THE REPUBLIC OF TURKEY
CUKUROVA UNIVERSITY
INSTITUTE OF SOCIAL SCIENCES
DEPARTMENT OF BUSINESS ADMINISTRATION

THE ANALYSIS AND USE OF 360 DEGREE FEEDBACK TECHNIQUE IN THE EVALUATION OF LEADERSHIP STYLE

Mohammad Rahim UDDIN

DOCTORAL THESIS

ADANA / 2019

THE REPUBLIC OF TURKEY
CUKUROVA UNIVERSITY
INSTITUTE OF SOCIAL SCIENCES
DEPARTMENT OF BUSINESS ADMINISTRATION

THE ANALYSIS AND USE OF 360 DEGREE FEEDBACK TECHNIQUE IN THE EVALUATION OF LEADERSHIP STYLE

Mohammad Rahim UDDIN

Supervisor: Prof. Dr. Kemal Can KILIÇ
Jury Member: Prof. Dr. Azmi YALÇIN
Jury Member: Assoc. Prof. Dr.Hüseyin GÜLER
Jury Member: Prof. Dr. Ünal AY
Jury Member: Dr. Konuralp SEZGİLİ

DOCTORAL THESIS

ADANA / 2019

To the Directorate of the Institute of Social Sciences, Çukurova University

We certify that this thesis is satisfactory for the award of the degree of Doctoral Thesis in the Department of Business Administration.

Supervisor: Prof. Dr. Kemal Can KILIÇ

Member of Examining Committee: Prof. Dr. Azmi YALÇIN

Member of Examining Committee: Assoc. Prof. Dr. Hüseyin GÜLER

Member of Examining Committee: Prof. Dr. Ünal AY

Member of Examining Committee: Dr. Konuralp SEZGİLİ

I certify that this thesis conforms to the formal standarts of the Institute of Social Sciences. …/…/2019

Prof. Dr. Serap ÇABUK
Director Instıtute of Social Sciences Cukurova University

PS: The uncited use of reports, charts, figures and photographs in this thesis, whether or original quoted from other sources, is subject to the Laws of Works of Art and Thought NO:5846

NOT: Bu tezde kullanılan ve başka kaynaktan yapılan bildirişlerin, çizelge, şekil ve fotoğrafların kaynak gösterilmeden kullanımı, 5846 sayılı Fikir ve Sanat Eserleri Kanunu'ndaki hükümlere tabidir.

DECLARATION OF ETHICS

The thesis was prepared in accordance with the Dissertation Rules of the Institute of Social Sciences, Cukurova University where;

- I have obtained the data, information and documents in the thesis within the framework of academic and ethical rules,
- I present all the information, documents, and evaluation results in accordance with the rules of scientific ethics,
- I am referring to all of the study works with appropriate reference,
- I have not made any changes to the data used and the results of analysis,
- I declare that the work I presented in this thesis is original.

…./…../2019

Mohammad Rahim UDDIN

ETİK BEYANI

Çukurova Üniversitesi Sosyal Bilimler Enstitüsü Tez Yazım Kurallarına uygun olarak hazırladığım bu tez çalışmasında;

- Tez içinde sunduğum verileri, bilgileri ve dokümanları akademik ve etik kurallar çerçevesinde elde ettiğimi,
- Tüm bilgi, belge, değerlendirme ve sonuçları bilimsel etik ve ahlak kurallarına uygun olarak sunduğumu,
- Tez çalışmasında yararlandığım eserlerin tümüne uygun atıfta bulunarak kaynak gösterdiğimi,
- Kullanılan verilerde ve ortaya çıkan sonuçlarda herhangi bir değişiklik yapmadığımı,
- Bu tezde sunduğum çalışmanın özgün olduğunu,

bildirir, aksi bir durumda aleyhime doğabilecek tüm hak kayıplarını kabullendiğimi beyan ederim. …./…../2019

Mohammad Rahim UDDIN

ABSTRACT

THE ANALYSIS AND USE OF 360 DEGREE FEEDBACK TECHNIQUE IN THE EVALUATION OF LEADERSHIP STYLE

Mohammad Rahim UDDIN

PhD Thesis, Department of Business Administration
Supervisor: Prof. Dr. Kemal Can KILIÇ
February 2019, 181 Pages

360-degree feedback generates an opportunity for appropriate and thoughtful understandings to explain behavioral changes. The organizational leaders can develop the visions and work strategies using 360-degree feedback to help bring success. A leader needs a collaborative approach involving others to help guide the organization forward. 360-degree feedback helps the leader as a vehicle to collect feedback on their leadership style to execute the strategic plan for the organization. Moreover, the present quantitative research examined the impact of 360-degree feedback on leadership practice to develop organizational efficiency. Path analysis using Structured Equation Modeling (SEM) technique had applied to analyze the study variable. A significant relationship is found between the 360-degree feedback process with the leadership styles under this study. More specifically, 360-degree positive and negative feedback predict the servant leadership directly and indirectly through motivation to lead. This study on one side gain information to increase support for the use of feedback and on the other side foster the method to leverage benefit or effectiveness for different recipients. The organizational leader would find benefits from the current study result to improve the collaborative approach in the organization. By incorporating the multi-source feedback process that provides feedback to leaders would help to plans for developing and enhancing leadership practices. Current research provides a more in-depth understanding of the 360-degree assessment. Means of the study will contribute to leadership and organizational development. Organizational manager and other stakeholders are expected to get benefit from the findings of the study.

Key words: 360-degree feedback, transformational leadership, servant leadership.

ÖZET

LİDERLİK TARZININ DEĞERLENDİRİLMESİNDE 360 DERECE GERİ BİLDİRİM TEKNİĞİNİN ANALİZİ VE KULLANIMI

Mohammad Rahim UDDIN

Doktora Tezi, İşletme Bölümü
Danışman: Prof. Dr. Kemal Can KILIÇ
Şubat 2019, 181 Sayfa

360 derece geribildirim, davranış değişikliklerini açıklamak için uygun ve kapsamlı bir bakış açısı için fırsat sağlar. Örgüt liderleri başarı sağlamak için 360 derece geribildirimi kullanarak vizyonunu ve iş stratejilerini geliştirebilirler. Bir lider, organizasyonun ilerlemesini sağlamak için diğer kişileri de içeren ortak çalışmaya dayalı/katılımcı bir yaklaşıma ihtiyaç duyar. 360 derece geri bildirim, organizasyonun stratejik planını uygulamak, liderlik tarzları ile ilgili geribildirim toplamak için lidere bir araç niteliğinde yardımcı olur. Buna ek olarak, Mevcut nicel çalışma; örgütsel verimliliği geliştirmek için 360 derece geri bildirimin, liderlik uygulaması üzerindeki etkisini incelemiştir. Araştırmanın değişkenlerini analiz etmek için Yapısal Eşitlik Modellemesi (SEM) tekniği kullanılarak Yol Analizi uygulanmıştır. Bu çalışma kapsamında liderlik tarzıları ile 360 derece geri bildirim süreci arasında anlamlı bir ilişki bulunmuştur. Daha belirgin bir biçimde açıklamak gerekirse, 360 derece olumlu ve olumsuz geri bildirim, hizmetkar liderliği motivasyon aracılığıyla doğrudan ve dolaylı olarak yordamaktadır. Bu araştırma farklı yararlanıcılar için hem bir metod hem de geribildirim kullanmısının teşvıkının artırılmasına yönelik bilgilerin ortaya çıkarılmasına katkı sağlamaktadır. Örgüt liderler, örgüt içindeki işbirlikçi yaklaşımları geliştirmek için bu çalışmanın sonuçlarından yararlanabilecektir. Liderlere geri bildirim sağlayan çok kaynaklı geri bildirim sürecini dahil etme; liderlik uygulamalarını geliştirmeye ve arttırmaya yönelik planlarda yardımcı olacaktır. Mevcut çalışma, 360 derece değerlendirmenin daha derinlemesine anlaşılmasına olanak sağlar. Çalışmanın değişkenleri liderlik ve örgüt geliştirme literatürünün gelişimine katkıda bulunacaktır. Örgüt yöneticileri veya diğer paydaşlar bu çalışmanın bulgularından yararlanabilir.

Anahtar kelimeler: 360 derece geribildirim, dönüşümsel liderlik, hizmetkar liderlik.

ACKNOWLEDGEMENTS

All praises for the Almighty, who blessed me to overcome all the obstacles towards successful completion of the study.

With enormous appreciation and gratitude, I would like to thank Prof. Dr. Kemal Can KILIÇ for guiding me at every stage of this study. I am grateful to other committee members Prof. Dr. Azmi YALÇIN and Dr. Hüseyin GÜLER for their support, guidance and constructive feedback throughout the dissertation process.

A special thanks to the honorable teacher of the Department of Management and Organization for mentoring, and teaching me to complete this journey. Besides, all the Research Assistant of the department also has gratitude for your support.

To my parents who never dithered in their expectations of us in academics, I am eternally hopeful of this achievement is something that would have made them proud. There are so many reasons that I wish you were still here to witness this in person, but I accept that your spirit continues to surround me

I want to thank my brothers and sister, wife, other family members, friends and colleagues who always motivate me for patience and devotion since the beginning of my doctoral education.

I am grateful to Yurtdışı Türkler ve Akraba Topluluklar Başkanlığı (YTB) for offering me support for conducting my Ph.D. program.

This Ph.D. thesis was supported by Cukurova University Scientific Research Projects Coordination Unit (Çukurova Üniversitesi Bilimsel Araştırma Projeleri Koordinasyon Birimi) as project number SDK-2017-9865. Heartfelt thanks for the support.

Mohammad Rahim UDDIN

TABLE OF CONTENTS

CHAPTER III

RELATIONSHIP OF 360-DEGREE FEEDBACK, MOTIVATION, AND LEADERSHIP

CHAPTER IV
METHOD

CHAPTER V
RESULTS

CHAPTER VI
CONCLUSION AND RECOMMENDATIONS

LIST OF ABBREVIATIONS

AIC : Akaike Information Criterion

CAIC : Consistent Akaike Information Criterion

CFA : Confirmatory Factor Analysis

CFI : Comparative Fit Index

CFI : Comparative Fit Index

ECVI : Expected Cross-Validation Index

EFA : Exploratory Factor Analysis

GFI : Goodness of Fit

IFI : Incremental Fit Index

MLQ : Multi Factor Leadership Questionnaire

MTL : Motivation to Lead

MTMR : Multi-trait Multi-Rating

NFI : Normed Fit Index

NNFI : Non-Normed Fit Index

PGFI : Parsimony-Adjusted Goodness of Fit Index

PNFI : Parsimony-adjusted Normed Fit Index

RMR : Root Mean Square Residual

RMSEA : Root Mean Square Error of Approximation

SEM : Structural Equation Modeling

SL : Servant Leadership

SRMR : Standardized Root Mean Square Residual

TLI : Tucker-Lewis Index

LIST OF TABLES

Page

LIST OF FIGURES

LIST OF APPENDIX

CHAPTER I

INTRODUCTION

1.1. Introduction

Organizational growth and performance depend on the learning capacity of the employee. Learning of the employee occur when individual employees and the organization are ready to open and accept feedback and committed to examining assumptions of stakeholder directly or indirectly related to both employees and organizational performances. The process of development and learning profoundly relies on all-around feedback of an employee. Very often there is found the enormous gap between how perceptions of followers and thinking of how a leader see themselves. Feedback is one of the essential ways to close the gap (Zenger and Folkman, 2002). Structured performance feedback help organization for employee development. Modern organization is currently using Multi-rater feedback as a methodology for developing employee's leadership performances.

Multiple perspectives and multiple rating is the basement of "360-feedback" approach. This approach gathers input about an individual's performances by soliciting feedback from stakeholder impacted by the employee's performances. 360-degree feedback or multi-source feedback approach uses a circle of influences of an employee. The individual of whom feedback is taken figuratively belongs to the center of this circle. Feedback is collected from those positions like the supervisor, peers, direct reports, customer, etc. to observe a person's performances. Many organizations are spending a significant amount to use feedback program for management development. Due to technological development in internet facilities and administrative job, the uses of multi-rater feedback have increased steadily in the last few years (Atkins & Wood, 2002). Two issues regarding multi-source feedback had been considered for use in the development of the organization. Sometimes users of this approach have confusion whether to use this approach for performance appraisal or employee development purpose. However, little research had been done to prove the correlation between multi-source feedback assessments and appropriate leadership development. Confusion of using and applying 360-degree feedback arises due to lack of clear idea about the approach. Performance appraisal feedback provides information about "what" is done and feedback for performance development provide insight about "how" the job is done

(London & Beatty, 1993). Appraisal looks at the past performance and development feedback uses for the effectiveness of future performances. Very few researches have been done about how leadership could develop through a 360-degree appraisal method. This research conducted to explore the extent of the relation between the 360-degree appraisal approach and development of leadership style.

1.2. Background of the Problem

Growing leadership internally is one of the critical issues for the current organization. Many companies are facing a critical shortage of senior leadership due to baby boomers retirement, lack of available talent, and difficulty of making and retaining talent pool. However, many organizations are not able to integrate between leadership development and business strategy. Also assessing talent pool, determining leadership gap, and detecting organization-wide performance problems integrated organizational approach is required. To meet these challenges, many organizations investing significant financial amount for leadership development. For doing so developmental multi-rater feedback often plays a vital role as done by traditional top-down, single-rater performance evaluation. Organizations consider a variety of reason for using 360-degree feedback. At the beginning of the development phase 360 degree method was used for accelerating growth and development of talented and high potential executives. But nowadays 360-degree appraisal is using for developing leadership competence that is aligned with strategic business goals and performances (Rogers, Rogers, & Metlay, 2002).

Feedback from different sources influences the reactions and behavior of the leader. The leader becomes aware of their development needs and performances gap after getting feedback form from all around through 360-degree feedback. But response about feedback is not the same for all cases. Sometimes negative feedback discourages the ratee instead motivate (Kluger & Denisi, 1996). Again in other research showed a different result. Some participants who rate lower themselves were motivated when they receive a lower rate from other.

Similarly those who overrate themselves were less motivated when they receive a lower rate from others (Atwater, Roush, and Fischthal, 1995). So feedback rating produces a different effect on people's acceptance about feedback. Higher raters had a misconception about their abilities, and they are not aware of development through

training. On the other hand, those who receive a lower rating view the feedback is less accurate. These results showed that motivation of employee and intention to change behavior related to reactions towards feedback. Without follow-up activities development of performance is challenging only by receiving feedback. Evidence from the past studies showed that participants improve their behavior and job performance by getting support after getting feedback. Some authors found that participants improved more after coming in contact with the coach by using feedback results (Rogers, Rogers, & Metcalf, 2002).

In summary, it is true that 360-degree feedback is an essential instrument for developing leadership. But information about employees' perception about the motivation for feedback from 360-degree feedback is little. And also what types of leadership style is affected, changes or developed by using this feedback approach. Although it has been suggested that 360 degree get the most out of the preferred outcomes in developing competence and performance, the literature is inadequate for proving the role of motivation and nature of leadership style fit with the 360-degree method.

1.3. Statement of the Problem

At present uncertainty, competition, and economic instability constitute a significant problem for global organizations. The business environment is becoming competitive day by day (Berke, Kossler, & Wakefield, 2008). Due to Affordable Care Act law, technological changes, low-quality caring services health care organizations are facing uncertainty for growth and development (Porter & Lee, 2013; Trastek, Hamilton, & Niles, 2014). In spite of some potential solutions, still strong leadership is the prime catalyst for the solutions of challenges available in the healthcare sector. Goodman (2012) identified the need for organizations to reinvent themselves due to the growth and changes in the global environment. Today's business leaders need to have a global mindset or risk being at a competitive disadvantage.

Turbulent times provide big problems for the organization. But more importantly, this problem offers opportunities for organizations and especially to the leaders with the ability to take advantage of these types of situations (Bracken, 2008)). Leadership is a vital factor in the organization that can play a necessary role in the continuous development in an increasingly unstable and challenging business environment (Kotter,

2003). To get success for the organization, leaders must develop their leadership skills, especially in today's business world (Kouzes, 2003).

It is certain that appropriate and robust leadership can solve many problems. What types of leadership style is suitable depending on the nature of the organization and how we can ensure the development of this leadership.

Leaders might become more effective through the involvement of surrounding people like peer, subordinate, external customer. Leaders need to be more effective by involving others and being more collaborative to move their organization forward. Strong team dynamics along with a collaborative environment is required for the practice of sharing results to be beneficial (Vukotich, 2010). Leaders can no longer lead alone; in times of uncertainty, leaders must identify new ways to navigate their organizations' through the turbulence. Leader and follower must be collaborators but not a competitor (Kellerman, 2008).

Among all the leadership style transformational leadership is one approach that moves individuals to collaborate and involve followers in the organizational process. An organization's ability to develop leaders who can inspire followers to perform at a higher level, along with the ability to recognize and remove obstacles are features that help to improve employee's productivity which provides the potential to improve the organization's bottom lines (Zenger, Folkman, & Edinger, 2009). A resource like leadership development is a critical strategy and essential to the success of an organization (Hensel, Meijers, Leeden, & Kessels, 2010). Developing transformational leaders requires a process that provides feedback regarding a leader's strengths and weaknesses. The 360-degree process is one method for gathering and assessing feedback. Jones and Bearley (1996) identified the 360-degree process as a method for continuous improvement which is guided by asking for feedback.

Eggert (2016) conducted a study in US military regarding the application of multi-rater feedback for transformational leadership development. The author found that multisource feedback can be a catalyst for self-awareness and leader development. However, the author also recommends that the effectiveness of multi-source feedback is significantly impacted by the lack of a senior leader and organizational support in military service. The main problem of that study was that in military service is the direction of leadership coming from the upper level. Lower level almost has no contribution in this regard. 360-degree feedback is less suitable in the military due to the nature of commanding authority. Subordinate and external customer access in the

leadership evaluation process is narrow. In spite of these problems, this study found the impact of feedback is vital for military leadership development. So this study assumes that 360-degree feedback is a more useful tool for leadership in the organization where multisource feedback is available.

Servant leadership is another effective style mainly used in the service industry. Due to inherent nature servant leadership is a well-suited model for health care industry (Schwartz & Tumblin, 2002). Servant leadership gives emphasize on meeting the needs of people through service (Greenleaf, 1977). Functions of servant leadership have a positive impact on employee outcomes. Servant leadership is related to high job satisfaction, team effectiveness, and cooperating among team members (Parris and Peachy's, 2013). The multi-rater feedback assessment tool is an essential factor for developing and creating a culture of servant leadership (McCarren, Lewis-Smith, Yanovsky, Robinson, & Osatuke, 2016).

Another study (McCarren et al. 2016) was conducted by some researcher for the validity and suitability of using multisource feedback in servant leadership development in service operation especially in the health care area. The result of the study validates the instrument of proposing Seven Pillars for measuring the Servant Leadership Model (Sipe & Frick, 2009). Although the research conducted for validation of servant leadership pillar in health care services it is not sufficient to generalize this validation in other service sector or even for the manufacturing industry.

The study conducted earlier about multisource feedback and leadership is not sufficient to say which leadership is affected by multisource feedback at a wide area of manufacturing and service organization. The current study takes an effort to get a solution to this issue.

1.4. Purpose of the Study

Developing leadership is one of the key business strategies that must be considered for getting organizational success (Fulmer & Goldsmith, 2001). To increase efficiency and realize financial success, developing leadership has become an increasing focus of organizations. Several methods of leadership development exist; this study examined the 360-degree process as it relates to transformational leadership.

The primary purpose of this study is to determine if the association exists between leadership development style (both transformational and servant leadership) through the

use of a 360-degree feedback process. The study will also check the impact of motivation from the feedback on leadership development when an organization used a 360-degree method for leadership development. Lastly, this study examined whether there was a difference between the use of the 360-degree process for developing leadership and the demographic factor of the leader.

Determining the impact of the 360-degree feedback method on the leaders' style is the focus of this study. The rationale for conducting this investigation lies in determining if 360-degree feedback can be used as a valuable leadership development tool for manufacturing and service organization. No other studies were found that specifically studied the determination of leadership style using multi-source feedback from the same perspective the 360-degree feedback applies.

Several methods of leadership development exist; this study examined the 360-degree process as there is evidence that multisource feedback is related to the servant and transformational leadership style. The 360-degree method is based on receiving feedback from multiple resources. Much evidence is available for developing leadership through feedback. This evidence suggests that organizational support and their executive management team plays a significant role in the likelihood of the 360-degree process will lead to continuous improvement (Drew, 2009, p. 584).

When individuals only receive feedback from their immediate supervisor, the development plan becomes narrowly focused and tends to follow the same path. Having a single source of feedback limits a leader's development process, provides a limited perspective of leadership and narrows the view of how the individual can contribute to an organization (Vukotich, 2010). Single-source assessments hold individuals accountable to a single person while multisource assessments create accountability to all stakeholders (Edwards & Ewen, 1996). Leaders need to be able to view their actions through the lens of others.

Individuals who are leaders in an organization are constantly subjected to changing social, environmental, and behavioral dynamics. The current study examines the relationship of the 360 experience for participants who have used the results to define their development needs as leaders in the organization.

1.5. Research Objectives and Research Questions

The study had continued based on some specific objectives. Every single objective analyzed to fill the purpose of the study. The objectives of the study address below:

- The first objective is to measure the extent of negative and positive feedback available in 360-degree feedback from superior, subordinate, peer, and others.
- The second objective is to measure the impact of 360 degree positive and negative feedback on employee motivation toward changing employee leadership behavior.
- The third objective is to identify the direct and total effect of 360-degree feedback on transformational or servant leadership in different organization.
- The final objective is to check the difference exists between 360-degree development, leadership style and the demographic factor of the leader.

To fulfill the research objectives relevant research questions and hypotheses were prepared. The research questions are stated below

- Research Question 1: Is there any meaningful relationship between 360-degree feedback and leadership styles?
- Research Question 2: Is there any meaningful relationship between motivation lead and Leadership styles?
- Research Question 3: Is there any meaningful relationship between 360-degree feedback and motivation to lead?
- Research Question 4: Is there any mediating role of motivation to lead in the impact of 360-degree feedback on leadership style?
- Research Question 5: Is there any difference in score for leadership style for different age group leader?
- Research Question 6: Is there any significant difference in the score for leadership style for different age group experienced leader?
- Research Question 7: Is there any significant difference in the mean leadership style score for males and females?

1.6. Significance of the Study

This study can increase the knowledge of 360-degree feedback in determining effectiveness in leadership development. The 360-degree feedback incorporates input from the person being rated by the manager(s), peers, subordinate employees, and/or others that know the persons' performance style. The subjective nature of the 360 degree is due to the variability of the rater perspectives in judging someone else's performance (Guenole, Cockerill, Chamorro, & Smillie, 2011; Levinson, 1997). As a behavioral measurement, the 360 degree is designed to capture differing opinions and/or perspectives that rate how effective an individual's performance is. By selecting raters who are familiar or have worked with the individual, there is an expectation that the feedback will provide relevant first-hand knowledge.

Although there is enormous research conducted to direct and advice managers in the operation of 360-degree feedback, this study endeavored to detect means to develop the leadership process by 360-degree feedback. Both the individual and organizational process within the 360-degree feedback process is investigated by this study to ensure the leadership development process. The results of this study provide insight into the implementation of the 360-degree feedback process for leadership development. Organizations currently adopting 360-degree feedback benefited from this research by identifying what processes within the 360-degree feedback process stimulate members to agree with feedback and motivate them to change his or her particular leadership behavior.

The findings of this study will likely have methodological, theoretical, and practical significance. It is anticipated that the study will: (a) contribute to the empirically-based competency modeling and 360° feedback literature, especially the methodology for validation, (b) add to the limited theoretical literature regarding useful leadership competencies in different nature of organization, and (c) provide a theoretical basis for the development of future leadership competency models for other management level.

1.7. Assumption of the Study

The main factors compared in this study are 360-degree feedback, the motivation for leadership, servant leadership, and transformational leadership. This study utilized both for-profit and not-for-profit companies. For this study, the selection

of business organizations was not based on a specific field but instead included a variety of areas of specialties. The organizations could be a service, a manufacturing company, or education. But this study will not consider such an organization that is not highly suitable for using multisource feedback like Military service.

The Multi Leadership Questionnaire (MLQ) provided the data necessary to determine if the 360-degree development process produces transformational leaders. And servant leadership scale developed by Liden (2015) assumed to provide data to measure servant leadership. The participants provided accurate responses and were not coerced into giving feedback for this study.

Compare to transactional leader transformational leaders are more effective and more beneficial to an organization. Servant leadership also found suitable for service organization especially in the health care sector. Organizations with transformational leaders do better financially (Bass, 1990). Transformational leaders raise the level and interest of subordinates, show concern for others, and look beyond their self-interest (Bass & Bass 2008). The focus of transformational leaders is on a "committing style" and occurs when the interactions between people raise everyone involved to a higher level of motivation and morality (Kouzes & Posner, 2002).

Some specific assumptions are as follows:

- 360-degree feedback will promote both positive and negative communications in the feedback circle.
- The sample group is selected according to the purpose of the research. The sample group can read and understand the questions about 360-degree feedback, transformational leadership, servant leadership, and motivation for leadership.
- Feedback can only be seen by the individual evaluation.

1.8. Delimitations of the Study

Development of leadership is an area that is important to companies around the world and of every size and nature. Research that determines the impact of 360-degree feedback on leadership style could greatly benefit large and small organizations globally. This study focused on leadership issues in the organizations available in Bangladesh to help leaders better understands the importance of collaborative feedback.

Specific criteria were used to identify leaders' style who was participating in a 360-degree process. These requirements were required to define and align participants properly but were also critical to support the validity of this study.

The current study utilized both for-profit and not-for-profit companies. For this study, the selection of business organizations was not based on a specific field but instead included a variety of areas of specialties. The organizations could be a service, a manufacturing company, or education. The size of the organization was another factor for this study. There was no specific size defined to participate.

Different demographic factor as the age of the leader, leadership experience with the organization, age of the leader considered for the analysis. There was no assessment or analysis concerning ethnicity.

This study focused on using the 360-degree process for leadership development and not for any other purpose, such as performance review. The study considers two leadership style as transformational and servant leadership style. The reason is that the scope of these two styles is highly suitable for multi-rater feedback than other leadership styles.

1.9. Terminology used for Analysis

In the present study four prime variables considered for the research model. The variables are 360-degree feedback, transformational leadership, servant leadership, and Motivation to lead (MTL). In the following a short introduction about the terminology of the study model presented shortly.

360-Degree Feedback: 360-degree feedback often name as multi-rater feedback or multi-source feedback. Multisource or 360-degree feedback gather information about a targeted employee from all-inclusive rating sources, including the superior manager, peer, subordinate or direct report, internal customers, external customers, vendors or suppliers' and target person himself (Dalessio, 1998, p.278). Feedback from different sources is a meaningful way that provides valuable information about the perception of all stakeholders about the rated person (Eckert, Ekelund, Gentry, & Dawson, 2010).

Transformational leadership: Transformational leadership is a process of empowering followers through building commitment to organizational objectives (Yukl, 1998). Achieving corporate goals is the main focus of transformational leadership. Transformational leader has broadened and elevated interest of their followers for

accelerating awareness and acceptance of the mission and organizational purpose. Transformational leaders transform the mindset of the follower so that they consider organizational and group goals beyond their interest (Bass, 1990b).

Servant leadership: Servant leader focuses on others rather than self-interest (Greenleaf, 1977). Primary objectives of servant leader are to meet other needs. Servant leader help follower to strive and flourish. This type of leader creates the vision for the organization and followers, gain credibility from others and influence follower to achieve organizational objectives (Farling, Stone, & Winston, 1999).

Motivation to lead: Motivation to lead (MTL) is a concern that affects the decision regarding leadership training, roles, and responsibilities of the employee. It stimulates the intensity of the effort at leading and persistence of the leader (Chan and Drasgow, 2001). Moreover, MTL is the result of leaders' self-efficacy and accumulated leadership experience. Three components named affective MTL, social-normative MTL, and non-calculative MTL define the leadership style (Chan and Drasgow, 2001). Affective identity MTL associated with the leaders those who like to lead and enjoy leadership. Transformation leader and servant leader mostly possess these criteria of MTL. Second criteria social-normative MTL refers to the fact that the leader feels a sense of responsibility to lead. Authority from the organizational position makes it responsible for leading. Return and rewards from the leadership position also accelerate the leaders' role in this case. Transactional leadership is considered in this criterion. Third component non-calculative MTL explained as the leaders are not concern about the cost of leading relating to the benefits. Collectivistic attitudes and values make a tie with these types of leadership style (Chan & Drasgow, 2001).

1.10. Nature of the Study

The research methods used to study the impact 360-degree feedback has on leadership development by using quantitative methods. This research has focused on the perspective of the participant's performance feedback and how the feedback affects the leadership style. Quantitative analysis of the study will enrich the literature and build a substantial body of knowledge on conducting 360-degree feedback in business organizations.

1.11. Brief Overview of Existing Literature

Developing leadership has become is getting more concentration in organizations to increase efficiency and realize financial success. It is a key business strategy that must be considered to succeed (Fulmer & Goldsmith, 2001). Modern organization is integrating leadership development strategy. Under this strategy, leader understands how to relate others in the organization process, coordinate their efforts, build commitments, and develop extended social networks by applying self-understanding to social, organizational imperatives (Day, 2001).

There are many ways to develop leadership ability. Among the several study current study only focus on the 360-degree process as it relates to transformation and servant leadership. Leaders need to be able to view their actions through the lens of others.

1.12. Research Methods and Procedures

Multi-source feedback process integrates all the individuals in the organization working at various levels of responsibility along with who work with the leader. Exchanging feedback and receiving a suggestion from the coworker is the prime characteristics of the transformation and servant leader. The individual who can receive feedback, view it as a development opportunity and understand perspectives from others are developing a better understanding of leadership qualities (Harris & Kuhnert, 2008).

The thesis was prepared under theoretical and applied (survey) manner. The information needed to form the theoretical part of the study was obtained by searching the local and foreign literature and care was taken to reach the preliminary resources in the literature review. These sources consist of the books and researches obtained from the university libraries and the internet and the articles in the databases and theses open to access in the center of Higher Education Council thesis.

This study examined the development of leadership style who participates in a 360-process. For transformational leadership style, the study will use the Multi-Factor Leadership Questionnaire (MLQ) tool. The questionnaire measures leadership styles and behaviors that comprise the five subscales. Components of the subscales are; idealized influence (attributes), idealized influence (behavior), inspirational motivation, intellectual stimulation, and individualized consideration. To measure the servant leadership style the study used a seven-factor scale developed by Liden (2015). The

factor considered here emotional healing, creating value for the community, conceptual skills, empowering, helping subordinates to grow and succeed, putting subordinate frost, and behaving ethically.

The research developed a study model based on literature review under the approval from the jury board. In the study, firstly, the concepts of the 360-degree feedback process, leadership, and motivation for leadership have been discussed, and hypotheses have been developed. At the next stage, data were collected from different enterprises operating in Bangladesh which were selected as the study population. Besides, the relationship between 360-degree feedback and leadership styles was examined by the mediating role of the motivation for leadership after that relationship with the demographic variable was checked. Finally, the research findings were evaluated by using the management and organization literature and theoretical and practical inferences were made.

Population and sample: Current study will use convenience sampling by using the Internet and face to face contact to find leaders within Bangladesh through Chamber of Commerce websites and Bangladesh Bureau of Statistics website. According to Bangladesh – Labor Market Profile 2014 the employment in the formal sector is to a large degree covering the industries: Manufacturing, Agriculture, Business & finance, power, construction, trade & hotel, transport & communication, and the public administration. Information given in Dhaka Stock Exchange about major industrial operations are conducted by the bank (30), insurance (47), engineering (33), food (18), pharmaceuticals (28) companies (Dsebd.com, 2017). Primarily it is found that about 4.3m male and 1.4m female working in manufacturing, finance, and business service sector. Each of the leaders contacted was requested to complete the survey questionnaire. The data collected from the individuals would then be used for analysis of the research questions and hypotheses identified earlier.

Means of Data Collection and Analysis: Convenience sampling and snowball sampling was used for this study. The convenience sampling method is based on the selection of participants because of their convenient access to the researcher. With convenience sampling, the range of the representative subset of the population is based on their availability (Leedy & Ormrod, 2005, p. 206). In the Bangladeshi context, it is the easy and better approach to get the appointment from leader under the reference from other leaders. Some leader helped to get the appointment from other leaders. Due to this reason the snowball sampling approach also applied to collect the data. Snowball

or networking sampling was preferred as a sampling technique due to the difficulties in delivering the surveys to the subjects. The quantitative data was collected for this study through a structured questionnaire. Both the soft copy through email and hard copy of the questionnaire will send to the respondent. The data were analyzed through descriptive statistics and variance statistics. Suitable software service was used to perform descriptive statistics which includes the sample size, mean, standard deviation, minimum and maximum scores to evaluate the sample population with relationship to the leadership style. Finally, path analysis was applied to see the ultimate effect of multi-rater feed on the development of leadership style.

Means of Data Analysis: The quantitative data collected for this study was a result of the leaders' self-reported judgment. The data were analyzed through descriptive statistics and variance statistics. Suitable software was used to perform descriptive statistics which includes the sample size, mean, standard deviation, minimum and maximum scores to evaluate the sample population. T-test analysis and ANOVA was used to compare the frequency of occurrence of a range for a leader's experience with their current organization, the age of the leaders, gender, and nature of the organization. Nonparametric inferential statistics were used to determine if there was a difference in scores for the transformational leadership and servant leadership among leaders who participated in a 360-degree process.

1.13. Organization of the Thesis

The thesis consists of six chapters. In the following details of the thesis organization plan stated:

In the first chapter, introduction and the aim, method, plan, assumptions, and limitations of the thesis are explained. The second chapter, conceptual information about the literature is given by defining the variables which are the subject of field research. The relationships between the variables are also used. The third chapter, based on these relationships, necessary models and hypotheses were created for the subjects that are aimed to be measured in the field application. In the fourth chapter Information about the scope and method of the research, techniques used in the evaluation of research data, sample selection, data collection tools, distribution of the questionnaires and the conversion rate and the demographic characteristics of the research groups were given. In the fifth chapter, validity and reliability analyses of the scales of the variables

examined in the study were interpreted as a result of the questionnaire applications and the model for the research was tested. Subsequently, the significance of hypotheses was investigated by using the results obtained by examining the model. In the final chapter, the result, and the results obtained in this study are interpreted and compared with the results obtained in similar studies and recommendations are presented.

1.14. Summary

This chapter identified and described the problem being addressed by this study and introduced the hypotheses that were framed as a source for analyzing the results. Key terms were defined to provide a basis for discussion throughout this study, and then assumptions and delimitations were provided for assistance with this study. An overview of the research methods and procedures were then provided, as well as the research design, data collection process, data analysis, and validity and reliability.

The next chapter provides a review of the existing literature. Literature and study conducted about multi-source feedback, transformation leadership, servant leadership, and motivation for leadership is presented in the following chapter.

CHAPTER II

LITERATURE REVIEW

2.1 Introduction to Literature Review

The literature of this study provides historical perspectives of the 360-degree assessment methods. Chronological development of multisource feedback method, growth and study gap of the study is appropriately identified and presented through the literature review. The main focus of the research is to the analysis and use of 360-degree feedback technique in the evaluation of leadership style. Several bodies of literature were reviewed with specific attention to inter-rater correlation, leader's motivation through feedback, and development leadership style through 360-degree feedback.

This chapter presents the theoretical basis for 360-degree assessments grounded in the development and evaluation of leaders' style. Extensive literature review had included in this chapter that produces excellent contemporary text on the 360-degree feedback assessment method. After the thorough literature review yet no reference study was found about the impact of leadership style through 360-degree feedback especially considering manufacturing and service organization jointly in the relevant field.

Research databases including Business Source Premier, Proquest database, Google Scholar, and different international journal had been used for the literature review. Additionally, I had full access to the Cukurova University Library System, which allowed access to the different journal and thesis database. Among these database keywords relating to the 360-degree assessment method, managing and appraising employee performances, inter-rater agreement, performance evaluation, leadership development through motivation and the 360-degree appraisal was searched. Review of the literature was conducted using three primary methods: bibliography mining, database searches, and internet searches. Comprehensive searches of behavioral and motivation theory, psychology, education, and business databases yielded the current research on 360-degree feedback processes and evaluation of leaders' style. Numerous article and thesis consisting of meta-analysis were investigated for the literature review. However, less research has found the determination of leadership style through the 360-degree assessment method. And no research has found about stated title applied in manufacturing and service organization jointly. The current study is expected to fill the gap and make void the literature.

This chapter begins with a brief explanation about three hundred sixty degree performance appraisal system. This review examines the research literature on theoretical models specifically developed to explain the phenomenon of leadership change, is emphasized the literature on leadership development, and do thoroughly scrutinize those critical factors that determined the success or failure development of leadership. The review is preceded with a thorough discussion of 360-degree feedback, including its benefits and uses, best practices, and the encounters of implementing a 360-degree feedback appraisal program. In the next evaluation, development and elements of servant leadership and transformation leadership are revealed. Finally, there will be a discussion on the research explicitly examining the backgrounds for determining of a 360-degree feedback program on leadership style.

2.2. Theoretical Orientation for the Study

The theoretical discussion of the study presented based on the 360-degree feedback premise. 360-degree feedback ensures the development of performances even though there are some limitations of the method. Active development of leadership relies on the ability to develop useful cognitive models for handling a complicated behavioral situation (Stevenson, 2002). In an involved behavioral situation, the leader can analyze the case based on the feedback information from the surrounding. Multi-level feedback has some concern about determining the recipient's needs. 360-degree feedback generates a sense about self and support individuals to understand the impact of behavior on others (Morgan, Cannan, & Cullinance, 2005).

Feedback has a significant impact on employee performances through the behavioral incentive properties inherent in positive feedback. In the behavioral paradigm, getting positive feedback is considered as primary reinforcement. It is desirable for the employee and is regarded as a positive reinforcer. In addition to having fundamental reinforcement properties, other reinforcers often linked with positive feedback. Such as pay raises and promotions, are considered to increase the frequencies of performance behaviors (Luthans and Kreitner, 1985).

Performance feedback influence performance through influencing employee's self-regulatory system. The feedback and performance relation is explained and linked with many theories such as the Test-Operate-Test-Exit control system (T-O-T-E system)

Model of Miller, Galanter, and Pribrum (1960), Control Theory of Carver (1979), and the Closed Loop Model of Self-Regulation (Kanfer, 1971). These theories recommend that every individual has their performance standards and goals against the judge the appropriateness of their present performances. If the information about performance feedback received shows a negative deviation from this performance standard (corrective feedback), then the individual is motivated to try harder, and thus performance improves. That is, corrective feedback is feedback which indicates that the individual's performance is below the standard.

System theory and some economic theories related to the development of 360-degree assessments clarify the significance and importance of feedback loops, valid data for gap analysis, and the relation of competencies to workplace performance. Also, the Psychological theory provided the basis of the study through behavioral and motivation theory as well as the means through which to validate the assessment using psychometric methods.

360-degree feedback poses significant concerns for determining recipient needs accurately due to its multi-level subjectivity. The assessment method provides a great sense of self and helps individuals better understand how their behavior impacts others (Morgan, Cannan, & Cullinance, 2005). The rated individual gets a view of performance behavior as perceived by different audiences with the use of multi-source and multi-level feedback. The multidimensional aspects of the outcomes provide the rated individual differing views of behavioral performance due to multi-level subjectivity nature (Mount, Judge, Scullen, Sytsma, & Hezlett, 1998). Although 360-degree feedback methods disclose the employee's positive and negative performance feedback, recipients have the responsibility for actively pursuing change based on the feedback results even when rationalizing feedback that is in disagreement with their views.

The desire to increase the capability and the potential of leaders prompts organizations to scrutinize individual behaviors. 360-feedback results support efforts to provide individual insight into performance effectiveness used to carry out the duties of an assigned leadership role. The 360-degree feedback offers an individual with an external view from a range of both positive and negative perspectives (Brett & Atwater, 2001). Using multi-rater sources with different levels of influence supports the idea that behavior can be perceived differently based on the situation or purpose.

The feedback to the rated individual is based on the perceptions that were developed from interactions with others. The rater's perspective is ultimately influenced by the positive or negative interaction with the feedback recipient. If the interaction is memorable, the positive or negative association may surface during the decision process for rating the recipient's behavior. There are no safeguards to ensure that raters are not providing rating scores that reflect their own conscious and subconscious purposes versus that of the rated individual (Waldman & Atwater, 2001; Tourish & Robson, 2003; Wille & De Fruyt, 2014). The results are more beneficial, if the feedback adequately defines what development is needed by the recipient to help increase improvement.

The 360 is targeted towards specific individuals and those who provide rating base their responses on whether the rated individual meets the criteria identified in the instrument. Individuals use their experiences and personal identities to give insights into someone else's performance and behavior (Libby, Valenti, Hines, & Eibach, 2014). The responses reported in the results of the 360 are supposed to reflect the individual's behavioral needs. Each participant in the multi-rater process can easily divulge answers that are uniquely aligned to their needs (Church, Rogelberg, & Waclawski, 2000). The responses for each competency area are aggregated to represent rater views of an individual's positive or negative behaviors.

Selected raters are chosen at the discretion of the feedback recipient. The feedback recipient chooses individuals who are considered to be a fair representation of those who can provide meaningful feedback. An individual's ability to address relevant behavioral perspectives is increased by soliciting input from an array of individuals who have an association with the individual (Sahoo & Sahu, 2008). This also provides a higher possibility for receiving input from those who favor the patterns of behavior exhibited by the rated individual as well as those who do not. The level of subjectivity is also more likely a result of a diverse rating pool (Guenole, Cockerill, Chamorro, & Smillie, 2011; Levinson, 1997).

The pool of raters can consist of individuals with past and relationship experiences. The 360 reveals the differing ways behavior is received by those chosen to provide their perspective (Hoffman, Olson, & Haase, 2001). Individuals are receiving feedback benefit from understanding multiple aspects and an understanding of how the environments may require a different leadership behavior.

Although several raters respond within the 360 processes, many may not have a full appreciation of why an individual behaves a certain way when faced with differing concerns. In some instances, it may be difficult to rate the individual effectively because the rater may have had minimal interaction with which to make an informed decision. In either case, the 360 output provides a reasonable representation of how behavior is viewed for the rated individual. Other reasons also exist for providing specific rating scores. Raters can be responding to a reflective analysis of their own experiences with the recipient and then use those reflections to influence how satisfying the experience has been. The resultant feedback ratings assist in determining the perspectives collected as a result of the work environment (Sessa, 2002). The rated individual gets results that are fostered by different belief systems as well as the association with their success promoted by the feedback recipient.

