

The Impact of Gender on Leadership Styles and Leadership Effectiveness

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Abstract: *The purpose and aim of this research are to show and evaluate the impact of gender and the effectiveness (Decision making and relationships) between transformational leadership and transactional leadership respectively in real estate and construction companies. In addition, to bring to light whether male leaders are more effective than female leaders, or the opposite. Data were collected from 267 respondents in Istanbul, sample of Turkish firms based on the study model data were examined using the Statistical Package for the Social Sciences (SPSS) software by applying frequency distribution tables also bar charts of questionnaire (part A) and further correlation, R-Square, ANOVA and Regression Analysis for questionnaire (part B). Results show that the relationship between gender, transformational leadership and transactional leadership and their effectiveness (Decision making and Relationships) in the companies is positive. This study has analyzed through descriptive approach that was used to study about demographic profile of companies in Istanbul, and TRFL and TRSL items have been developed to test the hypothesis. Five-point Likert scale questionnaire and Seven-point Likert scale questionnaire has been adopted for data collection, the reliability statistics of all items was 0.887 for men and 0.915 for women which is excellent, in order to measure the relationship among variables correlation a test was used, regression analysis R-Square interpretation, ANOVA was used to show the impact of DM and R on TRFL and TRSL of the companies. Statistical analysis also showed results and suggestions for this model.*

Keywords: Gender, Transformational Leadership, Transactional Leadership, Decision Making, Relationships, Turkey

1. Introduction

Throughout history, we have witnessed societies fall into anarchy because of the lack of proper leadership. Indeed, human beings are social creatures that live together and occupy different roles in society; some occupy the role of leaders, whereas others play the role of followers. It has been noticed that societies with good leaders often inspire their people to reach their full potential and grow therefore to be highly developed countries.

On the other hand, societies that lack good leaders often fall into chaos. This proves the importance of good leadership for any society to function, grow and eventually thrive. Similarly, but on a smaller scale, businesses and organizations need proper leaders and managers to operate successfully. This, of course, leads us to wonder about what it means to be a good leader. Some basic qualities associated with leadership include self-reliance, independence, assertiveness, ambition, and risk-taking. Although most leaders share these characteristics, different leaders tend to adopt different leadership styles because of various reasons.

One dimension that is said to affect leadership style among leaders, and their leadership effectiveness by extension is gender. Studies have shown that male and female leaders tend to operate and manage differently. Also, it goes without saying that women nowadays occupy more management positions in organizations and business than ever before. However, most leadership positions remain occupied by men. This, again, leads us to wonder about the impact of gender on both leadership styles and effectiveness within companies and organizations.

1.1. Research Problem

Many studies have been conducted to reveal the impact of gender on leadership styles and leadership effectiveness. Some of these studies found no correlation between these variables, whereas others concluded that gender impacts both leadership styles and effectiveness. Among the latter, there are researchers who found that males are more effective leaders than females, and researchers who stated the opposite. Therefore, there's a clear disparity in the results of previous studies. In addition to this, most of the research conducted on this topic is done in western societies. In other words, there isn't a lot of data about the relationship of leadership and gender in countries like Turkey for example, and it will therefore be interesting to conduct a study about the impact of gender on leadership styles and effectiveness in Turkey.

1.2. Significance of the Study

There is a positive correlation between gender diversity and business success [1]. Also, a gender balance in senior management is positively associated with GDP growth. However, in almost half of the 13, 000 enterprises surveyed in 70 countries, female managers account for less than 33%. [1]. The reason for this according to the ILO is that most enterprises require an "anytime, anywhere" availability which women supposedly cannot always offer due to their household and family responsibilities. A second reason, referred to as the "glass wall", describes how female managers are confined to roles such as human resources, finance, and administration, which are less strategic and less likely to lead to senior management positions.

Therefore, this study will shed some light on the differences between male and female managers in terms of their preferred leadership styles and their leadership effectiveness. This will hopefully clarify if the prejudices against women, that are keeping them from occupying as many managerial positions as men, are indeed well founded, or if they are wrong assumptions that need to be corrected.

In conclusion, this study is important in that it might help organizations make better decisions regarding their recruiting of senior managers by understanding how men and women operate in leadership positions.

1.3. Research objectives

The objectives of this research are:

- To discover whether there are any differences between male and female leaders.
- To reveal the extent to which gender influences the choice of leadership styles.
- To discover which leadership styles are more likely to be associated with male leaders, and which are more likely to be associated with female leaders.
- To reveal the extent to which gender impacts leadership effectiveness.
- To bring to light whether male leaders are more effective than female leaders, or the opposite.

1.4. Hypotheses of the Study

Two styles of leadership were chosen, transformational leadership (TRFL) and transactional leadership (TRSL). Two types of leadership effectiveness were chosen, decision making (DM) and relationships (R). This results in 8 hypotheses:

- H1= Gender (male) in transformational leadership has an impact on decision making.
- H2= Gender (male) in transactional leadership has an impact on decision making.
- H3= Gender (male) in transformational leadership has an impact on relationships.
- H4= Gender (male) in transactional leadership has an impact on relationships.
- H5= Gender (female) in transformational leadership has an impact on decision making.
- H6= Gender (female) in transactional leadership has an impact on decision making.
- H7= Gender (female) in transformational leadership has an impact on relationships.
- H8= Gender (female) in transactional leadership has an impact on relationships.

2. Review of the Literature

There is ample evidence available on studies, that female leaders perform different leadership behaviors than male leaders [2, 3, 4, 5, 6]. Few studies in Germany found no gender disparities in leadership style and their efficacy [7]. In the other hand, there is a study concluded that men are more successful than woman leaders [8]. Analysis carried out before the late 1900s showed no substantial gap in the success of the actions of female and male leadership but in

later years the significant researchers [9, 10, 11] their own study has begun to be challenged and analysis doubt has been reported for further inquiries. This misunderstanding sparked a continuing discussion over the efficacy of the numerous leadership practices followed by male and female leaders. Businesses and corporate organizations with a high number of women in their senior management and leadership roles appear to have a greater positive effect on both financial success and operational quality [12]. Women are reported to be more participative and transformational in democracy than men [13] instead of their sexually stereotyped sense of security, genuine diplomacy, and contact [14].

2.1. Gender

Gender is derived etymologically from a word, genus, meaning 'kind' or 'shape' in Latin. Gender as a term applies to society which refers to the assigning of each sex with different traits, refers to what is normative or what is predicted which predicted in the actions of men and women. If male and female are the proper terms for sex, the corresponding terms for gender are masculine and feminine; therefore, the sum of masculinity or femininity contained in an individual is gender [15]. In the sense of transformational leadership, a great deal of study has been undertaken to recognize the gaps between men and women. It has been shown that both have distinct leadership styles. Women respond to more democratic leadership and less autocratic than males [16]. Although men are task-oriented, women are people-oriented. Many surveys also suggest that women are better leaders in change than men are. Woman leaders score higher than male leaders in transformational activities [17]. Women prefer to use more democratic and transformational leadership styles than men [18]. They will be more recognized and trusted than male transformational leaders as women display more positive actions compared to men [19, 20]. While several scholars have shown that women are more transformative than men, a few limitations make them less effective.

