28 yrs. And 43 and above in scores. the positive sign of t means that the first group (3 yrs.- less than 28 yrs.) has a higher mean vs the second group (43 and above) all values are shown in Table 9.

The null hypothesis for independent T-test of equal means:

H₀: $\mu_1 = \mu_2$ ($\alpha=0.05$).

Same results apply to job grade, years of experience, number of years reporting to same direct manager, nationality was ignored as 93% are Jordanian.

Table 7:

T-test Results

Pair	Paired Differences	t	Sig.
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	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference			
				Lower	Upper		
Leadership - Cohesion	-18.738	8.342	.910	-20.548	-16.928	-20.586	.000
IM- ATG-S	-5.810	3.424	.374	-6.553	-5.067	-15.552	.000
IM- ATG-T	-3.774	3.011	.329	-4.427	-3.120	-11.485	.000
IM- GI-T	-6.738	3.257	.355	-7.445	-6.031	-18.963	.000
IM- GI-S	-1.524	2.852	.311	-2.143	-.905	-4.897	.000
IS- ATG-S	-6.464	3.295	.359	-7.179	-5.749	-17.983	.000
IS - ATG-T	-4.429	3.366	.367	-5.159	-3.698	-12.057	.000
IS- GI-T	-7.393	3.433	.375	-8.138	-6.648	-19.738	.000
IS - GI-S	-2.179	2.566	.280	-2.735	-1.622	-7.783	.000
CR- ATG-S	-6.321	3.283	.358	-7.034	-5.609	-17.650	.000
CR- ATG-T	-4.286	3.284	.358	-4.998	-3.573	-11.961	.000
CR- GI-T	-7.250	3.177	.347	-7.939	-6.561	-20.915	.000
CR - GI-S	-2.036	2.927	.319	-2.671	-1.401	-6.375	.000
MBE- ATG-S	-5.536	3.424	.374	-6.279	-4.793	-14.819	.000
MBE- ATG-T	-3.500	3.410	.372	-4.240	-2.760	-9.408	.000
MBE - GI-T	-6.464	3.052	.333	-7.127	-5.802	-19.415	.000
MBE- GI-S	-1.250	2.666	.291	-1.828	-.672	-4.298	.000

Table 8:

Means for Variables: Demographic and Functional

Measurement	Variable	category	N	Mean	Std. Deviation	Std. Error Mean
Gender	Leadership	Females	44	40.82	8.247	1.243
		Males	40	40.73	8.738	1.382
	Cohesion	Females	44	60.66	8.485	1.279
		Males	40	58.25	8.145	1.288
Age	Leadership	23 yrs.- less than 28 yrs.	29	41.41	8.131	1.510
		43 and above	3	42.00	14.177	8.185
	Cohesion	23 yrs.- less than 28 yrs.	29	60.48	8.144	1.512
		43 and above	3	55.00	1.732	1.000
Job grade	Leadership	Officer/med rep	28	40.86	8.571	1.620
		Senior section head/business unit manager	5	42.60	5.771	2.581
	Cohesion	Officer/med rep	28	60.39	9.708	1.835

		Senior section head/business unit manager	5	57.80	7.530	3.367
Number of years of experience	Leadership	less than 3 yrs.	15	42.27	6.341	1.637
		9 yrs. and above	28	39.82	8.233	1.556
	Cohesion	less than 3 yrs.	15	62.27	8.242	2.128
		9 yrs. and above	28	57.32	8.228	1.555
Number of years reporting to same direct manager	Leadership	less than 3 yrs.	59	41.56	7.417	.966
		9 yrs. and above	2	46.50	16.263	11.500
	Cohesion	less than 3 yrs.	59	60.63	8.598	1.119
		9 yrs. and above	2	57.50	4.950	3.500

Table 9:

Independent t-Test and Levene's test of equality of variances - demographic and functional

Variable	Equal Variances assumed	Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig.	Mean Diff.	Std. Error Diff.	95% Confidence Interval of the Difference	
									Lower	Upper
Gender	Leadership	.687	.410	.050	82	.960	.093	1.854	-3.594	3.780
	Cohesion	.549	.461	1.325	82	.189	2.409	1.819	-1.209	6.027
Age	Leadership	2.084	.159	-.112	30	.912	-.586	5.256	-11.320	10.148
	Cohesion	2.429	.130	1.147	30	.260	5.483	4.780	-4.278	15.244
Job grade	Leadership	.672	.419	-.434	31	.667	-1.743	4.012	-9.925	6.439
	Cohesion	.295	.591	.565	31	.576	2.593	4.591	-6.770	11.955
Number of years of experience	Leadership	1.685	.201	1.000	41	.323	2.445	2.445	-2.492	7.382
	Cohesion	.007	.934	1.877	41	.068	4.945	2.634	-.375	10.265
Number of years reporting to same direct manager	Leadership	2.854	.096	-.898	59	.373	-4.941	5.502	-15.950	6.069
	Cohesion	.799	.375	.509	59	.613	3.127	6.147	-9.173	15.427

Conclusion and recommendations:

According to the statistical analysis performed, there is a significant moderate correlation between the perceived leadership style and team cohesion in the sample studied and there is no difference in demographic and functional variables.

Table 10:

Summary of Results

Variable	Attribute	Impact	Hypothesis
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Transactional	IM	ATG-T, GI-T	Rejected
	IS	ATG-T, ATG-S, GI-S	Rejected
Transformational	CR	ATG-T, ATG-S, GI-T	Rejected
	MBE	ATG-T	Rejected
D&F	all	No difference	Accepted

Future research:

For future research, we suggest studying all factors (attributes) of transformational and transactional leadership styles including idealized influence, individualized consideration and laissez-faire, in other pharmaceutical companies, including leader self-rating of leadership style, with a large sample of both team members and leaders.

In addition, researchers recommend self-rating by managers and rating by subordinates and having a larger sample.

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