Another aspect of the 360-degree feedback that is positive is how well the responses adequately reflect the recipient's needs and translate into actionable objectives. These outcomes can assist in determining the appropriate steps to strengthen current behavior or even develop new behaviors. Identified development needs indicated in the 360-degree feedback are assessed against the significance of the modification needed to affect behavior (Nicklin & Williams, 2011). Determining how impactful individuals feel the results are, the willingness and desire to accept the feedback, and the capability to make adjustments related to the individual's needs are valuable outcomes of the 360.

Recipients must believe that outcomes considered positive from the 360-degree feedback are reflective of real needs (Polsfuss & Ardichvili, 2009). Individuals who are confident that the results promote stronger relationships with others are more likely to assert themselves toward developing. Even if development is identified and promoted, the ownership of how effectively the development is pursued and adopted remains the responsibility of the recipient. This personalization can reasonably reflect a commitment to change and the willingness to actively modify behaviors that are considered barriers to effectiveness (Baumeister, Vohs, DeWall, & Zhang, 2007). Both positive and negative feedback from the 360 can be impactful for the individual as long as it is considered relevant.

The 360-degree feedback process is only a snapshot of an individual's behavior but is reflective of both the past and the present. The information from the results is a combination of transitions from past behavior to those that are desired for future

application (Bracken & Rose, 2011). The recipient may want to focus only on future behavior especially if the feedback that references past practices is not considered applicable to the present role. The key is to identify individual characteristics that enhance the individual's ability to exact change whether immediate or over time (Bracken, Timmreck, Fleenor, & Summers, 2001). Even if all of the feedback is not accepted, the 360-degree feedback at least provides necessary information on behaviors that have not been effective and those that have.

360-degree appraisal system assessment instrument measures the level of proficiency in behaviors and competencies related to professional responsibilities (Harris & Cole, 2007). The theoretical orientation of this study was based on the premise that 360-degree feedback provides a benefit to development even though sometimes there are limits to its effectiveness. Development of effective leadership lies in individuals being able to develop useful cognitive models for managing complex behavioral decisions involved in the process of leadership. The indicators, called competencies, reflect what the organization prescribes as the most beneficial behaviors for success within that environment. The 360-degree feedback has been continually researched for its applicability and effectiveness at measuring individual performance (Atwater & Brett, 2006; Bracken, 2009). Individuals who receive no formal feedback may be relegated to gaining only minimal feedback.

2.3 Explaining 360-degree Feedback through Control Theory

Despite an abundance of research demonstrating a feedback-to-improvement link, researchers have failed to establish a clear framework for how ratees process and use feedback. Researchers may be clouding the various comparison processes a ratee must undergo on his/her path to performance improvement. One way to better understand the effects of 360-degree feedback on performance is to use control theory. Control theory is a theoretical approach to self-regulation which provides a basis for discussing ratees' regulation of performance in a 360-degree feedback context (Carver and Scheier, 1981; 1982). Self-regulation process is shown in figure 1. This motivational framework will help to explain the cognitive processes ratees engage in after receiving 360-degree feedback.

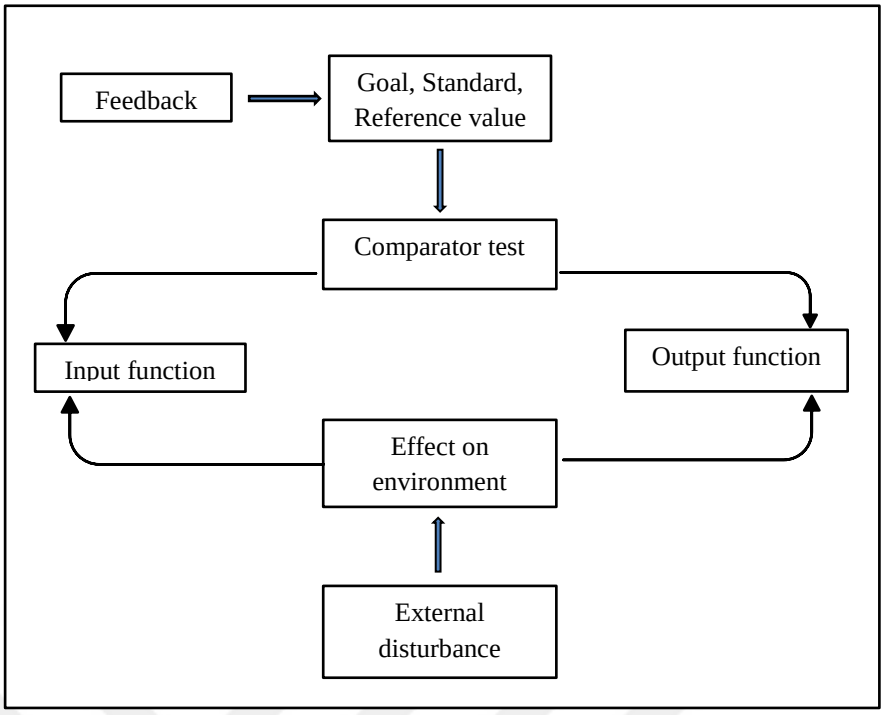


Figure 1. Self-regulation process using feedback.
Source: Carver & Scheier, 2002.

Significant gaps between the input and standard during the comparator phase of the control loop facilitate arousal and conscious attention to the discrepancy as well as the desire to reduce this difference in the output phase (Lord and Hanges, 1987). While more substantial inconsistencies elicit more effortful processing to close the gap, individuals do typically evaluate all input information both cognitively and effectively in the comparator stage (Klein, 1989). This active processing is a critical component of successful self-regulation, where latent impulses are interrupted and addressed in the discrepancy-reduction phase (Baumeister and Heatherton, 1996). Finally, control theory posits that hierarchical chains of control loops are engaged to help the individual accomplish multiple, causally linked goals related to specific discrepancies (Hyland, 1988). Essentially, the means to reduce differences in higher order feedback loops become the standards of lower order loops. Both subordinate-level and superordinate-level control loops can exist in the hierarchy. Although researchers (Brutus, London, & Martineau,1999; Gregarus, Ford, & Brutus, 2003) have made mention of control theory when introducing the 360-degree feedback process, the literature has not offered a complete explanation for how control theory can account for ratees' motivations to improve performance following feedback. Thus far, researchers have taken a somewhat simplistic view of how control theory considers for 360-degree feedback information

processing by stating that people compare themselves against an organizational performance standard.

In its most basic form, control theory posits that individuals attempt to reduce discrepancies between some input and a referent standard/criterion. Standards can take the way of an end state or process-oriented goal, while the input information can include external feedback and internal perceptions (Klein, 1989).

2.4. Explaining 360-degree Feedback through Self-regulatory Theory

The self-regulation theory also known as the closed-loop system is offered by Kanfer (1971). The author proposed that self-initiated responses affect an individual's behavior. Whenever continuous flow of behavior interrupted then self-regulation is activated. Many reasons like behavioral uncertainty, conflict, interferences from the environment are causes of interrupted flow of behavior. In these circumstances, self-regulation occurred under three phases. First phases the person use the self-monitoring system in the disrupted situation. In the second phase, the person compares their performance with the standard called self-evaluation. In the third stage, the person compares the outcome occurring during self-evaluation which is called self-reward. The author proposed that the person compare his behavior with a self-set performance standard which is named as conditional discrimination is a prime basis of self-reward. Multi-source feedback process crate the situation of conditional discrimination by which an individual can apply self-evaluation and find the performance gap.

These theories recommend that every individual has their performance standards and goals against the judge the appropriateness of their present performances. If the information about performance feedback received shows a negative deviation from this performance standard (corrective feedback), then the individual is motivated to try harder, and thus performance improves. That is, corrective feedback is feedback which indicates that the individual's performance is below the standard. Feedbacks from different sources interrupt the continuous flow of behavior. The interruption grows a sense to the person to think to compare the standard of performances, expectances of his colleagues, and current achievements. An accurate sense of evaluation helps the person to improve his or her accomplishments. In the situation where naturally provided feedback is controlled, self-regulation inspired by seeking feedback actively from others helps the person to perform better in their jobs than will others. Self-seeking feedback

help the person to concentrate on where their behavior is out of the track concerning the targets they are pursuing (Ashford and Cummings, 1983).

2.5. Historical Development of 360-degree Feedback

360-degree feedback or multisource feedback started to be a popular method from the 1990s. This method is an open process for developing employee performances. The popularity of this method did not gain overnight. In this part hundred years of rating, research had been evaluated across the industry, academic, and public sector environments. History of rating scale started by describing evidence of using rating in the private sector, government research laboratories, business sector across two world war and post-world war. In the following tenure of the historical development of 360-degree feedback presented below.

Early Rating History: To solve this problem, Paterson in 1922 develop a graphic rating scale. This scale was able to measure multiple criteria of the employee performances. After that Scott (1932) some specific dimension like personality, originality, leadership, cooperativeness as the dimension of the graphic rating scale. As selection criteria rating scale was popular that period. Early in the twentieth-century rating scale was started to apply when the supervisory rating gained popularity. Before the First World War Walter Scott introduced the man-to-man rating scale employed by the US Army in rating efficiency of officers. But the man-to-man scale process was unable to compare multiple dimensions. Scott Company develops the Graphic Rating Scale (GRS) to address multiple dimensions (Paterson, 1922). Following this Kornhauser (1923) developed new terminology named as selection battery based on the rating scale. In this period the rating scale was widespread in the organization for measuring employee performances, but it was not considered for research in this period. Later on “behaviorgrams” personality, originality, leadership, organizational ability, cooperativeness, ability to develop workers, and technical ability dimension added with GRS for more improving results (Bradshaw, 1931, Scott, 1932). Although supervisor rating was universal during this period, evidence of alternative sources also available. “Mutual rating” using a secret ballot developed by Shelton allowed every individual in the workgroup for rating information sources (Shelton, 1919). The customer also allowed for evaluating salesclerks found in other evidence (Cook and Manson, 1926).

Rating Research and Application between 1942 and 1966: After the war rating scale got much importance in the military. Many researchers started to research the rating scale. After Second World War "personnel issues" in military service gained importance. "Critical incident" technique described by Flanagan (1954) used in psychological research by this time particularly for effective and ineffective performances. After that Peters and Campbell (1955) found a correlation between self and supervisor proficiency rating in the air force mechanics service. Many researchers had researched peer rating after the Second World War. Peer evaluations were more valid predictors of future performance in officer candidate school that several objective tests (Williams and Leavitt, 1947). Peer rating along with academic grades and instructor rating has been considered the "purest" measure of leadership criteria (Wherry and Fryer, 1949). "Buddy rating" named by Hollander (1954) also used for success in flight training and leadership effectiveness. Peer rating and supervisory rating found correlated at air force mechanics job by Hausman and Strupp (1953). During this time, the application of industry-based rating research had grown in a variety of directions. American industry was gradually applying a rating of employees as the scientific study of the production process (Zerga, 1943) and arguments for using supervisor rating by subordinated also accepted highly by this time (Driver, 1942). But the application of rating research had some complexity also. Coworker ratings gained more lenient and reliable within source than across sources, and supervisor ratings increased more reliable than peer ratings (Springer, 1953). However, many scholar and practitioners began to develop a different perspective of rating services.

360-degree Appraisal Perspective: 1967–1992: The introduction to multi-source evaluations occurred at the beginning of the 1970s as a part of the human relations movement. The feedback process increases the involvement of employees through enhanced communication and management development. But the current concept of multi-source evaluations from supervisor, subordinates, peer, and customer was not used until the 1970s. By the end of 1960s Lawler for the first time introduced the multi-dimension of feedback assessment. Lawler (1967) had presented "Multitrait-Multirater" (MTMR) approach to measure managerial job performances. After four years Kavanagh, MacKinney, and Wolins (1971) prove the convergent and discriminant validity of multisource ratings. Borman (1974) researched interrater reliability at different levels of the organization. Peer-assessment had found an important performance-related variance (Lewin and Zwany, 1976) and (Kane and Lawler, 1978).

Leading to this research McEvoy and Butler (1987) found that peer evaluation is accepted only for development purposes. A meta-analysis of supervisor, peer, and self-rating studies found much stronger agreement between supervisors and peers than between self and peers and self and supervisors (Harris and Schaubroeck, 1988). Each source of multisource feedback has an advantage in producing valid information. Peers are usually exposed to a wide variety of information from fellow workers; subordinate have relevant details on the leadership skills of supervisor (Borman, 1991). Many organizations used feedback through surveys as a means of developing employees (Waldman, Atwater, & Antonioni, 1998). Modern job design with a broader span of control is highly beneficial from the application of multi-source feedback (Mishra, 2014); 360-degree feedback assessment brings a significant paradigm shift from the narrow perspective of traditional appraisal to broader view of multiple stakeholders in the performance management system. 360-degree feedback program exhibits an open channel for leadership development by receiving negative and positive performance feedback from the stakeholder of anonymous contributors, to become self-aware based upon this feedback. The initial goal of multi-source feedback assessment was to develop employee performances instead to appraise their performances. But in reality, it is not easy to develop performances through feedback. Different individual for different level produces a complex set of information because of the lack of rater's training and efficiency.

On the other hand, the process is expensive and time-consuming even (Ghorpade, 2000). Research about the multisource feedback system grew and developed continuously. This study tried to demonstrate a few evaluations of 360-degree feedback from the last hundred years of research study.

360-degree Development: The 360-degree process provides a view of a leader's actions, both positive and negative, from individuals who surround the leader. Esso Research and Engineering Company by the 1950s for the first time utilize 360- degree feedback (Vukotich, 2010). While there are many leadership development processes, some provide only a one-to-one interaction between leaders, such as coaching and mentoring. Feedback tends to be one-dimensional and fosters the same leadership style and philosophy as the coach or mentor. Depending only on an individual's manager to guide the feedback and development process leads to a limited perspective on how the individual can contribute more to the organization (Vukotich, 2010). Allowing

surrounding others to provide feedback about the leader leads to a more rounded perspective of the leader's strengths and weaknesses.

Leaders are provided with evaluations from individuals, (i.e., peers, subordinates, boss, and vendors) that include positive and negative results. These results are compared with a self-evaluation to determine areas that work and those that need improvements. London, Smither, and Diamante (2007) identified multisource feedback as a long-term performance management process, not a one-time event. The 360-degree process is continuous, and the feedback is used as a compass to guide the leadership development journey (Tornow & London, 1998). Many organizations use the feedback process as part of a leadership development program. The most important goal of 360-degree feedback is to increase an individual's self-awareness (Atwater & Waldman, 1998, p. 423).

The 360-degree process involves the collection of input from people, referred to as raters, who have various relationships and interactions with the evaluated individual, referred to as the ratee. The information collected is based on satisfaction of employees with work policies and procedures, working environment, compensation and benefits, immediate supervisor, and top executives (Tornow & London, 1998, p. 1). Receiving 360-degree feedback gives leaders ratings from several sources (Jones & Bearley, 1996), including the leader's boss, subordinates, peers, customers, and a self-rating (Bass & Bass, 2009).

Assessments may take the form of interviews, questionnaires, surveys, or observations (Jones & Bearley, 1996). The assessment can be delivered using computers, paper, or personal intervention. No matter the form used to collect the information the feedback must meet specific criteria to be useful. Feedback needs to be clear, concise and accurately worded so there is only one interpretation and the recipient interprets the information as intended (Jones & Bearley, 1996).

Data from feedback are collected in a variety of way. A 360-degree process is successful only if it covers the entire spectrum, from soliciting data, interpretation of data, and the implementation of a self-directed action plan (Jones & Bearley, 1996). Anonymously given feedback in the 360-degree program makes it more reliable and honest (Conger & Toegel, 2003, p. 340). Anonymity is a significant component to the success of the process as individuals tend to be more honest and open in their report. Chaleff (2003) encouraged followers to find the courage necessary always to be frank with their leader.

2.6. Advantages Using 360-degree Development

Feedback from an individual provides information but feedback from the 360-degree feedback process produces a well-rounded view of the leader. Using 360-degree feedback increases a leader's awareness of how he or she interacts with various groups of individuals in different situations (Atwater & Waldman, 1998). The information received can then be used to develop a plan for leadership development and strengthen the leader-follower relationship. Chaleff (2003) identified feedback as a crucial element in the leader-follower relationship. Knowing how others view and interpret a leader's actions guide's effective leadership. Multi-source feedback process has an opportunity to know about leader's strength and weakness (Conger & Toegel, 2003, p. 340) and is "essential to provide a complete appraisal for developmental purpose" (Bass & Bass, 2009, p. 1133). Drew (2009) verified the importance of receiving feedback from multiple sources but identifies that receiving feedback from staff is the most important.

Utilizing the 360-degree process provides a unique perspective as each rater generates views of the leader's actions through different lenses. Each evaluator will have a different relationship with their leader; these differences make varying degrees of data. Despite discrepancies, multisource feedback is accurate because every individual source is granted the right to observe and judge the ratee from his or her perspective (Conger & Toegel, 2003). This information can then be used by the leader to develop a plan for improvement which can then be executed (Vukotich, 2010). Jones and Bearley (1996) identified how output from feedback sources such as trends and data patterns could provide information, which is useful to feedback recipients. Individuals using feedback from multiple sources broaden their horizon and demonstrate the complex nature of a leaders' social role (Conger & Toegel, 2003).

Another aspect of the 360-degree process is one of self-reflection and evaluation. A leader must be able to assess their actions and activity objectively. Lack of self-awareness or underrating one's strengths is indicative of underachievers. Blind spots may reflect the self-raters areas of overestimation (p. 27) of leaders' abilities and skills. This misconception can lead them to think they can do more than they actually can" (Vukotich, 2010).

Differences between self-reflection and feedback provide the leader with data to identify areas of opportunity for improvement accurately. With the multisource approach, the leader can directly acknowledge differences across sources (Day, 2001).

Along with of disagreements “the use of 360-degree assessment and feedback can help leaders validate their self-perception” (Jones & Bearley, 1996, p. 17). Day (2001) identified perceived differences in performance across constituencies and utilizing a multisource or 360-degree feedback process captures a variety of behaviors and perspectives.

2.7. Disadvantages Using 360-degree Development

The 360-degree process is useful only if the leader is willing to take the feedback as constructive and offered for improvement and development. Individuals who have the mentality that they know everything and are doing everything right will not benefit from feedback. Accepting feedback from other sources for developing leadership through 360-degree feedback is essential (Day, 2001). But it is rare that all the participating individual are receiving the feedback from others.

Self-assessments will generally identify individuals as seeing themselves performing better than viewed by others. Managers need useful and correct information to improve their behavior to accommodate the expectations of significant others (Conger & Toegel, 2003). Leaders must challenge themselves as to whether they genuinely value the feedback being provided by others (Chaleff, 2003).

With the 360-degree process and the receiving of feedback from others, attentions to leaders’ weaknesses are revealed. Showing vulnerability can cause individuals to be perceived as weak in competitive cultures causing leaders to turn their focus from getting the job done well to that of trying to please others (Vukotich, 2010) (p. 29). This action will cause harm to leader-follower relations as well as the relationship that has been built with others.

Atwater and Waldman (1998) challenged the effectiveness of 360-degree feedback as weak on challenge and support. Drew (2009) identified that the “360-degree surveys of themselves do not produce learning or change” (p. 589). Vukotich (2010) believed that a failure of the process is based on the lack of a development strategy being implemented after feedback. Another failure identified is the lack of structure in administering a multisource feedback survey, which is believed to undermine the process effectiveness (London, Smither, & Diamante., 2007).

Although the 360-degree survey process uses multiple raters, it should not be multifunctional. Research suggests that the 360- degree feedback process be explicitly

used for development purposes and not for performance appraisal or leader selections (Howard, 2007; Vukotich, 2010). Disagreements have ensued over the use of the 360-degree feedback process and its use for administrative purposes such as compensation or promotion (London et al., 2007).

Using the 360-degree feedback as part of performance appraisals creates a risk for the organization of losing trust and diminishing the value of the feedback (Tornow & London, 1998). Howard (2007) identified gaming by others due to stress generated from different motives and the potential for "undermining trust in a workgroup" (p. 30). The lack of transparency or changing the intended purpose in the middle of the process removes the organizations' ability to utilize the process.

2.8. Motivational Perspective of 360-degree Feedback

Motivation is the process of influencing a group of people towards the achievement of organizational goal. In the border, sense motivation can be defined as the processes that modify employee behavior to act (Deci and Ryan, 2008). A wide range of theories defined individual motivation and classified into several categories. Many authors examine leaders' motivation for influencing subordinate in various way. Self-determination theorists proposed by satisfying intrinsic needs leaders can motivate followers (Baard, Deci, and Ryan, 2004). Another aspect of employee motivation that remains constant is that the challenges associated with intervening to influence human performance will likely always be an uncertain process. This uncertainty addresses a variety of theories and constructs to assess the center of individual potential motivation properly. This uncertainty has led to a wide array of varying theories and constructs in an attempt to adequately define and assess the origins of an individual employee's potential motivations. Much research had been conducted to define and identify characteristics that can be categorized as motivators for individual employees within organizational behavior literature by examining intrinsic and extrinsic distinctions (Amabile, Hill, Hennessey, & Tighe, 1994). The terms intrinsic and extrinsic are prevalent in the discussion of organizational behavior, but the distinction between the two terms is sometimes ambiguous. Many situational factors influence individual motivation to lead. Types of rewards, work-content structure, exposure to specific leadership styles, as well as reward contingencies all influence an individual employee's motivation concerning the function of the situation (Broedling, 1977).

Researchers often place all characteristics of motivation into just two broad categories, intrinsic and extrinsic motivation, and seek to determine how best to influence a specific employee's motivation by identifying each pertinent individual variable and determining whether this motivational aspect has the potential to be manipulated or controlled by external factors (extrinsic) or internal factors (intrinsic). Many theories explain the term intrinsic and extrinsic motivation. Content theories discuss the characteristics of intrinsic motivation. Content theories include, need hierarchy theory, achievement motivation theory, Herzberg's two-factor theory, self-determination theory, flow theory, self-efficacy theory, and motivation systems theory. Process theories stress the difference in people's needs and focus on the cognitive processes that create these differences –extrinsic motivation theories make up this category (Bassett-Jones & Lloyd, 2005).

2.9. Motivational Differences in Traditional Versus 360-degree Feedback

Researchers of traditional performance feedback have articulated clear motivational frameworks for exploring the feedback delivery to feedback response path. Ilgen, Fisher, and Taylor (1979) proposed a model of the effects of feedback on recipients that incorporated the influences of feedback source, individual differences and external constraints on a five-step process: 1) Perceived feedback; 2) Acceptance of feedback; 3) Desire to respond to feedback; 4) Intended response (goals); and 5) Response. Feedback recipients are first posited to perceive and interpret feedback from a given source with a given level of accuracy. Once the feedback has been realized, the recipient assesses the degree to which the feedback should be accepted and then whether or not to respond in line with the feedback.

Finally, the recipient sets goals to facilitate the achievement of behavioral change and achieves the desired response. This model addressed the many factors that contribute to the motivational processes between receiving and responding to feedback. Ashford and Cummings' (1983) model of feedback seeking posits a more active role for the recipient in the performance feedback process. Given the competitive nature of the industry, this theory attributes motivation for soliciting and responding to feedback directly to the recipient. Individuals are thought to seek out performance feedback given its value as a resource for career and organizational success, and to verify their self-

concept at work. Through direct and indirect mechanisms, individuals seek and interpret information about their performance.

When compared with traditional performance feedback that is often delivered in a top-down manner, 360-degree feedback is a "different animal." The principal difference, of course, is the inclusion of multiple providers of feedback, including a self-rating. When compared with typical performance feedback environments, ratees of 360-degree feedback initiatives receive more feedback from more sources encompassing many perspectives. Thus, ratees must interpret and evaluate this variety of feedback when determining their response.

This task is bound to become highly complex as contradictory feedback is received from diverse sources. Making sense of conflicting feedback should cause ratees to evaluate the relative value of each separate piece of information. Besides, to facilitate ratings accuracy, feedback from these sources is usually provided entirely anonymously. To changes many of the subsequent processes a ratee must undergo in responding to feedback. Assessing concepts from Ilgen, Fisher, & Taylor (1979) model such as source credibility and power becomes more difficult when the source is anonymous. The anonymity of the specific source should cause ratees to instead focus on the presented rater group membership (e.g., peers, direct reports, etc.). 360-degree feedback further differs from traditional feedback models in that the former emphasizes work behaviors, rather than work results. Historically, organizations cared only for results; that is, what the individual accomplished. In recent years, however, organizations have realized that how things are accomplished is equally important in achieving a competitive advantage in today's marketplace. A 360- degree instrument, for example, might evaluate teamwork or communication skills. Ratees should consider feedback focused on the development of behaviors differently than they would feedback aimed at improving performance results.

Finally, 360-degree feedback is often used for development-only purposes rather than as a basis for rewards, promotions, and other administrative purposes. However, to justify implementation costs and to assess employees comprehensively, organizations are increasingly using at least some aspect of 360 for administrative purposes. Depending on their organization's goal for carrying out the 360-degree feedback initiative, ratees should consider responding to the feedback for either more tangible outcomes or more career-oriented and long term success.

2.10. Components of the 360-Degree Feedback Motivational Process

To depict the complex motivational processes occurring following 360-degree feedback, a model based on control theories' control loop was created. Ratees are motivated by 360-degree feedback in a variety of ways. Initially, the simple presence of low ratings on a particular competency will be enough to spur development motivation towards improvement in that area. By a process suggested in control theory, rates receiving 360-degree feedback are posited to uncover discrepancies by comparing self and others' 360-degree feedback. Ratees compare their self and others'(e.g., supervisor, subordinates, peers, others) feedback to the performance expectations evoked by others' (e.g., supervisor, subordinates, peers, others) ratings. In this way, others' feedback (e.g., supervisor, subordinates, peers, others) can represent both performance input information as well as a performance standard for comparison processes. Also, when available, ratees will utilize normative averages presented in the 360-degree feedback report (e.g., organizational, departmental, role, etc.), as relative performance standards in their comparison processes. Finally, the primary performance standard is moderated by individual differences in needs-based motivation. As proposed by McClelland (1988), an individual can have differing levels of three types of needs: the need for achievement (nACH), need for power (nPOW) and need for affiliation (nAFF). nACH refers to the extent to which an individual focuses on achieving goals and job progression; nPOW to the draw towards power, control and leadership; and nAFF to the desire for strong interpersonal interactions and seeking approval from others. These motives are likely to differentiate the amount of attention paid to various competencies within the performance feedback standard. For instance, a high nACH individual is expected to attend more to competencies that are critical for success in the organization and to those which imply technical skills and professional savvy that is typically associated with success. In contrast, a high nPOW individual should pay more attention to leadership and managerial competencies, while a high nAFF individual should focus on skills involving teamwork and collaboration with others.

2.11. Motivation to Lead Perspective

Much research had been conducted to explore motivational characteristics relating to the specific leadership style. But little had been done to know intrinsic motivation that may affect by the particular leadership style.

Past studies had produced different measures to validate both motivation and leadership. Five sources of motivation were identified by the Motivation Source Inventory (Barbuto & Scholl, 1998). The sources are intrinsic process, instrumental, self-concept-external, self-concept-internal, and goal internalization motivation. Chan and Drasgow (2001) also proposed the integrative theory about motivation to lead to explain the relationship between individual differences and leadership style.

2.12. Using 360-degree for Servant Leadership Development

Servant leader mostly emphasizes on people's needs (Greenleaf, 1977) and due to healthcare's inherent servant nature servant leadership suited well with healthcare organization (Schwartz & Tumblin, 2002). Creating a culture of servant leadership and assessing leaders' performances multi-rating assessment is essential. Feedback program ensures the strength and development needs of the leader and help in conducting an action plan to leverage the knowledge for efficient performances (King and Santana, 2010).

Much research had conducted to address servant leadership development. Van Dierendonck and Nuijten (2011) took an initiative to address the deficiencies of the servant leadership scale developed by Liden and his colleague in 2008. In addition to that, they planned to present such a servant leadership criterion that is behaviorally oriented and easy to apply. But the two studies have a different application into the research arena. For our study servant leadership scale develop by Liden and his colleagues 2015 is more suitable because it is based on the 360-degree feedback process.

Although no academic establishment proves the suitability of specific leadership for any particular organization there is some evidence. Many studies had found suitability of servant leadership for the service-oriented organization. Due to the inherent nature of the service of service organization servant leadership is a well-suited leadership style for healthcare service (Schwartz & Tumblin, 2002). A servant leader has a priority to serve, and they emphasize it (Greenleaf, 1977). Servant leaders many inherent natural characters like a good listener, empathy, and concern about patient satisfaction, and devotion which is highly relevant with health care service (Trastek, Hamilton, and Niles, 2014, Wanzer, Booth-Butterfield, & Gruber, 2004).

While the relationship between servant leadership and patient service in healthcare setting not studied much (Parris & Peachy, 2012), but non-health care setting had been found to have a link with servant leadership style and customer service (Liden, Wayne, Liao, & Meuser, 2014). It is rational to assume similar servant leadership has a positive impact on both service and manufacturing organization where the inherent character of a servant leader is suitable for customer service. In addition to that, some past studies also support this assumption that the servant leadership style has an impact on customer service. Some prior comprehensive studies and empirical research regarding servant leadership outcome is highly associated with employee job satisfaction, employee welfare, team success (Parris and Peachy, 2012). Even though servant leadership has a positive impact in the service sector like the healthcare system, other leadership styles like hierarchical and domineering leadership style also tied with poor customer service.

On the other hand along with servant leadership other leadership also suitable for energizing employee in service related organization (Schwartz & Tumblin, 2002). The most important goal of the healthcare setting is caring for others, and a servant leader has a good impact on both patient service and employee output. Due to this reason, many scholars suggest the suitability of servant leadership for the service organization like healthcare setting (Neill & Saunders, 2008; Trastek, Hamilton, & Niles, 2014).

2.13. Transformational Leadership

Transformational leadership developed through a realization that individuals were the backbone to the organization. An individual's opportunity to participate in developing the vision, establishing work strategies and assignments brought new and rich ideas. Every individual within an organization come from different backgrounds and cultures, these diversities is what made the group stronger but also required leaders to lead differently.

Transformational leadership provides a high level of commitment, moral obligation, and better performances both from the leader and follower (Goethals and Sorenson, 2007). Transformational leadership includes the action of involving and developing others, specifically, followers. The transformational leader treats their follower as an individual, and an individual differs from other individuals. They also stimulate subordinate by providing support (Bass, 1990). Both the leader and follower

under transformational leadership show the high levels of motivation and work morality (Burns, 1978). Leaders realized the critical role that followers played in the success of the group and organization. Boseman (2008) posited that transformational leaders share their vision with followers, are role models, provide support to each, communicate expectations, encourage cooperation, accept goals, and challenge their followers to think beyond the obvious. Individuals want to be engaged in defining activities, goals, and objectives. "Leaders must engage their constituents in a dialogue about the future" (Kouzes, and Posner, 2003).

Transformational leadership brings a positive attitude and environment to an organization. Employees perform better under the transformational leader. Transformational leader conveys the message to its personnel as well as customer, suppliers, financial investors, and the community about future planning and development of its people and organization. The entire stakeholder feels confident about the common good (Bass, 1990, p. 25).

Idealized Influence: Idealized influence is the first factor of transformational leadership that is built on trust, moral, and ethical standards. Bass (1990) identified critical characteristics of transformational leadership as an individual's ability to instill pride, gain respect and establish trust with followers. Followers of transformational leader are satisfied, optimistic, and have confidence in their leader. Followers are less likely to quit from the organization under transformational leadership (Boseman, 2008). Transformational leader changes the perceptions of the follower and makes them confident about accomplishing the goals (Hargis, Watt, & Piotrowski., 2011). Teamwork, trust, and empowerment are the key elements of being a transformational leader (Kouzes and Posner, 2002). A transformational leader exhibits high moral and ethical standards at work (Kendrick, 2011). Moral character, ethical legitimacy of the values, and the morality of the social process are the main criteria of being a transformational leader (Bass and Steidlmeier, 1999)

Leaders must be transparent with the intent of a 360-degree feedback process to develop trust and display moral and ethical standards. This relationship is an essential source to receiving open and honest feedback from others. Vukotich (2010) described 360-degree feedback as a valuable process where only if trust exists among individuals within an organization, can information be shared more freely. Maxwell (2005) identified that to develop relationships leaders must treat others with dignity and respect them.

Inspirational Motivation: Inspirational motivation is the second factor of transformational leadership, and this is based on a leaders' capacity to guide followers clearly to identify the right thing to do. The transformational leader creates the drive for shared goals and vision. They also address the challenges of achieving the goals. As well as help followers in the development of the strategy of what the future states look like Kendrick, 2011). Inspirational motivation factor emphasizes directing follower towards achieving future goals, communicate the vision and make an emotional appeal that helps follower towards future goals (Hargis et al., 2011, p. 54). Follower advise working for maximizing the interest of the organization and asked to transcend their self-interest (Boseman, 2008).

Intellectual Stimulation: The third factor of intellectual stimulation is based on leaders encouraging followers to think beyond the goals they have set for themselves. The leader having this criterion encourages followers to examine their assumptions, values, and beliefs (Hargis et al. 2011) critically. The leader possesses this criterion also creates a mind in the follower to generate a more creative solution to the problem and leaders favor a new way of doing things. This factor moved followers away from to follow only one direction (Kendrick, 2011). Followers need to be involved with day to day activities; engaging these individuals provides a grassroots perspective of problems or situations and provides data and information that may be pertinent to developing solutions.

Transformational leaders challenge their followers to do more than that thought possible. The 360-degree feedback can be a process that identifies if the leader is providing opportunities that allow others to achieve high goals. Maxwell (2005) recognized the need for leaders to show they care about followers to build trust, only with trust can followers begin to follow.

Individualized Consideration: The final factor individualized consideration focuses on individual followers. A leader possessing the leadership criteria of individualized consideration focuses on the particular follower and encourage the follower to use the full potential to achieve the challenging goal (Avolio, Bass, and Jung, 1999), and (Avolio and Bass, 2004). The transformational leader provides individual support, personal attention, and work as an advisor with the follower (Hoffman, Olson, & Haase, 2001, p. 780). Transformational leaders treat followers as individuals, unique contributors to the group and organization. Leaders provide growth opportunities and development utilizing process such as coaching, mentoring, and

feedback (Kendrick, 2011). For the betterment of the working group and organization, the transformational leader influences the follower to go beyond their self-interest (Bass and Steidlmeier, 1999).

2.14. Benefits of Transformational Leadership

Future leaders come from the ranks of today's followers (Frisina, 2005). Transformational leadership provides the venue to develop these future leaders. The responsibility of the present leader is to identify, nurture, and develop follower in a way that they can lead the organization in the future (De Pree, 2003).

Transformational leaders involve others in developing vision and direction. The alignment of leader and follower is the prime strength of the transformational leader (Huang, and Liao, 2011). The leader engages the individual as the whole person by stimulating and satisfying the follower's high-level needs (Boseman, 2008) and by offering purpose that excels short term goals and concentrates on higher order intrinsic needs. Transformational leaders treat each follower as a unique contributor and provide growth opportunities (Kendrick, 2011) and possess the ability to inspire, engage, and intellectually stimulate the employee (Bass, 1990).

2.15. Critique of Transformational Leadership

Transformational leadership revolves around the idea of leaders involving their followers in the activities necessary to accomplish tasks to achieve defined goals. Transformational leaders share their visions with followers, are role models, provide support to each, communicate expectations, encourage cooperation, acceptance of goals, and challenge their followers to think beyond the obvious (Boseman, 2008). Groups or teams are made up of individuals with different motivations, desires, and motives. Transformational leaders find ways to stimulate their followers, are willing to show followers how to look at old problems in new ways, and show them to view difficulties as problems to solve (Bass, 1990). These activities take time and effort on the part of the leader and also the follower who takes time away from resolving organizational issues.

2.16. Research Gap

Many researches had been conducted to analyze the impact of 360-degree feedback on performances. But still many areas of 360-feedback application is yet to know for better organizational performances. An important undiscovered area in the literature involved the application and use of 360-degree feedback in different types of organization. One study found to analyze the impact of multi-source feedback on transformation leadership in the Military (Eggert, 2016). Using the qualitative method the study found that multi-source feedback can improve self-awareness and leader development.

Conversely, the effectiveness of multi-source feedback is significantly impacted by the lack of a senior leader and organizational support. This study did not focus on quantitative analysis, and the flow of multi-source feedback is somehow restricted in the military organization. Also, the management structure and working environment in military organizations have been tremendously hierarchical with all formal feedback coming from the top level or superiors. The current study conducted using quantitative analysis in the organization where the flow of feedback can be collected from different sources. The literature review also revealed another study that looked at multi-source feedback in various organizations. Another study conducted by Brutus, Fleenor, & London (1998) to compare the impact of multi-source feedback across different industry types to interpret if the differences across various industries were higher than the similarities. The study inspected differences in organizational structures, management system, organizational culture, and technology used in the organization. The study found that the agreement of rater was lowest in the government organization. However, the consensus was highest in the educational institution and manufacturing organization. The result of the analysis showed that there was a difference in the means score for different industries. The sensitivity analysis for the leniency effect showed that peer rating was sensitive to the leniency effect in government organizations. But this study was not considered the nature feedback on leadership style. Hence, the current research paid attention to understand and examine the role of 360-degree negative and positive feedback sources and its impact on leadership style.

2.17. Summary

Literature review in the present study discovered that many researches had been conducted to examine the relationship between 360-degree feedback and leadership development. Many studies also had found a correlation between multi-source feedback and the development of leadership. Summary of the literature review is shown in figure 2.

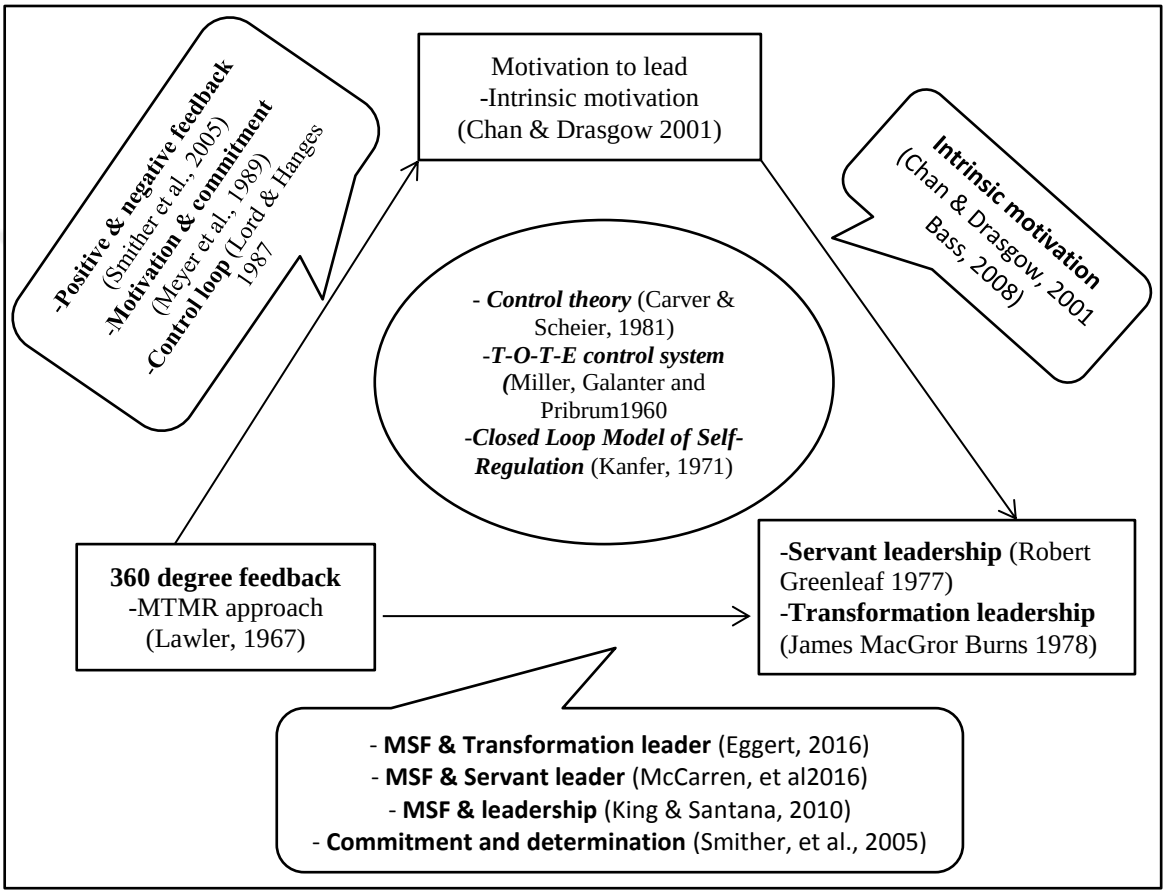


Figure 2. Summary of literature

The main focus of the past study was competencies that are connected to goals and values of the organization, institutional support for goal setting, opportunities of developing leadership, and design performance feedback instruments. The inner circle of the figure is representing the main theoretical focus of the literature. Three theories are discussed in the literature part mostly focused on developing output through feedback. Three corners of the rectangle representing the study variable. 360-degree feedback is considered for the independent variable, leadership is recognized for the dependent variable, and motivation to lead is considered for mediating variable. The

other three external rectangles are showing past research about the relationship among the study variable. All the summarized concept, theories, and pas research had elaborately presented in the literature part.

CHAPTER III

RELATIONSHIP OF 360-DEGREE FEEDBACK, MOTIVATION, AND LEADERSHIP

3.1. Introduction

This study focused on whether there is an impact on leadership style when utilizing the 360-degree development process within an organization. Another area of focus was to identify if there is an impact when developing transformational leaders using the 360-degree method through leadership motivation.

This chapter focuses on 360 degree feedback, leadership styles, and motivation for leadership, and then studies on the relationship between 360 degree feedback and leadership styles, 360 degree feedback with motivation for leadership, motivation for leadership and leadership styles, and later on the relationship of 360 degree feedback, motivation for leadership, and leadership styles. Based on these relations, hypotheses of the study were formed. Besides, in this section, the researches in the literature related to the measurement tools used in the study are explained in detail.

3.2. Studies on Leadership Styles

In Western cultures, the employee and employer relationship is usually based on mutual benefit and interest. The work cycle and period of joint establishment between employee and employer in the organization continued based the employer-employee exchange. The employees in this culture have priority of his career, and then develop his devotion to the organization (Hodgetts & Luthans, 2003).

In the eastern paternalistic cultures, the employee first comes with his determination to maintain a long term relationship with the organization. As a transformation of this, the employer also considers the lifetime relationship with the employee as well (Hodgetts & Luthans, 2003). The context of transformation leadership well organized by the authors Avolio & Bass considering organizational behavior (Avolio & Bass, 2004).

Servant leadership has been found to give better results as leadership styles in explaining employee behaviors when it is compared with transformation leadership and

transaction leadership in the same studies as leadership styles (Liden, Wayne, Meuser, Hu, Wu, & Liao, 2015).