When women want to actively manipulate their subordinates, the responses towards them are hostile [6]. In addition, both masculine and feminine aspects are required for excellence in today's market setting [21].

2.2. Gender and Leadership

Gender roles are the accepted or predicted actions in social culture for men and women, implying what is commonly perceived to be the appropriate roles in each culture for men and women [22, 23, 24, 25].

Gender roles can be divided into two characters according to social role theory: the male agentic character, which shows steadiness, power, superiority, and self-confidence, and the female communal character, which shows emotion, benevolence, helpfulness, compassion, interpersonal sensitivity and gentleness [26, 27]. Leaders have historically been men, and women have had many challenges to becoming leaders [28]. Many experiments have shown that, based on the gender of leaders, subordinates are likely to display different psychological reactions and job habits and

show different approval of female and male managers [29, 30].

In conventional patriarchal ideology, female leaders do not conform with the job demands and their success is judged to various criteria. For this cause, even though their success is similar, the assessment of male and female managers varies. In comparison, most female managers earn unfavourable assessments, primarily because of gender role expectations rather than their real abilities to work [29, 30]. Research on people's expectations of successful managers reveals that the "successful leadership image" is close to the "male image," and that male managers are usually more likely than female managers to be viewed as successful and traditional managers [31, 32, 33, 34].

2.3. Leadership Styles (LS)

Leadership is an inherently abstract term [35]. Most of the topic of female's leadership centres on what has been called the issue of production and care for people [36]. Other approaches to conceptualize this dichotomy in leadership are by comparing questions over relationship-related roles [37]. Some of the evidence suggests that women leaders appear to be more relationship-oriented and male leaders more task-oriented [38, 39].

The transformational-transactional leadership paradigm has become a common theme in leadership literature in recent years [40, 41, 42, 43, 44, 45]. In comparison to task versus relationship-oriented leadership, the idea of transformational-transactional leadership is seen as a continuum that enables individuals to use transformational and transactional characteristics at the same time [41, 46]. The definition of transformational and transactional leadership is presented below:

2.3.1. Transformational Leadership (TRFL)

Transformational leadership is a type of leadership that focuses on effecting revolutionary cultural change by contributing to that organization's vision [47, 48]. Transformation leaders rely on future needs and are more concerned about long-term concerns [49]. It is a person entered style of leadership that facilitates subordinate creativity and workplace climate change [50]. Additionally, transformational leaders aim to inspire and empower their workforce to accomplish the organization's target [51]. When using this style, greater levels of intrinsic motivation, confidence, devotion, and loyalty from followers are required [52]. The leader must have good empathic abilities [51]. The leadership style of transformation has a strong positive effect on employee, community, and organizational results and a study reveal that followers are more inspired, active, and happy with transformational leaders [53]. According to [54] transformational leadership has four dimensions including:

2.3.1.1. Idealized Influence (II)

Divided into two terms: idealized attributed and behaviour. First, idealized influence attributed (IIA) relates to whether the leader is perceived as charismatic, strong, and optimistic or not and whether the followers choose to be identified with him/her. Secondly, idealized influence behaviour (IIB)

involves communicating about his/her most significant ideals and convictions, stressing the common goal and purpose, and considering the ethical repercussions of his/her choices [55].

2.3.1.2. Inspirational Motivation (IM)

Inspirational motivation requires a leader who is confident and excited about building an enticing picture of the future, using emotional reasons [52]. The degree to which the leader articulates a message that communicates to supporters and encourages them.

2.3.1.3. Intellectual Stimulation (IS)

The degree to which the leader questions expectations, takes chances, and demands ideas from followers. Leaders with this characteristic stimulate their followers and promote imagination [56].

2.3.1.4. Individualized Consideration (IC)

Leaders handle workers as humans and not merely part of a community. This is achieved through sympathy, appreciation, and attention to the needs of workers, along with acknowledgment and celebration of accomplishments [53].

2.3.2. Transactional Leadership (TRSL)

Transactional leadership is focused on the use of legal authority within the organization's bureaucratic system [57]. The reality is that when they consider an offer of jobs, team members promise to follow their boss in all legitimate cases. The subordinates' continuity of this obedience is dependent on a bond of shared confidence and the leader's willingness to uphold agreements made. Good work will be rewarded, and poor performance will not, but the leader will intervene if things go bad [58]. This leadership style attempts to increase employee productivity by using extrinsic motivation [52].

Stable, predictable environments, a skilful transactional leader is likely to be effective. The leader satisfies the needs of supporters in exchange for performance that meets basic expectations [59].

Many scholars today conclude that transactional leadership can require the following styles of behaviour [56]:

2.3.2.1. Contingent Reward (CR)

The leader clarifies the job that needs to be done to change behavior. To obtain success as goals are met, the leader uses benefits or bonuses. It also applies to lead habits that tend to explain tasks and duties, then give incentives to followers. It's a relational and financial transaction if followers meet the desired results [60].

2.3.2.2. Management-by-Exception Active (MBEA)

The leader tracks the work undertaken and uses disciplinary measures to ensure that the work is done and meet agreed expectations. To control the behavior. MBEA's goal is to monitor followers and the processes [61]. Leaders are vigilant to ensure their followers achieve the regular objectives [41].

2.3.2.3. Management-by-Exception Passive (MBEP)

The leader uses corrections or discipline to control actions as a reaction to unacceptable results or to deviate from agreed expectations. Also, this aspect applies to leaders who interfere either when non-compliance has happened or after mistakes have already occurred, in other words, leaders sit back and wait for anything to go wrong before taking action [41].

2.4. Leadership Effectiveness

In the area of leadership, leadership effectiveness is an important term. More than five thousand meanings of the same is catalogued [62]. In a nutshell, the success of leadership depends primarily on the measurability of production and the fulfillment of mutual priorities. To deal with evolving expectations to develop good client, employee, and corporate relationships and to create effective productive relationships [63].

2.4.1. Decision Making (DM)

Decision-making is one of the factors that assess a leader's efficacy. Gender research of leadership indicates that men and women display different differences of decision-making. Some of the differences concern the essence of the actions, the activities involved, and the creation of working relationships. Studies show that women rely on establishing and maintaining good working relationships to streamline processes for both junior and senior staff. On the other hand, men seldom concentrate on job relationships as they concentrate on outcomes [64].

2.4.2. Relationships (R)

Employees' views of relationships can be calculated according to their partnership philosophy. The following elements were used to assess organizational relationships [65]:

2.4.2.1. Control Mutuality (CM)

It applies to the degree to which parties' consent on who has the legitimate authority to affect each other. Although certain imbalances are normal, stable partnerships require some regulation for each entity and public.

