

## **The Effect of Gender Mainstreaming on Leadership Tendency: A Research on Female Leader Candidates**

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**ABSTRACT:** *The purpose of this research is to determine the relationship between gender mainstreaming and leadership tendency with the case of female students at the leadership training camp. Also second purpose of this study is to examine the effect of gender mainstreaming on leadership tendency using a survey which includes 60 items for Bem (1975) Sex-Role Inventory and 32 items for Bolman&Deal'(1991) Leadership Orientation Instrument (LOI). All leadership training camp students are the target population of the study, so 63 students' data have been examined with statistical analyses such as ANOVA, t-test, Pearson correlation and multiple regressions. According to the findings, the gender mainstreaming, the leadership tendency and all sub-dimensions have positive correlations, except "social desirability". Also, the gender mainstreaming and its sub-dimensions which are femininity, masculinity and social desirability affect the leadership tendency and its sub-dimensions which are structural frame, human resource frame, political frame and symbolic frame significantly.*

**Keywords:** *Leadership frame, Bem Sex Role Inventory, gender mainstreaming, female leader, femininity, masculinity*

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### **I. INTRODUCTION**

Gender mainstreaming was examined by different branches of science in recent years, because of the complicated nature of it (Ellis, 2011; Sczesny et al., 2004). Different viewpoints gave the term different meanings and make it more important for society. As a form of theory, gender mainstreaming is a process of revision of key concepts to grasp more adequately a world that is gendered, rather than the establishment of a separatist gender theory (Walby, 2005). However, Bem (1975) brought all adjectives or values together and classified them in three parts which are feminine, masculine and social desirability. The Bem Sex-Role Inventory is a widely used instrument in measuring gender role perceptions, because the adjectives or values were validated by some researchers (Holt & Ellis, 1998; Hoffman & Borders, 2001). This classification includes 60 items which include 20 femininity, 20 masculinity and 20 social desirability items. Some examples of adjectives or items can be shown as the following (Bem& Lewis, 1975):

- Feminine adjectives: Affectionate, cheerful, childlike, compassionate, soft spoken, gentle, loyal, shy, warm.
- Masculine adjectives: Aggressive, analytical, competitive, defends own beliefs, dominant, forceful, assertive.
- Social desirability: Sincere, hospitable, gossip, respectful, helpful, jealous, responsible, ad hoc, arrogant.

The attribution theory of leadership has a similar perspective about perceptions of values about leadership. The aim of the theory is to understand why people do what they do with using the perceptions. So, according to the theory, employees will interpret the abilities of a leader by observing how that leader behaves (Martinko et al., 2007). It is seen that these comments include peoples' perceptions and beliefs about leadership. So if they believe that a leader must be masculine, they want to see a leader, which can behave with male values such as self-sufficient.

According to the Bolman and Deal (1991), leadership has four frames, which are structural, human resource, political and symbolic. These frameworks show that there is more than one behavioral mode for leaders and it can be determined as the following (Bolman& Deal, 1991):

- Structural frame: Social architect leader focuses on structure, strategy and experimentation.
- Human resource frame: Catalyst and servant leader focuses on support and empowerment.
- Political frame: Advocate leader focuses on coalition and building by using negotiation.
- Symbolic frame: Prophet leader focuses on inspiration and discover a vision.

Bolman and Deal's frame approach of leadership is about the leader's world because each frame comes with a range of concepts, metaphors and values which provide the scaffolding for organizing raw experience of the world (Thompson, 2000). Only one frame is not enough all the time in practice, although people often show a preference for one or two frames (Fidler, 1997).

Leadership and gender role perceptions are considered together in different studies. Jago (1982) and Ayman (1993) were interested in how social perception processes operate in leadership and emphasized the culture about perception of leadership. Stelter (2002) tried to identify and explained the gender difference in leadership behavior and highlighted the predictive factors such as national and organizational culture,

stereotype, perception of subordinate and superior roles. Sczesny et al. (2004) analyzed masculine stereotype about leadership traits in different countries and found the levels of personal and task oriented traits similarly in their case.