3.3. Participants' Reactions to 360-degree Feedback

Participation process in 360-degree feedback method, acceptance of the feedback, and leadership development from feedback follow-up has significant binding. Participation in the feedback process creates a chance for the participant to discover the gap between his actual performances and standard performances. If the difference is visible to the participant, then the next step for development can initiate the individual. But only participation will not ensure the development. At the same time feeling necessary for realization and the active phase is also vital for developing performances through feedback system (Smither, London, & Reilly, 2005).

Past studies showed evidence of the relationship between multi-source feedback rating and employee performances. Employees feel their responsibility to moderate their work behavior positively after receiving positive or negative feedback (Smither et al., 2005). But response against positive feedback and negative feedback was found different in some studies. Sometimes negative feedback treated as threatens (Kluger & DeNisi, 1996). Negative feedback is cause to decreased effectiveness (Atwater & Brett, 2006). Although positive feedback is getting a welcome and positive reaction, on the other hand, some leader shoed anger and felt discouraged with negative feedback (Brett and Atwater, 2001). But showing anger and discouragement also have some logic. Sources of feedback should be credible and reliant. A participant reacts positively about feedback either it is positive feedback or negative feedback when the sources of feedback are credible. On the other hand, the participant shows an adverse reaction to undesirable feedback when the source of feedback is biased and not reliable (Albright & Levy, 1995).

Organizational outcome and individual performance also affected by the feedback process. Some employees are less motivated to improve performances by using feedback. Due to less motivation, they are not committed to revising their behavior if there is any negative indication from the performance feedback. As a result of all the feedback process effort not able to produce a positive outcome from the employee, as well as from the organizational outcome (Meyer, Paunonen, Gellaty, Goffin, Jackson, 1989).

Commitment and motivation for feedback also motivate others positively. Participants of the multi-source feedback who show agreement with the feedback and motivated to modify his weakness according to the feedback report received a higher rating from his or her direct report in the following year. On the other hand, those who don't show disagreement and are less motivated to modify job-related behavior received a lower rating in the next year (Smither et al., 2005). In summary, it is clear from the evidence that favorable agreement about feedback and motivation bring more success for the performer than who are less motivated and show disagreement about feedback.

Till now it is clear that agreement and disagreement about feedback make differences of employee performances. Another study found the reason behind the agreement and disagreement. The orientation of the multisource feedback has a significant impact on participant agreement and disagreement. If the feedback process is not an appropriately oriented employee, show their disagreement. If the purpose, goals, and consequences of feedback are clear to the employee, they are showing high agreement about the feedback report (Smither et al., 2005). Clear and appropriate orientation motivates the employee to improve their work behavior, goals, and plans in the follow-up activities. Proper orientation of the feedback process has a propensity for continuous learning (Vicere & Fulmer, 1998). Continuous learner request more feedback about their performance. They modify their plan, set their performance target, practice new behavior, and apply to learn on the job and finally get the definite improvement of their performances (Vicere & Fulmer, 1998). On the other side employees, those who avoid learning are also avoided adverse judgment from others (Smither et al., 2005).

Continuous learning depends on some inherent characteristics of the participants. Individual belief about change determines the reactions about feedback (Smither et al., 2005). Past studies suggest that individual personality and character have a significant influence on an individual's motivation to change behavior following 360-degree feedback. The person with high internal control and high self-esteem has greater motivation to change behavior from the negative feedback (Bono & Colbert, 2005).

Most often feedback is utilizing for organizational changes. But it is not so easy to change organizational processes by using feedback. Other issues also involved with this change process. Sometimes participant feedback assumes the change is necessary, but they avoid setting goals for changes because they believe change is not feasible (Smither et al., 2005). Distrust among organizational member creates a complicated

situation against changes. If any organizational member changes their behavior, other members may undermine the reforms. Distrust among employee might ask the value of goal settings to develop performance if they are not held responsible for the results. Expert in this field found those organizational members who have low distrust among them can improve their performance more than others. Other proofs also indicate that individual belief about performance improvement is following 360-degree feedback (Atwater, Waldman, Atwater & Cartier, 2000).

Behavior changes produce an ultimate expected result when the participant set their goals based on feedback (Locke, Latham, 1990). Some studies had found positive relations between the reaction to feedback and improvement after changing goals based on receiving 360-degree feedback (Atwater, Waldman, Atwater & Cartier, 2000). In other studies also revealed that some participant accepts negative feedback and likely to moderate their goals based on feedback if they are in need to attend leadership development program (Brutus, London & Marinueau, 1999).

Along with individual 360-degree also have a positive impact on organizational outcome also. Financial revenue, gross sales, and service contracts are influence positively from multi-source feedback. Some researcher had found a significant correlation between 360-degree feedback and customer loyalty in a survey with the bank branch manager (Smither & Walker, 2001). Favorable feedback improves managerial service quality and lower job turnover (Church, 1995).

Clear explanation and orientation about multi-source feedback help the participants to see the importance of feedback and support to produce more meaningful results (Rogers, Rogers & Metcalf, 2002).

3.4. 360-degree Feedback in Developing Servant Leadership

Formal leadership development through good feedback system is considered best practice (King & Santana, 2010). Leaders can improve their understanding of leadership development needs from feedback-intensive programs. It also enables them to initiate action plans for developing their job knowledge for better performances (King & Santana, 2010, p. 97). These studies mostly focus on the importance of multisource feedback from superior, subordinate, peer, external customers and suppliers. These feedback sources help the leader to understand and gain a clear picture of an appropriate leader’s behavior, strength, and weakness (King & Santana, 2010, p. 99). Summary of

multisource feedback reflects the leadership behavior perceived by others with whom the leader commonly interact for their daily activities. This feedback summary incorporates all relevant perspective and performances of the leader at the workplace (Conway, Lombardo, & Sanders, 2001; London & Smither, 1995).

The multi-rating feedback assessment program is useful when it produces consistent feedback from all available sources. Researches into 360-degree feedback different participating group those who are in involved with the assessment process are not highly correlated. Sometimes different feedback from a different source for the same issue comes into the light. For example, one feedback sources provide positive feedback. On the other hand, for the same problem, other sources are providing negative feedback due to biases or misunderstanding about the issue. The inconsistency of the feedback process is the cause of frustration. So the multi-source feedback should design based on expert opinion, literature survey, existing best practices. Consistent multisource feedbacks produce powerful leadership and provide targeted development in the expected area (King & Santana, 2010).

3.5. 360-degree Feedback in Developing Transformation Leadership

The 360-degree process involves individuals at various levels of responsibility including people who work for and with the leader. Receiving and accepting feedback from subordinates is characteristics of a transformational leader. Leaders who can receive, view, and understand perspectives from others are developing a better understanding of leadership qualities (Harris and Kuhnert, 2008). This change often demonstrated more with the transformational style of leadership (Kuhnert & Lewis, 1987).

Developing transformational leaders requires a process that provides feedback regarding a leader's strengths and weaknesses. The 360-degree process is one method for gathering and assessing feedback. The 360-degree process is a method for continuous improvement which is guided by asking for feedback (Jones & Bearley, 1996). The multi-source 360-degree process is a method that utilizes the individual's understanding, combined with an openness to appreciate and incorporate feedback from others, also provide leaders an opportunity for greater self-awareness (Parry & Sinha, 2005).

The following hypothesis has been developed by evaluating the relationship between transformative 360-degree feedback and leadership style within the framework of the research mentioned above.

- Null (H1a): There is no impact of positive feedback on servant leadership style.

Alternative (H1a): Servant leadership is impacted by positive feedback.

- Null (H1b): There is no impact of negative feedback on servant leadership style.

Alternative (H1b): Servant leadership is impacted by negative feedback.

- Null (H1c): There is no impact of positive feedback on the transformation leadership style.

Alternative (H1c): Transformational leadership is impacted by positive feedback.

- Null (H1d): There is no impact of negative feedback and transformation leadership style.

Alternative (H1d): Transformational leadership is impacted by negative feedback.

- Null (H1e): There is no impact of 360 degree total feedback on servant leadership style.

Alternative (H1e): Servant leadership is impacted by 360-degree total feedback.

- Null (H1f): There is no impact of 360 degree total feedback on transformation leadership style.

Alternative (H1f): Transformational leadership is impacted by 360-degree total feedback.

3.6. 360-degree Feedback and Motivation to Lead

Control theory is a theoretical approach to self-regulation which provides a basis for discussing ratees' regulation of performance in a 360-degree feedback context (Carver & Scheier, 1981; 1982). This motivational framework will help to explain the cognitive processes ratees engage in after receiving 360-degree feedback.

In its most basic form, control theory posits that individuals attempt to reduce discrepancies between some input and a referent standard/criterion. Standards can take

the way of an end state or process-oriented goal, while the input information can include external feedback and internal perceptions (Klein, 1989).

Although researchers (Brutus, London, & Martineau, 1999; Gregarus, Ford, & Brutus, 2003) have made mention of control theory when introducing the 360-degree feedback process, the literature has not offered a complete explanation for how control theory can account for ratees' motivations to improve performance following feedback. Thus far, researchers have taken a somewhat simplistic view of how control theory considers for 360-degree feedback information processing by stating that people compare themselves against an organizational performance standard.

When applied to 360-degree feedback more comprehensively, control theory can help to explain the motivational processes surrounding feedback from multiple sources. At the heart of behavioral improvement efforts which follow 360-degree feedback is a simple control loop that spurs cognitive efforts towards assessing the need for change. Evaluating performance feedback relative to performance standards which exist in an organization is a central task for an engaged employee.

Some time management of the organization mostly depends on credible work associates for performance feedback of the employee. But Inviting and accepting feedback from numerous sources influence more for motivating for changing employee behavior rather depends on feedback from credible work associates (Edwards & Ewen, 1996).

Further, the hierarchical nature of these control loops helps to explain how performance improvements are related to higher-order drives for career success and lower order motivation for reaching specific improvement goals.

The following hypothesis has been developed by evaluating the relationship between 360-degree feedback and motivation for leadership style.

- Null (H2a): There is no impact of positive feedback on motivation to lead.
  Alternative (H2a): Motivation to lead impacted by positive feedback.
- Null (H2b): There is no impact of negative feedback on motivation to lead.
  Alternative (H2b): Motivation to lead impacted by negative feedback.
- Null (H2c): There is no impact of 360-degree total feedback and motivation to lead.

  Alternative (H2c): Motivation to lead impacted by 360-degree total feedback.

3.7. Conceptualizing Motivation to Lead (MTL)

A person gets the direction of persistence behavior from the cognitive-motivational approach (Kanfer, 1990). Individual differences for MTL change with leadership experiences. Motivation to lead is the consequence of an individual's self-efficacy. MTL develop by individual personality, sociocultural values, social skills, and knowledge about leadership.

Past studies mostly concentrated on the influence of leadership on the follower and how the leader can motivate subordinate was the prime issue. Most of the researches agree on the basic criteria of transformation leadership (Judge and Piccolo, 2004). But little had been done to know about leaders' motivation. The cause why people perform like transformation or servant leadership is not fully discovered. Many employees are acting as a leader due to formal authority, and some of them accept leadership role for enjoying benefits like increased pay, promotion, job security or personal interest. Taking formal leadership responsibility does not ensure effected performance like a self-motivated leader. Qualities of the leader arise from position power and qualities of an effective leader are not the same (Bass, 2008). Some studies conducted recently to clarify the issue of leader emergence and leader role occupancy. There is an individual difference among the leader those who have the intention to assume the official leadership role that is addressed in the theory of Motivation to lead (MTL) (Chan & Drasgow, 2001). MTL theory addresses three forms of leadership characteristics about the formal leadership role. Among the criteria first one Affective-identity MTL states the leader who enjoys leadership role. Second one Social-normative role denotes the leaders who think leadership arises from position power and it is a duty or responsibility. Third element Non-calculative MTL indicates the leader who wants to lead only because they have an agreeable personality. They prefer team coordination, and extra financial rewards do not so motivate them for the formal leadership role (Chan & Drasgow, 2001).

The leader has individual differences construct that make them different from other. Due to this difference decision about leadership training, roles of leaders, and responsibilities is needed separate effort (Chan and Drasgow, 2001).

The motivation for holding a formal leadership position and motivation to participate in leadership activities is not the same. Both the motivation has a different effect on performances. But for being an active leader in the organization along with

individual motivation formal leadership also in the management position is necessary. In the current management system, those who exhibit the quality of leadership role in the formal succession plan are considered for the formal leadership role. Hence the role of formal leader and characteristics of leadership behavior need to think differently. In this regard MTL theory present clear and specific criteria of leadership style based on individual motivation by which it is possible to make a difference between formal leadership roles and informal self-motivated roles. The leader who are displaying intrinsic motivation are not concerned about their self-interest. They are more concern about general welfare and development of the follower. These types of leadership characteristics are available in transformational and servant leaders (Bass, 2008).

There is a clear difference between motivation to lead (MTL) and motivation for transformation and servant leadership. MTL tests the items that motivate an employee tor taking formal leadership roles, whereas motivation for servant and transformation leadership inspects items which influence an employee to lead efficiently when they are already in a leadership role. In summary, we can say output from MTL is to hold leadership title occupancy, whereas the outcome of motivation for transformation and servant leadership intention is leadership efficiency. The current study is concern about bot MTL and leadership style like transformation and servant leadership style.

The following hypothesis was developed by evaluating the relationship between motivation and leadership style within the framework of the research mentioned above.

- Null (H3a): There is no impact of motivation to lead on servant leadership style.

Alternative (H3a): Servant leadership is impacted by Motivation to lead.

- Null (H3b): There is no impact of motivation to lead on transformation leadership style.

Alternative (H3b): Transformational leadership is impacted by Motivation to lead.

3.8. Motivation as a Mediator between 360 degree feedback and Leadership Styles

In addition to investigating a direct relationship between 360-degree appraisal and leadership style, the study also examines hypotheses claiming that intrinsic work

motivation will mediate the relationship between 360-degree appraisal and leadership style.

In the previous studies presented in the literature revealed that there is significant relation between 360-degree feedback and motivation for leadership, a significant relationship between 360-degree feedback and leadership, and a significant relationship between motivation and leadership. Among the various expected pathways starting from employee performances appraisals to employee outcomes, work on goal setting and feedback (Earley, Northcraft, Lee, & Lituchy, 1990), and intrinsic motivation (Hackman and Oldham, 1976; Ryan and Deci, 2000) recommends that work motivation could be a key mediating variable.

Intrinsically motivated person perform the job to experience the pleasure and satisfaction inherent in the activity (Deci, Connell, & Ryan, 1989; Vallerand, 1997). Therefore, of all the work motivation available, intrinsic motivation is predominantly interesting from a developmental performance appraisal perspective that emphases on enriching attitudes, experiences, and skills. Employees' work goal along with performance feedback is generally expected to have to affect employee performances positively through developing the work motivation essential for good performances (Earley et al., 1990). Therefore, this study expects that an association between 360-degree performance feedback process and leadership style will become mediated by intrinsic motivation. Employee participation in setting work goals and feedback process influence the acceptance of the appraisal process that affects the satisfaction with the appraisal process and finally employees' work motivation and productivity (Roberts & Reed, 1996). Performance appraisal provides information for strategic visions and works goals to employees. This strategic process boosts intrinsic motivation through enhancing the meaningfulness of the work (Latham, 2003). Likewise, self-determination theory, communication, and dissemination of information about organizational goals increase the employees' intrinsic motivation that is the rationale for appropriate work behavior. Orderly feedback on job performances positively influences employees' intrinsic motivation through experiencing responsibility and competency about output and awareness of the real consequences of the work (Deci and Ryan, 1985). Therefore, current studies assumed the following hypotheses about the mediating role of motivation to determine the relationship between 360-degree feedback and leadership style. The mediation process examined based on some established theories.

According to the Baron and Kenny's (1986) theory, there is a mediation role of motivation between 360-degree feedback and leadership style. Based on the findings in the literature and Baron Kenny's (1986) methodology, the following hypotheses have been developed with the assumption that motivation for leadership, which is one of the predecessors of the leadership style, may have mediator role in the relationship between the 360-degree feedback and leadership styles. The following hypotheses were considered based on past studies and objectives of the current research.

- Null (H4a): Motivation to lead does not mediate the relationship between positive feedback and servant leadership style.

Alternative (H4a): Motivation to lead mediates the relationship between positive feedback and servant leadership style.

- Null (H4b): Motivation to lead does not mediate the relationship between negative feedback and servant leadership style.

Alternative (H4b): Motivation to lead mediates the relationship between negative feedback and servant leadership style.

- Null (H4c): Motivation to lead does not mediate the relationship between positive feedback and transformation leadership style.

Alternative (H4c): Motivation to lead mediates the relationship between positive feedback and transformation leadership style.

- Null (H4d): Motivation to lead does not mediate the relationship between negative feedback and transformation leadership style.

Alternative (H4d): Motivation to lead mediates the relationship between negative feedback and transformation leadership style.

- Null (H4e): Motivation to lead does not mediate the relationship between 360-degree total feedback and servant leadership style.

Alternative (H4e): Motivation to lead mediates the relationship between 360-degree total feedback and servant leadership style.

- Null (H4f): Motivation to lead does not mediate the relationship between 360-degree total feedback and transformation leadership style.

Alternative (H4f): Motivation to lead mediates the relationship between 360-degree total feedback and transformation leadership style.

3.9. Relationship of Demographic Characteristics With Leadership

As described throughout this study, transformational leaders are defined as individuals who are nurturing and developing of followers through team building, conflict resolution, and collaboration. Padma (2010) described features of transformational leaders as relationship-oriented and stated these were the aspects that women leaders emphasize and from which they derive satisfaction Eagly, Johannesen-Schmidt, & van Engen (2003) posited that caring, supportive, and considerate behaviors are considered female gender roles but also an effective approach to transformational leadership. Do men need to change or work harder to be transformational or do male leaders need to participate in a 360-degree process while female leaders do not? Bass et al. (1996) stated that male and female leaders need to "integrate task and relationship orientation into their behavior towards colleagues and direct reports" (p. 8) to be a more effective leader.

Studies have been done to determine the role gender plays in leadership and whether one gender is more transformational than the other. Past research posited that nature of gender has an impact on leadership style. In some cases, a female leader showed more transformational leadership nature than a male leader (Bass, Avolio & Atwater, 1996).

In the Barbuto et al. (2007) study there were 73 participants between the age of 22 and 35 years, 77 participants between the age of 36 years and 45, and 66 participants older than 46 years of age. The results of the multivariate analysis of variance (MANOVA) indicated there was a significant effect of leader's age on the follower's ratings of transformational leadership style ($F= 4.24$, $p<.05$) and the age group older than 46 years of age was rated highest for transformational leadership behaviors.

The drive to move into a leadership role is equal for both men and women, but the power they seek is different. The intention of getting power is not the same for men and women. Women seek power to help others on the other hand men seek power to pursue their ambitions (Maroda, 2004). Not only intention to gain power but also exercise of power is different for a different gender. Female leaders are more collaborative and cooperative than male leaders (Eagly et al. 2003), and at management level, women are more inclusive, collaborative, and bring a different style of management (Evans, 2011)

Emmerik, Wendt, and Euwema, (2010) analyzed data from a worldwide consulting firm regarding the leadership behaviors of 12,546 managers as rated by their

followers in 437 organizations from 32 countries. The gender distribution in the study was 73% male and 27% female. Results of this analysis at the individual level indicated there was a positive correlation between gender and some dimensions in the leadership measures. Females were found to use more consideration behaviors and more initiating structure behaviors than male managers.

In the following, the hypotheses relating to demographic characteristics and leadership are stated based on past literature and objectives of the current study.

- Null (H5as): There is no impact of gender differences on the mean score of servant leadership.

Alternative (H5as): Gender differences impact servant leadership.

- Null (H5at): There is no impact of gender differences on the mean score of transformation leadership.

Alternative (H5at): Gender differences impact transformational leadership.

- Null (H5bs): There is no impact of leadership experience on the mean score of servant leadership.

Alternative (H5bs): Leadership experiences impact servant leadership.

- Null (H5bt): There is no impact of leadership experience on the mean score of transformation leadership.

Alternative (H5bt): Leadership experiences impact transformational leadership.

- Null (H5cs): There is no impact of the organizational sector on the mean score of servant leadership.

Alternative (H5cs): The organizational sector impacts servant leadership.

- Null (H5ct): There is no impact of the sector of organization on the mean score of transformation leadership.

Alternative (H5ct): The organizational sector impacts transformational leadership.

- Null (H5ds): Leaders' age differences have no impact on servant leadership.

Alternative (H5ds): Leaders' age differences impact on servant leadership.

- Null (H5dt): Leaders' age differences have no impact on transformation leadership.

Alternative (H5dt): Leaders' age differences have an impact on transformational leadership.

3.10. Research Model

In the figure 3 hypothetical relationships among study variable are presented.

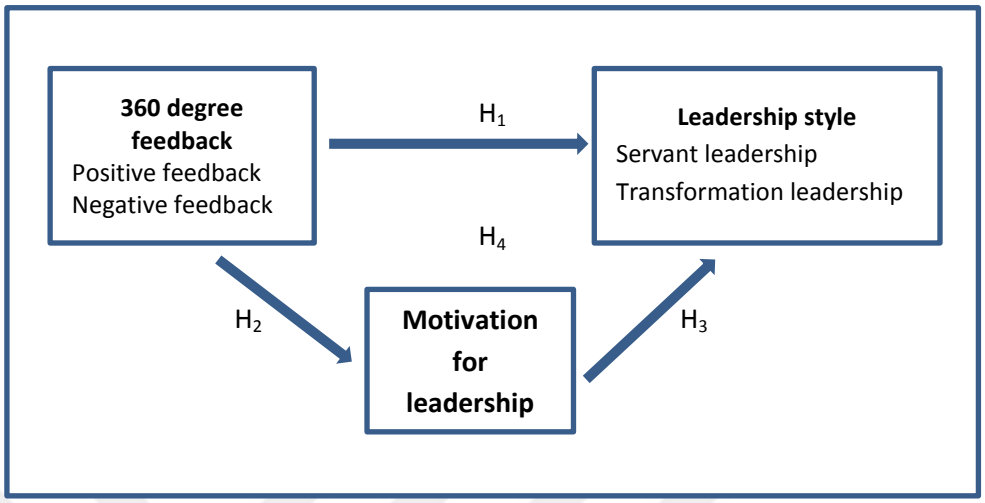


Figure 3. Model of research

In the first level hypothesis relationship between 360-degree feedback and leadership style is presented. Four hypotheses presented in previous chapter based on the first category hypothetical relation. In the second category, the hypothetical relationship between 360-degree feedback and motivation for leadership is presented. Two hypotheses assumed under the second category. In the third category, the hypothetical relationship between motivation for leadership and leadership style is given. Two hypotheses here assumed under this category. Under the category, four roles of motivation as a mediator between 360-degree feedback and leadership style is presented. Four hypotheses also presented here. In addition to these, it is also aimed to examine the relationships between the 360-degree feedback and the leadership style with some demographic (gender, age, duration of service, and the nature of the organization)

3.11. Summary

The hypothesis of the present study had prepared based on a theoretical relationship that discussed in the literature review. Here in the following hypothetical relationship is shown in figure 4 based on the research model.

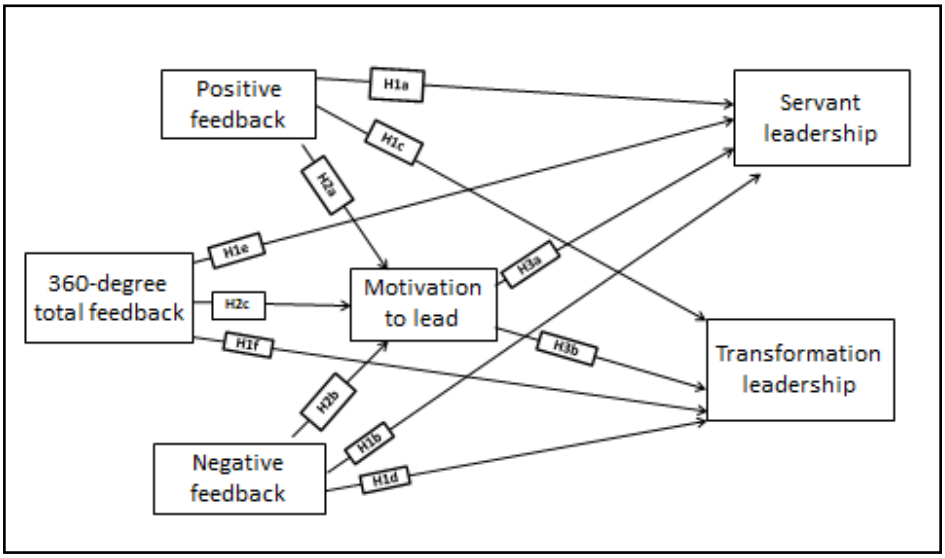


Figure 4. Hypothetical relationship among variable

In figure 4 the hypothetical relationship between dependent, independent, and moderator variable is shown precisely. Positive feedback, negative feedback, and 360-degree total feedback is acting as an independent variable in the model. Motivation to lead is acting as mediating variable. Finally, servant leadership and transformation leadership is working as a dependent variable in the model. The entire hypothesis is analyzed based on the data collected from the sample population. Final output model is shown in the discussion chapter.

CHAPTER IV

METHOD

4.1. Introduction

This chapter is organized for an in-depth elaboration on the research methodology used to determine the impact of 360-degree feedback on leadership style. A brief discussion is presented on the scope and method of research, and techniques to be used to evaluate research data. After that in-depth explanation of the sample data collection, demographic distribution and distribution of questionnaire is presented.

4.2. Scope and Method of Research

As survey respondents, the study includes the head of the department, manager and assistant manager of any branch, team leader and those who have a leading role with the organization and business unit. The survey conducted in Bangladesh with major private and public institution including a bank, insurance, telecom service, hospital service, garments and textiles, cement and steel industries were the major part.

In the study, in which the mediation role of the motivation for leadership variable was investigated in the relationship between the 360-degree feedback and leadership styles of the enterprises operating in Bangladesh.

For the reliability and the validity of the questionnaire different assumption of the statistical measurement were tested. Among the statistical estimation, normality, multicollinearity, and outlier of the data checked duly. Exploratory and later on confirmatory factor analysis were conducted for internal consistency of the items used for measuring the variable. The significance of the findings of the mediation role was tested by applying the Sobel test (Sobel, 1982) and AMOS bootstrapping. Finally, T-test and ANOVA were used to check the demographic control variable.

4.3. Population and Sample

The sample of the study consists of management-level employees, those who have a leading role within the enterprises operating in Bangladesh. The economy of Bangladesh has undergone a remarkable sectorial revolution from being an agriculture-

based economy to manufacturing production. Now Bangladesh is the world's largest exporter of garments after China (Gunter & Vargas, 2017).

This study will use convenience sampling by using the Internet to find leaders within Bangladesh through Chamber of Commerce websites and Bangladesh Bureau of Statistics website. According to Bangladesh – Labor Market Profile 2014 the employment in the formal sector is to a large degree covering the industries: Manufacturing, Agriculture, Business & finance, power, construction, trade & hotel, transport & communication, and the public administration. According to Dhaka Stock Exchange major industrial operations are conducted by the bank (30), insurance (47), engineering (33), food (18), pharmaceuticals (28) companies (Dsebd.com, 2017). Primarily it is found that about 4.3m male and 1.4m female working in manufacturing, finance, and business service sector.

4.4. Means of Data Collection and Analysis

In the thesis study, field research was performed in cross-sectional time intervals, and quantitative methods were used. Deduction method is preferred in relational and causal screening techniques. Snowball sampling method was favored as a sampling technique because of the difficulties such as time and cost to reach the subjects.

The scales of the questionnaires used in the thesis study have high validity and reliability developed by the researchers working in the relevant area. Attention was paid to the research studies, the sources they were published and their impact on different variables in different studies.

The questionnaire form used for data collection consists of five chapters. In the first part, there are statements about demographic information. In the second part, participants' perceptions of 360-degree feedback, in the third section, the motivation for leadership, in the fourth chapter, statements to determine the attitudes of servant leadership, and in the fifth chapter, there are statements to assess the perceptions of transformation leadership style.

The quantitative data was collected for this study through a structured questionnaire. Both soft copies through email and a hard copy of the survey were sent to the respondent. In the following brief description is given about the surveys, the items and the scales used for the study prepared by using the studies in the literature.

4.5. Transformation Leadership Scale

The multi-factor leadership scale was first developed by Bass. The measurement tool has been revised by academicians in the last 25 years (Avolio and Bass, 1995, 2000, 2004). In this study, the scale developed by Bass and Avolio (2004) was used as the multi-factor leadership scale. Multi-factor leadership survey (MLQ-5X Short) has been applied in many public and private sector researches (industrial enterprises, public institutions, religious institutions, education, hospitals, sports fields, military units, etc.) and doctoral dissertations. This questionnaire also used in more than 30 countries and translated into many languages and can be used to determine the leadership structure of the entire organization (Bass and Avolio, 1995, 2000, 2004). In this study, a total of 20 items 'multi-factor leadership survey (MLQ-5X Short)' about transformation leadership questions were used to measure transformation leadership dimensions.

The multi-factor leadership survey (MLQ-5X Short) consists of 28 items and a seven-dimensional structure used in many public and private sector researches.

Five of these dimensions are used for transformation leadership. The dimensions are Idealized influence - behavior (item 1, 2, 3 and 4), Idealized Influence - attribute (item 5, 6, 7 and 8), Inspirational motivation (item 9, 10, 11 and 12), Intellectual Stimulation (item 13, 14, 15 and 16), Individualized consideration (item17, 18, 19 and 20).

Avolio and Bass, (2004) in his study the value of Cronbach alfa (α) scores for multi-factor leadership scale were changed between (α = 0.60) and (α = 0.92) and the overall reliability score of the scale was found to Cronbach α (0.92) (Avolio and Bass, 1995, 2000, 2004; Barnes, Christensen, & Stillman, 2013).

Cronbach (α) scores for the sub-dimensions of transformation leadership scale were, for Idealized Influence Attributed (α = 0.75), for Idealized Influence Behavior (α = 0.70), for Inspirational Motivation (α = 0.83), for Individualized Consideration (α = 0.77) For Intellectual Stimulation (α = 0.75) (Avolio and Bass, 1995, 2000, 2004; Washington, 2007).

In the study conducted by Acar (2013), Cronbach α scores for the sub-dimensions of transformation leadership scale were, for Idealized Influence (α = 0.896), for Inspirational Motivation (α = 0.897), for individualized consideration (α = 0.896), for Intellectual Stimulation (α = 0.898). Sample questions related to the Multi-Factor

Leadership Scale developed by Bass and Avolio (2004) used in data collection are presented in Appendix 1.

4.6. Servant Leadership Scale

The scale developed by Liden and his colleagues (2008) was used as a servant leadership scale. A total of 28 items; Emotional healing, creating value for the community, conceptual skill, empowering, helping subordinates grow and succeed, putting subordinates first, behaving ethically, consist of a total of seven-dimensional structure (Liden, Wayne, Zhao, & Henderson, 2008).

The reliability and factor analysis of the measurement tool was performed in two stages by Liden and colleagues (2008). A pilot study was conducted in the first stage, and the servant leadership scale consisting of 85 items and nine dimensions was tested on a group of 298 students from Midwestern University. Seven different factors emerged as a result of exploratory factor analysis. Other dimensions, except for Relationships and Service sizes, were found to have adequate compliance values. Reliability values of the scale; For Emotional Healing ($\alpha = 0.89$), for Creating Value for the Community ($\alpha = 0.89$), for Conceptual Skills ($\alpha = 0.86$); For Empowering ($\alpha = 0.90$); To Helping Subordinates for Personal Development and Success ($\alpha = 0.90$); Putting subordinates First ($\alpha = 0.91$) and Ethical Behavior ($\alpha = 0.90$) (Liden et al., 2008).

The SL-28 (Liden et al., 2008) assumed to have some limitation by the author later on. Specifically, the combination of the item was not behaviorally oriented (e.g., my manager can tell if something is going wrong) and the theoretical model was not followed correctly. Due to the vague description, it was unable to create a useful feedback report for the user. Moreover, items were not designed adequately for multi-source feedback (my manager wants to know about my career goals). The author of the SL-28 identified this problem and took the step for conversion of Servant Leadership Scale as an area of future research (Liden et al., 2015).

Later on, the authors had conducted another study to improve the applicability of the scale for research purpose. After re-examination, they publish a short version of the SL-28 item servant leadership scale. The new scale was named as the Servant Leadership-7 Scale. This scale was useful to a leader for organizing strategy to improve their servant leadership behavior. In the second phase of the study, a new 7-item scale

consisting of 7 items with the highest values was taken from each question which was collected under seven dimensions from the question group composed of 85 items.

To test the accuracy of the scale at the organizational level, the scale was tested on a sample group of 182 (164 employees, 24 auditors/chiefs) working in a business operating in manufacturing and distribution sector in Midwestern. As a result of confirmatory factor analysis, the reliability values of each dimension, each consisting of four expressions; For emotional support and improvement ($\alpha = 0.76$), for creating value for the community ($\alpha = 0.83$), for Conceptual Skills ($\alpha = 0.81$); For empowering ($\alpha = 0.80$); To Help Subordinates for Personal Development and Success ($\alpha = 0.82$); put subordinate first ($\alpha = 0.86$) and Ethical Behavior ($\alpha = 0.83$) (Liden et al., 2008).

Liden and his colleagues (2015) arranged the short form of the questionnaire mentioned above consisting of 7 items and a single dimension. Total Cronbach ($\alpha = 0.84$) was found for seven statements in servant leadership scale. The Servant Leadership Scale developed by Liden and his colleagues (2015) used in data collection, is presented in Appendix 1.

4.7. Measuring Motivation to Lead (MTL) Scale

Literature of motivation for leadership showed multiple perspectives on the motivation scale. Some theory focused on measuring criteria of leader effectiveness and other theory focused on individual differences in Motivation for leadership (MTL). Fielder's (1967) personality theory treated two sides of MTL. One is a personality trait, and another is behavioral styles and values. Recent research conducted by (Chan and Drasgow, 2001) found three components of individual differences in MTL. The three elements were affective identity, social-normative identity, and non-calculative identity a leader possessing affective criteria like to lead others. A leader possessing social-normative criteria thought leading other is a duty or responsibility. Whereas leader possessing non-calculative criteria thought that people might only lead only when they are not concern about the cost and benefits of leading. A non-calculative leader has wished to leave the leadership roles when it is not the responsibility to lead. The author Chan and Drasgow's (2001) offered a 27-item scale about MTL. They suggested that there is a difference of criteria in the extent of a wish to assume the role of formal leadership. These researchers introduce Motivation to Lead (MTL) theory that contains three items of motivation for the formal leadership role. First one is affective identity

means the criteria of the leader who enjoys formal leadership role. The second one is social-normative means who feel formal leadership is a responsibility or duty. Third item non-calculative standards refer to the leader who is not leading for getting benefits of leadership but only for agreeable personality and peer group harmony (Chan and Drasgow, 2001).

Transformational and servant leader are those who enjoy the leadership role. They are not non-calculative nor are they considering leadership as a duty. They bear the affective identity criteria of leadership. The current study utilized the item representative for affective identity address by the author Chan and Drasgow (2001) because affective identity criteria address the reason for holding a formal leadership role. All responses of MTL affective item use a five-point Likert-type scale from 1 (strongly disagree) to 5 (strongly agree). Reliability score of the three items of MTL were for affective identity ($\alpha = 0.84$), social normative ($\alpha = 0.74$) and non-calculative ($\alpha = 0.83$) (Chan and Drasgow, 2001).

4.8. Multi Resource Feedback Scale

Multi-source feedback scale was developed by the author Nancy L. Rehbine Zentis applied for his doctoral dissertation (Zentis, 2007). Four items used for 360-degree positive feedback and four items for 360-degree negative feedback. A five-point Likert rating scale was being used to determine the respondent's satisfaction level with number "5" representing, Highly Satisfied, number "4" representing, More Satisfied than Dissatisfied, number "3" representing, Equally Satisfied, number "2" representing, More Dissatisfied Than Satisfied, and number "1" representing, Highly Unsatisfied, number "0" representing, Not Applicable.

4.9. Analysis Methods

While analyzing the research, three (3) basic analysis methods were applied; exploratory factor analysis, confirmatory factor analysis, and structural equation modeling, respectively. It is seen that these three analyzes are employed in a particular order in social sciences. T-tests and ANOVA were also used to test whether demographic variables differ on the perceptions of the participants. The following headings include information on these analysis methods and applications for research purposes.

4.9.1. Factor Analysis

The statistical method Factor analysis is used to describe variability among some observed and correlated variables. Factor analysis is a multivariate statistical technique which aims to find variables (factors, dimensions) that conceptually meaningful to discover, explore or test models that are related to each other by combining variables that can be measured or observed. There are two types of factor analysis: exploratory factor analysis (EFA) and confirmatory factor analysis (CFA). While the structural validity of factor acquisition and measurement arc is tested from the variables that can be observed with EFA, it is examined whether the scale is compatible with the data by CFA (Meydan and Şeşen, 2011; Gürbüz and Şahin, 2014).

4.9.2. Structural Equation Modeling (SEM)

Structural Equation Modeling (SEM) is one of the essential techniques for quantitative research across in the social sciences. SEM can also be considered as multiple regression analyzes performed simultaneously. SEM can be used for analyzing the relationships between the variables that can be observed and not observed with a single model. The model shows the compatibility of the data with the model. The model represents the data as known as model fit. The goodness of fit carry so many indices that the researcher often fall in a complicated situation to justify the model. The researcher should feel comfortable with the area and technique because model "fits" the data is essential steps in SEM (Yuan, 2005). A variety of fit indices data is given by the AMOS to check the model fitness of the analysis. Modification indices obtained from the model are accepted as hypotheses in the range of fit index values in the literature. In the current year's model fit indices are considering a severe issue for hypotheses testing (Barrett, 2007).

4.9.3. Confirmatory Factor Analysis

Confirmatory factor analysis (CFA) multivariate statistical procedure is used to analyze whether the models are consistent with the data obtained from the study (Byrne, 2001, Meydan and Şeşen, 2011; Gürbüz and Şahin, 2014). CFA also used to test how well the measured variables represent the number of constructs. Especially in multi-factor scales, and different models are tested with the goodness fit index values. As a statistical technique, both the confirmatory factor analysis and exploratory factor

analysis is the same. But the applications are not similar for both of the method. Exploratory factor analysis used to discover data that deliver information about the number of items and factors necessary to characterize the data. All the measured variables explored from the related latent variable. On the other hand, CFA used to ensure or reject the measurement theory.

Four different models can be tested in confirmatory factor analysis. First one is the unrelated models in which the observable variables are aggregated under unrelated factors with more than one linkage. Second one single-factor models in which all observable variables are aggregated under a single factor. The third one is the first-order multifactorial model in which the observable variables are gathered in more than one unrelated factors, and the fourth one is the second-order multifactorial model in which the observable variables are assembled under more than one unrelated factors and then a larger and more inclusive factor. In this study, unrelated model, first order CFA and second-order CFA were used.

4.9.4. Path Analysis Models

Path analysis is an extension of the regression model that calculates the direct and indirect relationships between two or more variables. Correlation matrix of the path analysis model compares two or more casual models. Standardized and unstandardized Regression weight is predicted by the model. Then the goodness of fit indices is calculated to see the fitting of the model. This analysis allows multiple independent variables to be tested in the same model at the same time. Unlike classical regression, measurement errors of observable variables can be analyzed within the same model, and a variable can be defined in the same model as both independent variable and dependent variable.

In SEM analysis name of the variable are used as exogenous and endogenous variables instead of independent and dependent variables because while a variable is independent of some variables in SEM models, it can be a dependent variable for some other variables at the same time.

Path analysis usually follows a two-stage method. Firstly, the measurement model is tested, and the structures of each variable are confirmed by confirmatory factor analysis, and then the research model which includes the relations between the variables (structural model) is tested.

There are two types of path analysis: path analysis with observable variables and path analysis with unobservable variables. Path analysis with observable variables is similar to the classical regression method, and measurement errors are not included in the model. Path analysis with unobserved variable consists of the measurement errors in the model (Meydan and Şeşen, 2011). In this study, it is preferred to apply path analysis with unobservable variables that produce more reliable results than path analysis with observable variables (Meydan and Şeşen, 2011).

In practice, three different SEM methods are used. First, it is a Model Validation method in which the model based on a particular theory or theory is checked for consistency with the data obtained from the sample. Second, an alternative modeling method which explores which of the alternative model is most supported by data. Thirdly, a model development method where improvements are made towards developing the model by looking at the analysis results (Meydan and Şeşen, 2011).

4.9.5. Model fit Indexes

SEM produces model fit indices that provide information on the extent to which the tested model is compatible with the data obtained from the sample. The goodness of fit indices define how well a study model fits the sample data and exhibit which proposed model has the most superior fit (McDonald and Ho, 2002). The statistical values for the Model Fit Indices compliance are presented in Table 1.

These indices provide the basic sign of how well the theory fits the data. The fit indices do not compare the model with baseline instead show the fitness of the model with the data (Jöreskog and Sörbom, 1993). In SEM, chi-square test ($\chi 2$) and the measure of the degree of freedom/df ratio ($\chi 2$/df) are commonly used in general model adjustment index. Along with the Chi-Squared test, other measures like RMSEA, GFI, AGFI, the RMR, and the SRMR indices are considered for measuring the model fitness.

Comparative fit indexes include a normed fit index (NFI), non-normed fit index (NNFI) [this index is shown as Tucker-Lewis index (TLI) in the AMOS program], incremental fit index (IFI), comparative fit index (CFI) and the root mean square error of approximation (RMSEA). Absolute fit indexes include goodness of fit (GFI) and adjusted goodness of fit.

Parsimonious fit indices are reported as the parsimony-adjusted normed fit index (PNFI) and parsimony-adjusted goodness of fit index (PGFI). The root mean square

residual (RMR) is used as the root of the total errors. Akaike information criterion (AIC), consistent Akaike information criterion (CAIC) and expected cross-validation index (ECVI) are included as model comparison fit indices.

The Chi-Square ($\chi 2$) value measure for examining the overall fitness of the model and, determine the rate of difference between the sample and fitted covariance matrices' (Hu and Bentler, 1999: 2).

Generally a good fitted model would produce insignificant result at a threshold value of 0.05 (Barrett, 2007), therefore the Chi-Square statistic is often stated to as either a 'badness of fit' (Kline, 2005) or a 'lack of fit' (Mulaik, James, Van Alstine, Bennett, Lind, & Stilwell, 1989) measure.