2.4.2.2. Trust (T)

Trust is focused on the degree of confidence and desire of a party to open to the other party. For confidence, there are three dimensions. Integrity applies to the confidence that a corporation is honest and just. Dependability refers to the presumption that what it claims it will do will be achieved by an entity. Competence is the confidence that a corporation has the potential to do what it claims it can do.

2.4.2.3. Commitment (C)

This is the extent of which each individual trust and thinks that it is worth investing resources to sustain and promote the relationship. Continuing commitment, which refers to a particular course of action, and affective commitment, which is a relational disposition, are two aspects of commitment.

2.4.2.4. Satisfaction (S)

This refers to the degree to which each person feels favorable towards the other, so the relationship's optimistic

expectations are improved. That of which the rewards outweigh the costs is a rewarding partnership.

2.5. Conceptual Framework



Figure 1: Conceptual Framework

3. Research Methodology

3.1. Introduction

This chapter is devoted solely to providing a concise sketch of research methods, means of data processing, sample size and analysis, SPSS software was used. The thesis questionnaire, its modes and essence. The research strategy is defined as: setting up a research model, studying literature on survey questions, building the best suitable survey from the alternatives, reaching and advising participants for the survey, collecting data, and assessing and evaluating data to validate the hypotheses [66].

3.2. Target Population

A crucial element in analysis is the selection of a sample [67]. Sampling decisions should concentrate on the target population of people; demographically, sampling decisions should concentrate on "who is the most informed person in the community or association and can provide reliable information" [68]. Various methods of choosing a sample are available, such as random sampling, hierarchical sampling, and stratified sampling [67]. One main aim of this research was to explore whether there are any gaps in divided institutions in Istanbul, Turkey, between male and female leadership styles.

3.3. Sampling Size

According to Istanbul Chamber of Commerce, the number of companies registered to trade registry is 667.409, and the number of registered companies is 440.319.

In this research we took a sample of real estate and construction companies in Istanbul. Based on [URL1] Istanbul Chamber of Commerce, the number of real estate companies in Istanbul is 10.372 and the number of construction companies is 6.283, that is mean the number of companies in Istanbul is 16.655 companies.

$$\text{Sample size, } n = N \times \frac{\frac{z^2 \times p \times (1-p)}{e^2}}{[N - 1 + \frac{z^2 \times p \times (1-p)}{e^2}]}$$

$$= 16.655 \times \frac{\frac{1.645^2 \times 0.5 \times (1-0.5)}{0.05^2}}{[16.655 - 1 + \frac{1.645^2 \times 0.5 \times (1-0.5)}{0.05^2}]}$$

= 267 responses

Where N (Population Size) =16.655, Z (Confidence level) =1.645, e (Margin of Error) =0.05, and P (Sample Proportion - uncertain) =0.5.

By using the above equation, the sample size required for this study is 267 responses.

3.4. Sampling

The sample will be collected from both real estate and construction companies in Istanbul from European and Anatolian sides. For the collection of data, simple and random sampling will be used. The data will be collected from 267 respondents of those companies.

3.5. Research Methodology

There are three types of methods to research: qualitative, quantitative, and mixed [69]. The quantitative approach is typically used where the purpose of the analysis is to find the relationship between variables [70]. This research uses a quantitative approach as the aim is to evaluate the relationships and decision-making of dependent variables and independent variables of leadership styles and gender. The obtained data was evaluated using version 22.0.0. of the Statistical Package for Social Sciences (SPSS). Moderator variables are male and female, independent variables used in this study are transformational leadership and transactional leadership whereas dependent variables are decision making and relationships. The leadership style is assessed by [71] Multifactor Leadership Questionnaire (MLQ). This instrument consisted of a model of transformational leadership and a style of transactional leadership. This instrument has been used by many researchers in their studies [72, 73, 74].

3.6. Data Collection

The most critical aspect of any research is data collection. This very important point lies in the outcome of every analysis. Most researchers do not stick to this stage very well, which is why, through their study, they struggle to achieve desired results. For that purpose, we have paid careful attention to this stage of our journey to keep the findings of the research intact and efficient for future use. We used an all-embracing questionnaire that discusses every aspect of our theses and theories to efficiently collect data. Researchers use primary data collection, which means that the entire data is gathered by the researcher through questionnaire with Likert type Scale. To obtain information from them, this questionnaire is spread among the respondents.

4. Analysis

4.1. Demographic Discussion

For this study, 267 respondents were contacted. The key feature of demographic discussion will be discussed below:

4.1.1. Current Designation (job title)

Table 1: Current Designation (job title)

Position	Frequency	Percent
Architect	20	7.5 %
Designer	25	9.4 %
Employee	47	17.6 %

Engineer	65	24.3 %
Manager	23	8.6 %
Marketer	30	11.2 %
Realtor	38	14.2 %
Other	19	7.1 %
Total	267	100 %

First, 7.5% (n=20) of all respondents, they were Architect of different Turkish firms. Nearly 9.4% (n=25) of all respondents were Designer, and around 17.6% (n=47) of all respondents were Employee at different Turkish company.

Engineers were the largest category among respondents, with 24.3 % (n=65). Nearly 8.6% (n=23) of all respondents were Managers, and around 11.2% (n=30) of all respondents were Marketers. Nearly 14.2% (n=38) of all respondents were Realtors. Nearly 7.1% (n=19) of all respondents were others (See Table 1).

4.1.2. Highest level of formal education

Table 2: The age of the company

-	Frequency	Percent
Secondary school	8	3.0 %
Diploma	26	9.7 %
Bachelor's degree	143	53.6 %
Higher education	90	33.7 %
Total	267	100 %

Over 33.7% (n=90) of respondents had a higher education degree. Bachelor's degree-holders were the largest category among respondents, with 53.6 % (n=143), but almost as many (9.7%, n=26) held a diploma degree. Secondary school certificate holders accounted for 3% (n=8) (See Table 2).

4.1.3. The age of the company

Table 3: The age of the company

Years	Frequency	Percent
Less than 2 years	14	5.2 %
2 – 5 years	44	16.5 %
6 – 10 years	70	26.2 %
11 – 20 years	91	34.1 %
More than 20 years	48	18.0 %
Total	267	100 %

The respondents were working at a company that have over 20 years of 18% (n=48). The 11-20 age group was in a clear majority with 34.1% (n=91) while the 6-10 group were divided at 26.2% (n=70), and the 2-5 group were almost equally divided at 16.5% (n=44) and for less than 2 years group were divided at 5.2% (n=14) respectively (See Table 3).

4.1.4. Total number of employees in the organization

Table 4: Total number of employees in the organization

Employees	Frequency	Percent
Less than 20	28	10.5 %
20 – 99	71	26.6 %
100 – 199	78	29.2 %
200 – 1000	71	26.6 %
More than 1000	19	7.1 %
Total	267	100 %

First, 7.1% (n=19) of the respondents were working at a company that have more than 1000 employees. 26.6% (n=71) working at a company that have between 200 to 1000 employees. 29.2% (n=78) of the respondents were working at a company that have between 100 to 199 employees. 26.6% (n=71) were working at a company that have between 20 to 99 employees and 10.5% (n=28) were working at a company that have less than 20 employees (See Table 4).