## II. OBJECTIVES AND HYPOTHESES

The objective of the study is to see whether gender mainstreaming and leadership tendency have positive and significant relations for students of leadership training camp. Also in this study, gender variable is studied as a predictor of leadership tendency.

There are two main hypotheses in this study. First one is, there are significant positive relations between gender mainstreaming and leadership tendency. Second one is, gender mainstreaming has an effect on the leadership tendency in students of leadership training camp.

## III. METHOD

### Participants

The participants are 63 leadership training camp students who are chosen from all of the universities in Turkey. All deserved students are female because of the camp context. Also, most of them are between 22-24 years old (40%) and 19-21 years old (35%), only three participants are between 28-30 years old (M: 2,90; S.D.: 0,89). The education level of their mothers is generally primary school (41%), then high school (17%), and also only three of them have a postgraduate degree (M: 2,74; S.D: 2,08). The education level of their fathers is generally higher education (34%) and then bachelor's degree is following (22%) and only 3 of them have a postgraduate degree (M: 2,73; S.D: 1,16).

### Data Collection Tools

Bem Sex-Role Inventory (BSRI) which is the first part of the survey includes of 20 femininity, 20 masculinity and 20 social desirability items with 1 to 5 on the Likert (Bem& Lewis, 1975). Bolman and Deal's four framework scale of leadership which includes structural, human resource, political and symbolic frame take part in the second part of the survey with 1 to 5 on the Likert. The 32 items scale is known as Leadership Orientation Instrument (LOI) and asks people to describe themselves as a leader and try to explore the leadership styles of them (Bolman& Deal, 1991). The last part of the survey includes some factors about demographic information.

### Procedure

The instruments were applied together to students in leadership training camp in March of 2015. Participants were informed about the objective of the study and were presented with detailed training of instruments used.

### Data Analysis

The data collected via the questionnaire which has been analyzed statistically with arithmetic mean, t test, one way variance analysis (ANOVA), Pearson correlation analysis, stepwise multiple linear regressions on the computer using a statistical program.

## IV. FINDINGS

Cronbach's Alpha of "leadership tendency" is 0,970 to 32 items, while "gender mainstreaming" is 0,958 to 60 items. The descriptive statistics of research are summarized in table 1 and table 2, which includes the means and standard deviations of variables of "gender mainstreaming" and "leadership tendency". The first table shows the points of "gender mainstreaming" variable and sub-dimensions of it.

**Table 1.** Descriptive Statistics of the Leadership Training Students' Levels of Gender Mainstreaming

Dimensions	N	Mean	S.D.
Femininity	63	4,244	1,045
Masculinity	63	4,025	1,446
Social Desirability	63	3,777	1,171
Total Gender Mainstreaming	63	4,015	1,221

The leadership camp students' point average of "gender mainstreaming" is 4,015 with 1,221 standard deviation. In detail, point average of "femininity" is 4,244, while "masculinity" is 4,025. The final sub-dimension is "social desirability" with 3,777 points on average. The results of the study indicate that the students find gender mainstreaming "I agree" at femininity, masculinity and total gender mainstreaming.

For gender mainstreaming variable which includes femininity, masculinity and social desirability, there is not a meaningful difference between groups about demographic factors such as sex, parent education, income, class and grade point average ( $p > 0.05$ ).

Also, table 2 shows, that means and standard deviations of leadership tendency. The biggest point is 4,055 about the human resource frame. Then structural frame with 3,848 and symbolic frame with 3,847 is very close. Lastly, the political frame is 3,762 while the total point of leadership tendency is 3,878. These results show that the students find the human resource frame “I agree” and they find the total leadership tendency “neither agree nor disagree”, but the point of leadership tendency is very close with “I agree” point with 0,902 standard deviation.