Statistical significance of the Chi-Square test statistic is sensitive to sample size. For large sample size produce significant ($\chi 2$) value which means reject the model (Bentler and Bonnet, 1980; Jöreskog and Sörbom, 1993). On the other hand, for small sample size may not able differentiate between good fitting model and poor fitting model (Kenny and McCoach, 2003). For this reason, many researchers sought alternative fit indices. One example of the alternative test statistic is relative chi-square ($\chi 2/df$). Consensus about the value of relative chi-square ($\chi 2/df$) test statistic is as high as 5.0 and as low as 2.0 (Wheaton, Muthen, Alwin, & Summers, 1977, Tabachnick and Fidell, 2007).

The RMSEA is the second fit statistic developed by Steiger and Lind (1980), cited in Steiger, 1990) tells us how well the model (Byrne, 1998). The range of RMSEA cut-off point was .05 to .01 and value above .10 indicated poor fit until the early nineties. And the value between 0.08 and 0.01 provides mediocre fit and bellow .08 showed a good fit (MacCallum, Browne, & Sugawara, 1996). Very recent a cut-off value close to 0.06 (Hu and Bentler, 1999) or stringent upper limit of 0.07 (Steiger, 2007) seems to be a good fit.

The Goodness-of-Fit statistic (GFI) had been used as a substitute to the Chi-Square test. GFI estimates the quantity of variance that is accounted for by the estimated population covariance (Tabachnick and Fidell, 2007). Statistical value of GFI ranges from 0 to 1.

The GFI index is sensitive to sample size. The GFI value increases as the sample grows, so there is a consensus in the literature that small differences in these values can be tolerated (Sharma, Mukherjee, Kumar and Dillon 2005, p.935). Traditionally cut-off point was 0.90 for GFI. However, for lower sample sizes a higher cut-off of 0.95 is

more appropriate (Miles and Shevlin, 1998). AGFI which adjusts the GFI based upon degrees of freedom ranges from 0 to 1(Tabachnick and Fidell, 2007). Generally accepted values of AGFI considered as 0.90 or greater indicate well-fitting models.

The range of the Root means square residual (RMR) is calculated based upon the scales of each indicator. If a questionnaire encompasses items with different scale (some items range from 1 – 5 while others from 1 – 7), the RMR becomes difficult to interpret (Kline, 2005). Standardized RMR (SRMR) resolves this problem. Values for the SRMR less than .05 treated as well fitting models (Byrne, 1998; Diamantopoulos and Siguaw, 2000), however values as high as 0.08 are deemed acceptable (Hu and Bentler, 1999). An SRMR of 0 indicates perfect fit, but it must be noted that SRMR will be lower when there is a high number of parameters in the model and models based on large sample sizes.

Values for Normed-fit index (NFI) statistic range between 0 and 1. Generally cut-off point recommending greater than 0.90 indicating a good fit (Bentler and Bonnet, 1980). Recently researcher suggested the cut-off criteria should be NFI $\geq$ .95 (Hu and Bentler, 1999). If the sample less is than 200 depending only on NFI is not advised (Kline, 2005).

Tucker-Lewis index named as Non-Normed Fit Index (NNFI) is considered when sample size less than 200. NNFI value will indicate weak fit if the sample size of the study is less than 200 even though other statistics indicate good fit (Bentler, 1990; Kline, 2005; Tabachnick and Fidell, 2007). a value close to one recommend excellent fit and greater than 0.95 suggested good fit, but value as low as 0.80 is accepted (Hu and Bentler, 1999)

The value Comparative Fit Index (CFI) is revised from NFI. Amount of CFI depends on sample size (Byrne, 1998). Sometimes the value of CFI shows good fit even the sample size is small (Tabachnick and Fidell, 2007). CFI output statistics differ between zero and one. For the goodness of fit, CFI should produce the output closer to one. Value of CFI greater than 0.95 indicates good fit. But in the past studies CFI value greater than 0.90 was accepted but for unspecified mode value greater than 0.90 is not accepted (Hu and Bentler, 1999).

The Parsimony Goodness-of-Fit Index (PGFI) is based upon the GFI and the Parsimonious Normed Fit Index (PNFI) is based on the NFI. Both are adjusted for degrees of freedom. While no threshold levels have been recommended for these indices, Mulaik et al. (1989) do note that it is possible to obtain parsimony fit indices

within the .50 region while other goodness of fit indices achieve values over .90 (Mulaik et al. 1989). The authors strongly recommend the use of parsimony fit indices in tandem with other measures of goodness-of-fit however, because no threshold levels for these statistics have been advised it has made them more difficult to interpret.

Table 1

Model Fit Indices

Measurement index	General Model fit index	Acceptable fit index
Chi-square ($\chi 2$)	($P \leq 0.05$)	this value differ based on sample size
$\chi 2/df$	≤ 3	$\leq$ 4-5
NFI	≥0,95	0,94-0,90
NNFI (TLI)	≥0,95	0,94-0,90
IFI	≥0,95	0,94-0,90
CFI	>0,95	>0,90
RMSEA	≤0,05	0,06-0,08
GFI	≥0,90	0,89-0,85
AGFI	≥0,90	0,89-0,85
PNFI	≥0,95	–
PGFI	≥0,95	–
RMR	≤0,05	0,06-0,08
AIC	Smaller the better	
CAIC	Smaller the better	
EVIC	Smaller the better	

Source: Meydan, C. H., and Şeşen, H. (2011). Structural equation modeling AMOS applications. Detail Publishing. First Edition: January 2011, Ankara. Cited from Aydın, Y. (2015). Liderlik tarzları ile örgütsel vatandaşlık davranışı arasındaki ilişkide örgüt kültürünün rolü: bursa serbest bölgesinde faaliyet gösteren firmalar üzerine bir araştırma.

Another form of parsimony fit index is known as the Akaike Information Criterion (AIC) or the Consistent Version of AIC (CAIC) which adjusts for sample size (Akaike, 1974). The parsimonious model, however, are not normed to a 0-1 scale. It is difficult to suggest a cut-off other than that the model that produces the lowest value is the most superior. It is also worth noting that these statistics need a sample size of 200 to make their use reliable (Diamantopoulos and Siguaw, 2000).

4.9.6. Reporting fit Indices

So many indices are produced from AMOS output. Among the output presenting all the indices is not necessary or it is not realistic to take into account all the indices included in the program. Different scholar suggested different indices as fit indices. Most frequently used fit indices by McDonald and Ho (2002) was the CFI, GFI, NFI and the NNFI. Many indices are taken into account only for a historical reason but not for their sophistication. GFI is one of them. Different indices represent the different characteristic of the model fitness. As there are no golden laws for valuation of the model fit we should explore many indices for the explanation (Crowley and Fan, 1997).it is necessary to report P value along with related degree of freedom (df) for testing the model fitness (Kline, 2005; Hayduk, Cummings, Boadu, Pazderka,& Boulianne, 2007). Some more indices included in the double-indexed presentation design like SRMR with the NNFI (TLI), RMSEA or the CFI is suggested by some author (Hu and Bentler, 1999). Another study strongly advised presenting Chi-Square test, along with the RMSEA, the CFI and the SRMR as good indices for model fit (Kline, 2005). Till now nobody advocate abut including square multiple correlations. But Boomsma (2000) advised to include squared multiple correlations of each equation to be reported.

In summary, depending on the above guideline and review it is logical to address the Chi-Square test statistic, degrees of freedom and p-value, the RMSEA and its associated confidence interval, the SRMR, the CFI and one parsimony fit index such as the PNFI. These indices have been chosen over other indices as they have been found to be the most insensitive to sample size, model misspecification, and parameter estimates. In this study, model fit indices ($\chi 2$, $\chi 2$/df, IFI, TLI, CFI, RMSEA and GFI) were reported.

4.9.7. Model Modification

Due to the complexity of structural equation modeling (SEM) it is common to have a poor fit of a planned model. Some modifications can extensively develop outputs. It is good practice to assess the fit of each construct and its items individually to determine whether there are any items that are particularly weak. Items with low Square Multiple Correlation (r2) less than .20 should be excluded from the analysis as this is a warning of very high levels of error. By eliminating indiscriminant items fit is likely to improve and is advantageous in that it is unlikely to have any major theoretical repercussions.

The researcher can improve fit indices through the connecting the correlation of error terms. This process is done because within the model there is an issue that is not specified in the model (Gerbing and Anderson, 1984). But for doing this modification, the researcher needs a sound theoretical justification (Jöreskog and Long, 1993). Justifying correlation within factor error is easier than across variable correlations however it is essential that the statistical and substantive impacts are discussed. If a researcher feels they can substantiate this decision, correlated error terms are acceptable. However, it is a step that should be taken with caution.

After modification, the model is retested. As a result of the re-test, compliance indices are accepted as the model in the range of threshold values, and the reporting process is started. Otherwise, this process is repeated until a new modification cannot be made and the model is either accepted or rejected according to the result of the fit indices.

4.10. Distributing Surveys and Conversion Rate

In the beginning, a survey was planned to be applied to all 750 management level employees of 72 different enterprises operating in Bangladesh. For this purpose, the business authorities (owner/manager/ human resources manager) were interviewed. Three of the enterprises reported that they could not participate in the study due to different reasons. Many respondents could not participate in the survey due to the shortage of time, sickness, and some other employees were in leave. A total of 550 questionnaires were delivered to the respondents.

Snowball and convenience sampling were preferred as the sampling technique due to the difficulty of reaching the respondents separately. The 368 questionnaire forms

were collected to the business authorities (owner/manager/ human resources manager) after the necessary explanations were made. In the evaluation stage of the questionnaires, 34 questionnaires were excluded because the respondents left the major part of questions. Due extreme value 7 questionnaires were eliminated from the final analysis. Finally, 327 cases were confirmed for analysis.

Including structural equation model (SEM) most of the statistical methods are sensitive to the number of the case or sample size (Siddiqui, 2013). For the proper estimation and interpretation of SEM appropriate number of sample size is essential (Hair et al., 2006).In SEM analyzes, the minimum sample size should be at least five times of the number of observable variables Gürbüz and Şahin (2014); it should be ten times of the number of observable variables for the data with normal distribution. However, as a general rule, it is not appropriate to conduct CFA and SEM analysis for data below 150 participants (Gürbüz and Şahin, 2014, s.310).

In social science based on Applied Multivariate Statistics, 15 case per predictor is good sample size in a standard ordinary least squares multiple regression analysis. As SEM is calculated based on multiple regression in some respects, the standard of 15 cases per measured variable is logical (Stevens, 2002). To summarize for Structure Equation Model at least 15 cases for each variable or indicator are needed (Siddiqui, 2013). Other conditions of SEM analysis also we should consider before taking the decision about minimum sample size. If there is no missing data or outlying case, and data are normally distributed five cases per parameter estimate in SEM analysis is acceptable (Bentler and Chou, 1987). But here the researcher should consider the rule carefully because the author mentions five cases per parameter rather than per measured variable. Because typically measured variables have at least one path coefficient that is associated with another variable in the analysis along with a residual term or variance estimate. So, recommendation of Bentler and Chou assumptions of 15 cases and proposal of Stevens's five cases should be recognized duly. Loehlin (1992) opined based on of Monte Carlo simulation studies using confirmatory factor analysis models. He concludes that sample size depends on the nature of the research and construction of the variable.

The investigator should collect at least 100 cases for the model with two to four factors. But 200 cases is better for the two to four factors. The minimum standard of sample size may not always produce a good result. Smaller samples include more convergence failure, improper solutions, and lowered accuracy of parameter estimates.

Mainly standard errors in SEM analysis are computed under the assumption of large sample sizes. Again if the data are generally not distributed large sample is required. When the data are skewed, kurtotic, incomplete, or otherwise less than perfect, the decision regarding sample size is not easy. So the most acceptable recommendation about sample size is that obtain more data whenever it is possible. The distribution of the demographic characteristics is presented in Table 2.

Table 2

Demographic Distribution

	Frequency	Percent	Valid Percent	Cumulative Percent
Gender				
Male	228	69,7	69,7	69,7
Female	99	30,3	30,3	100,0
Total	327	100,0	100,0	
Age Group				
26 - 35 years	118	36,1	36,1	36,1
36 - 40 years	82	25,1	25,1	61,2
41 - 45 years	48	14,7	14,7	75,9
46 years or more	79	24,1	24,1	100,0
Total	327	100,0	100,0	
Experience				
1 - 5 years	133	40,7	40,7	40,7
6 - 10 years	143	43,7	43,7	84,4
11 years or more	51	15,6	15,6	100,0
Total	327	100,0	100,0	

Of the participants, 228 (69.7%) were male, and 99 (30.3%) were female. It is seen that 133 of the participants (40.6%) have 1-5 years, 143 (43.7%) of them have 6-10 years of work experience and 51 (15.7%) of them have 11 years or more work experience. Of the participants, 4 (1.2%) were between the ages of 26-30 years, 114 (34.9%) were between 31-35 years, 82 (25.1%) were between 36-40 years.

4.11. Summary

The methodology used to conduct the research including the research design, population and sample involved in the study, data collection instrument, procedures used to conduct the study, and an overview of the data collection process and analysis is

presented in this chapter. In the next results of the study is presented using stated methodology.

CHAPTER V

RESULTS

5.1. Introduction

In this section, the results of the data analysis obtained from the surveyed are given. Reliability test and factor analysis were conducted to determine the internal consistency of the factor structure and the measurement scale. Structural equation modeling (SEM) using suitable software was performed to test the hypotheses. Barron and Kenny (1986) methodology were used to test the mediating role of motivation for leadership in the model. Also, the mediation theory develops by Shrout & Bolger (2002) that challenged the first condition of Barron and Kenny (1986) methodology applied to test the mediation effect. Indirect effect between dependent and independent variable was examined by Sobel methodology and AMOS Bootstrapping. Results of the hypotheses were summarized in the findings of the analysis. The effect of demographic characteristics on the leadership was analyzed by parametric tests such as t-test and One-Way ANOVA.

5.2. Analysis Methods and Features

The study defined the structure of the study model at beginnings of the analysis. In the next stage validity of the model is checked. As a part of the model examination first of all items of the different variable and fitness of the model tested using CFA. After that SEM analysis was performed to check the hypothetical relationships (Hair et al., 2005, p.759).

Maximum likelihood (ML) in the process of SEM is the most used calculation method (Loehlin, 2004; Schumacker and Lomax, 2010). In order to use ML, the sample size should be of sufficient, and the data should be normal or close to the normal distribution (Micceri, 1989). As mentioned in the literature, according to the central limit theorem and the law of large numbers, it is assumed that the sample size in the data set (30 or more) will be normalized in the distribution (Akmut, 1980). Due to the large number of sample size (N = 327) based on the law of large number and central limit theorem (Harwiki, 2013), most of the assumptions of normality is met, and parametric tests were applied in the statistical analysis (Yuan, 2005). In the study of the

data obtained through the survey, the current versions of the statistical programs were used. The t-test, one way ANOVA test was used to test/compare the difference between the quantitative data.

5.3. Reliability and Factor Analysis of Measurement Instruments

Reliability is a statistical and psychometrical technique that measures the overall consistency of an analysis model. Any measure is considered to have high reliability if it produces similar results under consistent conditions. Reliability is related to the extent to which the instrument is measured accurately and repeatable, and its applicability at different situations and times (Nunnally, 1967; Van de Ven and Ferry, 1980).

The statistical reliability of the Likert-type scales is determined by the Cronbach alpha coefficient (α). This coefficient gives information to the researchers about the internal consistency of the substances in the scale. In general, the Cronbach alpha coefficient, which shows the internal consistency of the items, increases as they approach to 1, and then decreases as they approach to 0. A high Cronbach alpha coefficient indicates that the internal consistency of the measurement tool is high (Gilbert and Churchill, 1991). The value of Cronbach alpha coefficient ($\alpha > 0.90$) is excellent, ($0.9 > \alpha > 0.8$) is highly acceptable, ($0.8 > \alpha > 0.7$) is acceptable, ($0.7 > \alpha > 0.6$) is questionable, ($0.6 > \alpha > 0.5$) is weak and ($\alpha < 0.4$) is considered unacceptable (Barnes et al., 2013).

While testing the construct validity of the questionnaires, there should be a limited number of items for a good factorization or factor conversion process. Although the load value of a substance in the structure validity is 0.45 and higher, it is seen in the literature that this value is reduced to 0.30 and the items having a factor load less than 0.30 are subtracted from the analysis (Kleinbaum, Kupper and Muller, 1987). It is accepted that each factor should be represented by at least three items in exploratory factor analysis (Costello and Osborne, 2005). Eigenvalues greater than 1 is considered for keeping factor from the analysis.

One of the criteria used to decide whether the data is consistent for factor analysis is the Kaiser-Meyer-Olkin (KMO) value, which is the sample compliance criterion. Generally, KMO value is equal to or greater than 0.60, and it is accepted as 0.50 as the lower limit. The other is the Barlett test which shows the significance level of the correlations between the variables to be included in the analysis. The significant ($p < .05$) results of the Barlett test indicate that the data can be used in factor analysis and

the relationships between the variables to be used in the data set are significant (Tabachnick & Fidell, 2001; Field, 2009).

In this study, confirmatory factor analysis was used after exploratory factor analysis. CFA was applied to test whether the structure detected by exploratory factor analysis gives similar results to the data set in which the study was conducted. It is also decided in the CFA to subtract the non-significant substances from the factor loads from the analysis. The CFA test is repeated, and the model fit values are examined by subtracting the non-significant substance or substances one by one. However, a factor may be consisting at least three items is considered for analysis (Gürbüz and Şahin, 2014).

5.4 Factor Analysis of Transformation Leadership Scale

The EFA method was used to demonstrate the construct validity of the transformation leadership scale. Principal components method and varimax vertical rotation technique are applied. Kaiser-Meyer-Olkin (KMO = 0.772) was found to be above the acceptable limit (> 0.60) and the sample size was sufficient to make a factor analysis [χ^2 (190) = 4197,418, p<.05)] indicates that the correlation between the items is suitable for factor analysis (Tabachnick & Fidell, 2001). Five factors were identified based on the rules eigen value greater than one from the output of the EFA analysis. The 20-item measurement tool used to determine the levels of employees' perception of the transformative leadership style in the organization, similar to the structure in the literature (Avolio and Bass, 1995, 2000, 2004) that is grouped under 5 factors: idealized influence (attributed), idealized influence (behavior), Inspirational motivation, intellectual stimulation, and individual consideration motivation, intellectual stimulation, and individual consideration. As a result of EFA, 20-item scale had a five-factor structure, the factors explained 74.562% of the total variance, and the factor loadings of the items were over 0.5. Factor loads of the scale and data of Cronbach alpha (α) scores are presented in Table 4.

As shown in Table 3, the first factor explained 16,693%, the second factor 15,410%, the third factor 14,383%, the fourth factor 14,238% and the fifth factor 13,837% variance. The Cronbach alpha (α) values in the scale were higher than 0.70, indicating that internal consistency was achieved between the items in the scale (Tabachnick & Fidell, 2001).

Table 3

Exploratory Factor Analysis of Transformation Leadership Scale

Factors	Items	Factor Loading	Variance (%)	Cronbach Alpha(α) value-sub variable	Cronbach Alpha(α) value-Transformation leadership
Individual consideration (Eigenvalue = 5,445)	Indcon1	,885	16,693	,931	,854
	Indcon2	,903			
	Indcon3	,916			
	Indcon4	,882			
Idealized Influence (Attributable) (Eigenvalue = 3,018)	Idinatr1	,833	15,410	,893	
	Idinatr2	,860			
	Idinatr3	,845			
	Idinatr4	,824			
Inspirational motivation (Eigenvalue = 2,316)	Insmot1	,831	14,383	,867	
	Insmot2	,782			
	Insmot3	,820			
	Insmot4	,869			
Idealized Influence (Behaviour) (Eigenvalue = 2,206)	Idinbeh1	,798	14,238	,855	
	Idinbeh2	,841			
	Idinbeh3	,857			
	Idinbeh4	,804			
Intellectual Stimulation (Eigenvalue = 1,926)	Intsti1	,808	13,837	,841	
	Intsti2	,800			
	Intsti3	,801			
	Intsti4	,828			
Total Variance: 74,562%					

Descriptive statistics for the transformation leadership scale are presented in Table 4. Participant of the present research is selected from Bangladesh. It is seen that

idealized influence (attribute) found the highest average and individual consideration have found the lowest average.

When the normality of the data belonging to the variables was examined, it was found that the skewness and kurtosis values were in the range of -1 to +1; It was observed. However, according to Gürbüz and Şahin (2014), in the SEM studies, the stickiness index (baseline / standard error) is above 3, and the skewness index (distortion/standard) is over 10, indicating that the data is not distributed normally (Gürbüz and Şahin, 2014, s.312). Therefore, it was found that the baseline index of the data set to be analyzed was below 3 and the skew index was below 10, and the data set subject to analysis was subject to the QQ Plot and Histograms subjectively.

Table 4

Descriptive Statistics for Transformation Leadership Scale

	N	Min	Max	Mean	Std. Deviation	Skewness Statistic	Skewness Std.	Kurtosis Statistic	Kurtosis Std. Er
Ideal influence behavior	327	2,00	4,00	3,0382	,48765	-,176	,135	-,580	,269
Ideal influence attribute	327	1,75	4,00	2,9350	,51042	-,112	,135	-,772	,269
Inspirational motivation	327	1,75	4,00	2,9839	,45664	-,151	,135	-,296	,269
Intellectual Stimulation	327	2,00	4,00	3,0252	,42489	-,091	,135	-,544	,269
Individual consideration	327	1,25	4,00	2,8914	,61086	-,203	,135	-,553	,269
Valid N (listwise)	327								

As the validity and reliability analyses of the scale were the desired level, confirmatory factor analysis was started. The second level of confirmatory factor analysis of the transformation leadership scale formed within the framework of the SEM principles is presented below in Figure 5. The figure shows the standardized regression coefficients.

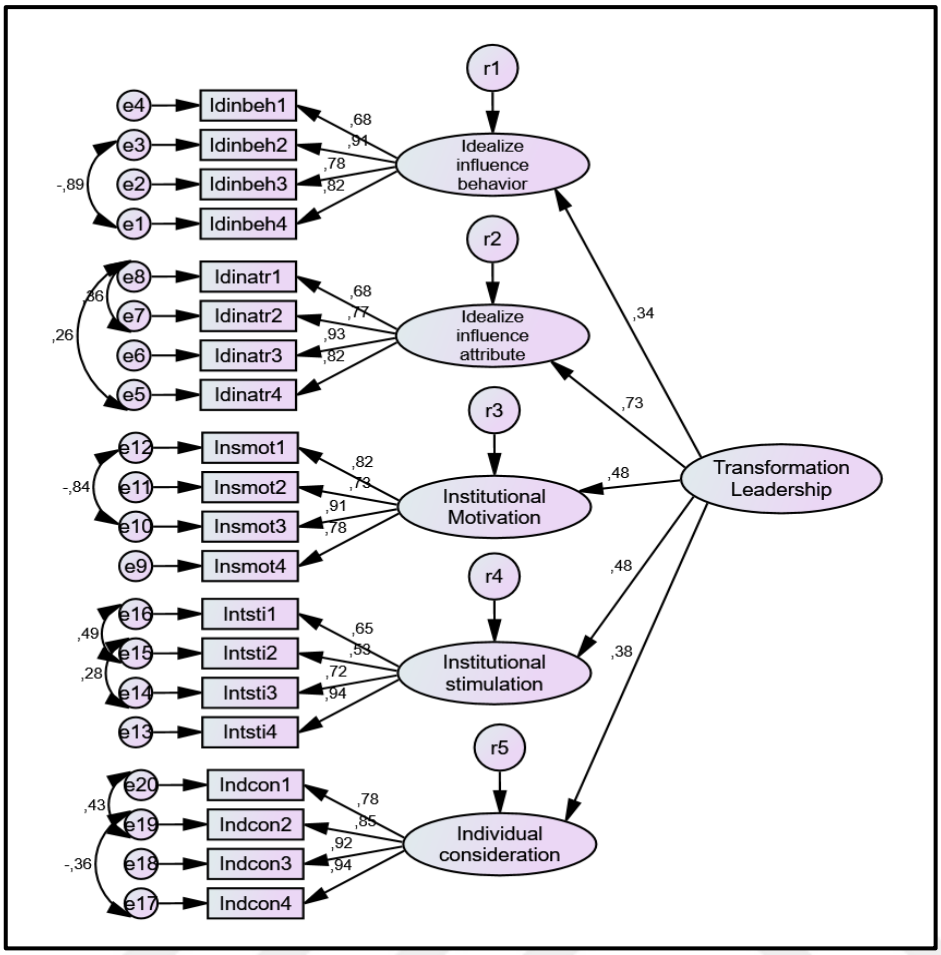


Figure 5. Second-level confirmatory factor model for transformation leadership

Maximum Likelihood calculation method was used in the model (Gürbüz and Şahin, 2014). When the model compatibility indices obtained for this scale are examined (Table 5), it can be stated that the model established with the data used is well adapted, and the scale is valid. According to the results, the factor loadings of the scale items ranged from 0.78 to 0.91.

Table 5

Transformation Leadership Scale Model Fit Indices

Fit index	χ^2 test	(χ^2/df)	IFI	TLI	CFI	GFI	RMSEA
Good Fit	(P > 0,05)	≤ 3	≥0,95	≥0,95	≥0,95	≥0,90	>0,05
Acceptable fit	-	≤ 4-5	0,94-0,90	0,94-0,90	>0,90	0,89-0,85	0,06-0,08
Model fit index	(P < 0,05)	2,557	,941	,928	,922	,893	,069

It was found that the (χ^2/df), IFI, TLI, CFI, GFI and RMSEA values had good fit values from the model compatibility indices of the transformation leadership scale (Gürbüz & Şahin, 2014).

5.5. Factor Analysis of Servant Leadership Scale

CFA method was used to reveal the construct validity of the servant leadership scale. Principal components method and varimax vertical rotation technique are applied. Kaiser-Meyer-Olkin (KMO = 0.922) was found to be above the acceptable limit (>0.60), and the sample size was sufficient to make factor analysis. CFA analysis revealed a single factor indicates that the correlation between the items is suitable for factor analysis (Liden et al., 2013).

The output of CFA shows in table 6 that, the 7-item scale was found to have a single-factor structure and accounted for 86.178% of the total variance, and the factor loadings of items were above 0.6. The Cronbach Alpha coefficient of the 7 items on the servant leadership scale was found as (α = 0,973). The Cronbach alpha (α) value of the scale is higher than 0.70, indicating that internal consistency is achieved between the items in the scale (Nunnally, 1978). Descriptive statistics for servant leadership scale are presented in Table 10. It was found that servant leadership perception average of the employees working in Bangladesh was high.

Table 6

Exploratory Factor Analysis of Servant Leadership Scale

Variable	Items	Factor loading	Variance	Cronbach Alpha (α) value
Servant leadership	SL1	,962	86,178	0,973
	SL2	,943		
	SL3	,937		
	SL4	,851		
	SL5	,919		
	SL6	,952		
	SL7	,929		

Descriptive statistics output has shown in table 7, the kurtosis index (baseline / standard error) above 3 and the skewness index (distortion/standard) over 10, indicating that the data is not distributed normally (Gürbüz and Şahin, 2014, s.312). When the normality of the data of variables was examined, it was seen that the skewness and kurtosis values were between -1 and +1, and the z values were below the standard value. Therefore, it was found that the kurtosis index of the data set to be analyzed was below 3 and the skew index was below 10, and the data set subject to analysis was subject to the QQ Plot and Histograms respectively.

Table 7

Descriptive Statistics for Servant Leadership Scale

	N	Min	Max	Mean	Std. Deviation	Variance	Skewness		Kurtosis	
							Stat.	St. Er	Stat.	St. Er
Servant leader	327	1,86	6,43	4,2813	,98422	,969	-,147	,135	-,392	,269
Valid N (listwise)	327									

The first level of confirmatory factor analysis of the servant leadership scale formed within the framework of the SEM principles is presented below in figure 6. The figure shows the standardized regression coefficients.

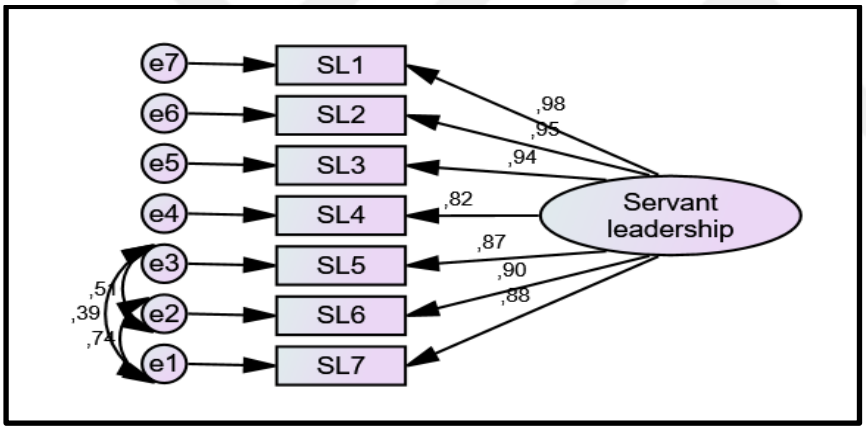


Figure 6. Confirmatory factor model for Servant leadership

As the validity and reliability analyses of the scale were the desired level, confirmatory factor analysis was started. Maximum Likelihood calculation method was used in the model (Şimşek, 2007; Gürbüz and Şahin, 2014). The output of the CFA statistics has shown in table 8. When the model compatibility indices obtained for this scale are examined, it can be said that the model used is compatible with the data used and the scale is valid. The results showed that the factor loadings of scale items ranged between 0.85 and 0.96 (Meydan and Şeşen, 2011).

CFA output shows that χ^2 test, (χ^2/df), IFI, TLI, CFI, GFI, and RMSEA values were obtained from servant leadership scale was acceptable (Meydan and Şeşen, 2011; Gürbüz & Şahin, 2014).

Table 8

Servant Leadership Scale Model Fit Indices

Fit index	χ^2 test	(χ^2/df)	IFI	TLI	CFI	GFI	RMSEA
Good Fit	(P > 0,05)	≤ 3	≥0,95	≥0,95	≥0,95	≥0,90	>0,05
Acceptable fit	-	≤ 4-5	0,94-0,90	0,94-0,90	>0,90	0,89-0,85	0,06-0,08
Model fit index	0,134	1,472	0,998	0,997	1,000	0,986	0,038

5.6. Factor Analysis of 360 degree appraisal

EFA method was used to reveal the construct validity of the 360-degree performance appraisal method. The 360-degree performance appraisal method is measured by using two sub-variables that are positive feedback and negative feedback. Construct validity of both sub-variable checked by applying principal components method and varimax vertical rotation technique. Finally, CFA applied for confirming the items.

5.6.1. Level of satisfaction with Positive feedback

Kaiser-Meyer-Olkin (KMO = 0.830> 0.60) was found to be above the acceptable limit, and the sample size was sufficient to make factor analysis. CFA analysis revealed a single factor indicates that the correlation between the items is suitable for factor analysis (Gürbüz and Şahin, 2014, Liden et al., 2013).

The output of CFA show has shown in table 9 that, the 4-item scale was found to have a single-factor structure and accounted for 84.185% of the total variance, and the factor loadings of items were above 0.6. Factor loadings of the scale and data of Cronbach's alpha (α) score are presented in Table. The Cronbach Alpha coefficient of the 4 items on the servant leadership scale was found as (α = 0,937). The Cronbach alpha (α) value of the scale is higher than 0.70, indicating that internal consistency is achieved between the items in the scale (Gürbüz and Şahin, 2014).

Table 9

Exploratory Factor Analysis of Positive Feedback Scale

Variable	Items	Factor loading	Variance	Cronbach Alpha (α) value
Positive feedback	Pf1	,904	84,185	0,937
	Pf2	,957		
	Pf3	,951		
	Pf4	,854		

Descriptive statistics for positive feedback scale are presented in Table 10. It was found that the average of the employees' satisfaction with positive feedback is at a satisfactory level in Bangladesh was high.

In the descriptive statistics table, the kurtosis index (baseline / standard error) above 3 and the skewness index (distortion/standard) over 10, indicating that the data is not distributed normally (Gürbüz and Şahin, 2014, s.312). When the normality of the data of variables was examined, it was seen that the skewness and kurtosis values were between -1 and +1, and the z values were below the standard value. Therefore, it was found that the kurtosis index of the data set to be analyzed was below 3 and the skew index was below 10, and the data set subject to analysis was subject to the QQ Plot and Histograms respectively.

Table 10

Descriptive Statistics for Positive Feedback

	N	Min	Max	Mean	Std. Deviation	Variance	Skewness		Kurtosis	
							Stat.	St. Er	Stat.	St. Er
Positive feedback	327	1,00	5,00	3,1651	,82328	,678	-,304	,135	-,135	,269
Valid N (listwise)	327									

As the validity and reliability analyses of the scale were the desired level, confirmatory factor analysis was started. The first level of confirmatory factor analysis of the servant leadership scale formed within the framework of the SEM principles is presented below the figure 7. The figure shows the standardized regression coefficients.

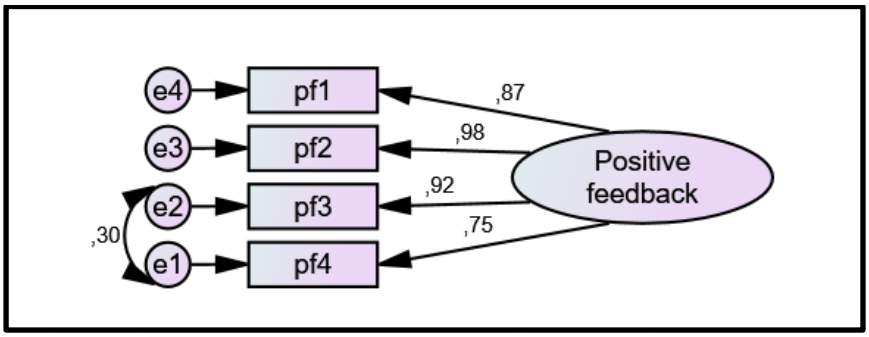


Figure 7. Confirmatory factor model for positive feedback

The output of SEM statistics has shown in table 11. Maximum Likelihood calculation method was used in the model (Şimşek, 2007; Gürbüz and Şahin, 2014). When the model compatibility indices obtained for this scale are examined, it can be said that the model used is compatible with the data used and the scale is valid. The results showed that the factor loadings of scale items ranged between 0.85 and 0.96 (Meydan and Şeşen, 2011).

CFA output shows that χ^2 test, (χ^2/df), IFI, TLI, CFI, GFI, and RMSEA values were obtained from servant leadership scale was acceptable (Meydan and Şeşen, 2011; Gürbüz & Şahin, 2014).

Table 11

Positive Feedback Scale Compliance Indexes

Fit index	χ^2 test	(χ^2/df)	IFI	TLI	CFI	GFI	RMSEA
Good Fit	(P > 0,05)	≤ 3	≥0,95	≥0,95	≥0,95	≥0,90	>0,05
Acceptable fit	-	≤ 4-5	0,94-0,90	0,94-0,90	>0,90	0,89-0,85	0,06-0,08
Model fit index	,353	,862	1,000	1,001	1,000	,999	,000

5.6.2. Level of satisfaction with negative feedback

Kaiser-Meyer-Olkin (KMO = 0.826> 0.60) was found to be above the acceptable limit, and the sample size was sufficient to make factor analysis. CFA analysis revealed a single factor indicates that the correlation between the items is suitable for factor analysis (Gürbüz and Şahin, 2014, Liden et al., 2013).

The output of CFA show has shown in table 12 that, the 4-item scale was found to have a single-factor structure and accounted for 82,914% of the total variance, and the factor loadings of items were above 0.6. Factor loadings of the scale and data of Cronbach's alpha (α) score are presented in Table. The Cronbach Alpha coefficient of the 4 items on the servant leadership scale was found as (α = 0.93). The Cronbach alpha (α) value of the scale is higher than 0.70, indicating that internal consistency is achieved between the items in the scale (Gürbüz and Şahin, 2014).

Table 12

Exploratory Factor Analysis of Negative Feedback Scale

Variable	Items	Factor loading	Variance	Cronbach Alpha (α) value
Negative feedback	Nf1	,872	82,914	0,93
	Nf2	,942		
	Nf3	,939		
	Nf4	,887		

Descriptive statistics for negative feedback scale are presented in Table 13. It was found that the average of the employees' satisfaction with negative feedback is at a satisfactory level in Bangladesh was high.

Output has shown in the descriptive statistics table, the kurtosis index (baseline / standard error) above 3 and the skewness index (distortion/standard) over 10, indicating that the data is not distributed normally (Gürbüz and Şahin, 2014, s.312). When the normality of the data of variables was examined, it was seen that the skewness and kurtosis values were between -1 and +1, and the z values were below the standard value. Therefore, it was found that the kurtosis index of the data set to be analyzed was below

3 and the skew index was below 10, and the data set subject to analysis was subject to the QQ Plot and Histograms respectively.

Table 13

Descriptive Statistics for Negative Feedback

	N	Min	Max	Mean	Std. Deviation	Variance	Skewness Stat.	Skewness St. Er	Kurtosis Stat.	Kurtosis St. Er
Negative Feedback	327	1,00	5,00	3,0275	,87418	,764	-,095	,135	-,293	,269
Valid N (listwise)	327									

As the validity and reliability analyses of the scale were the desired level, confirmatory factor analysis was started. The first level of confirmatory factor analysis of the servant leadership scale formed within the framework of the SEM principles is presented below in figure 8 with the standardized regression coefficients.

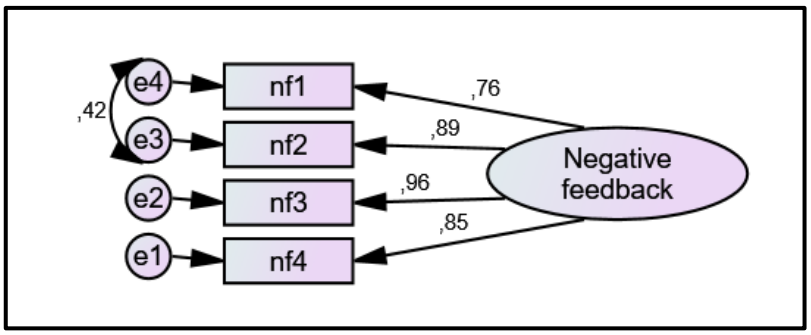


Figure 8. Confirmatory factor model for negative feedback

The output of the CFA has shown in table 14. Maximum Likelihood calculation method was used in the model (Şimşek, 2007; Gürbüz and Şahin, 2014). When the model compatibility indices obtained for this scale are examined, it can be said that the model used is compatible with the data used and the scale is valid. The results showed that the factor loadings of scale items ranged between 0.85 and 0.96 (Meydan and Şeşen, 2011).

CFA output shows that χ^2 test, (χ^2/df), IFI, TLI, CFI, GFI, and RMSEA values were obtained from servant leadership scale was acceptable (Meydan and Şeşen, 2011; Gürbüz & Şahin, 2014).

Table 14

Negative feedback Scale Compliance Indexes

Fit index	χ^2 test	(χ^2/df)	IFI	TLI	CFI	GFI	RMSEA
Good Fit	(P > 0,05)	≤ 3	≥0,95	≥0,95	≥0,95	≥0,90	>0,05
Acceptable fit	-	≤ 4-5	0,94-0,90	0,94-0,90	>0,90	0,89-0,85	0,06-0,08
Model fit index	,830	,046	1,001	1,005	1,000	1,000	,000

5.7. Factor Analysis of motivation for leadership Scale

EFA method was used to reveal the construct validity of the Motivation for leadership scale. Principal components method and varimax vertical rotation technique are applied. Significant (0.000) Kaiser-Meyer-Olkin (KMO = 0,919) was found to be above the acceptable limit 0.6, and the sample size was sufficient to make factor analysis. The correlation between indicates that the items are suitable for factor analysis (Gürbüz and Şahin, 2014). CFA analysis revealed a single factor. At the reliability analysis stage, it was decided to exclude the three items (Mot7, Mot8, and Mot9) which were not at the desired level model fit.

Again EFA had applied test the reduced 6 item scale. The output of EFA has shown in table 16. As a result of the re-structured EFA, it was found that the 6-item scale had a single-factor structure and explained 82,140% of the total variance and the factor loadings of the items were above 0.7. Factor loadings of the scale of Cronbach's alpha (α) score are presented in Table 18. The coefficient of Cronbach Alpha (α) was found 0.956.

The Cronbach alpha (α) value of the scale was higher than 0.70, indicating that internal consistency was achieved between the items in the scale (Gürbüz and Şahin, 2014). Descriptive statistics for the motivation to lead scale are presented in Table 15.

Table 15

Exploratory Factor Analysis of Motivation to Lead Scale

Variable	Items	Factor loading	Variance	Cronbach Alpha (α) value
Motivation for leadership	Mot1	,885	82,140	0, ,956
	Mot2	,926		
	Mot3	,931		
	Mot4	,933		
	Mot5	,907		
	Mot6	,853		

Descriptive statistics output of the Motivation for leadership variable has shown in table 16. The output from the analysis indicated that the kurtosis index (baseline standard error) above 3 and the skewness index (distortion/standard) over 10 indicating that the data is not distributed normally (Gürbüz and Şahin, 2014, s.312). When the normality of the data of variables was examined, it was seen that the skewness and kurtosis values were between -1 and +1, and the Kurtosis index was below 3, and the skewness index was below 10, and the data set subject to analysis was subject to the QQ Plot and Histograms subjectively (Gürbüz and Şahin, 2014).

Table 16

Descriptive Statistics for Motivation

	N	Min	Max	Mean	St. Deviation	Variance	Skewness Stat.	Skewness St. Er	Kurtosis Statistic	Kurtosis St. Er
Motivation	327	1,00	4,00	2,6488	,60158	,362	,055	,135	-,115	,269
Valid N (listwise)	327									

As the validity and reliability analyses of the scale were the desired level, confirmatory factor analysis was started. The first-level confirmatory factor analysis of the Motivation for leadership scale, which is formed within the framework of the SEM principles, is presented below in Figure 9 with the standardized regression coefficients.