4.1.5. Period of employment in the organization

Table 5: Period of employment in the organization

Years	Frequency	Percent
5 years or less	154	57.7 %
6-10 years	95	35.6 %
11-15 years	13	4.9 %
16-20 years	1	0.4 %
21+	4	1.5 %
Total	267	100 %

Nearly half the employees had worked for only five years or less in the company (57.7% n=154). Those with 6-10 years' experience came in second place with 35.6% (n=95). The 11-15-year group accounted for 4.9% (n=13), and only 0.4% (n=1) had worked in the company for 16-20 years, and the +21 years group accounted for 1.5% (n=4) (See Table 5).

4.1.6. Age

Table 6: Age

Years	Frequency	Percent
16 – 24	64	24 %
25 – 34	102	38.2 %
35 – 44	78	29.2 %
45 – 54	22	8.2 %
55 and above	1	0.4 %
Total	267	100 %

One of the respondents were over 55. The 25-34 age group was in a clear majority with 38.2% (n=102) while the 16-24 group were divided at 24% (n=64), and the 35-44 group were almost equally divided at 29.2% (n=78) and the 45-54 group were divided at 8.2% (n=22) respectively (See Table 6).

4.1.7. Gender

Table 7: Gender

Gender	Frequency	Percent
Male	158	59.2 %
Female	109	40.8 %
Total	267	100 %

In this study, a total of 267 respondents participated, of whom 59.2 % (n=158) were male, and 40.8 (n=109) were female, the numbers of men and women in the research are

Table 11: Factor Analysis - Rotated Component Matrix Test result for independent variables (For Male)

Rotated Component Matrix ^a		
	Component	
	1	2
LS.TRFL.IIA1 My manager instils pride in me for being associated with him/her and behaves in ways that build my confidence	.679	
LS.TRFL.IIA2 My manager moves beyond self-interest for the good of the group and displays a sense of power and	.752	

close, it gives the study a positive point to be more realistic (See Table 7).

4.1.8. Marital Status

Table 8: Marital Status

Marital Status	Frequency	Percent
Married	103	38.6 %
Single	155	58.1 %
Divorced	7	2.6 %
Widowed	2	0.7 %
Total	267	100 %

Two thirds of respondents (58.1%, n=155) were single and almost one third (38.6%, n=103) were married. Only a tiny percentage (2.6%, n=7) were divorced and (0.7%, n=2) were widowed (See Table 8).

4.2. Factor Analysis

The Kaiser-Meyer - Olkin (KMO) Test is an indicator of the suitability of your data for factor analysis. The test measures the sampling adequacy for each parameter in the system and for the model. The statistics are a measure of the variance ratio between variables that might be typical and common [75].

Table 9: KMO Result Explanation based on [76]

Value	Status - Result
Between 0.00 to 0.49	Unacceptable
Between 0.50 to 0.59	Miserable
Between 0.60 to 0.69	Mediocre
Between 0.70 to 0.79	Middling
Between 0.80 to 0.89	Meritorious
Between 0.90 to 1.00	Marvelous

4.2.1. Factor Analysis (KMO) for independent variables (Transformational and Transactional Leadership) (For Male)

Table 10: Factor Analysis - KMO Test result for independent variables (For Male)

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.816
Bartlett's Test of Sphericity	Approx. Chi-Square	833.779
	df	120
	Sig.	.000

Based on the above table, the KMO for the independent variables in this study is 0.816. That mean our values of sample is Meritorious and acceptable.

4.2.2. Factor Analysis (Rotated Component Matrix) for independent variables (Transformational and Transactional Leadership) (For Male)

confidence		
LS.TRFL.IIB1 My manager emphasizes the value of getting a collective sense of mission and a strong sense of purpose	.558	
LS.TRFL.IIB2 My manager talks about our fundamental interests and beliefs	.671	
LS.TRFL.IM1 My manager talks optimistically and excitedly about the future	.670	
LS.TRFL.IM2 My manager shows a clear vision of the future and expresses confidence that goals will be achieved	.620	
LS.TRFL.IS1 My manager seeks to get me look from many different angles and differing perspectives when solving problems	.516	
LS.TRFL.IS2 My manager suggests new ways of looking at how to complete assignments	.538	
LS.TRFL.IC1 My manager spends time teach and coach to help me developing my strengths	.534	
LS.TRFL.IC2 My manager treats me as an individual rather than just a member of a group because he knows that I have different needs and abilities from others		
LS.TRSL.CR2 My manager discusses in specific terms who is responsible for achieving performance targets and what one expects to receive when performance goals are achieved		.807
LS.TRSL.CR1 My manager provides me with assistance in exchange for my contributions and he expresses satisfaction when I meet expectations		.790
LS.TRSL.MBEA1 My manager keeps track of all mistakes and focuses attention on irregularities, exceptions, and deviations from standards and concentrates his/her full attention on dealing with them all		.739
LS.TRSL.MBEA2 My manager directs my attention toward failures to meet standards		.836
LS.TRSL.MBEP1 My manager fails to interfere until problems become serious and demonstrates that problems must become chronic before taking action		
LS.TRSL.MBEP2 My manager shows that he/she is a firm believer in —if it ain't broke, don't fix it		
Extraction Method: Principal Component Analysis.		
Rotation Method: Varimax with Kaiser Normalization. ^a		
a. Rotation converged in 3 iterations.		

Based on table 11, the researcher finds the below about independent variables:

- Transformational leadership (TRFL), its grouped in one group (factor). That is mean the Transformational Leadership will be as it is. Transactional leadership (TRSL), its grouped in one group (factor). That is mean the Transactional Leadership will be as it is.
- The question LS.TRFL.IC2 in Transformational Leadership, its discarded because of its factor can't be grouped.
- The questions LS.TRSL.MBEP1 and LS.TRSL.MBEP2 in Transactional Leadership, its discarded because of its factor can't be grouped.

4.2.3. Factor Analysis (KMO) for dependent variables (Decision making and Relationships) (For Male)

Table 12: Factor Analysis - KMO Test result for dependent variables (For Male)

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy		.886
Bartlett's Test of Sphericity	Approx. Chi-Square	851.016
	df	105
	Sig.	.000

Based on the above table, the KMO for dependent variables in this study is 0.886. That mean our values of sample is Meritorious and acceptable.