**Table 2.** Descriptive Statistics of the Leadership Training Students’ Levels of Leadership Tendency

Dimensions	N	Mean	S.D.
Structural Frame	63	3,848	0,999
Human Resource Frame	63	4,055	0,818
Political Frame	63	3,762	0,912
Symbolic Frame	63	3,847	0,878
Total Leadership Tendency	63	3,878	0,902

In line with the sequence of sub questions of research, some results were obtained but there is not a meaningful difference between groups for “leadership tendency” variable about demographic factors. Age (F:1,891;  $p:0,124$ ), level of the mother education (F: 1,208;  $p:0,317$ ), level of the father education (F: 1,076;  $p:0,377$ ), class (F: 1,750; 0,168), income (F:0,930;  $p:453$ ), place (F:0,014;  $p:0,957$ ), branch of high school (F: 1,524;  $p:0,227$ ), grade point average (F: 0,391;  $p:0,814$ ) have not meaningful differences about groups. Only “number of sister and brother” has a meaningful difference between groups (F: 3,704;  $p: 0,031$ ).

After the descriptive statistic and ANOVA, correlation analysis is needed to show relations between all variables which are gender mainstreaming, leadership tendency and sub-dimensions of them.

**Table 3.** Pearson Correlation Analysis of the Relations between Gender Mainstreaming and Leadership Tendency

Dimensions		Leadership Tendency	Structural Frame	Human Resources Frame	Political Frame	Symbolic Frame
Gender Mainstreaming	r	0,519**	0,471**	0,463**	0,410**	0,383**
	p	0,000	0,000	0,000	0,001	0,002
	N	63	63	63	63	63
Femininity	r	0,404**	0,407**	0,377**	0,274*	0,284*
	p	0,001	0,001	0,003	0,033	0,027
	N	63	63	63	63	63
Masculinity	r	0,475**	0,402**	0,348**	0,462**	0,371**
	p	0,000	0,001	0,006	0,000	0,003
	N	63	63	63	63	63
Social Desirability	r	0,293*	0,259*	0,368**	0,146	0,202
	p	0,022	0,044	0,004	0,261	0,119
	N	63	63	63	63	63

\*\* $p < 0.01$ ; \* $p < 0.05$  level

Table 3 shows the results of Pearson correlation analysis, according to the results there is a positive significant correlation between gender mainstreaming and the leadership tendency ( $p < 0.01$ ). The masculinity has more correlation (r: 0,475) than femininity (r: 0,404) and social desirability (0,293) with the leadership tendency ( $p < 0,05$ ). Similarly, according to the results of sub-dimensions of leadership tendency, there are positive significant correlations between all sub-dimensions. Only, there are not any significant correlations between political frame, symbolic frame and social acceptability ( $p > 0,05$ ).

The main variables which are main streaming and leadership tendency have the biggest correlations; secondly “masculinity” variable has positive correlations with leadership tendency (r: 0,475) and political frame (r: 0,462) arrestingly. Also, gender mainstreaming and human resource frame have the other biggest positive correlation with 0,463 points. Similarly to that research, in the research of Stake (1981) and Krüger (2008) there is a positive relation between gender and leadership style. According to the researchers, students attitudes to gender and also affect the perceptions of some variables such as leadership and management.

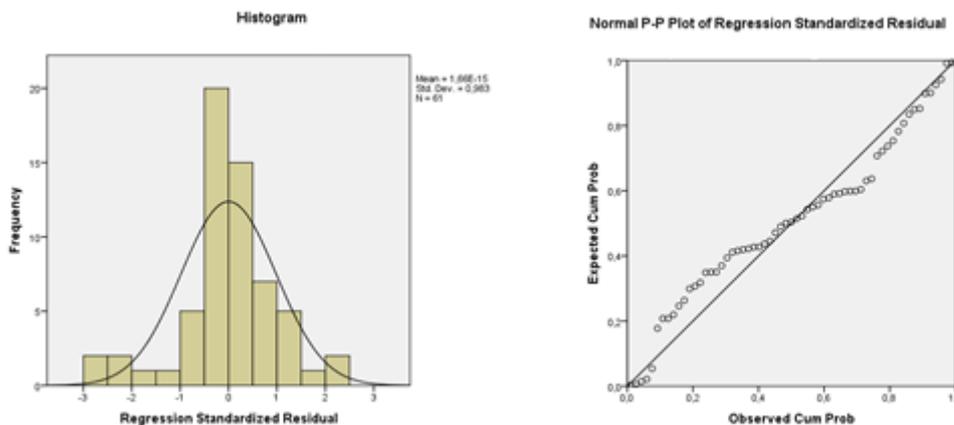
Following to obtained results, it can be verified that if there is a possible effect of gender mainstreaming on leadership tendency. The multiple regression results are shown in table 4 to analyze this effect.