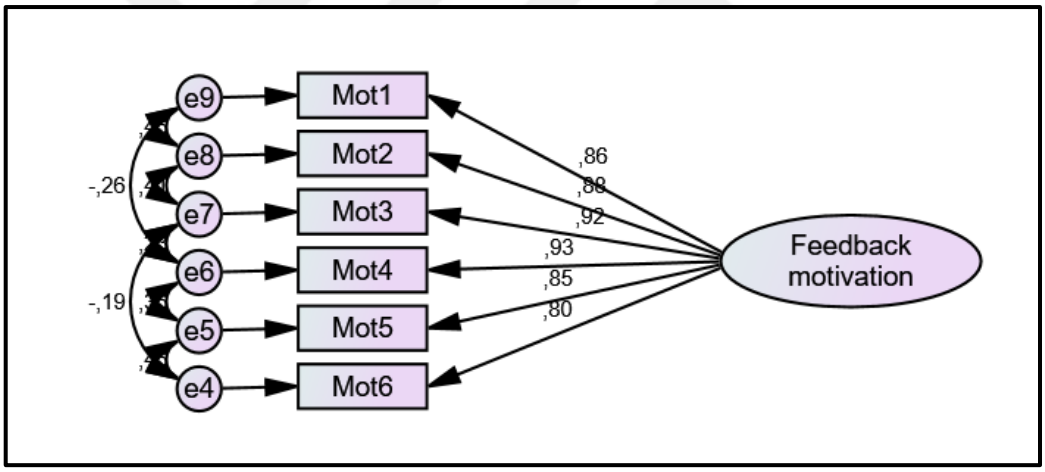


Figure 9. Confirmatory factor model for motivation to lead

Maximum Likelihood calculation method was used in the model (Şimşek, 2007; Gürbüz and Şahin, 2014). The output from the analysis has shown in table 17. When the model compatibility indices obtained for this scale are examined, it can be stated that the model is well adapted with the data used and the scale is valid. The results showed that the factor loadings of the scale items ranged from 0.88 to 0.94.

Findings of the model compatibility indices (χ^2 test, (χ^2/df), IFI, TLI, CFI, GFI, and RMSEA values of the Motivation for Leadership Scale were found to be good (Meydan and Şeşen, 2011; Gürbüz & Şahin, 2014).

Table 17

Motivation to lead Scale Compliance Indexes

Fit index	χ^2 test	(χ^2/df)	IFI	TLI	CFI	GFI	RMSEA
Good Fit	(P > 0,05)	≤ 3	≥0,95	≥0,95	≥0,95	≥0,90	>0,05
Acceptable fit	-	≤ 4-5	0,94-0,90	0,94-0,90	>0,90	0,89-0,85	0,06-0,08
Model fit index	,187	1,679	,999	,996	,999	,997	,046

5.8. Correlation Analysis of the Study Variable

Correlation analysis is the statistical method used to determine the level, magnitude, and direction of the relationship between two or more variables. Within the scope of the study, the Pearson Correlation analysis was used to determine the relationship between the variables determined by EFA and CFA. Pearson coefficient is indicated by the letter "r" and as the Pearson coefficient reaches to 1, the power of the relationship increases (Özdamar, 1999, p.407; Büyüköztürk, 2002, p.32).

The correlation coefficient is between -1 and +1, and it is indicated by - $1 \leq r \leq +1$. Within the scope of the evaluation of Pearson correlation coefficients; ($-1 \leq r < -0,7$ and $0,7 < r \leq 1$) stands for strong, ($-0,7 \leq r < -0.3$ and $0,3 < r \leq 0,7$) moderate relationship ($-0,3 \leq r < 0$ and $0 < r \leq 0,3$) for weak relationship between variables. However, the number of samples (n) is very important when making these evaluations (Gürbüz and Şahin, 2014, s.254).

In this context, the results of the Spearman's correlation analysis between the servant leadership, transformation leadership, positive feedback, negative feedback, and motivation for leadership are presented in Table 18. The correlation coefficients between the variables were tested at $p < .01$ and $p < .05$ significance level.

When we look at the statistical relationships between the dependent variable, it was found that there was a significant ($p < .05$) and positive association of positive feedback with motivation for leadership, servant leadership, and transformation

leadership. It was found that the relationships between the negative feedback and servant leadership were positively significant (p <.05).

Transformation leadership is positively correlated with other variables. Among the variable positive feedback and servant leadership is significantly correlated with transformation leadership.

Table 18

Means, Standard Deviations, Cronbach Alphas, and Correlations Among Study Variables

	Variables	1	2	3	4	5
1	Positive feedback	**,94[4]**				
2	Negative Feedback	,085	**,93[4]**			
3	Motivation	,193**	,181**	**,96[6]**		
4	Servant leader	,560**	,129*	,578**	**,97[7]**	
5	Transformation Leadership	,348**	,049	,059	,437**	**,85[20]**
	Mean	3,16	3,02	2,64	4,28	2,97
	Standard deviation	,82	,87	,60	,98	,29

N = 327, **p <0.01, *p< 0.05

Note: Cronbach Alpha estimates of reliability are noted along the main diagonal. The number of items in each scale is noted in [brackets].

Many of the correlation coefficients between the variables in our research model were found to be positive and significant. The obtained relationships provide the prerequisite for testing the hypotheses with SEM. Before starting the SEM analysis, the relation between the independent variables was examined. Multicollinearity is an indicator of how much of the variability of the specified independent variable is not explained by the other independent variables in the model and is calculating using the formula 1 – R2 for each variable.

Table 19

Multiple Relationship Values Between Research Variables

Model	Collinearity Statistics	
	Tolerance	VIF
Negative Feedback	,966	1,036
Positive feedback	,966	1,035
Motivation 6 item	,947	1,056
a. Dependent Variable: Servant leader		

In the study, Table 20 shows that there was no multicollinearity between the independent variables to be used in the same model, and the tolerance values were greater than 0.1, and VIF (variance inflation factor) was below 10 (VIF < 10) was observed (Hair et al., 2005).

5.9. Path analytical Relationship Among the Study Variable

The hypothesis of the study which was created by using the literature was tested with the path analysis. Before starting the SEM analysis, it is examined whether the measurement model of each variable to be used in the model is verified. Afterward, the relationships between the variables of the model that is based on a theory or theory are determined (Meydan and Şeşen, 2011; Gürbüz and Şahin, 2014). Then, the degree of relationships between external variables and the internal (dependent) variable is determined. In this context, using the path analysis, the relationship of 360-degree feedback with the transformation leadership and servant leadership and the medication status of the motivation for leadership between the dependent and independent variable will be analyzed according to the methodology. Besides, the relationship of the external control variable and the dependent variable will be examined.

5.10. Relation Between 360 Degree Positive Feedback And Servant Leadership Style

The present study has considered relevant hypotheses for analyzing the study variable. To analyse the relationship between positive feedback and servant leadership the study assume the null hypothesis that (H1a) there is no impact of positive feedback

on servant leadership style. The structural equation model showing the relationship between 360-degree positive feedback and servant leadership style is shown in Figure 10.

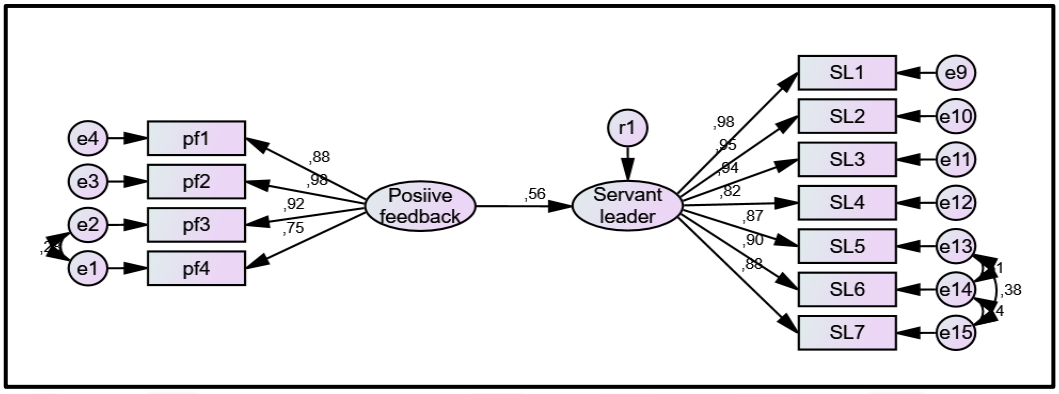


Figure 10. SEM model for 360-degree positive feedback and servant leadership

To analyze the hypothesis (H1a), the study considered 360-degree positive feedback as an independent variable and servant leadership style as a dependent variable in the SEM model. SEM compliance indices and the output from the analysis are presented in Table 20. The obtained values provide evidence that fit indices are within acceptable limits and that the model has structurally adequate compliance values. It was found that the model compatibility indices χ^2 test, (χ^2/df) and RMSEA values of the SEM compiled between feedback and servant leadership and had good fit values. Also, IFI, TLI, CFI, and GFI values had acceptable compliance values (Meydan and Şeşen, 2011; Gürbüz and Şahin, 2014).

Table 20

SEM Index for 360 Degree Positive Feedback And Servant Leadership

Fit index	χ^2 test	(χ^2/df)	IFI	TLI	CFI	GFI	RMSEA
Good Fit	(P > 0,05)	≤ 3	≥0,95	≥0,95	≥0,95	≥0,90	>0,05
Acceptable fit	-	≤ 4-5	0,94-0,90	0,94-0,90	>0,90	0,89-0,85	0,06-0,08
Model fit index	P = 0.385	1,050	1,000	,999	1,000	,977	,012

After getting soundness of SEM model fitness, the relationship between study variable is analysis by using standardized estimate (β) from regression result. Impact of positive feedback on servant leadership using regression analysis is presented İn the table 21.

Table 21

Regression Weights: Positive Feedback on Servant leadership

			Unstandardized Estimate	Standardized Estimate (β)	S.E.	C.R.	P
Servant leadership	<---	Positive feedback	,909	,564	,089	10,252	***

In the scope of the findings given in table 22, it was found that the positive feedback had positive and significant (ß = 0.56, p <.05) effect on the servant leadership which does not support the null hypothesis. So the study accepts the alternative hypothesis (H1a) that there is a positive impact of positive feedback on servant leadership style. The figures in the figure show the standardized regression coefficients.

5.11. 360-degree Negative Feedback And Servant Leadership

The relationship between 360-degree negative feedback a servant leadership style was analyzed using the null hypothesis (H1b) that there is no impact of negative feedback on servant leadership style. The structural equation model is shown in figure 11 addressing the relationship between 360-degree negative feedback and servant leadership.

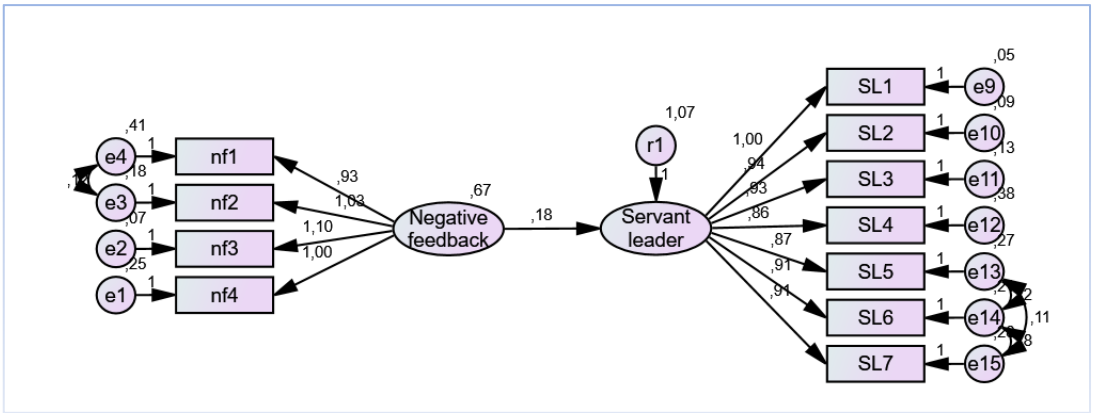


Figure 11. SEM model for 360-degree negative feedback and servant leadership

SEM compliance indices are presented in Table 22. The obtained values provide evidence that fit indices are within acceptable limits and that the model has structurally adequate compliance values. It was found that the model compatibility indices χ^2 test, (χ^2/df) between the 360-degree negative feedback and servant leadership had good fit values. Other indicators such as IFI, TLI, CFI, GFI and RMSEA values also had good fit values and acceptable compliance value (Meydan and Şeşen, 2011; Gürbüz).

Table 22

SEM Index for 360 Degree Negative Feedback and Servant Leadership

Fit index	χ^2 test	(χ^2/df)	IFI	TLI	CFI	GFI	RMSEA
Good Fit	(P > 0,05)	≤ 3	≥0,95	≥0,95	≥0,95	≥0,90	>0,05
Acceptable fit	-	≤ 4-5	0,94-0,90	0,94-0,90	>0,90	0,89-0,85	0,06-0,08
Model fit index	,635	,908	1,001	1,001	1,000	,980	,000

After getting soundness of the SEM model fitness indices, the study measures the impact of negative feedback on servant leadership style using the standardized estimate from the regression analysis. The results of the regression analysis are presented in the following table 23.

Table 23

Regression Weights: Negative Feedback on Servant leadership

			Unstandardized Estimate	Standardized Estimate (β)	S.E.	C.R.	P
Servant leadership	<---	Negative feedback	,175	,137	,073	2,405	,016

In the scope of the findings showing table 24, it was found that the 360-degree negative feedback had positive and significant (ß = 0.137, p <.05) effect on the servant leadership style. Hence there is no reason for accepting the null hypothesis (H1b) that there is no relationship between negative feedback and a servant leadership style. The study accept the alternative hypothesis that there is a positive impact of negative feedback on servant leadership style.

5.12. Relation Between 360-degree Positive Feedback And Transformation Leadership Style

The relationship between 360-degree positive feedback and transformational leadership style examined using SEM model. The null hypothesis (H1c) assumed that there is no impact of positive feedback on the transformation leadership style to analyze the relationship. The structural equation model showed figure 12 depicted the relationship between 360-degree positive feedback and Transformation leadership.

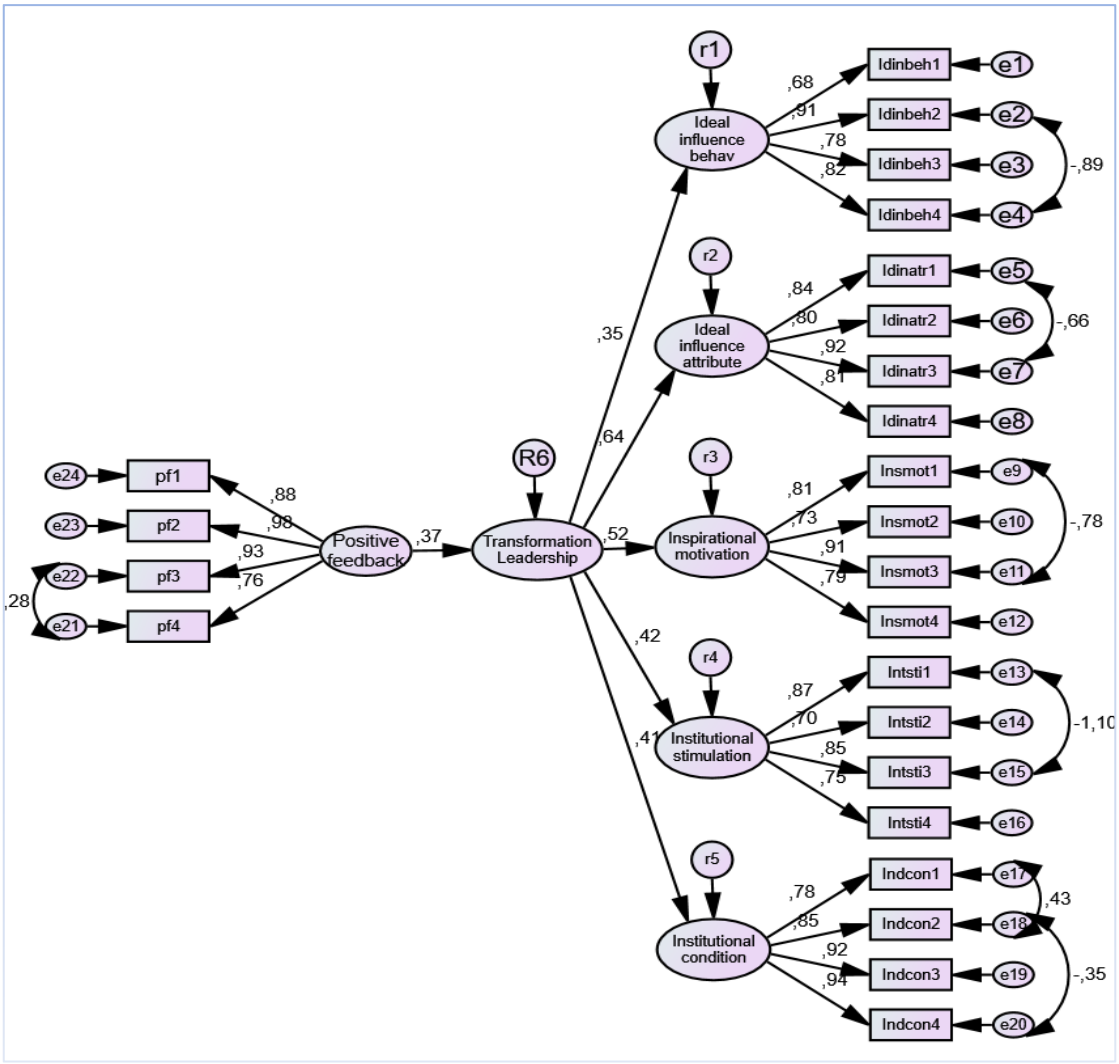


Figure 12. SEM model for 360-degree positive feedback and transformation leadership

SEM compliance indices are presented in Table 24. The obtained values provide evidence that fit indices are within acceptable limits and that the model has structurally adequate compliance values. It was found that the model compatibility indices (χ^2/df) between the 360-degree positive feedback and transformation leadership had good fit values. Other indicators such as IFI, TLI, CFI, GFI and RMSEA values also had acceptable compliance value (Meydan and Şeşen, 2011; Gürbüz). As the fit indices showed the feasible limit, then regression analysis is used to check the quantitative impact of positive feedback on transformation leadership.

Table 24

SEM Index For 360 Degree Positive Feedback And Transformation Leadership

Fit index	χ^2 test	(χ^2/df)	IFI	TLI	CFI	GFI	RMSEA
Good Fit	(P > 0,05)	≤ 3	≥0,95	≥0,95	≥0,95	≥0,90	>0,05
Acceptable fit	-	≤ 4-5	0,94-0,90	0,94-0,90	>0,90	0,89-0,85	0,06-0,08
Model fit index	P = 0,000	2.243	.946	.937	.945	.882	.062

The output from the regression analysis between positive feedback and transformation leadership is presented in table 26.

Table 25

Regression Weights: Positive Feedback on Transformation leadership

			Unstandardized Estimate	Standardized Estimate (ß)	S.E.	C.R.	P
Transformation Leadership	<---	Positive feedback	.075	.366	.021	3.519	***

In the scope of the findings shown in table 25, it was found that the 360-degree positive feedback had positive and significant (ß = 0.366, p <.05) effect on the Transformation leadership style. The regression output found in table 26 shows enough evidence to reject the null hypothesis (H1c) There is no impact of positive feedback on the transformation leadership style. So the study accept the alternative hypothesis (H1c) that there is a positive impact of positive feedback on the transformation leadership style.

5.13. Relation Between 360 Degree Negative Feedback And Transformation Leadership Style

The relationship between 360-degree negative feedback and transformational leadership is analyzed by applying SEM. The relationship is examined by assuming the

null hypothesis (H1d) that there is no impact of negative feedback and transformation leadership style. The structural equation model is shown in figure 13 address the relationship between 360-degree negative feedback and Transformation leadership.

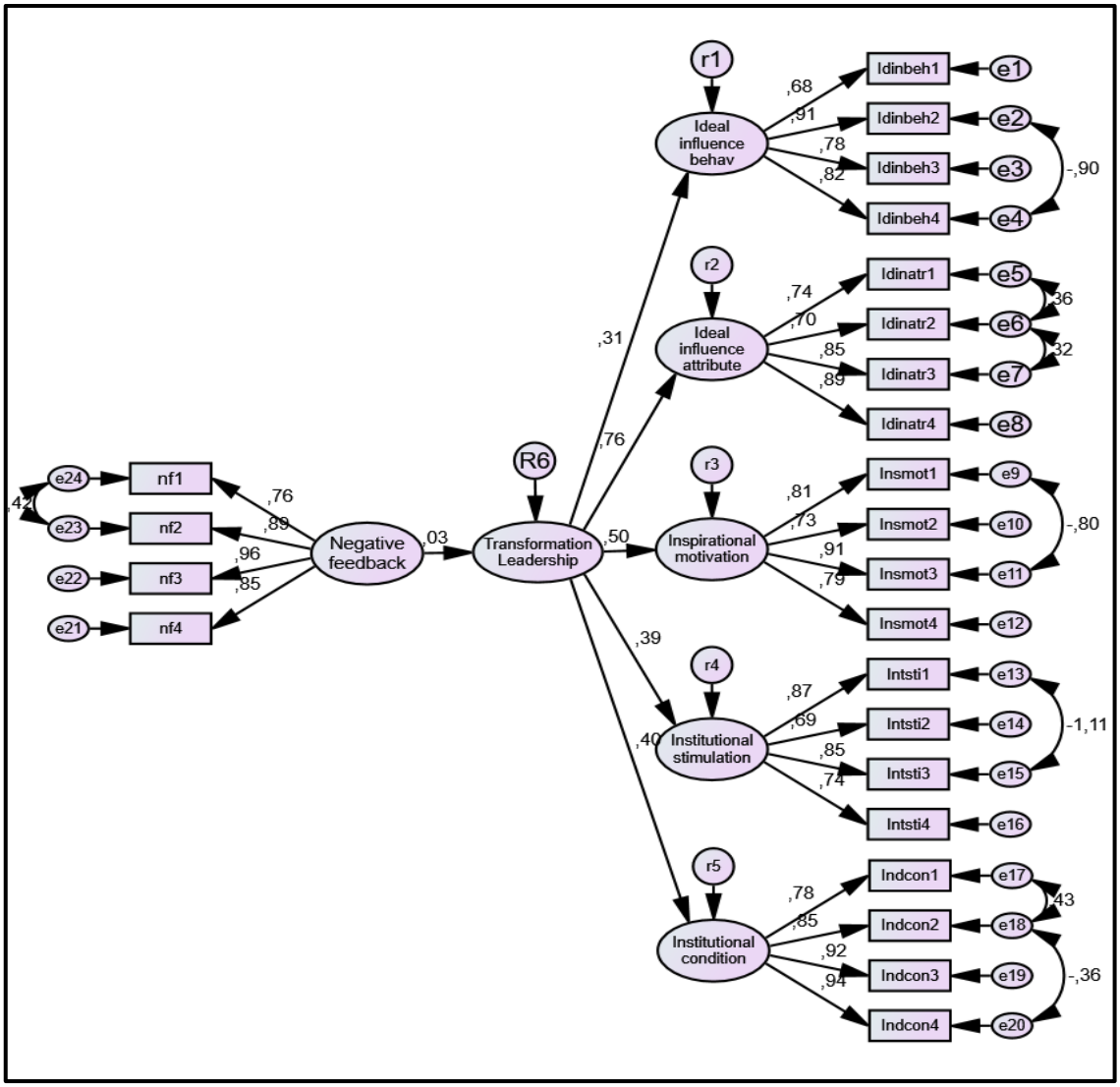


Figure 13. SEM model for 360-degree negative feedback and transformation leadership

SEM compliance indices are presented in Table 26. The obtained values provide evidence that fit indices are within acceptable limits and that the model has structurally adequate compliance values. It was found that the model compatibility indices (χ^2/df) between the 360-degree negative feedback and transformation leadership had good fit values. Other indicators such as IFI, TLI, CFI, GFI and RMSEA values also had acceptable compliance value (Meydan and Şeşen, 2011; Gürbüz).

Table 26

SEM İndex for 360 Degree Negative Feedback And Transformation Leadership

Fit index	χ^2 test	(χ^2/df)	IFI	TLI	CFI	GFI	RMSEA
Good Fit	(P > 0,05)	≤ 3	≥0,95	≥0,95	≥0,95	≥0,90	>0,05
Acceptable fit	-	≤ 4-5	0,94-0,90	0,94-0,90	>0,90	0,89-0,85	0,06-0,08
Model fit index	P = ,000	2,176	,947	,939	,947	,886	,060

As the SEM model has shown the sound fitness of the measurement indices, the next step regression analysis was conducted to measure the impact of negative feedback on the transformation leadership style. The result is shown in table 27.

Table 27

Regression Weights: Negative Feedback on Transformation leadership

			Unstandardized Estimate	Standardized Estimate (ß)	S.E.	C.R.	P
Transformation Leadership	<---	Negative feedback	,005	,033	,010	,460	,646

In the scope of the findings shown in table 28 presented that the 360-degree negative feedback had positive but insignificant (ß = .033, p >.05) effect on the Transformation leadership style. The output of the analysis supports the existing null hypothesis. So the study accepts the null hypothesis (H1d) that there is no impact of negative feedback on the transformation leadership style.

5.14. Relation Between 360 Degree Total Feedback And Servant Leadership Style

The projected relationship between 360-degree total feedback and servant leadership style was analyzed addressing the null hypothesis (H1e) that there is no impact of 360 degree total feedback on servant leadership style. The structural equation

model is showing the relationship between 360-degree total feedback and servant leadership style in figure 14.

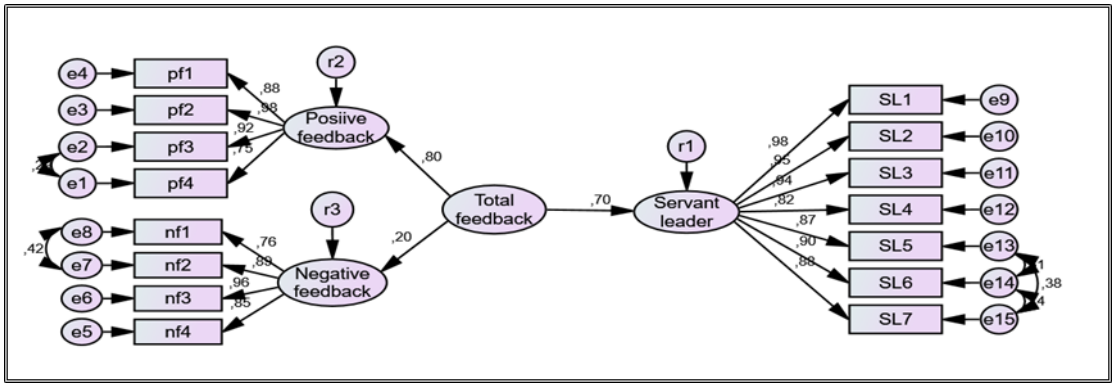


Figure 14. SEM model for 360-degree total feedback and servant leadership

To analyze the hypothesis H1e of the study, 360-degree total feedback is used as an independent variable and servant leadership style used as a dependent variable in the model. SEM compliance indices are presented in Table 28. The obtained values showed the evidence that fit indices are within acceptable limits and the model has structurally adequate compliance values. It was found that the model compatibility indices χ^2 test, (χ^2/df) and RMSEA values of the SEM compiled between 360-degree total feedback and servant leadership had sound fit indices. Also, IFI, TLI, CFI, and GFI values had acceptable compliance values (Meydan and Şeşen, 2011; Gürbüz and Şahin, 2014).

Table 28

SEM Index for 360 Degree total Feedback and Servant Leadership

Fit index	χ^2 test	(χ^2/df)	IFI	TLI	CFI	GFI	RMSEA
Good Fit	(P > 0,05)	≤ 3	≥0,95	≥0,95	≥0,95	≥0,90	>0,05
Acceptable fit	-	≤ 4-5	0,94-0,90	0,94-0,90	>0,90	0,89-0,85	0,06-0,08
Model fit index	,137	1,172	,998	,997	,998	,962	,023

After knowing the sound fitness of SEM indices regression analysis is used to examine the impact of 360-degree total feedback on servant leadership. The result of the analysis is shown in table 29.

Table 29

Regression Weights: Total Feedback on Servant leadership

			Unstandardized Estimate	Standardized Estimate (ß)	S.E.	C.R.	P
Servant leadership	<---	Total feedback	1,411	,702	,534	2,641	,008

In the scope of the findings shown in table 30, it was found that the 360-degree total feedback had positive and significant (ß = 0.70, p <.05) effect on the servant leadership. The evidence of the regression output showed the evidence favorable to the assumed alternative hypothesis. There is evidence for rejecting the null hypothesis. So the study accepts the alternative hypothesis (H1e) that there is a positive impact of 360-degree total feedback on servant leadership style.

5.15 Relation Between 360-degree Total Feedback And Transformation Leadership Style

The relationship between 360-degree total feedback and transformational leadership is analyzed by assuming the null hypothesis (H1f) that There is no impact of 360-degree total feedback on transformation leadership style. The association of the study variable is analyzed using SEM. The structural equation model showing the relationship between 360-degree total feedback and Transformation leadership in figure 15.

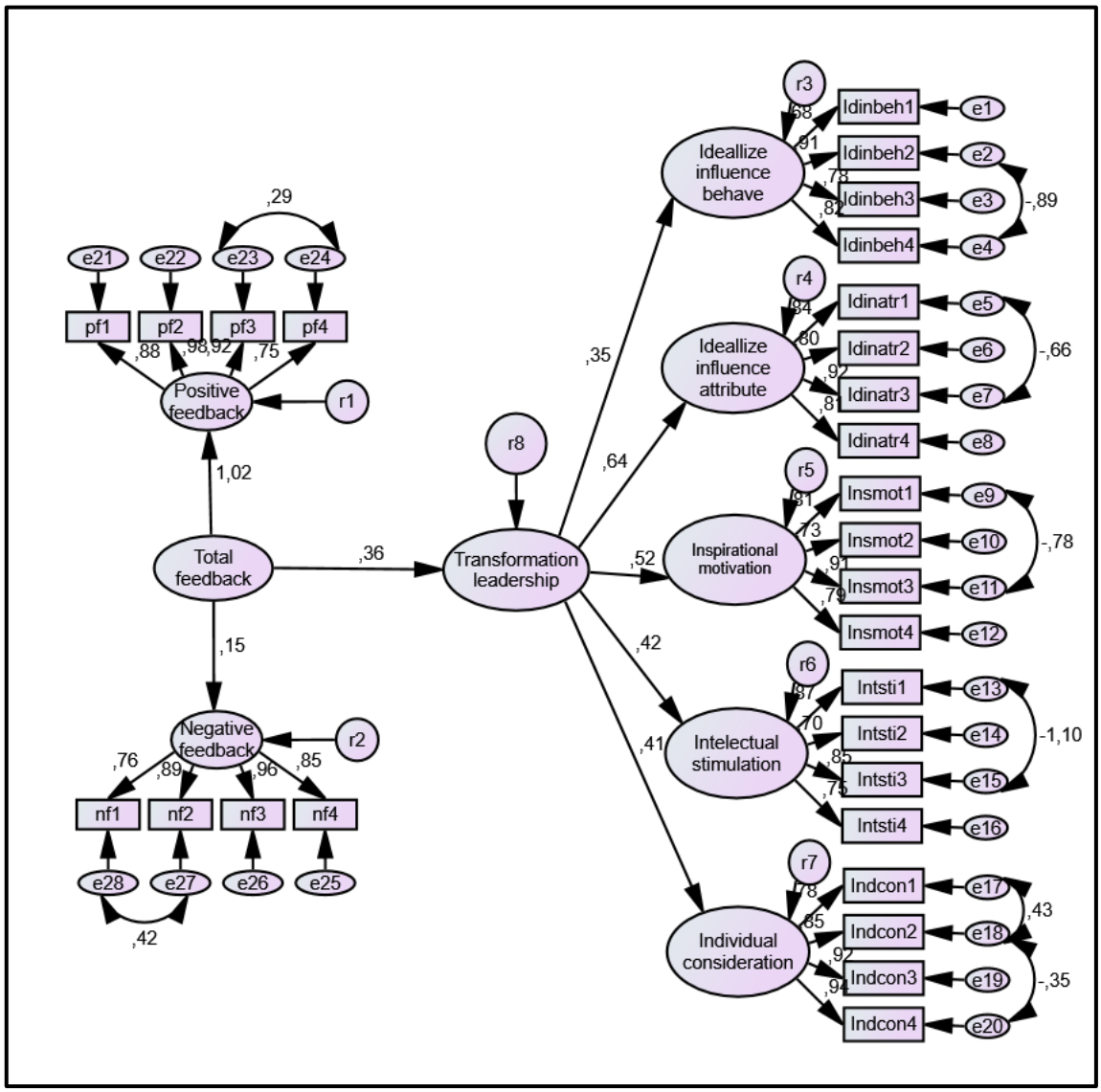


Figure 15. SEM model for 360-degree total feedback and transformation leadership

The Output is based on SEM compliance indices are presented in Table 30. The obtained values provide evidence that fit indices are within acceptable limits and that the model has structurally adequate compliance values. It was found that the model compatibility indices (χ^2/df) between the 360-degree total feedback and transformation leadership had good fit values. Other indicators such as IFI, TLI, CFI, GFI and RMSEA values also had acceptable compliance value (Meydan and Şeşen, 2011; Gürbüz).

Table 30

SEM Index for 360 Degree Total Feedback and Transformation Leadership

Fit index	χ^2 test	(χ^2/df)	IFI	TLI	CFI	GFI	RMSEA
Good Fit	(P > 0,05)	≤ 3	≥0,95	≥0,95	≥0,95	≥0,90	>0,05
Acceptable fit	-	≤ 4-5	0,94-0,90	0,94-0,90	>0,90	0,89-0,85	0,06-0,08
Model fit index	,000	2,003	,95	,94	,95	,88	,055

After confirming the goodness of model fit indices, regression analysis is conducted for measuring the impact of 360-degree feedback on transformational leadership. The output of the regression analysis is shown in table 31.

Table 31

Regression Weights: Total Feedback on Transformation leadership

			Unstandardized Estimate	Standardized Estimate (ß)	S.E.	C.R.	P
Transformation Leadership	<---	Total feedback	,057	,358	,074	,777	,437

In the scope of the findings shown in table 32, it was found that the 360-degree total feedback had positive but insignificant (ß = 0.36, p >.05) effect on the Transformation leadership style. Output of the analysis support the null hypothesis. So

the study accept the null hypothesis (H1f) that there is no impact of 360-degree total feedback on transformation leadership style.

5.16 Relation between 360-degree Positive Feedback and Motivation for Leadership

The relation between 360-degree positive feedback and motivation to lead is analyzed by assuming the null hypothesis (H2a) that there is no impact of positive feedback on motivation to lead. The structural equation model showing the relationship between 360-degree positive feedback and Motivation to lead in figure 16.

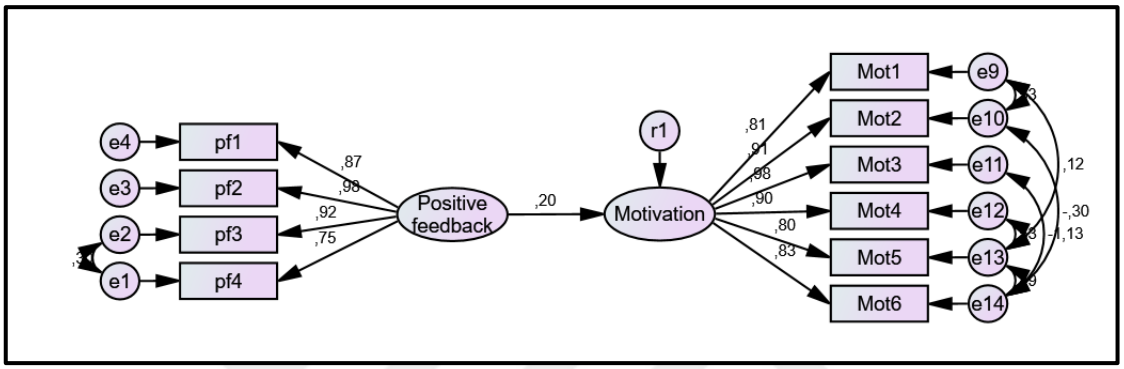


Figure 16. SEM model for positive feedback and motivation

SEM compliance indices are presented in Table 32. The obtained values provide evidence that fit indices are within acceptable limits and that the model has structurally adequate compliance values. It was found that the model compatibility indices (χ^2/df) between the 360-degree positive feedback and Motivation for leadership had good fit values. Other indicators such as IFI, TLI, CFI, GFI and RMSEA values also had acceptable compliance value (Meydan and Şeşen, 2011; Gürbüz).

Table 32

SEM Index for 360 Degree Positive Feedback And Motivation to lead.

Fit index	χ^2 test	(χ^2/df)	IFI	TLI	CFI	GFI	RMSEA
Good Fit	(P > 0,05)	≤ 3	≥0,95	≥0,95	≥0,95	≥0,90	>0,05
Acceptable fit	-	≤ 4-5	0,94-0,90	0,94-0,90	>0,90	0,89-0,85	0,06-0,08
Model fit index	,000	2,161	,991	,986	,991	,968	,060

After getting the sound model fit indices, regression is conducted to examine the impact of positive feedback on motivation to lead. The output from the regression analysis is shown in table 33.

Table 33

Regression Weights: Positive Feedback on Motivation to lead

		Unstandardized Estimate	Standardized Estimate (ß)	S.E.	C.R.	P
Motivation ←	Positive feedback	,169	,203	,047	3,614	***

In the scope of the findings shown in table 38, it was found that the 360-degree positive feedback had positive and significant (ß = .203, p < .05) effect on the motivation to lead. The output is shown in figure 15. The output of the regression analysis proves that the null hypothesis (H2a) that there is no impact of positive feedback on motivation to lead is not true. Therefore, the null hypothesis is rejected, and the study accepts the alternative hypothesis (H3a) that there is a positive impact of positive feedback on motivation to lead.

5.17. Relation Between 360 Degree Negative Feedback And Motivation to lead

The relation between 360-degree negative feedback and motivation to lead is analyzed by using structural equation modeling (SEM). To examine the relationship, the study assumed the null hypothesis (H2b) that There is no impact of negative feedback on motivation to lead. The structural equation model showing the relationship between 360-degree negative feedback and Motivation for leadership in figure 17.

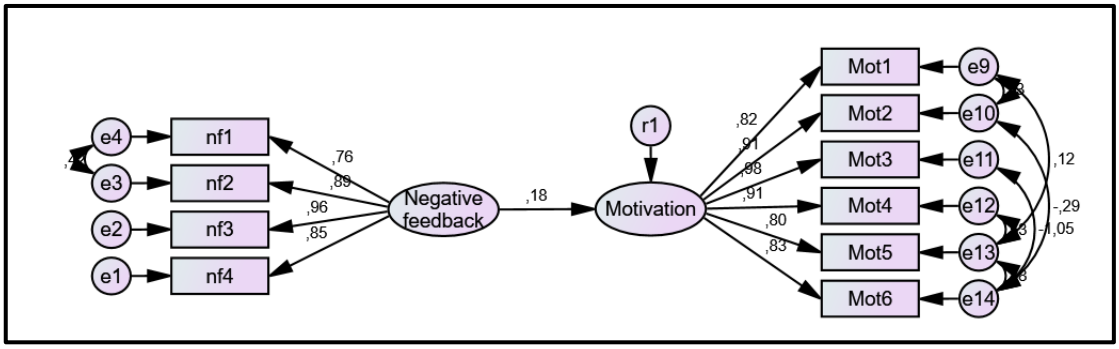


Figure 17. SEM model for negative feedback and motivation

SEM compliance indices are presented in Table 34. The obtained values provide evidence that fit indices are within acceptable limits and that the model has structurally adequate compliance values. It was found that the model compatibility indices (χ^2/df) between the 360-degree negative feedback and Motivation for leadership had good fit values. Other indicators such as IFI, TLI, CFI, GFI, and RMSEA values also had acceptable compliance value (Meydan and Şeşen, 2011; Gürbüz).

Table 34

SEM Index for 360 Degree Negative Feedback And Motivation to Lead.

Fit index	χ^2 test	(χ^2/df)	IFI	TLI	CFI	GFI	RMSEA
Good Fit	(P > 0,05)	≤ 3	≥0,95	≥0,95	≥0,95	≥0,90	>0,05
Acceptable fit	-	≤ 4-5	0,94-0,90	0,94-0,90	>0,90	0,89-0,85	0,06-0,08
Model fit index	,082	1,397	,997	,995	,997	,978	,035

After getting the sound SEM model fit indices for the relationship between negative feedback and motivation to lead regression analysis is applied to examine the impact of negative feedback on motivation to lead. The output of the regression is shown in table 35.

Table 35

Regression Weights: Negative Feedback on Motivation to Lead

		Unstandardized Estimate	Standardized Estimate (ß)	S.E.	C.R.	P
Motivation ←	Negative feedback	,115	,175	,037	3,109	,002

In the scope of the findings shown in table 40, it was found that the negative feedback had positive and significant (ß = .175, p < .05) effect on the Transformation

leadership style. The regression output for the standardized estimate is shown in figure 14. The evidence from the regression analysis output is in favor of the alternative hypothesis (H2b) that there is a positive impact of negative feedback on motivation to lead. Therefore, our alternative hypothesis (H2b) is accepted.

5.18.Relation between 360 degree Total feedback and Motivation to Lead

The relation between 360-degree total feedback and motivation to lead is analyzed using a structural equation model (SEM). To examine the relationship, the study assumed the null hypothesis (H2c) that there is no impact of 360-degree total feedback and motivation to lead. The structural equation model showing the relationship between 360-degree total feedback and Motivation to lead in figure 18.

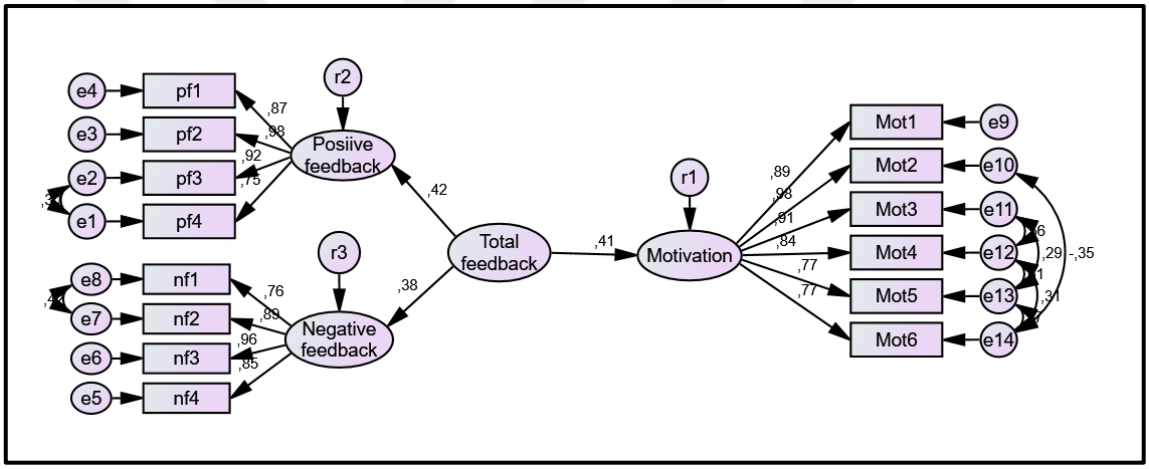


Figure 18. SEM model for 360 degree total feedback and motivation

SEM compliance indices are presented in Table 36. The obtained values provide evidence that fit indices are within acceptable limits and that the model has structurally adequate compliance values. It was found that the model compatibility indices (χ^2/df) between the 360-degree positive feedback and Motivation for leadership had good fit values. Other indicators such as IFI, TLI, CFI, GFI, and RMSEA values also had acceptable compliance value (Meydan and Şeşen, 2011; Gürbüz).