4.2.4. Factor Analysis (Rotated Component Matrix) for dependent variables (Decision making and Relationships) (For Male)

Table 13: Factor Analysis - Rotated Component Matrix Test result for dependent variables (For Male)

Rotated Component Matrix ^a		
	Component	
	1	2
DM1 My manager makes his decisions in line with the company's goals to achieve the desired targets.		.774
DM2 My manager chooses the easiest alternative to practical application when making his decisions.		.697
DM3 Employees do not face major obstacles in implementing the decisions my manager takes because he takes it considering the workers' capabilities.		.736
DM4 My manager takes his decisions in the appropriate time to face urgent problems.		.628
DM5 The decisions my manager made are accepted by the relevant workers because he consults workers when making decisions.		.733
R.CM1 Employees at the company are attentive to each other's sayings.	.569	
R.CM2 Employees at the company believe my views and opinions are legitimate.	.583	
R.CM3 Workers at the company have a tendency to throw their weight around when dealing with people like me.		
R.T1 Employees at the company treat me fairly and justly.	.766	
R.T2 Whenever managers make a significant decision, I know that they're going to be concerned about me.	.639	
R.T3 Employees at the company can be relied on to keep their promises.	.698	
R.C1 There's a long-lasting bond between the employees working at the company and me and wanting to keep a relationship with me.	.666	
R.S1 I'm very happy and pleased with the company.	.703	
R.S2 I have a mutual relationship with the employees at the company.	.714	

R.S3 The majority of employees are happy with their interactions with the company.	.683
Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization. ^a	
a. Rotation converged in 3 iterations.	

Based on table 13, the researcher finds the below about dependent variables:

- Decision making (DM), its grouped in one group (factor). That is mean the Decision making will be as it is. Relationships (R), its grouped in one group (factor). That is mean the Relationships will be as it is.
- The question R.CM3 in relationships, its discarded because of its factor can't be grouped.

Based on the above table, the KMO for dependent variables in this study is 0.815. That mean our values of sample is Meritorious and acceptable.

4.2.6. Factor Analysis (Rotated Component Matrix) for independent variables (Transformational and Transactional Leadership) (For Female)

4.2.5. Factor Analysis (KMO) for independent variables (Transformational and Transactional Leadership) (For Female)

Table 14: Factor Analysis - KMO Test result for independent variables (For Female)

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.815
Bartlett's Test of Sphericity	Approx. Chi-Square	721.532
	df	120
	Sig.	.000

Table 15: Factor Analysis - Rotated Component Matrix Test result for independent variables (For Female)

Rotated Component Matrix ^a		
	Component	
	1	2
LS.TRFL.IIA1 My manager instils pride in me for being associated with him/her and behaves in ways that build my confidence		.828
LS.TRFL.IIA2 My manager moves beyond self-interest for the good of the group and displays a sense of power and confidence		.603
LS.TRFL.IIB1 My manager emphasizes the value of getting a collective sense of mission and a strong sense of purpose		.555
LS.TRFL.IIB2 My manager talks about our fundamental interests and beliefs		.541
LS.TRFL.IM1 My manager talks optimistically and excitedly about the future		.656
LS.TRFL.IM2 My manager shows a clear vision of the future and expresses confidence that goals will be achieved		.509
LS.TRFL.IS1 My manager seeks to get me look from many different angles and differing perspectives when solving problems		.599
LS.TRFL.IS2 My manager suggests new ways of looking at how to complete assignments		.550
LS.TRFL.IC1 My manager spends time teach and coach to help me developing my strengths		.754
LS.TRFL.IC2 My manager treats me as an individual rather than just a member of a group because he knows that I have different needs and abilities from others		.536
LS.TRSL.CR2 My manager discusses in specific terms who is responsible for achieving performance targets and what one expects to receive when performance goals are achieved		.747
LS.TRSL.CR1 My manager provides me with assistance in exchange for my contributions and he expresses satisfaction when I meet expectations		.740
LS.TRSL.MBEA1 My manager keeps track of all mistakes and focuses attention on irregularities, exceptions, and deviations from standards and concentrates his/her full attention on dealing with them all		.674
LS.TRSL.MBEA2 My manager directs my attention toward failures to meet standards		.728
LS.TRSL.MBEP1 My manager fails to interfere until problems become serious and demonstrates that problems must become chronic before taking action		
LS.TRSL.MBEP2 My manager shows that he/she is a firm believer in —if it ain't broke, don't fix it		
Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization. ^a		
a. Rotation converged in 3 iterations.		

Based on table 18, the researcher finds the below about independent variables:

- Transformational leadership (TRSL), its grouped in two groups (factors). That is mean the Transformational Leadership will be Transformational Leadership-Development and Transformational Leadership-directive. Transactional leadership (TRSL), its grouped in one group (factor). That is mean the Transactional Leadership will be as it is.

- The questions LS.TRFL.IIA1, LS.TRFL.IIA2, LS.TRFL.IIB2, LS.TRFL.IM1, LS.TRFL.IM2 and LS.TRFL.IC1 are related to Transformational Leadership- Development (TRFL-Development).
- The questions LS.TRFL.IIB1, LS.TRFL.IS1, LS.TRFL.IS2 and LS.TRFL.IC2 are related to Transformational Leadership- Directive (TRFL-Directive).

- The question LS.TRFL.IC2 in Transformational Leadership, its discarded because of its factor can't be grouped.
- The questions LS.TRSL.MBEP1 and LS.TRSL.MBEP2 in Transactional Leadership, its discarded because of its factor can't be grouped.

Based on the above table, the KMO for dependent variables in this study is 0.806. That mean our values of sample is Meritorious and acceptable.

4.2.7. Factor Analysis (KMO) for dependent variables (Decision making and Relationships) (For Female)

4.2.8. Factor Analysis (Rotated Component Matrix) for dependent variables (Decision making and Relationships) (For Female)

Table 16: Factor Analysis - KMO Test result for dependent variables (For Female)

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.806
Bartlett's Test of Sphericity	Approx. Chi-Square	587.228
	df	105
	Sig.	.000

Table 17: Factor Analysis - Rotated Component Matrix Test result for dependent variables (For Female)

Rotated Component Matrix ^a		
	Component	
	1	2
DM1 My manager makes his decisions in line with the company's goals to achieve the desired targets.		
DM2 My manager chooses the easiest alternative to practical application when making his decisions.		.804
DM3 Employees do not face major obstacles in implementing the decisions my manager takes because he takes it considering the workers' capabilities.		.712
DM4 My manager takes his decisions in the appropriate time to face urgent problems.		.772
DM5 The decisions my manager made are accepted by the relevant workers because he consults workers when making decisions.		.678
R.CM1 Employees at the company are attentive to each other's sayings.		
R.CM2 Employees at the company believe my views and opinions are legitimate.	.510	
R.CM3 Workers at the company have a tendency to throw their weight around when dealing with people like me.		
R.T1 Employees at the company treat me fairly and justly.	.732	
R.T2 Whenever managers make a significant decision, I know that they're going to be concerned about me.	.748	
R.T3 Employees at the company can be relied on to keep their promises.	.627	
R.C1 There's a long-lasting bond between the employees working at the company and me and wanting to keep a relationship with me.	.783	
R.S1 I'm very happy and pleased with the company.	.729	
R.S2 I have a mutual relationship with the employees at the company.	.669	
R.S3 The majority of employees are happy with their interactions with the company.	.721	
Extraction Method: Principal Component Analysis.		
Rotation Method: Varimax with Kaiser Normalization. ^a		
a. Rotation converged in 3 iterations.		