**Table 4.** Regression Analysis of Sub-Dimensions of Gender Mainstreaming and Leadership Tendency

Dimensions	Beta	t	Sig.	R	R2	F	Sig.	Result
Constant	1,832	3,569	0,001					
Femininity	0,086	0,503	0,617					
<b>Masculinity</b>	<b>0,279</b>	<b>3,933</b>	<b>0,000</b>					
<b>Social desirability</b>	<b>0,253</b>	<b>2,062</b>	<b>0,044</b>					
				0,527	0,278	11,172	0,000*	Accept
Regression Model Y (Leadership Tendency) = 1,832+0,279 * Masculinity+ 0,253 * Social desirability								

\*Dependent Variable: Leadership Tendency; Excluded Variable: Femininity

According to the model, the multiple correlation coefficient value of the regression (R: 0,527) and the value of determination coefficient (R square: 0,278) has statistical significance levels (p<0,01). From this point of view, “masculinity and social desirability” as sub-dimensions of gender mainstreaming can be predictors for the leadership tendency towards the leadership camp students in this case. Only “femininity” as a sub-dimension of gender mainstreaming have not predictive value for the dependent variable leadership tendency to students (p>0,05).



**Fig. 1.** (a) Histogram residues; (b) P-P Plot of standardized residual

Figure 1 shows that the histogram of regression model matches the normal distribution because the residuals are normally distributed. This figure gives that this indication of how well the leadership camp students can predict a normal distribution in the population.

The results obtained in the stepwise multiple linear regression analysis of sub-dimensions of independent variable have predictive value for the dependent variable leadership tendency to students (p>0,05). Structural frame, human resource frame, political frame and symbolic frame are sub-dimensions of leadership tendency as a dependent variable.

**Table 5.** Regression Analysis of Sub-Dimensions of Leadership Tendency

Dimensions	Beta	t	Sig.	R	R2	F	Sig.	Result
<b>1. Regression Model</b>								
Constant	2,157	4,224	0,000					
<b>Femininity</b>	<b>0,406</b>	<b>3,418</b>	<b>0,001</b>					
Masculinity	0,221	1,236	0,221					
Social desirability	0,203	1,715	0,092					
				0,407	0,165	11,681	0,001	Accept
Regression Model Y (Structural Frame) = 2,157+0,406*Femininity; Excluded Variables: 0,221*Masculinity+0,203*Social desirability								
<b>2. Regression Model</b>								
Constant	1,271	1,902	0,062					
<b>Femininity</b>	<b>0,302</b>	<b>1,330</b>	<b>0,006</b>					
Masculinity	0,132	0,761	0,450					
<b>Social desirability</b>	<b>0,409</b>	<b>2,715</b>	<b>0,008</b>					
				0,491	0,242	9,236	0,000	Accept
Regression Model Y (Human Resource Frame) = 1, 271+0,302*Femininity+0,409*Social desirability; Excluded Variable: 0,132*Masculinity								