Table 36

SEM Index for 360 Degree Total Feedback And Motivation to Lead.

Fit index	χ^2 test	(χ^2/df)	IFI	TLI	CFI	GFI	RMSEA
Good Fit	(P > 0,05)	≤ 3	≥0,95	≥0,95	≥0,95	≥0,90	>0,05
Acceptable fit	-	≤ 4-5	0,94-0,90	0,94-0,90	>0,90	0,89-0,85	0,06-0,08
Model fit index	,000	2,014	,98	,98	,98	,95	,056

After getting the sound model fit indices, the study conducted a regression analysis to examine the impact of 360-degree total feedback on motivation to lead. The output of the regression analysis is shown in table 37.

Table 37

Regression Weights: Negative Feedback on Motivation to Lead

		Unstandardized Estimate	Standardized Estimate (ß)	S.E.	C.R.	P
Motivation ←	Total feedback	,884	,407	,424	2,084	,037

In the scope of the findings shown in table 42, it was found that the 360-degree total feedback had positive and significant (ß = .41, p < .05) effect on the motivation to lead. The standardized estimate of the regression analysis is shown in figure 14. The evidence of regression output is in favor of the alternative hypothesis (H2c) that there is a positive impact of 360-degree total feedback on motivation to lead. Therefore, the alternative hypothesis H2c is accepted.

5.19. Relation Between Motivation to Lead And Servant Leadership Style

The stated relationship addressed from the assumed the null hypothesis (H3a) that There is no impact of motivation to lead on servant leadership style. The relation

between motivation to lead and servant leadership style is analyzed using The structural equation model (SEM). The structural equation model showing the relationship between motivation to lead and servant leadership in figure 19.

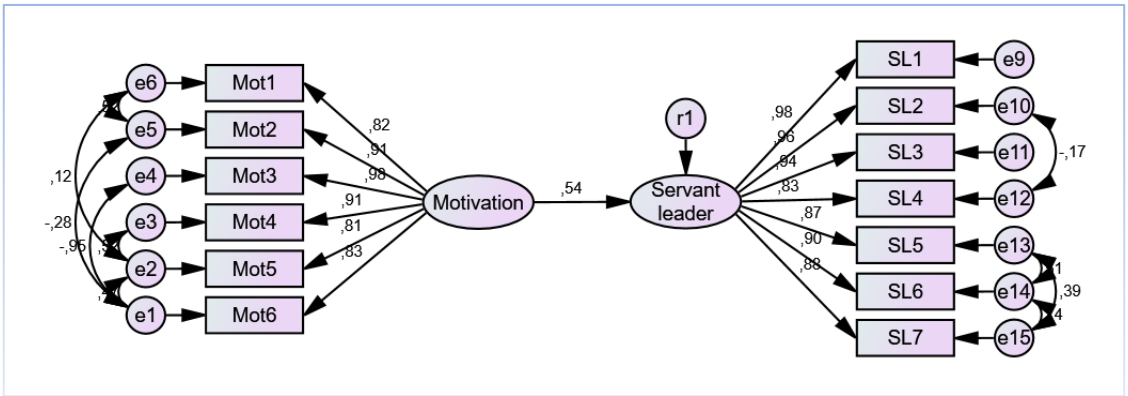


Figure 19. SEM model for motivation to lead and servant leadership

SEM compliance indices are presented in Table 38. The obtained values provide evidence that fit indices are within acceptable limits and that the model has structurally adequate compliance values. It was found that the model compatibility indices (χ^2/df) between the motivation for leadership and servant leadership had good fit values. Other indicators such as IFI, TLI, CFI, GFI, and RMSEA values also had acceptable compliance value (Meydan and Şeşen, 2011; Gürbüz).

Table 38

SEM İndex Between Motivation to Lead And Servant Leadership

Fit index	χ^2 test	(χ^2/df)	IFI	TLI	CFI	GFI	RMSEA
Good Fit	(P > 0,05)	≤ 3	≥0,95	≥0,95	≥0,95	≥0,90	>0,05
Acceptable fit	-	≤ 4-5	0,94-0,90	0,94-0,90	>0,90	0,89-0,85	0,06-0,08
Model fit index	,028	1,40	,996	,995	,996	,967	,035

After getting the sound model fit indices for the relationship between motivation to lead and servant leadership regression analysis is applied to obtain the quantitative impact of motivation to lead on servant leadership style. The output from the regression analysis is shown in table 39.

Table 39

Regression Weights: Motivation to Lead on Servant Leadership

			Unstandardized Estimate	Standardized Estimate (ß)	S.E.	C.R.	P
Servant leadership	←	Motivation	,928	,538	,085	10,889	***

In the scope of the findings shown in table 34, it was found that the motivation to lead had positive and significant (ß = .538, p < .05) effect on the Transformation leadership style. So the study found evidence on behalf of the assumed alternative hypothesis. Therefore, the study accepts the alternative hypothesis (H3a) that there is a positive impact of motivation to lead on servant leadership style.

5.20. Relation Between Motivation to Lead And Transformation Leadership Style

The relationship between motivation to lead and transformational leadership style was analyzed by assuming the hypothesis (H3b) that There is no impact of motivation to lead on transformation leadership style. The structural equation model is showing the relationship between motivation for leadership and transformation leadership in figure 20.

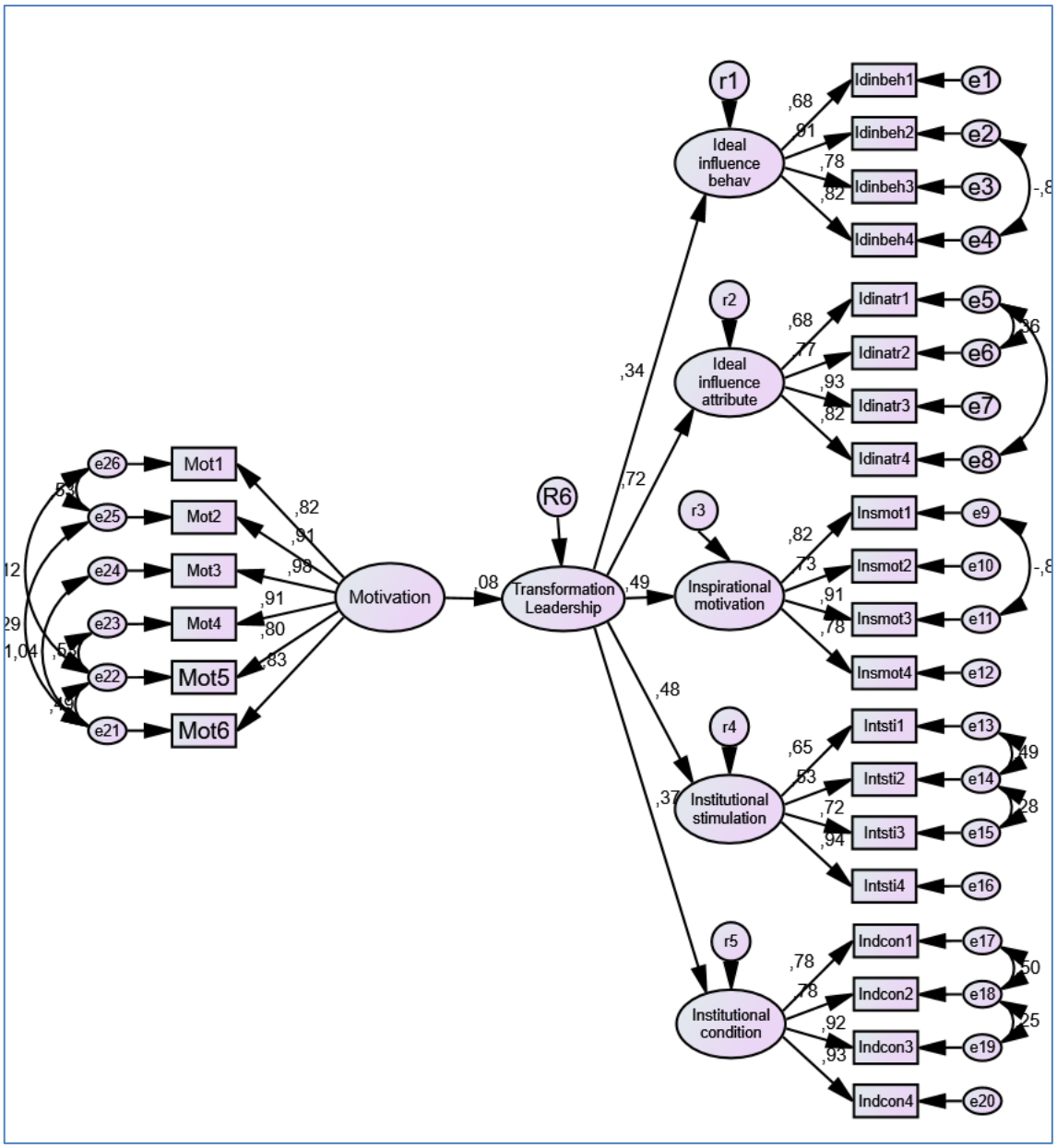


Figure 20. SEM model for motivation and transformation leadership

SEM compliance indices are presented in Table 40. The obtained values provide evidence that fit indices are within acceptable limits and that the model has structurally adequate compliance values. It was found that the model compatibility indices (χ^2/df) between the motivation for leadership and transformation leadership had good fit values. Other indicators such as IFI, TLI, CFI, GFI and RMSEA values also had acceptable compliance value (Meydan and Şeşen, 2011; Gürbüz).

Table 40

SEM Index for Motivation to Lead And Transformation Leadership

Fit index	χ^2 test	(χ^2/df)	IFI	TLI	CFI	GFI	RMSEA
Good Fit	(P > 0,05)	≤ 3	≥0,95	≥0,95	≥0,95	≥0,90	>0,05
Acceptable fit	-	≤ 4-5	0,94-0,90	0,94-0,90	>0,90	0,89-0,85	0,06-0,08
Model fit index	,000	2,036	,956	,948	,955	,888	,056

After getting sound SEM fit indices, regression analysis is applied to examine the impact of motivation to lead on transformation leadership style. The result of the regression analysis is shown in table 41.

Table 41

Regression Weights: Motivation to Lead on Transformation Leadership

			Unstandardized Estimate	Standardized Estimate (ß)	S.E.	C.R.	P
Transformation leadership	←	Motivation	,017	,080	,015	1,121	,262

In the scope of the findings shown in table 36, it was found that the motivation to lead had positive but insignificant (ß = .080, p > .05) effect on the Transformation leadership style. So there is evidence in favor of assumed null hypothesis (H3b) that there is no impact of motivation to lead on transformation leadership style.

5.21. Path Analysis and Mediation Tests

When the literature is examined, it is seen that Baron and Kenny (1986) model is used to analyze the mediation effect. According to Baron and Kenny (1986), the steps to be followed for determining the mediation effect are shown in Figure 21.

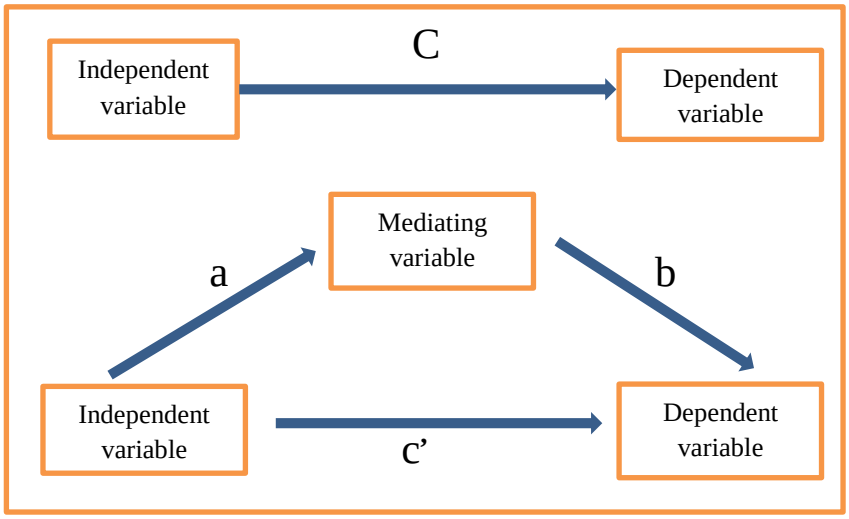


Figure 21. Mediation Effect Analysis Model

Source: Burmaoglu, S., Polat, M. and Meydan, C. H. (2013). An analysis on the use of relational analysis methods in organizational behavior and the use of mediation models in Turkish literature. Anadolu University Journal of Social Sciences, p.13-26.

Before the mediation analysis, the independent variable must directly affect the dependent variable (c), and there should be a significant relationship between them. Although this is what Baron and Kenny initially suggested, the first step that calculating direct effect between the dependent variable and the independent variable is controversial. Even if we don't find a significant association between dependent and independent variable, we could move forward to the next step if we have a good theoretical background about their relationship (Shrout & Bolger, 2002).

In the first stage of the mediation analysis, the independent variable must directly affect the mediating variable (a), and there should be a significant relationship between them. In the second stage, the mediating variable should directly affect the dependent variable (b), and there should be a significant relationship between the variables.

In the third stage, when the regression between the independent variable and the mediating variable is inserted together, full mediation will exist when the statistical relationship between the independent variable and the dependent variable (c') is insignificant, and if it is significant, it is partial mediation occurred.

At this stage, the relationship between the mediating variable and the dependent variable should also be significant. In this case, it can be mentioned that the independent variable indirectly affects the dependent variable through the mediator variable (Baron and Kenny, 1986; Preacher and Hayes, 2008).

Some researchers in the mediation model consider only the second and third stage is sufficient for the mediation effect (Kenny et al., 1998). Mediation process that conducted by Baron and Kenny (1986) methods were re-tested with Sobel test (Baron, Kenny, 1986). Generally, Sobel (1982) test is used as the last step in testing whether the mediation effect is statistically significant in academic studies (Burmaoğlu, Polat and Meydan, 2013).

In Sobel test analysis, non-standardized regression coefficient (β) values and their standard errors are taken into account as an indicator in the direct effect of the independent variable on the dependent variable and the mediating variable (Sobel, 1982; Baron and Kenny, 1986; Soper, 2015). The Sobel test calculator prepared by Soper (2015) was used to control the mediation analysis in online.

5.22 Role of motivation as a mediator between positive feedback and servant leadership

Beginning of the analysis role of the mediator is assumed by the null hypothesis (H4a) that Motivation to lead does not mediate the relationship between positive feedback and servant leadership style. Mediation analysis of the study calculated using SEM path analysis. The mediation effect is shown in figure 22.

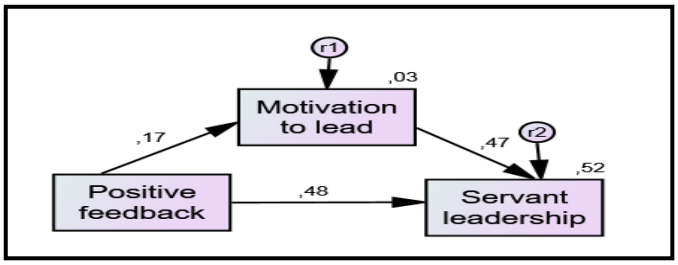


Figure 22. Path analysis for mediating role of motivation to lead between positive feedback and servant leadership

At the beginning of the study it is found a significant positive impact of 360-degree positive feedback on servant leadership. After that in this section, the SEM path analysis is applied to examine the mediation effect. The result of the SEM path analysis is shown in table 42.

Table 42

Regression Statistics for Mediation Analysis : Postive Feedback and Servant Leadership

			Unstandardized Estimate	Standardized Estimate (ß)	S.E.	C.R.	P
Motivation	<---	Positive feedback	,124	,170	,040	3,112	,002
Servant leadership	<---	motivation	,762	,466	,063	12,015	***
Servant leadership	<---	Positive feedback	,575	,481	,046	12,404	***

According to the findings given in table 43, in the first stage of mediation analysis, 360-degree positive feedback had found positive significant (ß = 0.170, p <.05) impact on motivation to lead. In the second stage motivation to lead had found significant (ß = .466, p <.05) relationship with servant leadership. In the third stage, positive feedback had found significant (ß = 0.481, p <.05) impact on servant leadership style. Therefore, according to Baron and Kenny (1986) methodology, motivation to lead is acting as a mediator between 360-degree positive feedback and servant leadership. As the relationship between positive feedback and servant leadership is also significant the motivation to lead is acting as a partial mediator for the analysis.

SEM path analysis indicates the mediation effect of the motivation to lead in between positive feedback and servant leadership. Here in this stage the indirect effect or mediation effect is examined using two tests to see if this mediation effect is statistically significant (different from zero or not). There are two main approaches: the Sobel test (Sobel, 1982) by using online Sobel test calculator and bootstrapping (Preacher & Hayes, 2004).

The output of the Sobel test is shown the figure 23. The test statistic score (z = 3.002, p <.05) of the Sobel test is found significant.

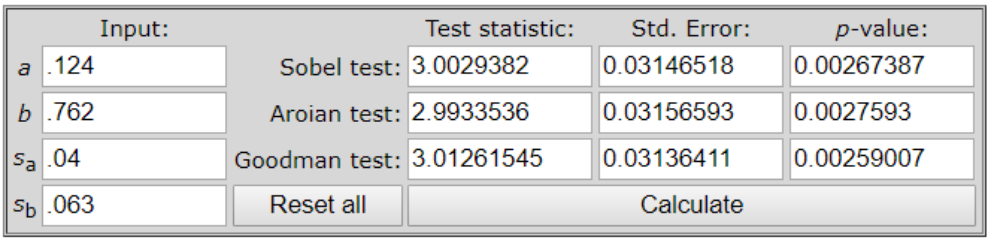


Figure 23. Sobel test output for role motivation between positive feedback and servant leadership.

Source: Online Sobel test calculator. Retrieve from: http://quantpsy.org/sobel/sobel.htm on 9th January, 2019.

Again the study examined the indirect mediation effect using AMOS bootstrapping process. The output from bootstrapping is shown in table 43. Bootstrapping test was applied under the condition of 5000 number of bootstrap samples and 95% Bias-corrected confidence intervals. The results are showing in the table that both the direct and indirect effect from positive feedback towards servant leadership is significant (p <.05). That means there is a partial mediation effect exists between positive feedback and servant leadership.

Table 43

Standardized Effects (direct and indirect) - Two Tailed Significance : Motivation to Lead, Servant Leadership, and Positive Feedback

	Standardized Indirect Effects			Standardized Direct Effects		
	Positive feedback	Motivation	Servant leadership	Positive feedback	Motivation	Servant leadership
Motivation	...	...	...	,002	...	...
Servant leadership	,001	...	...	,000	,000	...

Mediation effect examined in the path analysis is found valid in both Soble test and AMOS bootstrapping output. The evidence is in favor of the alternative hypothesis (H4a) that Motivation to lead mediates the relationship between positive feedback and servant leadership style. Hence, the alternative hypothesis (H4a) is accepted.

In this part, the direct and indirect effect of positive feedback on servant leadership is summarized in table 44.

Table 44

Path Analytic Direct and Indirect Effects between Positive Feedback and Servant Leadership

	Direct effect on servant leadership	Indirect effect on servant leadership	Total effect on servant leadership
Positive feedback	,481	,079	,560
Motivation	,170	,000	,170

Total direct effect from positive feedback to servant leadership is found 0.481 and indirect effect through motivation to lead is 0.079. And hence the total impact of positive feedback on servant leadership is 0. 560.

5.23. Role of motivation as a mediator between negative feedback and servant leadership

The mediation role of motivation to lead in between negative feedback and servant leadership is analyzed by assuming the null hypothesis (H4b) that motivation to lead does not mediate the relationship between negative feedback and servant leadership style. The result of the mediation effect calculated using SEM path analysis. The path analytical diagram is shown the figure 24.

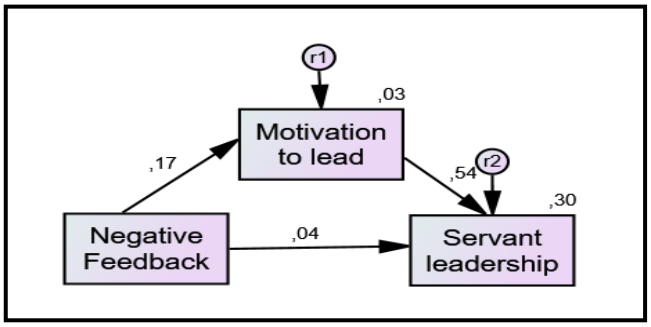


Figure 24. Path analysis for mediating role of motivation to lead between negative feedback and servant leadership

At the beginning of the study it is found a significant positive impact of 360-degree negative feedback on servant leadership. After that in this section, the SEM path analysis is applied to examine the mediation effect. The result of the SEM path analysis is shown in table 45.

Table 45

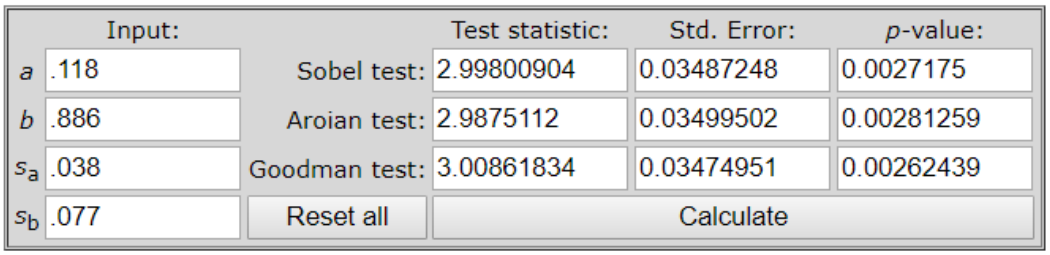
Regression Statistics for Mediation Analysis: Negative Feedback and Servant Leadership

			Unstandardized Estimate	Standardized Estimate (ß)	S.E.	C.R.	P
Motivation	<---	Negative feedback	,118	,172	,038	3,149	,002
Servant leadership	<---	Motivation	,886	,541	,077	11,516	***
Servant leadership	<---	Negative feedback	,040	,035	,053	,752	,452

According to the findings given in table 46, in the first stage of mediation analysis, 360-degree negative feedback had found positive significant (ß = 0.172, p <.05) impact on motivation to lead. In the second stage motivation to lead had found significant (ß = .541, p <.05) relationship with servant leadership. In the third stage negative feedback had found insignificant (ß = 0.035, p >.05) impact on servant leadership style. Therefore, according to Baron and Kenny (1986) methodology, motivation to lead is acting as a mediator between 360-degree negative feedback and servant leadership. As the relationship between negative feedback and servant leadership is insignificant, the motivation to lead is acting as a full mediator in the analysis.

SEM path analysis indicates the mediation effect of the motivation to lead in between negative feedback and servant leadership. Here in this stage the indirect effect or mediation effect is examined using two different tests to see if this mediation effect is statistically significant (different from zero or not). There are two main approaches: the Sobel test (Sobel, 1982) by using online Sobel test calculator and bootstrapping (Preacher & Hayes, 2004).

The output of the Sobel test is shown the figure 25. The test statistic score (z = 2.99, p <.05) of the Sobel test is found significant.



Input:			Test statistic:	Std. Error:	*p*-value:
a	.118	Sobel test:	2.99800904	0.03487248	0.0027175
b	.886	Aroian test:	2.9875112	0.03499502	0.00281259
s_a	.038	Goodman test:	3.00861834	0.03474951	0.00262439
s_b	.077	Reset all	Calculate		

Figure 25. Sobel test output for role motivation between negative feedback and servant leadership.

Source: Online Sobel test calculator. Retrieve from: http://quantpsy.org/sobel/sobel.htm on 9th January, 2019.

Again the study examined the indirect mediation effect using AMOS bootstrapping process. The output from bootstrapping is shown in table 47. Bootstrapping test was applied under the condition of 5000 number of bootstrap samples and 95% Bias-corrected confidence intervals. The results are showing in the table that the direct effect from the negative feedback to servant leadership is insignificant and indirect effect from negative feedback towards servant leadership is significant (p <.05). That means there is full mediation effect exist between positive feedback and servant leadership.

Table 46

Standardized Effects (direct and indirect) - Two Tailed Significance : Motivation to Lead, Servant Leadership and Negative Feedback

	Standardized Indirect Effects			Standardized Direct Effects		
	Negative feedback	Motivation	Servant leadership	Negative feedback	Motivation	Servant Leadership
Motivation	...	...	...	,002	...	...
Servant leadership	,002	...	...	,407	,000	...

Mediation effect examined in the path analysis is found valid in both Soble test and AMOS bootstrapping output. The evidence is in favor of the alternative hypothesis (H4b) that motivation to lead mediates the relationship between negative feedback and servant leadership style. Hence, the alternative hypothesis (H4b) is accepted.

In this part, the direct and indirect effect of negative feedback on servant leadership due to the mediation effect is presented in table 47.

Table 47

Path analytic direct and indirect effects between Negative feedback and Servant leadership

	Direct effect on servant leadership	Indirect effect on servant leadership	Total effect on servant leadership
Negative feedback	,035	,093	,128
Motivation	,541	,000	,541

Total direct effect from negative feedback to servant leadership is found 0.035 and indirect effect through motivation to lead is 0.093. And hence the total impact of positive feedback on servant leadership is 0.128.

5.24. Role of motivation as a mediator between positive feedback and transformation leadership

Beginning of the analysis role of the mediator is assumed by the null hypothesis (H4c) that Motivation to lead does not mediate the relationship between positive feedback and transformation leadership style. Mediation analysis of the study calculated using SEM path analysis. The mediation effect is shown in figure 26.

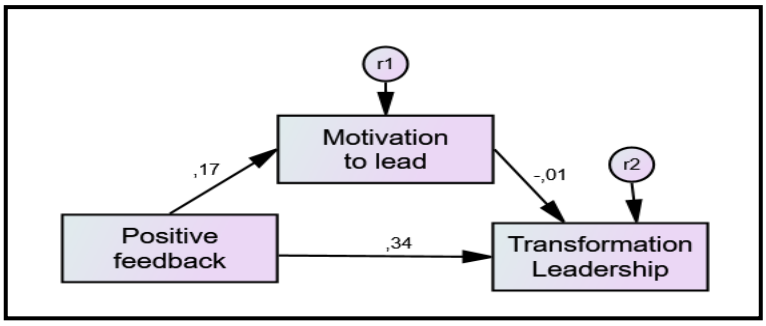


Figure 26. *Path analysis for mediating role of motivation to lead between positive feedback and transformation leadership*

At the beginning of the study it is found a positive significant impact of 360-degree negative feedback on transformational leadership. After that in this section, the SEM path analysis is applied to examine the mediation effect. The result of the SEM path analysis is shown in table 48.

Table 48

Regression Statistics for Mediation Analysis: Positive Feedback and Transformation Leadership and Motivation for Leadership

			Unstandardized Estimate	Standardized Estimate (ß)	S.E.	C.R.	P
Motivation	<---	Positive feedback	,124	,170	,040	3,112	,002
Transformation leadership	<---	Motivation	-,003	-,006	,026	-,116	,908
Transformation leadership	<---	Positive feedback	,125	,344	,019	6,511	***

According to the findings given in table 49, in the first stage of mediation analysis, 360-degree positive feedback had found positive significant (ß = 0.170, p <.05) impact on motivation to lead. In the second stage motivation to lead had found negative but insignificant (ß = -.006, p >.05) relationship with transformational leadership. And in the third stage, positive feedback had found significant (ß = 0.344, p <.05) impact on servant leadership style. Therefore, according to Baron and Kenny

(1986) methodology, motivation to lead is not acting as a mediator between 360-degree positive feedback and transformation leadership.

Although path analysis showed that the mediation effect is not significant, bootstrapping was performed to check the indirect impact. The output from bootstrapping has shown in table 49.

Table 49

Standardized Indirect Effects - Two Tailed Significance: Motivation to Lead, Servant Leadership. and Positive Feedback

	Positive feedback	Motivation
Motivation	...	...
Transformation leadership	,844	...

Bootstrapping test was applied under the condition of 5000 number of bootstrap samples and 95% Bias-corrected confidence intervals. The results are showing in the table that the indirect effect from 360-degree positive feedback towards transformation leadership is not significant (p >.05). That means there is no mediation effect exists between 360-degree total feedback and transformation leadership. All the evidence found in the analysis is enough to conclude that the null hypothesis (H4c) Motivation to lead does not mediate the relationship between positive feedback and transformation leadership style is not true. Hence, the study accepts the null hypothesis.

5.25. Role of Motivation as A Mediator between Negative Feedback and Transformation Leadership

The role of motivation to lead as a mediator between negative feedback and transformational leadership is analyzed assuming the null hypothesis (H4d) that Motivation to lead does not mediate the relationship between negative feedback and transformation leadership style. SEM path analysis is used to examine the mediation effect. The result of SEM output is shown in figure 27.

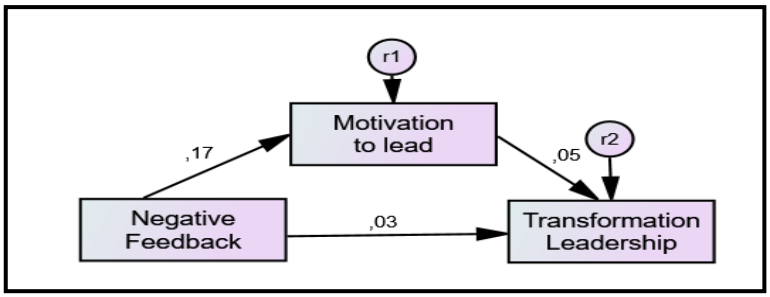


Figure 27. Path analysis for the mediating role of motivation to lead between negative feedback and transformation leadership

At the beginning of the study it is found that negative feedback had a positive but insignificant impact on transformation leadership. The result of mediation analysis from the path analysis is shown in table 50.

Table 50

Regression Statistics for Mediation Analysis: Negative Feedback and Transformation Leadership and Motivation for Leadership

			Unstandardized Estimate	Standardized Estimate	S.E.	C.R.	P
Motivation	<---	Negative feedback	,118	,172	,038	3,149	,002
Transformation leadership	<---	motivation	,024	,047	,028	,844	,399
Transformation leadership	<---	Negative feedback	,010	,029	,019	,508	,611

In the first stage of the mediation process, 360-degree negative feedback had found positive significant (ß = 0,172, $p < .05$) impact on motivation to lead. In the second stage motivation for leadership had found insignificant (ß = .047, $p < .05$) relationship with transformation leadership. Therefore, according to Baron and Kenny (1986) methodology, the motivation for leadership is not acting as a mediator between 360-degree negative feedback and transformation leadership.

The path results reported in Fig. 27 showing the mediating role of the motivation to lead between 360-degree negative feedback and transformation leadership.

Bootstrapping test was applied under the condition of 5000 number of bootstrap samples and 95% Bias-corrected confidence intervals. The result is shown in table 51.

Table 51

Standardized Indirect Effects - Two-Tailed Significance: Motivation to Lead, Transformation Leadership and Negative Feedback

	Negative feedback	Motivation
Motivation	...	...
Transformation leadership	,277	...

The results are showing in table 52 that the indirect effect from 360-degree negative feedback towards transformation leadership is not significant (p >.05). That means there is no mediation effect exists between 360-degree negative feedback and transformation leadership. The result found from the analysis is enough to say the null hypothesis (H4d) Motivation to lead does not mediate the relationship between negative feedback and transformation leadership style is true. Hence, the study accepts the null hypothesis.

5.26. Role of motivation as a mediator between total feedback and servant leadership

Role of motivation to lead as a mediator between 360-degree total feedback and servant leadership is examined by assuming the null hypothesis (H4e) that motivation to lead does not mediate the relationship between 360-degree total feedback and servant leadership style. SEM path analysis is used to examine the hypothesis. The path analytical relationship is shown in figure 28.

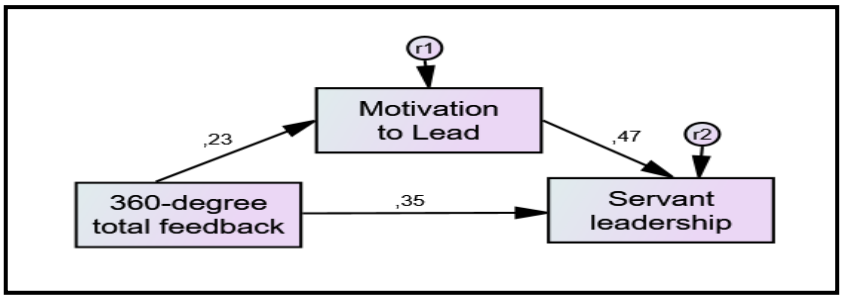


Figure 28. Path analysis for the mediating role of motivation to lead between 360-degree total feedback and servant leadership

At the beginning of the study it is found that 360-degree total feedback had a positive and significant impact on servant leadership. The result of mediation analysis from the path analysis is shown in table 52.

Table 52

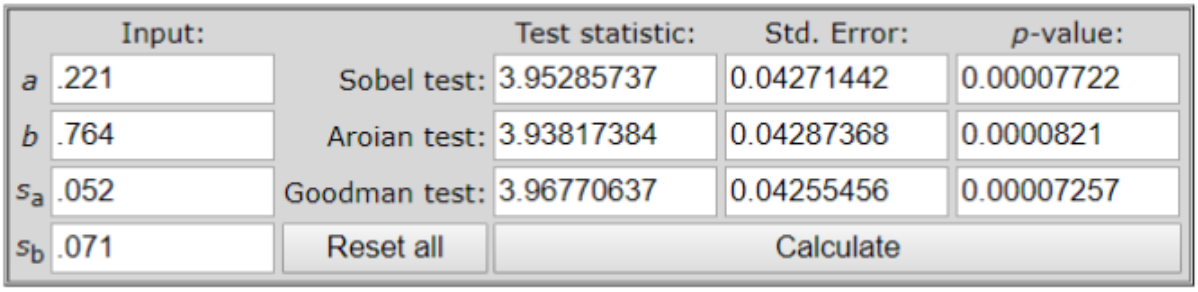
Regression Statistics for Mediation Analysis: Total Feedback, Servant Leadership, and Motivation for Leadership

			Unstandardized Estimate	Standardized Estimate (ß)	S.E.	C.R.	P
Motivation	<---	Total feedback	,221	,231	,052	4,278	***
Servant leadership	<---	Motivation	,764	,467	,071	10,726	***
Servant leadership	<---	Total feedback	,545	,348	,068	7,988	***

In the first stage of mediation analysis, 360-degree total feedback had found positive significant (ß = .23, $p < .05$) impact on motivation for leadership. In the second stage motivation for leadership had found significant (ß = .467, $p < .05$) relationship with servant leadership. And in the third stage 360-degree total feedback had found positive and significant (ß = .348, $p < .05$) impact on servant leadership. The path results reported in Fig. 25 showing the mediating role of the motivation to lead between 360-degree total feedback and servant leadership. These findings indicate that the motivation for leadership working as a partial mediator between 360-degree total feedback and servant leadership (Baron and Kenny, 1986).

SEM path analysis indicates the mediation effect of the motivation to lead in between 360-degree total feedback and servant leadership. Here in this stage the indirect effect or mediation effect is examined using two different tests to see if this mediation effect is statistically significant (different from zero or not). To do so, there are two main approaches: the Sobel test (Sobel, 1982) by using online Sobel test calculator and bootstrapping (Preacher & Hayes, 2004).

The output of the Sobel test is shown the figure 29. The test statistic score (z = 3.95, p <.05) of the Sobel test is found significant.



Input:			Test statistic:	Std. Error:	*p*-value:
a	.221	Sobel test:	3.95285737	0.04271442	0.00007722
b	.764	Aroian test:	3.93817384	0.04287368	0.0000821
s_a	.052	Goodman test:	3.96770637	0.04255456	0.00007257
s_b	.071	Reset all	Calculate		

Figure 29. Sobel test output for role motivation between total feedback and servant leadership

Source: Online Sobel test calculator. Retrieve from: http://quantpsy.org/sobel/sobel.htm on 9th January 2019.

Again the study examined the indirect mediation effect using AMOS bootstrapping process. The output from bootstrapping is shown in table 53. Bootstrapping test was applied under the condition of 5000 number of bootstrap samples and 95% Bias-corrected confidence intervals.

Table 53

Standardized Direct and Indirect Effects - Two-Tailed Significance: Motivation to Lead, Servant Leadership and Total Feedback

	Standardized Indirect Effects			Standardized Direct Effects		
	Total feedback	Motivation	Servant leadership	Total feedback	Motivation	Servant Leadership
Motivation	...	...	...	,000	...	...
Servant leadership	,000	...	...	,000	,000	...

The results are showing in table 54 indicated that the direct and indirect effect from the 360-degree total feedback to servant leadership is significant ($p < .05$). That means there is a partial mediation effect exist between 360-degree total feedback and servant leadership.

Mediation effect examined in the path analysis is found valid in both Soble test and AMOS bootstrapping output. The evidence is in favor of the alternative hypothesis (H4e) that motivation to lead mediates the relationship between 360- degree total feedback and servant leadership style. Hence, the alternative hypothesis (H4e) is accepted.

In this part, the direct and indirect effect of 360-degree total feedback on servant leadership is summarized in table 54.

Table 54

Path Analytic Direct and Indirect Effects between 360-degree Total Feedback and Servant Leadership

	Direct effect on servant leadership	Indirect effect on servant leadership	Total effect on servant leadership
Total feedback	,348	,108	,456
Motivation	,467	,000	,467

Total direct effect from 360-degree total feedback to servant leadership is 0.348, and indirect effect is found 0.108 through motivation to lead. And hence the total impact of 360-degree total feedback on servant leadership is 0.456

5.27. Role of Motivation as A Mediator between Total Feedback and Transformation Leadership

Role of motivation to lead as a mediator between 360-degree total feedback and transformation leadership is examined by assuming the null hypothesis (H4f) that motivation to lead does not mediate the relationship between 360- degree total feedback and transformation leadership style. SEM path analysis is used to examine the hypothesis. The path analytical relationship is shown in figure 30.

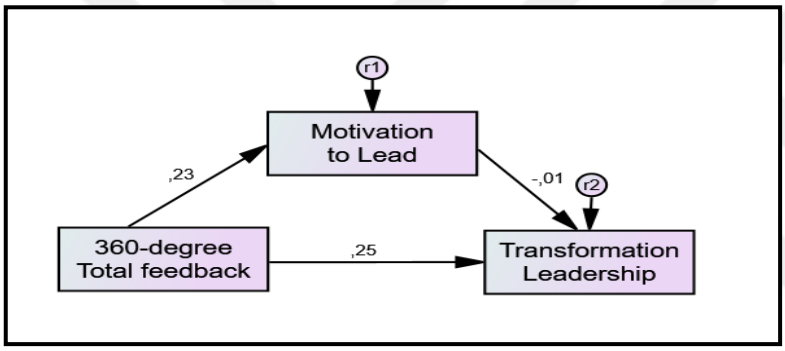


Figure 30. Path analysis for the mediating role of motivation to lead between 360-degree total feedback and transformation leadership

At the beginning of the study it is found that 360-degree total feedback had a positive but insignificant impact on transformation leadership. The result of mediation analysis from the path analysis is shown in table 55.

Table 55

Regression Statistics for Mediation Analysis: Total Feedback, Transformation Leadership, and Motivation for Leadership

			Unstandardized Estimate	Standardized Estimate	S.E.	C.R.	P
Motivation	<---	Total feedback	,221	,231	,052	4,278	***
Transformation leadership	<---	Motivation	-,003	-,006	,027	-,102	,919
Transformation leadership	<---	Total feedback	,120	,251	,026	4,555	***

In the first stage of mediation analysis, 360-degree total feedback had found a positive significant impact on motivation for leadership. In the second stage motivation for leadership had found insignificant (ß = .55, p < .05) relationship with transformation leadership. Therefore, according to Baron and Kenny (1986) methodology, motivation to lead is not acting as a mediator between 360-degree total feedback and transformation leadership. The path results reported in Fig. 27 showing the mediating role of the motivation for leadership between 360-degree total feedback and transformation leadership.

Bootstrapping test was applied under the condition of 5000 number of bootstrap samples and 95% Bias-corrected confidence intervals. The result of the bootstrapping is shown in table 56.

Table 56

Standardized Indirect Effects - Two-Tailed Significance: Transformation Leadership and Total Feedback

	Total feedback	Motivation
Motivation	...	...
Transformation leadership	,915	...

The results are showing in table 57 that the indirect effect from 360- degree total feedback towards transformation leadership is not significant (p >.05). That means there

is no mediation effect exists between 360-degree negative feedback and transformation leadership. The result found from the analysis is enough to say the null hypothesis (H4f) Motivation to lead does not mediate the relationship between 360 -degree total feedback and transformation leadership style is true. Hence, the study accepts the null hypothesis.

Summary of Path Analytic Direct and Indirect Effects

Path analysis output is prepared from the mediation analysis. Between the two leadership style servant leadership had found significant direct and indirect relationship with 360-degree feedback.

Table 57

Summary of Path Analytic Effects

	Direct effect on servant leadership	Indirect effect on servant leadership	Total effect on servant leadership
Positive feedback	,481	,079	,560
Negative feedback	,035	,093	,128
Total feedback	,348	,108	,456

Summary of path analytical output is presented in table 57. The total effect on servant leadership from positive feedback is found 0.560 which is highest, whereas the total impact on servant leadership from negative feedback is found 0.128 which is lowest. Finally, the total effect on servant leadership from 360-degree total feedback is 0.456.

5.28. Demographic Variable and Leadership Style

Independent sample t-test was used to investigate the impact of gender difference on leadership style. Variance analysis (ANOVA) was used to examine the variables (age and duration of service) with more than two groups. One-Way ANOVA test was used to compare the parameters between groups and the Post-hoc Tukey HSD test was used to determine the group that caused the difference (Kayri, 2009, s.53-57). Descriptive statistics of the demographic variable is shown in table 58.

Table 58

Means, Standard Deviations, And Correlations(Spearman) Of Study Variables With Demographic Control Variables.

Variables	Gender	Age Group	Years of Experience	Sector of organization
Positive feedback	-,006	,035	,029	-0,056
Negative Feedback	,002	,032	,013	,120*
Total feedback	-,003	,034	,049	,074
Motivation to lead	-,044	-,002	-,002	-,061
Servant leader	,020	,060	,011	-0.039
Transformation Leadership	,034	,081	-,052	-0.037
Mean	1,30	2,28	1,75	.49
Std. Deviation	,46	,46	,71	1.61

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

Results from the table 58 indicate that there is no significant correlation between demographic variable (e.g., gender, age, experience, and nature of organization) and study variable (e.g., positive feedback, negative feedback, motivation to lead, servant leadership, and transformation leadership).