Based on table 20, the researcher finds the below about dependent variables:

- Decision making, its grouped in one group (factor). That is mean the Decision making will be as it is.
- Relationships, its grouped in one group (factor). That is mean the Relationships will be as it is.
- The question DM1 in decision making, its discarded because of its factor can't be grouped.
- The questions R.CM1 and R.CM3 in relationships, its discarded because of its factor can't be grouped.

Decision Making	0.804	5
Relationships	0.866	9
Overall Items	0.887	27

4.3. Reliability Test

4.3.1. Reliability Test for Male

Table 18: Reliability Test for Male

Variable	Cronbach's Alpha	N of Items
Transformational Leadership	0.826	9
Transactional Leadership	0.829	4

- Reliability test of items has checked through Cronbach's alpha of overall items and it is 88.7% which is excellent it means we can say that items which we have used in this research that are valid and acceptable.
- Reliability test of items has checked through Cronbach's alpha of Transformational Leadership (TRFL) items and it is 82.6% which is excellent it means we can say that Transformational Leadership items which we have used in this research that are valid and acceptable.
- Reliability test of items has checked through Cronbach's alpha of Transactional Leadership (TRSL) items and it is 82.9% which is also excellent indicator that means we can say that Transactional Leadership

items which we have used in this research that are valid and acceptable.

- Reliability test of items has checked through Cronbach's alpha of Decision-Making (DM) items and it is 80.4% which is also excellent indicator that means we can say that Decision Making items which we have used in this research that are valid and acceptable.
- Reliability test of items has checked through Cronbach's alpha of Relationships (R) items and it is 86.6% which is also excellent indicator that means we can say that Relationships items which we have used in this research that are valid and acceptable.

4.3.2 Reliability Test for Female

Table 19: Reliability Test for Female

Variable	Cronbach's Alpha	N of Items
Transformational Leadership	0.869	10
Transactional Leadership	0.794	4
Decision Making	0.783	4
Relationships	0.858	8
Overall Items	0.915	26

- Reliability test of items has checked through Cronbach's alpha of overall items and it is 91.5% which is excellent it means we can say that items which we have used in this research that are valid and acceptable.
- Reliability test of items has checked through Cronbach's alpha of Transformational Leadership (TRFL) items and it is 86.9% which is excellent it means we can say that Transformational Leadership items which we have used in this research that are valid and acceptable.
- Reliability test of items has checked through Cronbach's alpha of Transactional Leadership (TRSL) items and it is 79.4% which is also excellent indicator that means we can say that Transactional Leadership items which we have used in this research that are valid and acceptable.
- Reliability test of items has checked through Cronbach's alpha of Decision-Making (DM) items and it is 78.3% which is also excellent indicator that means we can say that Decision Making items which we have used in this research that are valid and acceptable.
- Reliability test of items has checked through Cronbach's alpha of Relationships (R) items and it is 85.8% which is also excellent indicator that means we can say that Relationships items which we have used in this research that are valid and acceptable.

4.4. Correlation Analysis

Abbreviations for the below tables:

Pearson Correlation (PC), Sig. (2-tailed) (Sig), Transformational Leadership (TRFL), Transactional Leadership (TRSL), Decision Making (DM), Relationships (R), Transformational Leadership Development (TRFLDe), Transformational Leadership Directive (TRFLDi).

4.4.1. Correlation Analysis for Male

Table 20: Correlation Analysis for Male

Correlations					
		TRFL	TRSL	DM	R
TRFL	PC	1	.396**	.509**	.352**
	Sig		.000	.000	.000
	N	158	158	158	158
TRSL	PC	.396**	1	.201*	.014
	Sig	.000		.011	.860
	N	158	158	158	158
DM	PC	.509**	.201*	1	.504**
	Sig	.000	.011		.000
	N	158	158	158	158
R	PC	.352**	.014	.504**	1
	Sig	.000	.860	.000	
	N	158	158	158	158

** . Correlation is significant at the 0.01 level.
* . Correlation is significant at the 0.05 level.

4.4.2. Correlation Analysis for Female

Table 21: Correlation Analysis for Female

Correlations						
		TRFLDe	TRFLDi	TRSL	DM	R
TRFLDe	PC	1	.686**	.472**	.474**	.196*
	Sig		.000	.000	.000	.041
	N	109	109	109	109	109
TRFLDi	PC	.686**	1	.633**	.681**	.445**
	Sig	.000		.000	.000	.000
	N	109	109	109	109	109
TRSL	PC	.472**	.633**	1	.595**	.473**
	Sig	.000	.000		.000	.000
	N	109	109	109	109	109
DM	PC	.474**	.681**	.595**	1	.344**
	Sig	.000	.000	.000		.000
	N	109	109	109	109	109
R	PC	.196*	.445**	.473**	.344**	1
	Sig	.041	.000	.000	.000	
	N	109	109	109	109	109

** . Correlation is significant at the 0.01 level.
* . Correlation is significant at the 0.05 level.

This thesis contains 8 main hypotheses. These hypotheses are newer and are linked with each other to form a new hypothesis which is "Is there an impact of gender on leadership styles and leadership effectiveness?" Now, to assess their validity, the researcher underwent a test of these variables. According to [77], Researchers perform correlation tests to investigate if these elements are related to each other and whether their mixture is true or not. The main variables of this thesis are Transformational Leadership and Transactional Leadership, and depending variables were Decision making and Relationships. The test is that how these variables are linked with one another.

The correlation values range from -1.00 to +1.00.

4.5. Regression Analysis

4.5.1. Regression Analysis for Male

4.5.1.1. R² for Decision Making (For Male)

Table 22: R² for Decision Making (For Male)

Model Summary				
Model	R	R ²	Adjusted R Square	Std. Error of the Estimate
1	.509 ^a	.259	.249	.59262

a. Predictors: (Constant), TRSL, TRFL

R² is 0.259 that means using Transformational Leadership (TRFL) and Transactional Leadership (TRSL) can explained by 25.9% variations of variation in Decision Making of the companies.

4.5.1.2. ANOVA for Decision Making (For Male)

Table 23: ANOVA for Decision Making (For Male)

ANOVA ^a					
Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	19.022	2	9.511	27.082	.000 ^b
Residual	54.435	155	.351		
Total	73.457	157			

a. Dependent Variable: DM
b. Predictors: (Constant), TRSL, TRFL

Above table (ANOVA) showing the significance value is 0.000 and it is below that 0.05 it means that Regression analysis also supported hypotheses of this research.