3. Regression Model								
Constant	2,390	6,698	0,000					
Femininity	-0,166	-0,953	0,344					
<b>Masculinity</b>	<b>0,347</b>	<b>4,003</b>	<b>0,000</b>					
Social desirability	0,085	0,726	0,471					
				0,462	0,214	16,027	0,000	Accept
Regression Model Y (Political frame) = 2,390+0,347*Masculinity; Excluded Variables: -0,166*femininity+0,085*social desirability								
4. Regression Model								
Constant	2,817	7,954	0,000					
Femininity	0,013	0,072	0,943					
<b>Masculinity</b>	<b>0,264</b>	<b>3,065</b>	<b>0,003</b>					
Social desirability	0,154	1,268	0,210					
				0,371	0,137	9,395	0,003	Accept
Regression Model Y (Symbolic frame) = 2,817+0,264*Masculinity; Excluded Variables: 0,013*femininity+0,154*social acceptability								

The coefficients and ANOVA values of stepwise multiple linear regression model show that sub-dimensions of gender mainstreaming have predictive values for sub-dimensions of leadership tendency. The first model is about the effect of “femininity, masculinity and social desirability” on “structural frame” (F: 11,681; p: 0,001). The coefficient of multiple determination for multiple regressions is 0,165, so independent variables of the model predict “structural frame” of leadership tendency of 16% in this case. This effect arises from “femininity” (p: 0,001) because masculinity and social desirability as the other sub-dimensions have not significant values (p>0,05).

Second model gives the results about “human resource frame” of leadership tendency (F: 9,236; p: 0,000). The second regression model is accepted too (p<0,01) and R-squared accounts for 24%. It means that “human resource frame” is predicted by sub-dimensions of gender mainstreaming, especially social acceptability (Beta: 0,409) and femininity (Beta: 0,302), while masculinity is not valid in this case (p>0,05).

“Political frame” which is one of the sub-dimensions of leadership tendency take part in the third regression model and it has meaningful predictor (F: 16,027; p: 0,000). Only, “masculinity” has an effect on leadership tendency significantly, and its R-squared accounts for 21%. The regression model is significantly acceptable, but “femininity and social desirability” in not valid (p>0,05) for this sample. The last model is about “symbolic frame” of leadership tendency with acceptable values (F: 9,395; p: 0,003) and its R-squared accounts for 13%. There is only one predictor in this model as “masculinity” (Beta: 0,264; p<0,01).

As a result of the regression analyses, “femininity” variable predicts “structural frame”; “femininity and social desirability” variables predict “human resource frame”; “masculinity” variable predicts “political frame and symbolic frame” in this case.

Similarly, Stelter (2002) suppose that there are some style differences between female and male leaders, although there are some universal adjectives about leadership such as problem-solving, trust and vision. So, perceptions and expectations of leadership can be affected by some factors such as sex, culture and place. Thus, the effect of “masculinity” on “political and human resource frame” and “femininity” on “structural and human resource frame” can be explained with these style differences of leadership.

## V. CONCLUSION

According to the results, it can be said that the hypothesis is confirmed and there is a statistically significant correlation between the variables as “gender mainstreaming” and “leadership tendency”. In this sense it can be said that gender mainstreaming statistically significantly correlated with the leadership tendency for female leadership camp students. In this research, there are two variables; first one is “gender mainstreaming” and its sub-dimensions that are femininity, masculinity and social desirability as an independent variable and the second one is “leadership tendency” with its sub-dimensions that are structural frame, human resource frame, political frame and symbolic form as a dependent variable. According to the regression model, there is a significant effect of “gender mainstreaming” on “leadership tendency”. Also sub-dimensions of gender mainstreaming affect “leadership tendency” too.

When sub-dimensions of “leadership tendency” are included in the regression model individually, the effects of independent values can be seen in detail. Because, all sub-dimensions of leadership tendency are predicted by “gender mainstreaming” significantly. Some regression results have some considerable effects on dependent variable; “social desirability” predicts “human resource frame”, and “masculinity” predicts “political and symbolic frames”, also “femininity” predicts “structural and human resource frames” of leadership tendency in this case. According to the ANOVA and t-test results, there are not any differences between groups based on demographic factors such as sex, the parent education level, class, income and grade-point average. As a proposal, it can be said that qualitative research techniques are also thought to be more useful for detailed results in some cases. Also, in this study participants are female students of leadership training camp so the research can be expanded with males.

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