5.29. Gender and Leadership Style

The relation between gender and leadership style is examined by assuming the null hypothesis (H5as) that there is no impact of gender differences on the mean score of servant leadership and the null hypothesis (H5at) that there is no impact of gender differences on the mean score of transformation leadership. Independent sample t-test was used to investigate the differences in the mean leadership scores for males and females. The result of the independent sample t-test is shown in table 59.

Table 59

Differences in the Leadership Style Based On Gender: t-Test

	Gender	N	Mean	Std. Deviation	Sig.	t-value
Servant leadership	Male	228	4,2694	,98761	,945	-,332
	Female	99	4,3088	,98080		
Transformation Leadership	Male	228	2,9568	,30734	,289	-1,652
	Female	99	3,0162	,27727		

Results from the t-test shown in Table 59 indicated that there was no significant difference {t(327) = -.332, p = .74} in scores for males (M = 4.27, SD = .98) and females (M = 4.27, SD = .98) So the evidence of the analysis result proves the null hypothesis (H5as) that there is no impact of gender differences on the mean score of servant leadership. Hence, the null hypothesis is accepted.

Also, independent-samples t-test was conducted to compare the transformatıon leadership scores for males and females. There was no significant difference { t (327) = -1.652, p = .10} in scores for males (M = 2.95, SD = .31) and females (M = 3.01, SD = .27). So the evidence of the analysis result proves the null hypothesis (H5at) that there is no impact of gender differences on the mean score of transformation leadership. Hence, the null hypothesis is accepted.

5.30. Experience and Leadership Style

The relation between leadership experience and leadership style is examined by assuming the null hypothesis (H5bs) that there is no impact of leadership experience on the mean score of servant leadership and the null hypothesis (H5bt) that there is no impact of leadership experience on the mean score of transformation leadership. One way ANOVA is used to investigate the differences in the mean leadership scores for leadership experience. The result of the ANOVA is shown in table 60.

Table 60

Differences in Leadership Style Perception Based On Leadership Experience: ANOVA

		N	Mean	Std. Deviation	F	Sig.
Servant leader	1 - 5 years	133	4,2889	,98669		
	6 - 10 years	143	4,2328	,99909		
	11 years or more	51	4,3978	,94343	,533	,587
	Total	327	4,2813	,98422		
Transformation Leadership	1 - 5 years	133	2,9617	,28176		
	6 - 10 years	143	2,9951	,30294		
	11 years or more	51	2,9520	,33466	,604	,547
	Total	327	2,9748	,29938		

A one-way between-groups analysis of variance was conducted to explore the impact of leadership experience on leadership style (servant and transformation leadership). Leadership experience was divided into three groups according to the age of experience (Group 1: 1 – 5 years; Group 2: 6- 10 years; and Group 3: 11 years or more). There was no significant difference at the $p<.05$, level in the servant leadership score for three age groups [$F (2, 324) = 0.533$, $p = 0.587$]. So the evidence of the analysis result proves the null hypothesis (H5bs) that there is no impact of leadership experience on the mean score of servant leadership. Hence, the null hypothesis is accepted.

Similarly, for transformation leadership a one-way between-groups analysis of variance was conducted to explore the impact of leadership experience on transformation leadership style for the same age group stated earlier. There was no significance difference at the $p<.05$, level in the transformation leadership score for three age groups [$F (2, 324) = 0.604$, $p = 0.547$]. So the evidence of the analysis result proves the null hypothesis (H5bt) that there is no impact of leadership experience on the mean score of transformation leadership. Hence, the null hypothesis is accepted.

5.31. Sector of Organization and leadership style

The relation between sector of organization and leadership style is examined by assuming the null hypothesis (H5cs) that there is no impact of the organizational sector on the mean score of servant leadership and the null hypothesis (H5ct) that there is no impact of the sector of organization on the mean score of transformation leadership. Independent sample t-test was used to investigate the differences in the mean leadership scores for organization types. The result of the independent sample t-test is shown in table 61.

Table 61

Differences in the Leadership Style Based On Nature of Organization: t-Test

	Sector of Organization	N	Mean	Std. Deviation	Sig.	t
Servant leadership	Manufacturing	126	4,3288	,94368	,475	,690
	Service	201	4,2516	1,00998		
Transformation Leadership	Manufacturing	126	2,9865	,31927	,382	,561
	Service	201	2,9674	,28678		

An independent-samples t-test was conducted to compare the servant leadership scores for manufacturing and service organization. There was no significant difference { t(325) = -.511, p = .475} in scores for manufacturing organization (M = 4.33, SD = .94) and service organization (M = 4.25, SD = 1.01). So the evidence of the analysis result proves the null hypothesis (H5cs) that there is no impact of the organizational sector on the mean score of servant leadership. Hence, the null hypothesis is accepted.

Also, independent-samples t-test was conducted to compare the transformatıon leadership scores for manufacturing and service organization. There was no significant difference { t(325) = .765, p = .382} in scores for manufacturing organization (M = 2.98, SD = .31) and females (M = 2.96, SD = .02). So the evidence of the analysis result proves the hypothesis (H5ct) that there is no impact of the sector of organization on the mean score of transformation leadership. Hence, the hypothesis is accepted.

5.32. Age and Leadership Style

The relation between organization types and leadership style is examined by assuming the hypothesis (H5as) that Leaders' age differences have no impact on servant leadership and (H5dt) that Leaders' age differences have no impact on transformation leadership.

For the relationship between age and servant leadership one way ANOVA is applied. The result of the ANOVA is shown in table 62

Table 62

Descriptive statistics and ANOVA: Age and Servant Leadership

Leadership style	Age group	N	Mean	Std. Deviation	F	Sig.
Servant leadership	26 - 35 years	118	4,2167	,94424	,327	,806
	36 - 40 years	81	4,2981	1,01775		
	41 - 45 years	48	4,3720	1,08986		
	46 years or more	80	4,3054	,95352		
	Total	327	4,2813	,98422		

A one-way between-groups analysis of variance was conducted to explore the impact of age on servant leadership style. Age of the leader was divided into four groups according to the age of experience (Group 1: 26 – 35 years; Group 2: 36- 40 years; Group 3: 41 – 45 years, and Group 4: 46 years or more). There was no significant difference at the $p<.05$, level in the servant leadership score for four age groups [$F (4, 327) = 0.327$, $p = 0.806$]. So the hypothesis (H5ds) that Leaders' age differences have no impact on servant leadership is true. Hence, the study hypothesis is accepted.

For the relationship between age and transformation leadership one way ANOVA is applied. The result of the ANOVA is shown in table 63.

Table 63

Descriptive statistics and ANOVA: Age and Transformation Leadership

Leadership style	Age group	N	Mean	Std. Deviation	F	Sig.
Transformation Leadership	26 - 35 years	118	2,9568	,26197	1,637	,181
	36 - 40 years	81	2,9710	,36124		
	41 - 45 years	48	2,9260	,31639		
	46 years or more	80	3,0344	,26643		
	Total	327	2,9748	,29938		

A one-way between-groups analysis of variance was conducted to explore the impact of age on transformation leadership style. Age of the leader was divided into four groups according to the age of experience (Group 1: 26 – 35 years; Group 2: 36- 40 years; Group 3: 41 – 45 years, and Group 4: 46 years or more). There was no significant difference at the $p<.05$, level in the servant leadership score for four age groups [$F (4, 327) = 0.327$, $p = 0.806$]. So the hypothesis (H5dt) that Leaders' age differences have no impact on transformation leadership is true. Hence, the study hypothesis is accepted.

5.33. Summary of Hypothesis Analysis

The current study assumed a total of 25 hypotheses to analyze the impact of 360-degree feedback on leadership style. Summary of the hypotheses is presented in table 64.

Table 64

Summary of Hypothesis Analysis

SI	Null Hypotheses	Supported hypothesis
1	H1a: There is no impact of positive feedback on servant leadership style.	Alternative
	H1b: There is no impact of negative feedback on servant leadership style.	Alternative
	H1c: There is no impact of positive feedback on the transformation leadership style.	Alternative
	H1d: There is no impact of negative feedback and transformation leadership style.	Null
	H1e: There is no impact of 360-degree total feedback on servant leadership style.	Alternative
	H1f: There is no impact of 360-degree total feedback on transformation leadership style.	Null
2	H2a: There is no impact of positive feedback on motivation to lead.	Alternative
	H2b: There is no impact of negative feedback on motivation to lead.	Alternative
	H2c: There is no impact of 360-degree total feedback and motivation to lead.	Alternative
3	H3a: There is no impact of motivation to lead on servant leadership style.	Alternative
	H3b: There is no impact of motivation to lead on transformation leadership style.	Null
4	H4a: Motivation to lead does not mediate the relationship between positive feedback and servant leadership style.	Alternative
	H4b: Motivation to lead does not mediate the relationship between negative feedback and servant leadership style.	Alternative
	H4c: Motivation to lead does not mediate the relationship between positive feedback and transformation leadership style	Alternative
	H4d: Motivation to lead does not mediate the relationship between negative feedback and transformation leadership style.	Null
	H4e: Motivation to lead does not mediate the relationship between 360-degree total feedback and servant leadership style.	Null
	H4f: Motivation to lead does not mediate the relationship between 360-degree total feedback and transformation leadership style.	Null
5	H5as: There is no impact of gender differences on the mean score of servant leadership.	Null

(Table 64. Continue)

	H5at: There is no impact of gender differences on the mean score of transformation leadership.	Null
	H5bs: There is no impact of leadership experience on the mean score of servant leadership.	Null
	H5bt: There is no impact of leadership experience on the mean score of transformation leadership.	Null
	H5cs: There is no impact of the organizational sector on the mean score of servant leadership.	Null
	H5ct: There is no impact of sector of organization on the mean score of transformation leadership.	Null
	H5ds: Leaders' age differences have no impact on servant leadership.	Null
	H5dt: Leaders' age differences have no impact on transformation leadership.	Null

The Significant relationship was found between 360-degree total feedback and servant leadership style. Also, motivation to lead is detected as an active mediator between the 360-degree feedback and servant leadership style. On the other hand, the present study did not find proper evidence of the significant relationship between 360-degree total feedback and transformation leadership. Also, motivation to lead is not acting as a mediator between 360-degree total feedback and transformation leadership.

Based on the hypothetical analysis final output model has shown in figure 31.

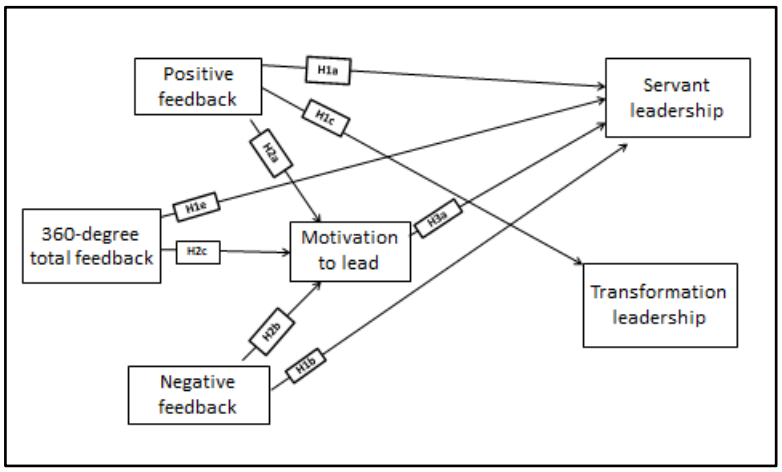


Figure 31. Final output model

Hypothesis linking with servant leadership was found accepted from the analysis. The impact on servant leadership from 360-degree total feedback, positive feedback, and negative feedback is significantly positive. On the other hand, the only impact from positive feedback on transformation leadership was found significant.

CHAPTER VI

CONCLUSION AND RECOMMENDATIONS

6.1. Introduction

This research study is intended to gain a precise and in-depth understanding of the impact of the 360-degree feedback process on leadership style. To understand the impact two leadership styles as the servant and transformational leadership was considered for analysis. The indirect effect of the 360-degree appraisal system on leaders' style through motivation also considered for analysis. The focus was on leaders who participate in 360-degree leadership development. The 360-degree development process provides a method for leaders to become a more effective leader. Requesting and receiving feedback from multiple resources motivates surrounding others to change behavior, participating in a more collaborative manner (Edwards & Ewen, 1996).

In this part of the study, the research questions and hypotheses of the study are dealt elaborately. The findings obtained from the relationship of the leadership style with 360-degree feedback and motivation is to discuss separately. The implications of the role of 360-degree feedback on the leadership styles and the mediating role in the relationship between the leadership styles and the 360-degree feedback are given. The findings obtained as a result of the analysis are explained by using the related literature. In addition to these, proposals for practical applications and future studies are offered for the organization.

It is observed that the average level of perception of transformational, and a servant leadership style of the employees was high who participated in the study. When the relationships between leadership styles were examined, it was found that servant leadership had a significant relation with 360-degree feedback. Liden et al. (2008) reported that the servant leadership measurement tool received similar feedback with the transformative leadership style measurement tool and measured the same values, but that both measuring instruments measured different values (Liden et al., 2008), and even on organizational outcomes. He stated that servant leadership gave better results than transformative leadership (Liden et al., 2013).

Proponents of 360-degree feedback believe that 360-degree feedback is a valuable tool because feedback comes from multiple perspectives and therefore is more reliable, fair, and objective than performance appraisal feedback. Those who favor the use of

360-degree feedback assessment believe that individuals will show a greater acceptance of feedback when it comes from multiple sources (Hazucha, Hezlett, & Schneider, 1993).

In contrast, some 360-degree feedback processes may impact performance negatively. In some situations, negative feedback creates discouragement and frustration for participants (Nowack, 2005). Researchers found that one-third of the participants who react negatively to feedback ratings showed a decrease in performance (Nowack, 2005, Reilly, Smither & Vasiopoulos, 1996, Kluger & DeNisi, 1998). Another study also found a similar result that some participants react negatively to feedback and are not satisfied with the 360-degree feedback process (Nowack, 2005).

There is some evidence that performance improvement will occur for some feedback recipients than for others. Many participants respond positively to both negative and positive feedback and are encouraged to improve his or her performance. Recent studies show a link to the participant's level of acceptance to feedback both positive and negative and improved performance (Smither, London, & Reilly, 2005). In the next, the individual relation between study variable along with the mediation effect between the dependent and independent variable presented elaborately with proper justification.

6.2. 360-degree Feedback And Leadership

The study test whether and how receiving positive or negative outcome feedback from supervisors, subordinates, peers, and customer in public and private contexts affects leadership style. The survey results positively supported research question about the meaningful relationship between 360-degree feedback and leadership styles. To analyse the research question one, positive feedback and negative feedback had considered as independent variable and servant leadership and transformation leadership considered as a dependent variable. Six hypotheses used to analyze the stated research question. Among the six hypotheses, the different observation was prepared based the data analysis.

In the scope of the research, it was found that there was a significant correlation between 360-degree positive feedback and servant leadership. According to the SEM analysis results, it is found that the 360-degree positive feedback has a significant positive impact on servant leadership. From this finding, it is clear that the more the

positive feedback from the superior, subordinate, peers, and customer the more the positive impact on being a servant leadership style. When the literature is examined, many studies are showing that there is a direct and indirect relationship between positive feedback and servant leadership.

On the other hand, 360-degree negative feedback also analyzed for getting the answer to the research question. Result mentioned in chapter five showed the evidence in favor of the hypothesis that there is a positive relation between 360-degree negative feedback and servant leadership. It means that the feedback about the lackings of the leader given by the superior, manager, subordinate, and external customer has a positive impact towards the servant leader. So both the negative and positive feedback found a significant contributor to servant leadership.

Correlation between 360-degree positive feedback and transformation leadership was found positive and significant. The scores were prepared based on responses on the MLQ from individuals who surround their respective leader. However, in this study, the analysis of data revealed the interaction between negative feedback and transformation leadership result was not significant. Even though, it was assumed that more effective collaboration between negative feedback and transformation leadership, but the result of the current study reject the hypothesis based on study results.

Although negative feedback has a positive impact on transformation leadership, it is insignificant. But other three relations are found positive and significant. The findings of the present study are highly relevant to past theories. Control Theory of Carver (1979), and the Closed Loop Model of Self-Regulation (Kanfer, 1971) is also proposed similar findings that Leaders can demonstrate transformational enhancing actions with 360-degree negative feedback by taking into account their weakness. Control theory also supports that transformation leader has an excellent opportunity to improve their efforts by solving their weak performances.

If we compare the findings of the first research question, it is not so different from past studies. 360-degree feedback enables leaders to shift their thinking about themselves and about getting work done through others during a time in which organizational life is becoming increasingly complex (Jones and Bearley, 1996). Similarly, Guthrie and King (2004) identified 360-degree feedback as an opportunity for leaders to receive feedback to compare self-perception of leadership skills with the perception of how others including, boss, peers, subordinates, view their skills. A purported advantage of such intense, comprehensive scrutiny is that a complete

appraisal and an increased accuracy of a leader's self-image and performance can be obtained (Bass & Bass, 2008; Day, 2001). Leaders must accept feedback and be willing to change for the 360-degree process to be successful. Berke et al. (2008) identified that feedback as a crucial element to more effective leader development.

The cybernetic theories proposed that corrective feedback improve performance by reducing performance gap and Positive feedback confirm that performance is meeting target or few changed would be expected (Podsakoff and Farh, 1989, p. 47). However, Closed Loop Model of Self-Regulation (Kanfer, 1971) compares the effect of positive feedback and negative feedback. This theory proposed that positive feedback disrupt the performance of a behavior that is controlled by individual habit. In the workplace, habitual behavior is considered as routine behaviors. Positive feedback rarely has the option to improve performances. The cybernetic self-regulatory process only works actively when the ongoing stream of everyday behaviors is disrupted by corrective or positive feedback. On the other hand, corrective or negative feedback creates the opportunity to improve performances. This opinion was indirectly supported by Kirschenbaum and Karoly (1977) and Tomarken and Kirschenbaum (1982), who found that positive self-monitoring (manipulated through positive feedback) was detrimental to performance on straightforward tasks.

Leaders think positive feedback as behavioral incentives and negative feedback is a chance to reduce the performance gap. The positive effect of negative performance feedback on performances is supported by some laboratory studies (e.g., Bandura and Cervone, 1983, 1986; Grimm, 1983; Matsui, Okada, and Inoshita, 1983; Podsakoff and Farh, 1989). Criticism about these studies ran behind these theories. The case and sample of these studies were undergraduates or simple tasks. Also, the time duration of the respondents' task structure was also the issue for criticism (Campion and Lord, 1982). Even though it was considerable laboratory research on the use of negative feedback, enough questions were raised about external validity to test performances effects. Current study solves this issue of legality. This study considers formal job assignment of the leader which was lack of previous studies. And beyond the laboratory, the present study has found a positive and significant impact of positive and negative performance feedback on leadership performances.

6.3. 360-degree Feedback And Motivation To Lead

This study examined how 360-degree feedback drives performance improvements. Divergent findings were given in the literature demonstrating that performance improvements by following 360-degree feedback. This research study aimed to provide a better understanding of how ratees leverage information from multiple feedback sources for motivation for leadership performances.

To know the answer of the research question for the relation between 360-degree feedback and motivation for leadership two hypotheses were considered. The hypothetical connection between 360-degree positive feedback and motivation for leadership was found true. The output of the analysis indicated that there was a significant positive relationship between 360-degree positive feedback and motivation for leadership. Another hypothetical relationship between 360-degree negative feedback and motivation for leadership was found true also.

The motivation measure used in this study allows us to assert that individuals viewed improving leadership skills as essential and that they were driven to focus developmental efforts there. Results of the survey indicate that positive feedback about performances let the leader know about his strength. 360-degree feedback provides individuals with valuable information from a variety of colleagues about work-related competencies (Tornow & London, 1998). Addition to that Smither et al. (2002) also found a relationship between more favorable feedback and the propensity to share feedback and ask for developmental suggestions.

Based on the theoretical proposition the study proposed two hypotheses for understanding how 360-degree feedback motivates ratees to pursue development activities that, in turn, lead to leadership improvements.

The finding indicates that leaders do have the motivation to improve when receiving positive feedback, despite the possibility that their efforts may not result in actually measured improvement. Further, these results indicate that 360-degree positive feedback has intended motivational effects and that potential obstacle to follow-through and lack of measured improvements should be separately explored issues. Specifically, further research should aim to pinpoint possible disconnects between a motivation to improve and actual development in a leadership area.

360-degree negative feedback treated as an input variable into the control loop. Negative feedback helps the leader to know about their performance deficiency. Rather

demotivate, negative feedback opens the door for the leader to improve their performance more. The opportunity of finding and solving performance gap from negative feedback motivates positively toward the achievement of leadership goals. It will ensure the motivational aspects of receiving feedback are captured while allowing for comparisons with a meaningful performance standard.

When leaders more valued supervisor ratings, their ratings lead to greater developmental motivation. These results suggest that when individuals receive ratings from colleagues who have control over outcomes (e.g., leadership success and other types of rewards) and who are therefore perceived as more valuable and useful, this feedback has a stronger relationship with development motivation. This finding suggests that when individuals receive ratings from colleagues who directly observe their leadership skills and attributes and who are therefore perceived as more valuable and useful, this feedback has a stronger relationship with development motivation.

Future research should explore these other performance standards to which ratees compare 360-degree feedback (e.g., aggregated organizational 360- degree feedback results/norms, other performance measures, etc.). Further, performance standards could differ for each leader and may be more accurately measured with self-ratings of an "ideal standard" for each of the competency dimensions. Specifically, performance standards could be more accurately assessed with a measure that solicited ratee's perceived ideal standard; that is, what are his/her perceptions of how someone in their organization/position should score?

6.4. Motivation and leadership style

In the scope of the study, it was found that there was a significant correlation between motivation for leadership and servant leadership. The motivation for the leadership had a significant positive effect on servant leadership. Positive feedback from superior, subordinate, colleagues, and customer motivate the leader towards servant leadership practice. On the other hand, the output of the analysis rejects the hypothetical relationship between motivation for leadership and transformation leadership. There was no statistically significant relationship between motivation for leadership and transformation leadership. Transformation leadership within organizations that engage in 360-degree feedback is found positively but insignificantly correlated with motivation for leadership.

By creating an autonomy-supporting environment in the workplace, employees will be more likely to develop the type of intrinsic motivation necessary to become self-motivated servant leaders in their own time. Servant leaders embrace the mission of the organization and realize that through work and sacrifice, they will grow employees who are like-minded. It is important to remember that leadership is not a starring role (Vadell, 2009). A leader takes all of the blame and none of the credit. A leader assimilates the goals of the company and works for the betterment of their subordinates so that they may live out their potential in a self-deterministic manner.

Intrinsic motivation was a significant predictor for only one leadership style, which was passive management by exception. Following from the earlier discussion regarding the nature of intrinsic motivation, those who are motivated to lead because they enjoy it are likely to be more active rather than passive in their approach towards leadership activities and actively seeking out subordinates and looking for opportunities to lead.

Although the current study did not found a significant relationship between motivation and transformation leadership style, previous studies found a significant relationship. Kark and Van Dijks (2007) recommended that who are effectively motivated leaders (i.e., they enjoy leadership) would be more likely to be transformational because they are more likely to take risks and to be innovative due to their drive for personal growth and enjoyment in the role.

6.5. Role of mediator

The principal objective of this study was to examine the relationships between 360-degree performance appraisal and leadership style. Among the key findings, positive and negative feedback from 360-degree performance appraisal was directly related to both the servant leadership and transformation leadership style, while the relationship between feedback process and servant leadership style was mediated by intrinsic motivation.

The previous study has indicated partially similar associations between feedback and employee performances. Satisfactions with employee performance appraisal system that provide orderly feedback enhance the work motivation, commitment, and intention to stay (Kuvaas, 2006). Findings of the study emphasize that employees should duly

experience positive appraisal reaction to influence their attitude and behavior (Keeping and Levy, 2000).

The essential theoretical contribution of the current study is examining intrinsic motivation as a mediator of the relationship between 360-degree feedback and leadership style. The practically important and novel contribution is intrinsic motivation working as a mediator between positive and negative feedback and servant leadership style. For the case of positive feedback, there was a direct and indirect effect on servant leadership. According to Baron and Kenny's (1986) theory, intrinsic motivation is working as a partial mediator between positive feedback and servant leadership. On the other hand, intrinsic motivation acting as a full mediator between negative feedback and servant leadership style in spite of having an insignificant direct relationship between negative feedback and servant leadership style (Shrout & Bolger, 2002; Sobel, 1982).

The output of the study result indicates that high levels of intrinsic motivation required for 360-degree performance appraisal to positively influence servant leadership style.

Performance feedback enhances the competence and autonomy of the employee (Deci and Ryan, 1985). On the other hand, an individual motivated intrinsically are more self-driven and have more independence than those who are less intrinsically motivated (Ryan and Deci, 2000; Thomas, 2002). The reason for self-control and development is inherent within the intrinsic motivation. People those who are intrinsically motivated, they respond positively towards performance appraisal because self-driven characteristics let them learn from feedback and task orientation. They need less external control and regulation than from less intrinsically motivated people (Ryan and Deci, 2000; Vallerand, 1997).

6.6. Findings for Demographic Variables

In the present study, some demographic characteristics (gender, age, duration of service, and nature of organization) were also examined. The first demographic variable was the gender of the participant. It was found that the servant leadership style and transformation leadership style of the leader who participated in the study did not show a significant difference according to the demographic variable. Although, past studies showed the evidence of the association between demographic variable and leadership style. Eagly et al. (2003) performed a norming study that identified women producing

significantly higher scores towards transformational leadership than men. The study showed women having a great focus on both task and people, whereas their male counterparts focus mainly on tasks. Maroda (2004) identified that women lead in ways that help others, whereas men are more focused on their ambitions and lead with a more task-oriented style.

6.7. Limitations

Utilizing a larger sample size to replicate these results would afford increased power to detect differences which may exist between rater groups. Increasing either the number of dimensions measured, the number of leaders involved, or both would improve the ability to detect significant results. Besides, the difference of feedback among superior, subordinate, peer, and external customer perception about feedback was not considered separately.

This study investigated the 360-degree performance appraisal system across a large number of organizations. Many organizations have other appraisal systems along with 360-degree feedback process. But here only 360-degree appraisal context had been considered for analysis. Appraisal context with mix appraisal system and appraisal context only with 360-degree appraisal system was not considered separately due to the possibility of different degrees of formality or frequency of appraisal activities.

6.8. Contribution of the present study

Social contribution: the findings of the present study have a significant contribution to the management and human resource development both from the practical and theoretical point of view. Modern organization is converting its shape, work structure, and management pattern due to globalization, workforce diversity, technological and legal changes. Findings of the present study will help the leader to utilize multisource feedback to minimize the complexity arises from the conversion of managerial practices. Management can ensure continuous development and initiate a training program based on study findings. Present study strong believes and supports the use of 360-degree feedback for developing leadership and managerial performances rather than for administrative purpose like performance appraisal. Results of the study revealed that positive feedback and negative feedback have a significant impact on servant leadership style. Although, both the negative feedback is not less effective than

positive feedback, addressing negative feedback need to take a more careful approach. If the organization wants to use negative feedback for the administrative purpose like performance appraisal, there is the possibility of having a leniency effect. Due to the fear of losing benefits biases about negative feedback will make the process controversial. So to reduce the leniency effect in the 360-degree feedback process developing performance will be appropriate using 360-degree feedback.

Present study depicts the picture of multi-rating sources, the motivation process through feedback, and finally directly or indirectly developing leadership style by using 360-degree feedback. The present study will contribute to long-term social change because the Findings of the present study offer a basis of the human resource and management development. Management and personnel with leadership position will be able to understand the value of diverse assessments when conducting training plans for the other staff based on present study findings.

The findings of the current study reported here have some implications for managers. The demonstrated effects of developmental feedback on developmental motivation assure organizations that this feedback is being attended to by leaders. It is critical because it indicates that it is in the best interest of organizations to support and facilitate this motivation to improve. Lesser efforts undermine the effectiveness of the entire 360-degree initiative.

Through a motivational lens, the current study provides a unique look at the impact of 360-degree feedback on leadership development. The outlined motivational model and related propositions aim to clarify inconsistencies in previous literature by encouraging researchers to examine the issue at a more theoretical level. Specifically, adding developmental motivation and other intervening variables may help to explain divergent findings of actual improvement by focusing on interim paths that affect the overall relationship between 360 feedback and real performance improvements. The proposed theoretical model forms a basis for moving forward with several key empirical tests and will contribute a more comprehensive understanding of the entire 360-degree feedback to the performance improvement process to the literature.

6.9. Recommendations for Future Research

The present study had analyzed the source of the 360-degree feedback process with negative and positive feedback satisfaction. Finally, positive and negative feedback

had found a significant relationship with servant leadership. Follow-up studies should continue to explore the relationship between 360-degree feedback and leadership style using the proposed theoretical model and related propositions. Besides, results from this research suggest several areas for follow-up research. For instance, the halo effect and leniency effect was not considered in the current study. Effect of halo effect and leniency effect in the analysis of coercive or negative feedback is expected to have a new dimension of the 360-degree feedback study. Although multisource of 360-degree feedback was analyzed in the current study, there is another scope to compare self-rating with others rating in the evolution of motivation to lead, and leadership style also expected to bring new insight about multi-source feedback.

Current findings indicate that 360-degree feedback leads to developmental motivation. However, the relationship between the motivation to improve and actual measurable achievement has yet to be assessed. Specifically, are leaders having trouble executing development activities despite the motivation to do so.

With regards to performance standards which motivate ratees following feedback, researchers should examine areas not related to rater source. Comparison of the Difference between aggregate and normative feedback results in departmental, functional, or organizational level may bring significant findings for the researcher and user. Also, other formal and informal performance measures compared to 360-degree feedback results help to assess performance gaps and to focus improvement efforts. Perhaps organizational standards are better represented by traditional performance measures that are almost always linked to rewards and recognition. Or, performance standards may differ for each leader.

Another extension based on current findings involves attention to the random effects generated by the analyses in this study. Further investigation with additional independent variables is necessary, as additional variance should be accounted for in determining how leaders are motivated to improve their performance after 360-degree feedback.

While this study examines one contextual element in the form of managerial support, many other situational and organizational factors may help to explain the variance in improvement behavior. For instance, the researcher can study leaders with stronger long-term relationships with the rating source groups value their feedback more, in turn improving their developmental motivation and subsequent performance improvements.

Finally, there are other explanations besides motivation for describing why and how 360-degree feedback leads to performance improvement. For example, developmental methods like training or incentive program like pay for performance can analyze with 360-degree feedback process can describe the relation between 360-degree feedback and leadership style in a different way.

REFERENCES

Acar, A.Z. (2013). Farklı orgut kulturu tipleri ve liderlik tarzları ile orgutsel bağlılık arasındaki ilişki: lojistik işletmelerinde bir araştırma. *İşletme Araştırmaları Dergisi.* 5/2 (2013) 5-31.

Akaike, H. (1974). A new look at the statistical model identification. *IEEE transactions on automatic control*, *19*(6), 716-723.

Akmut, O. (1980). *Hayat sigortası teori ve Turkiye'deki uygulama.* Ankara Universitesi Siyasal Bilgiler Fakultesi Yayınları No:447, Sevinc Matbaası, Ankara.

Amabile, T. M., Hill, K. G., Hennessey, B. A., & Tighe, E. M. (1994). The Work Preference Inventory: assessing intrinsic and extrinsic motivational orientations. *Journal of personality and social psychology*, *66*(5), 950.

Antonakis, J., Avolio, B., & Sivasubramaniam, N. (2003). Context and leadership: An examination of the nine-factor full-range leadership theory using the Multifactor Leadership Questionnaire. *The Leadership Quarterly*, 14(3), 261–295. doi:10.1016/s1048-9843(03)00030-4

Ashford, S.J., Cummings, L.L. (1983). Feedback as an individual resource: Personal strategies of creating information. *Organizational Behavior and Human Performance*, 32, 370-398.

Atkins, P., & Wood, R. (2002). Self-versus others' ratings as predictors of assessment center ratings: Validation evidence for 360-degree feedback programs. *Personnel Psychology,* 55(4), 871-904.

Atwater, L. E., & Brett, J. F. (2006). 360-degree feedback to leaders: Does it relate to changes in employee attitudes?. *Group & organization management*, *31*(5), 578-600.

Atwater, L. E., Waldman, D. A. & Brett, J. F. (2002).Understanding and optimizing multisource feedback. *Human Resource Management.* 41(2), 193

Atwater, L., & Waldman, D. (1998). 360 degree feedback and leadership development. *The Leadership Quarterly*, *9*(4), 423-426.

Atwater, L.A., Roush, P., & Fischthal, A. (1995). The influence of upward feedback on self and follower ratings of leadership. *Personnel Psychology,* 48, 35-60.

Atwater, L.E., Waldman, D., Atwater, D., & Carter P. (2000). An upward feedback field experiment. Supervisors' cynicism, follow-up and commitment to subordinates. *Personnel Psychology,* 53, 275-297.

Avolio, B. (2011). *Full range leadership development* (2nd ed.). Thousand Oaks, CA: Sage.

Avolio, B. J., Bass, B. M., & Zhu, F. W. W. (2004). *Multifactor leadership questionnaire: manual and sampler set*. Mind Garden, Incorporated.

Avolio, B. J., ve Bass, B.M. (1995, 2000, 2004). *Multifactor leadership questionnaire*. Third Edition Manual and Sampler Set (3rd ed.). Menlo Park, CA. Mind Garden, Inc. www.mindgarden.com

Avolio, B., Walumbwa, F., & Weber, T. (2009). Leadership: Current theories, research, and future directions. *Annual Review of Psychology*, 60(1), 421–449. doi:10.1146/annurev.psych.60.110707.163621

Aydın, Y. (2015). *Liderlik tarzları ile örgütsel vatandaşlık davranışı arasındaki ilişkide örgüt kültürünün rolü: Bursa serbest bölgesinde faaliyet gösteren firmalar üzerine bir araştırma.* Doktora tezi, Çukurova Üniversitesi, Adana.

Baard, P. P., Deci, E. L. and Ryan, R. M. (2004), "Intrinsic need satisfaction: A motivational basis of performance and well-being in two work settings", *Journal of Applied Social Psychology,* 34(10), 2045-2068.

Bandura, A., & Cervone, D. (1983). Self-evaluative and self-efficacy mechanisms governing the motivational effects of goal systems. *Journal of personality and social psychology*, *45*(5), 1017.

Bandura, A., & Cervone, D. (1986). Differential engagement of self-reactive influences in cognitive motivation. *Organizational behavior and human decision processes*, *38*(1), 92-113.

Barbuto Jr, J. E., & Scholl, R. W. (1998). Motivation sources inventory: Development and validation of new scales to measure an integrative taxonomy of motivation. *Psychological Reports*, *82*(3), 1011-1022.

Barbuto, J. E., Fritz, S. M., Matkin, G. S., & Marx, D. B. (2007). Effects of gender, education, and age upon leaders' use of influence tactics and full range leadership behaviors. *Sex Roles*, *56*(1-2), 71-83.

Barling, J., Christie, A. and Hoption, C. (2010), "Leadership", In S. Zedeck (Ed.), *Handbook of Industrial and Organizational Psychology,* (pp. 183-240). Washington, DC, American Psychological Association.

Barnes, J. N., Christensen, D. S., & Stillman, T. (2013). Organizational leadership and subordinate effect in Utah's certified public accounting profession. *Journal of Applied Business Research*, *29*(5), 1567.

Barnes, J.N., Christensen, D.S., ve Stillman, T. (2013). Organizational leadership and subordinate effect in Utah's certified public accounting profession. *The Journal of Applied Business Research* – September/October 2013, 29, 5.

Baron, R.M. ve Kenny, D.A. (1986). The Moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations, *Journal of Personality and Social Psychology*, 1986, 51(6), 1173-1182.

Barrett, P. (2007). Structural equation modelling: Adjudging model fit. *Personality and Individual differences*, *42*(5), 815-824.

Bass, B. (1985). *Leadership and performance beyond expectations.* New York, NY: Free Press.

Bass, B. (1990). From transactional to transformational leadership: Learning to share the vision. *Organizational Dynamics, 18*(3), 19–31. http://dx.doi.org/10.1016/0090-2616(90)90061-S

Bass, B. M., & Bass, R. (2008). *The Bass handbook of leadership; theory, research, & managerial application* (4th ed.). New York, NY: Simon & Schuster.

Bass, B. M., & Bass, R. (2009). *The Bass handbook of leadership: Theory, research, and managerial applications*. Simon and Schuster.

Bass, B. M., & Steidlmeier, P. (1999). Ethics, character, and authentic transformational leadership behavior. *The leadership quarterly*, *10*(2), 181-217.

Bass, B. M., Avolio, B. J., & Atwater, L. (1996). The transformational and transactional leadership of men and women. *Applied psychology*, *45*(1), 5-34.

Bass, B., & Avolio, B. (2000). *MLQ, Multifactor Leadership Questionnaire sampler set: Technical report, leader form, rater form, and scoring key for MLQ form 5x-short* (2nd ed.). Redwood City, CA: Mind Garden

Bass, B., & Avolio, B. (Eds.). (1994). *Improving organizational effectiveness through transformational leadership*. Thousand Oaks, CA: Sage.

Bass, B., & Bass, R. (2008). *Handbook of leadership: Theory, research, and application* (4th ed.). New York, NY: Free Press.

Bass, B., & Riggio, R. (2006). *Transformational leadership* (2nd ed.). Mahwah, N J: L. Erlbaum Associates

Bass, B., & Steidlmeier, P. (1999). Ethics, character, and authentic transformational leadership behavior. *The Leadership Quarterly*, 10(2), 181–217. doi:10.1016/S1048-9843(99)00016-8

Bass, B., Avolio, B., & Goodheim, L. (1987). Biography and the assessment of transformational leadership at the world-class level. *Journal of Management*, 13(1), 7–19. doi:10.1177/014920638701300102

Baumeister, R. F., Vohs, K. D., Nathan DeWall, C., & Zhang, L. (2007). How emotion shapes behavior: Feedback, anticipation, and reflection, rather than direct causation. *Personality and Social Psychology Review*, *11*(2), 167-203.

Baumeister, R.F., Heatherton, T.F. (1996). Selfregulation failure: An overview. *Psychological Inquiry*, 7(1), 1-15.

Bayram, N. (2010). *Yapısal eşitlik modellemesine giriş amos uygulamaları*. Ezgi Kitabevi.

Benbassat, N., & Priel, B. (2015). Why is fathers' reflective function important?. *Psychoanalytic Psychology*, *32*(1), 1.

Benter, P. M. & Chou, C. P. (1987). Practical issues in structural modeling. *Sociological Methods and Research, 16(1),* 78-117.

Bentler, P. M. (1990). Comparative fit indexes in structural models. *Psychological bulletin*, *107*(2), 238.

Bentler, P. M., & Bonett, D. G. (1980). Significance tests and goodness of fit in the analysis of covariance structures. *Psychological bulletin*, *88*(3), 588.

Bentler, P. M., & Chou, C. P. (1987). Practical issues in structural modeling. *Sociological Methods & Research*, *16*(1), 78-117.

Berke, D., Kossler, M. E., & Wakefield, M. (2008). *Developing leadership talent*. San Francisco, CA: Pfeiffer.

Boomsma, A. (2000). Reporting analyses of covariance structures. *Structural equation modeling*, *7*(3), 461-483.

Borman, W. C. (1974). The rating of individuals in organizations: An alternate approach. *Organizational Behavior and Human Performance*, *12*(1), 105-124.

Borman, W. C. (1991). Job behavior, performance, and effectiveness. In M. D. Dunnette and L. M. Hough (eds.), *Handbook of Industrial and Organizational Psychology*. Palo Alto, Calif.: Consulting Psychologists Press.

Boseman, G. (2008). Effective leadership in a changing world. *Journal of Financial Service Professionals*, 62(3), 36–38. Retrieved from https://www.financialpro.org/pubs/journal_index.cfm

Bracken, D. W. (2009). Leveraging the impact of 360-degree feedback. *Personnel Psychology*, *62*(1), 175.

Bracken, D. W., & Rose, D. S. (2011). When does 360-degree feedback create behavior change? And how would we know it when it does?. *Journal of Business and Psychology*, *26*(2), 183.

Bracken, D. W., Timmreck, C. W., Fleenor, J. W., & Summers, L. (2001). 360-feedback from another angle. Human Resource Management, 40(1), 3-20.

Bradshaw, F. F. (1931). "Revising Rating Techniques." *Personnel Journal*, 10, 232–245.

Brett, J. F., & Atwater, L. E. (2001). 360° feedback: Accuracy, reactions, and perceptions of usefulness. *journal of Applied Psychology*, *86*(5), 930.

Broedling, L. A. (1977). The uses of the intrinsic-extrinsic distinction in explaining motivation and organizational behavior. *Academy of Management Review*, *2*(2), 267-276.

Brutus, S., Fleenor, J. W., & London, M. (1998). Does 360-degree feedback work in different industries? *Journal of Management Development*, *17*, 177-190. doi:10.1108/EUM0000000004487

Brutus, S., London, M., & Martineau, J. (1999). The impact of 360-degree feedback on planning for career development. *Journal of Management Development*, *18*(8), 676-693.

Burmaoğlu, S., Polat, M. ve Meydan, C. H. (2013). Orgutsel davranış alanında ilişkisel analiz yontemleri ve Turkce yazında aracılık modeli kullanımı uzerine bir inceleme. *Anadolu Universitesi Sosyal Bilimler Dergisi*, 13-26. sbd.anadolu.edu.tr.

Burns, J. M. (1978). *Leadership* New York. NY: Harper and Row Publishers.

Büyüköztürk, Ş. (2002). Faktör analizi: Temel kavramlar ve ölçek geliştirmede kullanımı. *Kuram ve Uygulamada Eğitim Yönetimi*, *32*(32), 470-483.

Bycio, P., Hackett, R., & Allen, J. (1995). Further assessments of Bass's (1985) conceptualization of transactional and transformational leadership. *Journal of Applied Psychology*, 80(4), 468–478. doi:10.1037//0021-9010.80.4.468

Byrne, B. M. (1989). *A primer of LlSREL: Basic applications and programming for confirmatory factor analytic models*. New York: Springer-Verlag.

Byrne, B. M. (2013). *Structural equation modeling with EQS: Basic concepts, applications, and programming*. Routledge.

Byrne, B.M. (1998), *Structural Equation Modeling with LISREL, PRELIS and SIMPLIS: Basic Concepts, Applications and Programming*. Mahwah, New Jersey: Lawrence Erlbaum Associates.