4.5.1.3. Beta Interpretations for Decision Making (For Male)

Table 24: Co-efficient of Betas for Decision Making (For Male)

Coefficients ^a					
Model	Unstandardized		Standardized	t	Sig.
	B	Std. Error	Beta		
Constant	1.560	.331		4.713	.000
TRFL	.605	.089	.509	6.761	.000
TRSL	-.001	.056	-.001	-.012	.991

a. Dependent Variable: DM

Based on the above table, the researcher finds the below:

- If the leader will adopt TRFL style (Transformational Leadership), then DM (Decision Making) will be increase by 60.5%.
- If the leader will adopt TRSL style (Transactional Leadership), then DM (Decision Making) will be decrease by 0.1%.

4.5.1.4. R² for Relationships (For Male)

Table 25: R² for Relationships (For Male)

Model Summary				
Model	R	R ²	Adjusted R Square	Std. Error of the Estimate
1	.378 ^a	.143	.132	.59000

a. Predictors: (Constant), TRSL, TRFL

R² is 0.143 that means using Transformational Leadership (TRFL) and Transactional Leadership (TRSL) can explained by 14.3% variations of variation in Relationships of the companies.

4.5.1.5. ANOVA for Relationships (For Male)

Table 26: ANOVA for Relationships (For Male)

ANOVA ^a					
Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	8.994	2	4.497	12.919	.000 ^b
Residual	53.956	155	.348		
Total	62.950	157			

a. Dependent Variable: R
b. Predictors: (Constant), TRSL, TRFL

Above table (ANOVA) showing the significance value is 0.000 and it is below that 0.05 it means that Regression analysis also supported hypotheses of this research.

4.5.1.6. Beta Interpretations for Relationships (For Male)

Table 27: Co-efficient of Betas for Relationships (For Male)

Coefficients ^a					
Model	Unstandardized		Standardized	t	Sig.
	B	Std. Error	Beta		
Constant	4.573	.330		13.876	.000
TRFL	.452	.089	.411	5.080	.000
TRSL	-.102	.055	-.149	-1.839	.068

a. Dependent Variable: R

Based on the above table, the researcher finds the below:

- If the leader will adopt TRFL style (Transformational leadership), then R (Relationships) will be increase by 45.2%.
- If the leader will adopt TRSL style (Transactional Leadership), then R (Relationships) will be decrease by 10.2%.

4.5.2. Regression Analysis for Female

4.5.2.1. R² for Decision Making (For Female)

Table 28: R² for Decision Making (For Female)

Model Summary				
Model	R	R ²	Adjusted R Square	Std. Error of the Estimate
1	.713 ^a	.509	.495	.54724

a. Predictors: (Constant), TRSL, TRFL.De, TRFL.Di

R² is 0.509 that means using Transactional Leadership (TRSL), Transformational leadership-Development (TRFL.De), Transformational Leadership-Directive (TRFL.Di) can explained by 50.9% variations of variation in Decision making of the companies.

4.5.2.2. ANOVA for Decision Making (For Female)

Table 29: ANOVA for Decision Making (For Female)

ANOVA ^a					
Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	32.576	3	10.859	36.259	.000 ^b
Residual	31.445	105	.299		
Total	64.021	108			

a. Dependent Variable: DM
b. Predictors: (Constant), TRSL, TRFL.De, TRFL.Di

Above table (ANOVA) showing the significance value is 0.000 and it is below that 0.05 it means that Regression analysis also supported hypotheses of this research.

4.5.2.3. Beta Interpretations for Decision Making (For Female)

Table 30: Beta Interpretations for Decision Making (For Female)

Coefficients ^a					
Model	Unstandardized		Standardized	t	Sig.
	B	Std. Error	Beta		
Constant	1.066	.355		3.001	.003
TRFLDe	-.009	.115	-.007	-.078	.938
TRFLDi	.492	.103	.513	4.784	.000
TRSL	.249	.081	.274	3.090	.003

a. Dependent Variable: DM

Based on the above table, the researcher finds the below:

- If the leader will adopt TRFL.De style (Transformational Leadership-Development), then DM (Decision Making) will be decrease by 0.9%.
- If the leader will adopt TRFL.Di style (Transformational Leadership-Directive), then DM (Decision Making) will be increase by 49.2%.
- If the leader will adopt TRSL style (Transactional Leadership), then DM (Decision Making) will be increase by 24.9%.

4.5.2.4. R² for Relationships (For Female)

Table 31: R² for Relationships (For Female)

Model Summary				
Model	R	R ²	Adjusted R Square	Std. Error of the Estimate
1	.535 ^a	.287	.266	.53459

a. Predictors: (Constant), TRSL, TRFL.De, TRFL.Di

R² is 0.287 that means using Transactional Leadership (TRSL), Transformational leadership-Development (TRFL.De), Transformational Leadership-Directive (TRFL.Di) can explained by 28.7% variations of variation in Relationships of the companies.

4.5.2.5. ANOVA for Relationships (For Female)

Table 32: ANOVA for Relationships (For Female)

ANOVA ^a					
Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	12.060	3	4.020	14.067	.000 ^b
Residual	30.007	105	.286		
Total	42.068	108			

a. Dependent Variable: R
b. Predictors: (Constant), TRSL, TRFL.De, TRFL.Di

Above table (ANOVA) showing the significance value is 0.000 and it is below that 0.05 it means that Regression analysis also supported hypotheses of this research.

4.5.2.6. Beta Interpretations for Relationships (For Female)

Table 33: Beta Interpretations for Relationships (For Female)

Coefficients ^a					
Model	Unstandardized		Standardized	t	Sig.
	B	Std. Error	Beta		
Constant	4.862	.347		14.017	.000
TRFLDe	-.228	.113	-.229	-2.021	.046
TRFLDi	.304	.100	.392	3.030	.003
TRSL	.246	.079	.333	3.121	.002

a. Dependent Variable: DM

Based on the above table, the researcher finds the below:

- If the leader will adopt TRFL.De style (Transformational Leadership-Development), then R (Relationships) will be decrease by 22.8%.
- If the leader will adopt TRFL.Di style (Transformational Leadership-Directive), then R (Relationships) will be increase by 30.4%.
- If the leader will adopt TRSL style (Transactional Leadership), then R (Relationships) will be increase by 24.6%.

4.6. Updated Conceptual Framework

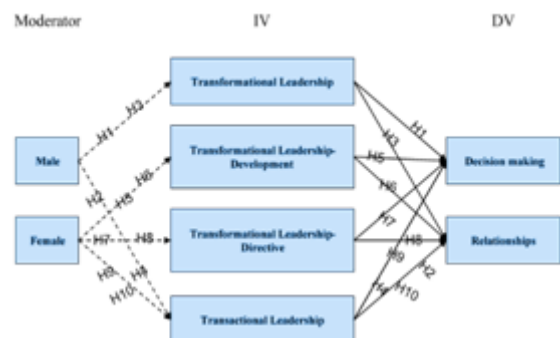


Figure 2: Updated Conceptual Framework

4.7. Updated and Testing Hypotheses

- 1) **H1:** Male in transformational leadership has an impact on decision making.
Based on table 20, value of R is 0.509 and $\rho < 0.05$.
Based on table 22, $R^2 = 0.259$.
Based on table 23, $\rho < 0.05$.
Based on table 24, $\rho < 0.05$.
Based on the above results, it means there is strong relationship between Male, Transformational Leadership and Decision Making, that is supported H1 hypothesis.
- 2) **H2:** Male in transactional leadership has an impact on relationships.
Based on table 20, value of R is 0.014 and $\rho > 0.05$.
Based on table 25, $R^2 = 0.143$.
Based on table 26, $\rho < 0.05$.
Based on table 27, $\rho > 0.05$.
Based on the above results, it means there no strong significant relationship between Male, Transactional Leadership and Relationships, that is not supported H2 hypothesis.