Campion, M. A., & Lord, R. G. (1982). A control systems conceptualization of the goal-setting and changing process. *Organizational behavior and human performance*, *30*(2), 265-287.

Carver, C. S. (1979). A cybernetic model of self-attention processes. *Journal of personality and social psychology*, *37*(8), 1251.

Carver, C. S., & Scheier, M. F. (1981). The self-attention-induced feedback loop and social facilitation. *Journal of Experimental Social Psychology*, *17*(6), 545-568.

Carver, C. S., & Scheier, M. F. (1982). Control theory: A useful conceptual framework for personality social, clinical, and health psychology. *Psychological Bulletin,* 92(1), 111-135.

Chaleff, I. (2003). *The courageous follower: Standing up to and for our leaders* [Kindle version]. Retrieved from http://www.amazon.com

Chan, K. Y., & Drasgow, F. (2001). Toward a theory of individual differences and leadership: understanding the motivation to lead. *Journal of Applied Psychology*, *86*(3), 481.

Church, A. H. (1995). First-rate multi-rater feedback. *Training & Development Magazine*, 49(8), 42-43.

Church, A. H., Rogelberg, S. G., & Waclawski, J. (2000). Since when is no news good news? The relationship between performance and response rates in multirater feedback. *Personnel Psychology*, *53*(2), 435-451.

Conger, J., & Toegel, G. (2002). Action learning and multi-rater feedback as leadership development interventions: Popular but poorly deployed. *Journal of Change Management*, *3*(4), 332-348.

Conway, J. M., Lombardo, K., & Sanders, K. C. (2001). A meta-analysis of incremental validity and nomological networks for subordinate and peer rating. *Human Performance*, 14(4), 267-303

Cook, H. E., & Manson, G. E. (1926). Abilities necessary in effective retail selling and a method of evaluating them. *Journal of Personnel Research*, *5*, 74-82.

Costello, A. B., & Osborne, J. W. (2005). Best practices in exploratory factor analysis: Four recommendations for getting the most from your analysis. *Practical assessment, research & evaluation*, *10*(7), 1-9.

Crowley, S. L., & Fan, X. (1997). Structural equation modeling: Basic concepts and applications in personality assessment research. *Journal of personality assessment*, *68*(3), 508-531.

Day, D. V. (2000). Leadership development:: A review in context. *The Leadership Quarterly*, *11*(4), 581-613.

Day, D. V. (2001). Leadership development: A review in context. *Leadership Quarterly*,*11*(4), 581–613. http://dx.doi.org/10.1016/S1048-9843(00)00061-8

De Pree, M. (2003). What is leadership? In J. M. Kouzes (Ed.). *Business leadership* (pp. 65–71). San Francisco, CA: Jossey-Bass.

Deci, E. L. and Ryan, R. M. (2008). Facilitating optimal motivation and psychological wellbeing across life's domains. *Canadian Psychology*, 49(1), 14-23.

Deci, E. L., Connell, J. P., & Ryan, R. M. (1989). Self-determination in a work organization. *Journal of applied psychology*, *74*(4), 580.

Deci, E., & Ryan, R. M. (1985). *Intrinsic motivation and self-determination in human behavior*. Springer Science & Business Media.

Diamantopoulos, A. and Siguaw, J.A. (2000), *Introducing LISREL*. London: Sage Publications.

Drew, G. (2009). A "360" degree view for individual leadership development. *Journal of Management Development*, *28*(7), 581–592.

Driver, R. S. (1942), "Training as a Means of Improving Employee Performance Rating." *Personnel*, 18, 364–370.

Dsebd.com, (2017). *Dhaka Stock Exchange Ltd: Sector Wise Company List*. Available at http://dsebd.org/by_industrylisting1.php [Accessed 22 May 2017]

Dvir, T., Eden, D., Avolio, B., & Shamir, B. (2002). Impact of transformational leadership on follower development and performance: A field experiment. *Academy of Management Journal*, 45(4), 735–744. doi:10.2307/3069307

Eagly, A. H., Johannesen-Schmidt, M. C., & van Engen, M. L. (2003). Transformational, transactional, and laissez-faire leadership styles: A meta-analysis comparing women and men. *Psychological Bulletin*, *129*(4), 569–591. http://dx.doi.org/10.1037/0033-2909.129.4.569

Earley, P. C., Northcraft, G. B., Lee, C., & Lituchy, T. R. (1990). Impact of process and outcome feedback on the relation of goal setting to task performance. *Academy of Management Journal*, *33*(1), 87-105.

Edwards, M. R., & Ewen, A. J. (1996). *360° Feedback: The powerful new model for employee Assessment & Performance Improvement*. New York, NY: American Management Association.

Eggert, C. A. (2016). *Explorıng The Relatıonshıp Of Multı-Source Feedback On A Mılıtary Leader's Transformatıve Leadershıp Capabılıty: An Exploratory Qualıtatıve Inquıry.* Doctoral dissertation, Capalla University, USA.

Evans, D. (2011). Room at the top: Advancement and equity for women in the business world. *National Civic Review*, *100*(2), 62-64.

Farling, M. L., Stone, A. G., & Winston, B. E. (1999). Servant leadership: Setting the stage for empirical research. *Journal of Leadership Studies*, *6*(1-2), 49-72.

Fiedler, F.E. (1967). A theory of leadership effectiveness. New York. McGraw Hill

Field, A. (2009). *Discovering statistics using SPSS. SAGE Publications.* (Third edition). Los Angeles, London, New Delhi, Singapore, Washington DC.

Flanagan, J. C. (1954). The critical incident technique. *Psychological bulletin*, *51*(4), 327.

Frisina, M. E. (2005). Learn to lead by following. *Nursing Management*, *36*(3), 12.

Fulmer, R. M., & Goldsmith, M. (2001). *The leadership investment*. New York, NY: American Management Association.

Gagné, M. and Deci, E. L. (2005), "Self-determination theory and work motivation", *Journal of Organizational Behaviour*, Vol. 26, pp. 331-362.

Gerbing, D. W., & Anderson, J. C. (1984). On the meaning of within-factor correlated measurement errors. *Journal of Consumer Research*, *11*(1), 572-580.

Gilbert, A. & Churchill, Jr., (1991). *Marketing research, methodological foundations.* (5th ed.) USA, Orlando: The Dryden Press.

Goethals, G. R., & Sorenson, G. J. (Eds.). (2007). *The quest for a general theory of leadership*. Edward Elgar Publishing.

Greenleaf, R.K. (1977). *Servant Leadership: A Journey into the Nature of Legitimate Power and Greatness*. Mahwah, NJ: Paulist Press.

Greguras, G. J., Ford, J. M., & Brutus, S. (2003). Manager attention to multisource feedback. *Journal of Management Development*, *22*(4), 345-361.

Grimm, L. G. (1983). The relation between self-evaluation and self-reward: A test of Kanfer's self-regulation model. *Cognitive Therapy and Research*, *7*(3), 245-250.

Guenole, N., Cockerill, T., Chamorro-Premuzic, T., & Smillie, L. (2011). Evidence for the validity of 360 dimensions in the presence of rater-source factors. *Consulting Psychology Journal: Practice and Research*, *63*(4), 203-218.

Gunter, B. G., & Vargas Sejas, V. (2017). *Free falling terms of trade despite industrialization.* The Case of Bangladesh.

Gürbüz, S., & Şahin, F. (2014). *Sosyal bilimlerde araştırma yöntemleri.* Ankara: Seçkin Yayıncılık.

Guthrie, V. & King, S. (2004) Feedback intensive programs. In C.D. McCauley & E. Van Velsor (Eds.). *Handbook of Leadership Development* (2nd ed.), San Francisco, CA: Jossey-Bass.

Hackman, J. R., & Oldham, G. R. (1976). Motivation through the design of work: Test of a theory. *Organizational behavior and human performance*, *16*(2), 250-279.

Hair, J. F., Black, W.C., Babin, B. J.,Anderson, R. E., ve Tatham, R.L.(2005). *Multivariate data analysis*. (6th edi), New Jersey: Prentice Hall.

Hair, J.F., Black, W.C., Babin, B.J., Anderson, R.E., Tatham, R.L., (2006). *Multivariate Data Analysis* (6th Ed.). Prentice Hall, New Jersey.

Hargis, M. B., Watt, J. D., & Piotrowski, C. (2011). Developing leaders: Examining the role of transactional and transformational leadership across business contexts. *Organization Development Journal*, *29*(3), 51.

Harris, L. S., & Kuhnert, K. W. (2008). Looking through the lens of leadership: A constructive developmental approach. *Leadership & Organization Development Journal*, *29*(1), 47–67. http://dx.doi.org/10.1108/01437730810845298

Harris, L. S., & Kuhnert, K. W. (2008). Looking through the lens of leadership: A constructive developmental approach. *Leadership & Organization Development Journal*, *29*(1), 47-67.

Harris, M. M., & Schaubroeck, J. (1988). A meta-analysis of self-supervisor, self-peer, and peer-supervisor ratings. *personnel psychology*, *41*(1), 43-62.

Harris, S. G., & Cole, M. S. (2007). A stages of change perspective on managers' motivation to learn in a leadership development context. *Journal of Organizational Change Management*, *20*(6), 774-793.

Harwiki, W. (2013). The influence of servant leadership on organization culture, organizational commitment, organizational citizenship behavior and employees' performance (study of outstanding cooperatives in East Java

Province, Indonesia). *Journal of Economics and Behavioral Studies*. 5(12), 876-885, Dec 2013 (ISSN: 2220-6140).

Hater, J., & Bass, B. (1988). Superiors' evaluations and subordinates' perceptions of transformational and transactional leadership. Journal of Applied Psychology, 73(4), 695–702. doi:10.1037/0021-9010.73.4.695

Hausman, H. J., & Strupp, H. H. (1953). Non-technical factors in the job performance of aircraft mechanics. *Washington, DC: Human Factors Operations Research Laboratories, Bolling Air Force Base*.

Hayduk, L., Cummings, G., Boadu, K., Pazderka-Robinson, H., & Boulianne, S. (2007). Testing! testing! one, two, three–Testing the theory in structural equation models!. *Personality and Individual Differences*, *42*(5), 841-850.

Hazucha, J.F., Hezlett, S.A., & Schneider, R.J. (1993). The impact of multi-source feedback on management skills development. *Human Resource Management*, 32, 325-351.

Heslin, P.A., Latham, G. P., & VandeWalle, D. (2004, April). *Implicit-person theory effects on employee coaching. 19th Annual Conference of the Society for Industrial and Organizational Psychology*. Chicago.

Hoffman, C. C., Olson, D., & Haase, S. L. (2001). Contrasting a 360-degree feedback measure with behaviorally-based assessment tools: An application of generalizability theory. *The Psychologist-Manager Journal*, *5*(1), 59.

Howard, A. (2007). Best practices in leader selection. *The practice of leadership*, 11-40.

Howell, J., & Avolio, B. (1993). Transformational leadership, transactional leadership, locus of control, and support for innovation: Key predictors of consolidatedbusiness-unit performance. *Journal of Applied Psychology*, 78(6), 891–902. doi:10.1037//0021-9010.78.6.891

Hu, L. T., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural equation modeling: a multidisciplinary journal*, *6*(1), 1-55.

Huang, Y. C., & Liao, L. C. (2011). A college leader's transformational leadership. *Journal of management research*, *3*(2).

Hunt, J. (1999). Transformational/charismatic leadership's transformation of the field. *The Leadership Quarterly*, 10(2), 129–144. doi:10.1016/s1048-9843(99)00015-6

Hyland, M.E. (1988). Motivational control theory: An integrative framework. *Journal of Personality and Social Psychology*, 55, 642-651.

Ilgen, D.R., Fisher, C.D., Taylor, M.S. (1979). Conseguences of individual feedback on behavior in organizations. *Journal of Applied Psychology*, 64(4),3 4 9 - 3 7 1 .

Jones, J. E., & Bearley, W. (1996). *360 degree feedback: Strategies, tactics, and techniques for developing leaders*. Human Resource Development.

Jones, J., & Bearley, W. (1996). *360° feedback*. Amherst, MA: HRD Press.

Jöreskog, K. G. (1993). Testing structural equation models. *Sage focus editions*, *154*, 294-294.

Jöreskog, K. G., & Sörbom, D. (1993). *LISREL 8: Structural equation modeling with the SIMPLIS command language*. Scientific Software International.

Judge, T. A. and Piccolo, R. F. (2004), "Transformational and transactional leadership: A meta-analytic test of their relative validity", *Journal of Applied Psychology*, 89(5), 755-768.

Kane, J. S., & Lawler, E. E. (1978). Methods of peer assessment. *Psychological bulletin*, *85*(3), 555.

Kanfer, F. H. (1971). The maintenance of behavior by self-generated stimuli and reinforcement. In: Jacobs, A. and Sachs, L. B. (Eds). *The Psychology of Private Events*, Academic Press, New York.

Kanfer, R. (1990). Motivation theory and industrial and organizational psychology. *Handbook of industrial and organizational psychology*, 1(2), 75-130.

Kavanagh, M. J., MacKinney, A. C., & Wolins, L. (1971). Issues in managerial performance: Multitrait-multimethod analyses of ratings. *Psychological Bulletin*, *75*(1), 34.

Keeping, L. M., & Levy, P. E. (2000). Performance appraisal reactions: Measurement, modeling, and method bias. *Journal of applied psychology*, *85*(5), 708.

Kelloway, E.K., Mullen, J. and Francis, L. (2006), "Divergent effects of passive and transformational leadership on safety outcomes", *Journal of Occupational Health Psychology*, 11(1), 76-86.

Kendrick, J. (2011). Transformational leadership. *Professional Safety*, *56*(11), 14-14.

Kenny, D. A., & McCoach, D. B. (2003). Effect of the number of variables on measures of fit in structural equation modeling. *Structural equation modeling*, *10*(3), 333-351.

Kenny, D. A., Kashy, D. A. ve Bolger, N. (1998). Data analysis in social psychology. In D. Gilbert, S. T. Fiske, ve G. Lindzey (Eds.). *The handbook of social psychology* (4th ed., Vol.1: 223–265). New York: McGraw-Hill.

King, S. N. & Santana, L. C. (2010). *Feedback-Intensive Programs.* In E. Van Velsor, C.D., 55(4), 895-914. doi: 10.1348/096317909X478548

Kirschenbaum, D. S., & Karoly, P. (1977). When self-regulation fails: Tests of some preliminary hypotheses. *Journal of Consulting and Clinical Psychology*, *45*(6), 1116.

Klein, H.J. (1989). An integrated control theory model of work motivation. *Academy of Management Review,* 14(2), 150-172.

Kleinbaum, D.G., Kupper, L.L. ve Muller, K.E., (1987). *Applied regression analysis and other multivariable methods.* USA, Boston: PWS-Kent Publishing.

Kline, R.B. (2005), *Principles and Practice of Structural Equation Modeling* (2nd Edition ed.). New York: The Guilford Press.

Kluger, A. N., & DeNisi, A. (1996). The effects of feedback interventions on performance: A historical review, a meta-analysis, and a preliminary feedback intervention theory. *Psychological bulletin*, *119*(2), 254.

Kluger, A.N. & Denisi, A. (1998, June). Feedback interventions: Toward the understanding of a double-edge sword. *Current Directions in Psychological Science.* 7, 67-72.

Kornhauser, A. W. (1923). A Statistical Study of a Group of Specialized Office Workers. *Journal of Personnel Research.*

Kouzes, J. M., & Posner, B. Z. (2002). *The leadership challenge*. San Francisco, CA: Jossey-Bass.

Kouzes, J. M., & Posner, B. Z. (2003). Business leadership. *San Francisco, CA: Jossey-Bass. Lephalala, RP, Ehlers, VJ, & Oosthuizen, MJ (2008). Factors influencing nurses job satisfaction in selected private hospitals in England. Curationis*, *31*(3), 60-69.

Kuhnert, K. W., & Lewis, P. (1987). Transactional and transformational leadership: A constructive/developmental analysis. *Academy of Management review*, *12*(4), 648-657.

Kuvaas, B. (2006). Performance appraisal satisfaction and employee outcomes: mediating and moderating roles of work motivation. *The International Journal of Human Resource Management*, *17*(3), 504-522.

Latham, G.P. (2003). Goal Setting: A Five-step Approach to Behavior Change. *Organizational Dynamics*, 32, 309–18.

Lawler, E. E. (1967). The multitrait-multirater approach to measuring managerial job performance. *Journal of applied Psychology*, *51*(5p1), 369.

Leadership Model and Moral Development. Lecture presented at E-Leader Conference, Milan, Italy. Retrieved from http://www.gcasa. com/conferences/milan/paper/McCormack.pdf

Leedy, P. D., & Ormrod, J. E. (2005). *Practical research planning and design* (8th ed.). Upper Saddle River, NJ: Pearson Prentice Hall.

Levinson, H. (1997). Some cautionary notes on 360-degree feedback. *The Psychologist-Manager Journal*, *1*(1), 18.

Lewin, A. Y., & Zwany, A. (1976). Peer nominations: A model, literature critique and a paradigm for research. *Personnel Psychology*, *29*(3), 423-447.

Libby, L. K., Valenti, G., Hines, K. A., & Eibach, R. P. (2014). Using imagery perspective to access two distinct forms of self-knowledge: Associative evaluations versus propositional self-beliefs. *Journal of Experimental Psychology: General*, *143*(2), 492.

Liden, R. C., Wayne, S. J., Meuser, J. D., Hu, J., Wu, J., & Liao, C. (2015). Servant leadership: Validation of a short form of the SL-28. *The Leadership Quarterly*, *26*(2), 254-269.

Liden, R. C., Wayne, S. J., Zhao, H., & Henderson, D. (2008). Servant leadership: Development of a multidimensional measure and multi-level assessment. *The leadership quarterly*, *19*(2), 161-177.

Liden, R.C., Wayne, S.J., Liao, C, & Meuser, J.D. (2014). Servant leadership and serving culture: Influence on individual and unit performance. *Academy of Management Journal*, 57(5), 1434-1452.

Liden, R.C., Wayne, S.J., Liao, C. ve Meuser, J.D. (2013). Servant leadership and serving culture: Influence on individual and unit performance. *Published online* before print October 15, 2013, doi:10.5465/amj.2013.0034 ACAD MANAGE J October 1, 2014 vol. 57 no. 5 1434-1452.

Locke, E. A., & Latham, G. P. (1990). *A theory of goal setting & task performance*. Prentice-Hall, Inc.

Loehlin, J. C. (1992). *Latent variable models.* Hillsdale, NJ: Lawrence Erlbaum Publishers.

Loehlin, J. C. (1992). *Genes and environment in personality development*. Sage Publications, Inc.

Loehlin, J. C. (2004). *Latent variable models: An ıntroduction to factor, path and structural equation analysis* (4th Ed.9). New Jersey: Lawrance Erlbaum Associates.

London, M. & Smither, J.W. (1995). Can multi-source feedback change perceptions of goal accomplishment, self-evaluations, and performance-related outcomes? Theory-based applications and directions for research. *Personnel Psychology,* 48, 803-839.

London, M., & Beatty, R. W. (1993). 360-degree feedback as a competitive advantage. *Human Resource Management,* 32(2&3), 353-372.

London, M., & Smither, J. W. (1995). Can multi-source feedback change perceptions of goal accomplishment, self-evaluations, and performance-related outcomes? Theory-based applications and directions for research. *Personnel Psychology,* 48(4), 803-839.

London, M., Smither, J. W., & Diamante, T. (2007). Best practices in leadership assessment. *The practice of leadership: Developing the next generation of leaders*, 41-63.

Lord, R.G., & Hanges, P.J. (1987). A control system model of organizational motivation: Theoretical development and applied implications. *Behavioral Science*, 32(3), 161-178.

Lowe, K., Kroeck, K., & Sivasubramaniam, N. (1996). Effectiveness correlates of transformational and transactional leadership: A meta-analytic review of the MLQ literature. *The Leadership Quarterly*, 7(3), 385–425. doi:10.1016/S1048-9843(96)90027-2

MacCallum, R. C., Browne, M. W., & Sugawara, H. M. (1996). Power analysis and determination of sample size for covariance structure modeling. *Psychological methods*, 1(2), 130.

Maroda, K. J. (2004). A relational perspective on women and power. *Psychoanalytic Psychology, 21*(3), 428–435. http://dx.doi.org/10.1037/0736-9735.21.3.428

Maslow, A. (1943). A theory of human motivation. *Psychological Review*, 50(4), 370–396. doi:10.1037/h0054346

Matsui, T., Okada, A., & İnoshita, O. (1983). Mechanism of feedback affecting task performance. *Organizational Behavior and Human Performance*, *31*(1), 114-122.

Maxwell, J. C. (2005). *The 360 Degree Leader: Developing Your Influence From Anywhere in the Organization Nashville.* TN: Thomas Nelson Inc.

McCarren, H. S., Lewis-Smith, J., Yanovsky, B., Robinson, J., & Osatuke, K. (2016). Creation of a Multi-Rater Feedback Assessment for the Development of Servant Leaders at the Veterans Health Administration. *Servant Leadership*, 12.

McClelland, D.C. (1988). *Human Motivation.* New York, NY: Cambridge University Press.

McDonald, R. P., & Ho, M. H. R. (2002). Principles and practice in reporting structural equation analyses. *Psychological methods*, *7*(1), 64.

McEvoy, G. M., & Buller, P. F. (1987). User acceptance of peer appraisals in an industrial setting. *Personnel Psychology*, *40*(4), 785-797.

Meydan, C. H., & Şeşen, H. (2011). *Yapısal eşitlik modellemesi AMOS uygulamaları*. Detay Yayıncılık.

Meyer, J.P., Paunonen, S.V., Gellaty, I.R., Goffin, R.D., & Jackson, D. (1989). Organizational commitment and job performance: It's the nature of the commitment that counts. *Journal of Applied Psychology,* 745, 152-156.

Micceri, T. (1989). The unicorn, the normal curve, and other improbable creatures. *Psychological Bulletin,105*(1), 156-166.

Miller, *G.* A., Galanter, E. and Pribrum, K. (1960). *Plans and the Structure of Behavior,* Holt, Rinehart and Winston, New York.

Morgan, A., Cannan, K., & Cullinane, J. (2005). 360 feedback: A critical enquiry. *Personnel Review*, *34*(6), 663-680.

Mount, M. K., Judge, T. A., Scullen, S. E., Sytsma, M. R., & Hezlett, S. A. (1998). Trait, rater and level effects in 360-degree performance ratings. *Personnel Psychology*, *51*(3), 557-576.

Mulaik, S. A., James, L. R., Van Alstine, J., Bennett, N., Lind, S., & Stilwell, C. D. (1989). Evaluation of goodness-of-fit indices for structural equation models. *Psychological bulletin*, *105*(3), 430.

Mullen, J., Kelloway E. K. and Teed, M. (2011), "Inconsistent leadership as a predictor of safety behaviour", *Work and Stress*, 25(1), 41-54.

Neill, M.W., & Saunders, N.S. (2008). Servant leadership: Enhancing quality of care and staff satisfaction. *Journal of Nursing Administration*, 38(9), 395-400.

Nelson, T.D. (1993). The hierarchical organization of behavior: A useful feedback model of self-regulation. *Current Directions in Psychological Science*, 2, 121-126.

Nicklin, J. M., & Williams, K. J. (2011). Self-Regulation of goals and performance: Effects of discrepancy feedback, regulatory focus, and self-efficacy. *Psychology*, *2*(03), 187.

Nunnally, J. C. (1967). *Psychometric theory*. United States of America: McGraw-Hill.

Nunnally, J. C. (1978). *Psychometric theory* (2nd edit.) Mcgraw-hill. Hillsdale, NJ.

Ozdamar, K., Odabaşı, Y., Hoşcan, Y., Bir, A. A., Kırcali-İftar, G., Ozmen, A. ve Uzuner, Y. (1999). *Sosyal bilimlerde araştırma yontemleri,* T.C. Anadolu Universitesi Yayınları No: 1081, Acıkoğretim Fakultesi Yayınları No: 601.

Padma, S. (2010). Leadership attribute among women employees. *Advances in Management*.

Parris, D.L. & Peachey, J.W. (2013). A systematic literature review of servant leadership theory in organizational contexts. *Journal of Business Ethics,* 113(3), 377 – 393.

Parry, K. W., & Sinha, P. N. (2005). Researching the trainability of transformational organizational leadership. *Human Resource Development International*, *8*(2), 165–183. http://dx.doi.org/10.1080/13678860500100186

Paterson, D. G. (1922). The scott company graphic rating scale. *Journal of Personnel Research*.

Peters, R. E., & Campbell, J. T. (1955). *Diagnosis of Training Needs of B-29 Mechanics from Supervisory Ratings and Self-Ratings.* Personnel Research Laboratory, Air Force Personnel and Training Research Center.

Podsakoff, P. M., & Farh, J. L. (1989). Effects of feedback sign and credibility on goal setting and task performance. *Organizational Behavior and Human Decision Processes*, *44*(1), 45-67.

Polsfuss, C., & Ardichvili, A. (2009). State-of-Mind as the Master Competency for High-Performance Leadership. *Organization Development Journal*, *27*(3).

Preacher, K. J., & Hayes, A. F. (2004). SPSS and SAS procedures for estimating indirect effects in simple mediation models. *Behavior research methods, instruments, & computers*, *36*(4), 717-731.

Preacher, K.J. ve Hayes, A.F. (2008). Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models. *Behavior Research Methods.* 2008, 40 (3), 879-891. doi: 10.3758/BRM.40.3.879.

Roberts, G. E., & Reed, T. (1996). Performance appraisal participation, goal setting and feedback: The influence of supervisory style. *Review of Public Personnel Administration*, *16*(4), 29-60.

Rogers, E., Rogers, C. W. & Metlay, W. (2002). Improving the payoff from 360-degree feedback. *Human Resource Planning Journal*, 25(3), 44-55.

Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American psychologist*, *55*(1), 68.

Sahoo, C. K., & Sahu, G. (2008). 360 Degree Feedback Mechanism: A Tool for Managing Employee Performance. *Management and Labour Studies*, *33*(1), 103-110.

Salter, C., Harris, M., & McCormack, J. (2014, June 5). *Bass & Aviolo's Full Range.*

Sarros, J., Gray, J., & Densten, I. (2002). Leadership and its impact on organizational culture. International Journal of Business Studies, 10(2), 1–26.

Schreiber, J. B., Nora, A., Stage, F. K., Barlow, E. A., & King, J. (2006). Reporting structural equation modeling and confirmatory factor analysis results: A review. *The Journal of educational research*, *99*(6), 323-338.

Schumacker, R. E., ve Lomax, R. G. (2010). *A beginner's guide to structural equation modeling* (2nd Ed.). New Jersey: Taylor ve Francis E-Library.

Schwartz, R.W. & Tumblin, T.F. (2002). The power of servant leadership to transform health care organizations for the 21st-century economy. *Archives of Surgery,* 137(12), 1419 – 1427.

Scott, W. D. (1932). Personnel rating. *Industrial Relations*, *3*, 11-12.

Seltzer, J., & Bass, B. (1990). Transformational leadership: Beyond initiation and consideration. *Journal of Management,* 16(4), 693–703.

Sessa, V. I. (2002). Leadership development: Paths to self-insight and professional growth. *Personnel Psychology*, *55*(4), 1027.

Sharma, S., Mukherjee, S., Kumar, A., & Dillon, W. R. (2005). A simulation study to investigate the use of cutoff values for assessing model fit in covariance structure models. *Journal of Business Research*, *58*(7), 935-943.

Shelton, H. (1919), "Wood Mutual Rating." *Bulletin of the Taylor Society*, 5.

Shevlin, M., & Miles, J. N. (1998). Effects of sample size, model specification and factor loadings on the GFI in confirmatory factor analysis. *Personality and Individual differences*, *25*(1), 85-90.

Shrout, P. E., & Bolger, N. (2002). Mediation in experimental and nonexperimental studies: new procedures and recommendations. *Psychological Methods, 7*, 422-445.

Siddiqui, K. (2013). *Heuristics for sample size determination in multivariate statistical techniques.*

Silzer, R., & Church, A. H. (2009). The pearls and perils of identifying potential. Industrial and Organizational Psychology, 2(4), 377-412.

Sivasubramaniam, N., Murry, W., Avolio, B., & Jung, D. (2002). A longitudinal model of the effects of team leadership and group potency on group performance. *Group & Organization Management*, 27(1), 66–96. doi:10.1177/1059601102027001005

Smither, J. W., London, M., Reilly, R. R., Flautt, R., Vargas, Y. & Kucine, I. (2002, April). *Does discussing multi-source feedback with raters enhance performance improvement? Seventeenth annual conference of the Society for Industrial and Organizational Psychology*, Toronto, Canada.

Smither, J.W., & Walker, A.G. (2001). Measuring the impact of multi-source feedback. In D. Bracken, C. Timmreck, & A. Church (Eds.) *Handbook of multi-source feedback*, 256-71.

Smither, J.W., London, M., Flautt, R., Vargas, Y. & Kucine, I. (2003). Can executive coaches enhance the impact of multisource feedback on behavior change? A quasi-experimental field study. *Personnel Psychology,* 56, 23-44.

Smither, J.W., London, M., Reilly, M. (2005). Does performance improve following multi-source feedback? A theoretical model, meta-analysis, and review of empirical findings. *Personnel Psychology,* 58, 33-66.

Smither, J.W., London, M., Reilly, R.R., Flautt, R.,Vargas, Y., & Kucine, I. (2002). *Does discussing multisource feedback with raters enhance performance improvement? Paper presented at the Seventeenth Annual Conference of the Society for Industrial/Organizational Psychology,* Toronto, Canada.

Sobel, M. E. (1982). Asymptotic confidence intervals for indirect effects in structural equation models. *Sociological methodology*, *13*, 290-312.

Sobel, M.E. (1982). Asymptotic confidence intervals for indirect effects in structural equation models. *Sociological Methodology*, Vol. 13 (1982), pp. 290-312.

Sogunro, O. A. (1997). Impact of training on leadership development: Lessons from a leadership training program. *Evaluation Review*, 21(6), 713-737.

Soper, D.S. (2015). *Sobel test calculator for the significance of mediation.* Statistics calculators version 3.0. (http://www.danielsoper.com/statcalc3/calc.aspx?id=3,1 Date of access:: 29.04.2015).

Springer, D. (1953). Ratings of candidates for promotion by co-workers and supervisors. *Journal of Applied Psychology*, *37*(5), 347.

Steiger, J. H. (1990). Structural model evaluation and modification: An interval estimation approach. *Multivariate behavioral research*, *25*(2), 173-180.

Steiger, J. H. (2007). Understanding the limitations of global fit assessment in structural equation modeling. *Personality and Individual differences*, *42*(5), 893-898.

Stevens, J. (1996). *Applied multivariate statistics for the social sciences.* Mahwah, NJ: Lawrence Erlbaum Publishers.

Stevens, J.P., (2002). *Applied Multivariate Statistics for Social Science* (4th Ed.). Hillsdale, New Jersey

Stevenson, E. J. (1999). Leadership development: a case of teaching individuals to juggle complexity. *Australian Defence Force Journal*, (137), 57.

Tabachnick, B. G., & Fidell, L. S. (2001). *Using multivariate analysis* (4th edn). New York:HarperCollins. Chapter 13

Tabachnick, B. G., & Fidell, L. S. (2007). *Using multivariate statistics*. Allyn & Bacon/Pearson Education.

Tepper, B., & Percy, P. (1994). Structural validity of the Multifactor Leadership Questionnaire. *Educational and Psychological Measurement*, 54(3), 734–744. doi:10.1177/0013164494054003020

Thomas, K. W. (2000). *Intrinsic motivation at work: Building energy & commitment*. Berrett-Koehler Publishers.

Tomarken, A. J., & Kirschenbaum, D. S. (1982). Self-regulatory failure: Accentuate the positive?. *Journal of Personality and Social Psychology*, *43*(3), 584.

Tornow, W. W., & London, M. (1998). *Maximizing the Value of 360-Degree Feedback: A Process for Successful Individual and Organizational Development*. Jossey-

Bass Publishers, Inc., Publishers, 350 Sansome Street, San Francisco, CA 94104.

Tourish, D., & Robson, P. (2004). Critical upward feedback in organisations: Processes, problems and implications for communication management. *Journal of Communication Management*, *8*(2), 150-167.

Trastek, V.F., Hamilton, N.W., & Niles, E.E. (2014). Leadership models in health care – a case for servant leadership. *Mayo Clinic Proceedings*, 89(3), 374 – 381.

Vadell, J. (2009). *The role of trust in leadership: US Air Force officers' commitment and intention to leave the military*. Universal-Publishers.

Vallerand, R. J. (1997). Toward a hierarchical model of intrinsic and extrinsic motivation. In *Advances in experimental social psychology* (Vol. 29, pp. 271-360). Academic Press.

Van de Ven, A. H., ve Ferry, D. L. (1980). *Measuring and assessing organizations.* United States of America: John Wiley ve Sons.

Van Emmerik, H., Wendt, H., & Euwema, M. C. (2010). Gender ratio, societal culture, and male and female leadership. *Journal of Occupational and Organizational Psychology*, *83*(4), 895-914.

VandeWall, D., Cron, W., & Slocum, J. (2001). The role of goal orientation following performance feedback. *Journal of Applied Psychology*, 86, 629-640.

Vicere, A.A. & Fulmer, R.M. (1998). *Leadership by design: How benchmark companies sustain success through investment in continuous learning*. Boston: Harvard Business Review.

Vukotich, G. (2010). The 360 process. *Od Practitioner*, *42*(3), 24-29.

Waldman, D. A., & Atwater, L. E. (2001). Attitudinal and behavioral outcomes of an upward feedback process. *Group & Organization Management*, *26*(2), 189-205.

Wanzer, M.B, Booth-Butterfield, M. & Gruber, K. (2004). Perceptions of health care providers' communication: relationships between patient-centered communication and satisfaction. *Health Communication,* 16(3), 363 – 384.

Washington, R.R. (2007). Empirical relationships between theoriesof servant, transformational, and transactional leadership. *Academy of Management Annual Meeting Proceedings*, 2007.

Wheaton, B., Muthen, B., Alwin, D. F., & Summers, G. F. (1977). Assessing reliability and stability in panel models. *Sociological methodology*, *8*, 84-136.

Wherry, R. J., & Fryer, D. H. (1949). Buddy Ratings: Popularity: Contest or Leadership Criteria?. *Personnel Psychology*, *2*(2), 147-159.

Wille, B., & De Fruyt, F. (2014). Fifty shades of personality: Integrating Five-Factor Model bright and dark sides of personality at work. *Industrial and Organizational Psychology*, *7*(1), 121-126.

Williams, S. B., & Leavitt, H. J. (1947). Group opinion as a predictor of military leadership. *Journal of Consulting Psychology*, *11*(6), 283.

Yammarino, F.J., & Atwater, E.E. (2001). Understanding agreement in multisource feedback. In D.W. Bracken, C.W. Timmreck, & A.H. Church (Eds.), *Handbook of multisource feedback* (pp.204-220). San Francisco, CA: Jossey-Bass.

Yu, C. Y. (2002). Evaluation of model fit indices for latent variable models with categorical and continuous outcomes. In *Paper presented at the annual conference of the American Educational Research Association, April 4, 2002, New Orleans*.

Yu, C. Y. (2002). *Evaluating cutoff criteria of model fit indices for latent variable models with binary and continuous outcomes* (Vol. 30). Los Angeles: University of California, Los Angeles.

Yuan, K. H. (2005). Fit indices versus test statistics. *Multivariate Behavioral Research,40*(1), 115–148.

Yukl, G. (1999). An evaluation of conceptual weakness in transformational and charismatic leadership theories. *Leadership Quarterly,* 10(2), 285–306. doi:10.1016/s1048-9843(99)00013-2

Yukl, G., & Lepsinger, R. (1995). How to get the most out of 360-degree feedback. *Training*, 32, 45-50.

Zenger, J. H., & Folkman, J. (2002). *The extraordinary leader: Turning good managers into great leaders.* New York: McGraw-Hill.

Zentis, N. L. R. (2007). *The impact of 360-degree feedback on leadership development*. Doctoral dissertation, Capella University, USA.

Zerga, J. E. (1943). Developing an industrial merit rating scale. *Journal of Applied Psychology*, *27*(2), 190.

Zhang, X., & Bartol, K. M. (2010). Linking empowering leadership and employee creativity: The influence of psychological empowerment, intrinsic motivation,

and creative process engagement. *Academy of management journal*, *53*(1), 107-128.

APPENDICES

APPENDIX 1: Survey Form

THE REPUBLIC OF TURKEY

CUKUROVA UNIVERSITY

SOCIAL SCIENCES INSTITUTE

DEPARTMENT OF BUSINESS ADMINISTRATION

Dear Respondent

We are seeking your opinion about "Leader's Motivation" for conducting a doctoral research. We would like to get input from the respondent, who has experience of leading an organizational department/ branch/ team or unit. It will take 10-12 minutes to respond. All information will be used only for academic research. Your experience in the organization over the past year will help us to analyze the stated issue.

Regards

Mohammad Rahim Uddin,

Ph.D. Researcher,

Cukurova University, Turkey.

Contact: mructg@gmail.com

Prof.Dr. Kemal Can KILIÇ,

Ph.D Advisor

Cukurova University, Turkey

Contact: kemalcankilic@yahoo.com

SURVEY INSTRUMENT

Part One: General Demographic Information

1. Management level: a) Top Level b) Mid-Level c) Lower Level d) If other (specify) ……..
2. Gender: a) Male b) Female
3. Age (in years): …….
4. Leadership experience with any team/ branch/ unit: ……. (years/month)
5. Performance appraisal methods used in your organization

a)360 degree feedback b)Multi-rating scale c)Pair comparison d)Annual confidential report e) Specify Other (if) ……..

Part two: Leadership and Motivation Scale

Please mark the tic (√) for the following options

SI	Which of the following reflect your level of satisfaction with Performance feedback	Highly satisfied	Satisfied	Neutral	Dissatisfied	Highly dissatisfied	Not applicable
1	How satisfied are you with "positive feedback" or "appreciation" for effective performance received from your manager or seniors?	5	4	3	2	1	0
2	How satisfied are you with "positive feedback" or "appreciation" for effective performance received from your junior colleagues?	5	4	3	2	1	0
3	How satisfied are you with "positive feedback" or "appreciation" for effective performance received from your same level colleagues?	5	4	3	2	1	0
4	How satisfied are you with "positive feedback" or appreciation" for effective performance received from external customer or supplier?	5	4	3	2	1	0

5	How satisfied are you when your manager or senior advised you to improve your ineffective performances?	5	4	3	2	1	0
6	How satisfied are you when your junior colleagues recommend you to improve your ineffective performances?	5	4	3	2	1	0
7	How satisfied were you when your same level colleagues recommend you to improve your ineffective performances?	5	4	3	2	1	0
8	How satisfied were you when external customer or suppliers recommend you to improve your ineffective performances?	5	4	3	2	1	0

SL7	Which of the following reflect your level of agreement about Servant Leadership	Strongly agree	Agree	Slightly agree	Neutral	slightly disagree	Disagree	Strongly agree
1	I advise my colleague about their work-related mistake.	7	6	5	4	3	2	1
2	I help my colleague for their career development	7	6	5	4	3	2	1
3	My co-worker seek help from me for their personal problem	7	6	5	4	3	2	1
4	I am concern about my community	7	6	5	4	3	2	1
5	I am aware of co-worker interest.	7	6	5	4	3	2	1
6	I give freedom to my co-worker to handle their difficulties.	7	6	5	4	3	2	1
7	I do not compromise ethical principles to achieve success	7	6	5	4	3	2	1

SI	Which of the following reflect your level of agreement about Motivation for Leadership	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
1	Most of the time, I prefer being a leader rather than a follower when working in a group	5	4	3	2	1
2	I am the type of person who is not interested to lead others	5	4	3	2	1
3	I am definitely not a leader by nature	5	4	3	2	1
4	I am the type of person who likes to be in charge of others	5	4	3	2	1
5	I believe I can contribute more to a group if I am a follower rather than a leader	5	4	3	2	1
6	I usually want to be the leader of the group that I work in.	5	4	3	2	1
7	I am the type who would actively support a leader but prefers not to be appointed as leader	5	4	3	2	1
8	I have a tendency to take charge of most groups or teams that I worked in	5	4	3	2	1
9	I am seldom reluctant to be the leader of a group	5	4	3	2	1

SI	Which of the following reflect your level of agreement about transformational leadership style	Frequently	Fairly often	Sometimes	Once in a while	Not at all
1	I talk about my most important values and beliefs	4	3	2	1	0
2	I specify the importance of having a strong sense of purpose	4	3	2	1	0
3	I consider the moral and ethical consequences of the decision	4	3	2	1	0
4	I emphasize the importance of having a collective sense of mission	4	3	2	1	0
5	I instill pride in others for being associated with me	4	3	2	1	0
6	I go beyond self-interest for the good of the group	4	3	2	1	0
7	I act in ways that build others' respect for me	4	3	2	1	0
8	I display a sense of power and confidence	4	3	2	1	0
9	I talk optimistically about the future	4	3	2	1	0
10	I talk enthusiastically about what needs to be accomplished	4	3	2	1	0
11	I articulate a compelling vision of the future	4	3	2	1	0
12	I express confidence that goals will be achieved	4	3	2	1	0
13	I re-examine critical assumptions to question whether they are appropriate	4	3	2	1	0
14	I seek differing perspectives when solving problems	4	3	2	1	0
15	I get others to look at problems from many different angles	4	3	2	1	0
16	I suggest new ways of looking at how to complete assignments	4	3	2	1	0
17	I spend time on teaching and coaching	4	3	2	1	0
18	I treat others as individuals rather than just as a member of a group	4	3	2	1	0
19	I consider an individual as having different needs, abilities, and aspiration from others	4	3	2	1	0
20	I help others to develop their strengths	4	3	2	1	0

Thank you for your cooperation.

CURRICULUM VITAE

PERSONAL INFORMATION

Name, Surname:	Mohammad Rahim UDDIN
Place and Date of Birth:	Bangladesh , 1985
Marital Status:	Married
E-mail Address:	mructg@gmail.com
Foreign Language:	English

EDUCATION STATUS

(2014-2019)	Ph.D., Cukurova University Institute of Social Sciences Department of Business Administration (Management and Organization), Adana
(2009-2010)	MBA in Human Resource Management Chittagong University, Bangladesh
Service Experience	Faculty Member Faculty of Business Studies International Islamic University Chittagong, Bangladesh.

RESEARCH ACTIVITIES

1. Uddin, M. R., Mamun, A. M. A., Hoque, N., & Uddin, M. S. (2013). Work-Life Balance: A Study on Female Teachers of Private Education Institutions of Bangladesh.
2. Uddin, M. R., Iqbal, M. J., & Hoque, N. (2014). Compensation management from Islamic perspective. European Journal of Business and Management, 6(17), 37-43.