3) **H3:** Male in transformational leadership has an impact on Relationship.

Based on table 20, value of R is 0.352 and $\rho < 0.05$.

Based on table 25, $R^2 = 0.143$.

Based on table 26, $\rho < 0.05$.

Based on table 27, $\rho < 0.05$.

Based on the above results, it means there is strong relationship between Male, Transformational Leadership and Relationships, that is supported H3 hypothesis.

4) **H4:** Male in transactional leadership has an impact on decision making.

Based on table 20, value of R is 0.201 and $\rho > 0.05$.

Based on table 22, $R^2 = 0.259$.

Based on table 23, $\rho < 0.05$.

Based on table 24, $\rho > 0.05$.

Based on the above results, it means there is no strong significant relationship between Male, Transactional Leadership and Decision Making, that is not supported H4 hypothesis.

5) **H5:** Female in transformational leadership-development has an impact on decision making.

Based on table 21, value of R is 0.474 and $\rho < 0.05$.

Based on table 28, $R^2 = 0.509$.

Based on table 29, $\rho < 0.05$.

Based on table 30, $\rho > 0.05$.

Based on the above results, it means there is no strong significant relationship between Female, Transformational Leadership-Development and Decision Making, that is not supported H5 hypothesis.

6) **H6:** Female in transformational leadership-development has an impact on relationships.

Based on table 21, value of R is 0.196 and $\rho < 0.05$.

Based on table 31, $R^2 = 0.287$.

Based on table 32, $\rho < 0.05$.

Based on table 33, $\rho < 0.05$.

Based on the above results, it means there is strong relationship between Female, Transformational Leadership-Development and Relationships, that is supported H6 hypothesis.

7) **H7:** Female in transformational leadership- directive has an impact on decision making.

Based on table 21, value of R is 0.681 and $\rho < 0.05$.

Based on table 28, $R^2 = 0.509$.

Based on table 29, $\rho < 0.05$.

Based on table 34, $\rho < 0.05$.

Based on the above results, it means there is strong relationship between Female, Transformational Leadership-Directive and Decision Making, that is supported H7 hypothesis.

8) **H8:** Female in transformational leadership- directive has an impact on relationships.

Based on table 21, value of R is 0.445 and $\rho < 0.05$.

Based on table 31, $R^2 = 0.287$.

Based on table 32, $\rho < 0.05$.

Based on table 33, $\rho < 0.05$.

Based on the above results, it means there is strong relationship between Female, Transformational Leadership-

Directive and Relationships, that is supported H8 hypothesis.

9) **H9:** Female in transactional leadership has an impact on decision making.

Based on table 21, value of R is 0.595 and $\rho < 0.05$.

Based on table 28, $R^2 = 0.509$.

Based on table 29, $\rho < 0.05$.

Based on table 30, $\rho < 0.05$.

Based on the above results, it means there is strong relationship between Female, Transactional Leadership and Decision Making, that is supported H9 hypothesis.

10) **H10:** Female in transactional leadership has an impact on relationships.

Based on table 21, value of R is 0.473 and $\rho < 0.05$.

Based on table 31, $R^2 = 0.287$.

Based on table 32, $\rho < 0.05$.

Based on table 33, $\rho < 0.05$.

Based on the above results, it means there is strong relationship between Female, Transactional Leadership and Relationships, that is supported H10 hypothesis.

4.8. Hypotheses Test Summary

Table 34: Hypotheses Test Summary

H	Hypothesis	Result
H1	Male in transformational leadership has an impact on decision making	Supported
H2	Male in transactional leadership has an impact on relationships	Not Supported
H3	Male in transformational leadership has an impact on Relationship	Supported
H4	Male in transactional leadership has an impact on decision making	Not Supported
H5	Female in transformational leadership-development has an impact on decision making	Not Supported
H6	Female in transformational leadership-development has an impact on relationships	Supported
H7	Female in transformational leadership-directive has an impact on decision making	Supported
H8	Female in transformational leadership-directive has an impact on relationships	Supported
H9	Female in transactional leadership has an impact on decision making	Supported
H10	Female in transactional leadership has an impact on relationships	Supported

5. Conclusion and Recommendation

5.1. Conclusions

In this research, it was studied which gender is better male or female and which type of leadership favors each gender and its effect on decision making and employees relationships. Female has the highest regression ($R^2 = 50.9\%$) with the decision making. While male has the lowest regression ($R^2 = 14.3\%$) with the relationships. Female also has regression ($R^2 = 28.7\%$) with the relationships. While male has regression ($R^2 = 25.9\%$) with the decision making. When female leaders practice transformational leadership. Directive for decision making and relationships, they pay

attention to the needs of their supporters, display empathy, and foster personal growth and expression.

Also, according to the results, transactional leadership also has high percent Beta for both decision making and a relationship, that is means female leaders also adopt transactional leadership, but transformational leadership has a larger impact than transactional leadership [78, 79, 80].

On the other hand, male leaders practice transformational leadership for decision making and relationships, they also raising individuals from low levels of need to higher levels of survival [81].

In summary, according to the results of the research, female leaders are more effective and have a huge impact than male leaders on decision making and employees relationships in real estate and construction companies in Istanbul, Turkey.

5.2. Suggestion and Recommendation for Future Research

The results of this study demonstrate the effect of transformational and transactional leadership on decision making and relationships in construction and real estate companies; the generalizability of these findings to other companies, such as healthcare services and education companies, is questioned. Will equivalent findings be achieved by an education company with a history of business problems? The environmental and historical background of a company possibly plays a role in the relationship between types of leadership and effectiveness. This topic could be answered by potential field studies. Longitudinal studies could help explain how, over time, the relationship between transformational and transactional leadership and effectiveness works. There will certainly be improvements in how transformational and transactional leadership and leadership effectiveness interconnect over such different periods of a company life cycle as growth, deterioration, mergers, etc. For instance, during the establishment of the company, development, and revitalization phases of a company transformational leadership is most important [82]. In other leadership styles, such as bureaucratic and autocratic leadership, another area that can be exposed to future study is to check if there is a disparity in male and female leadership.

The analysis is also performed much of the time using quantitative methods. Since certain elements of leadership can be evaluated using qualitative methods, both methods should be used to carry out future research.

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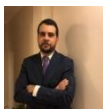
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